

COVID-19 Weekly Update

Week Ending August 1st, 2020

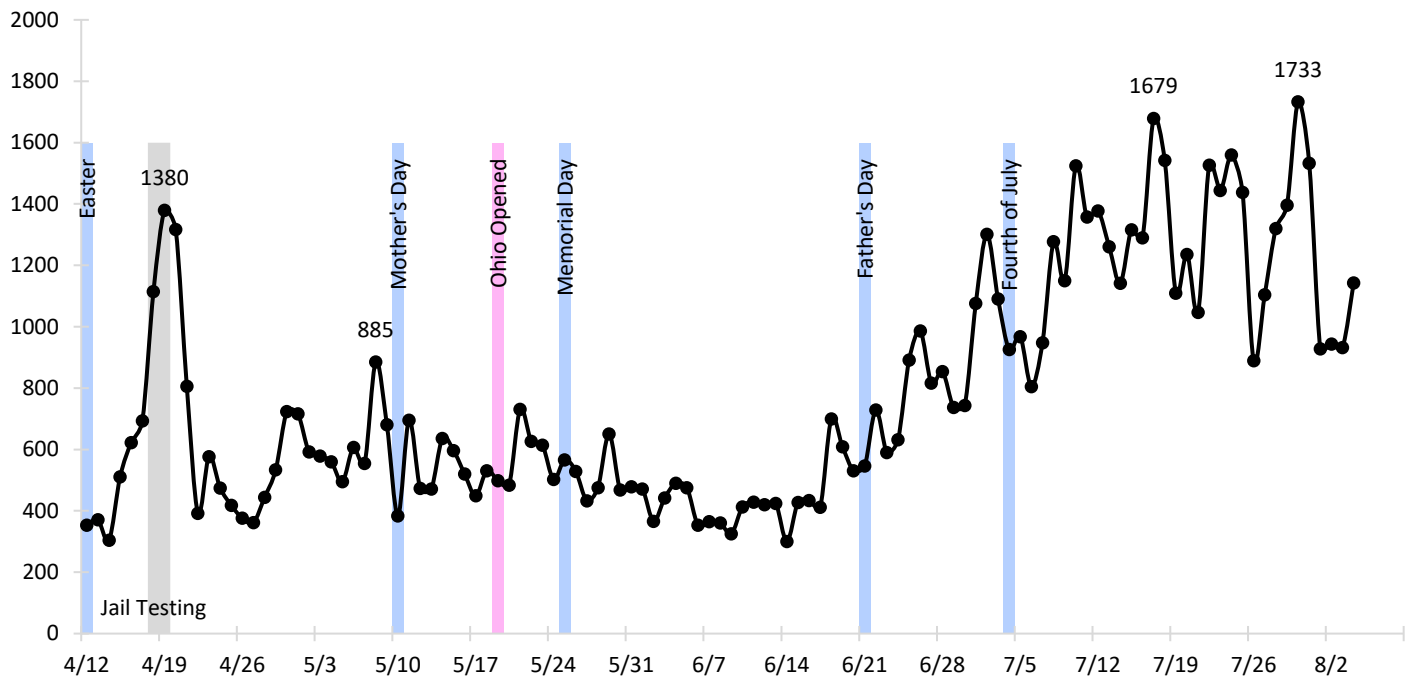
Prepared by Krista Westrick Payne, PhD

Current Trends in Ohio | State-Level

Daily Case Change

- This past week we experienced another record number of reported 24-hour change in cases for the state of Ohio. From 2pm on Wednesday July 29th to 2pm on Thursday July 30th the state added 1,733 cases to its total.
- As of 2pm on Saturday August 1st there were a total of 92,087 cases in the state of Ohio of which 87,218 were test confirmed for a rate of 94.7%.

Figure 1. Trend in 24 Hour Reported Case Change (Includes Probable Cases)



Data Source: Ohio Department of Health State of Ohio COVID-19 Dashboard

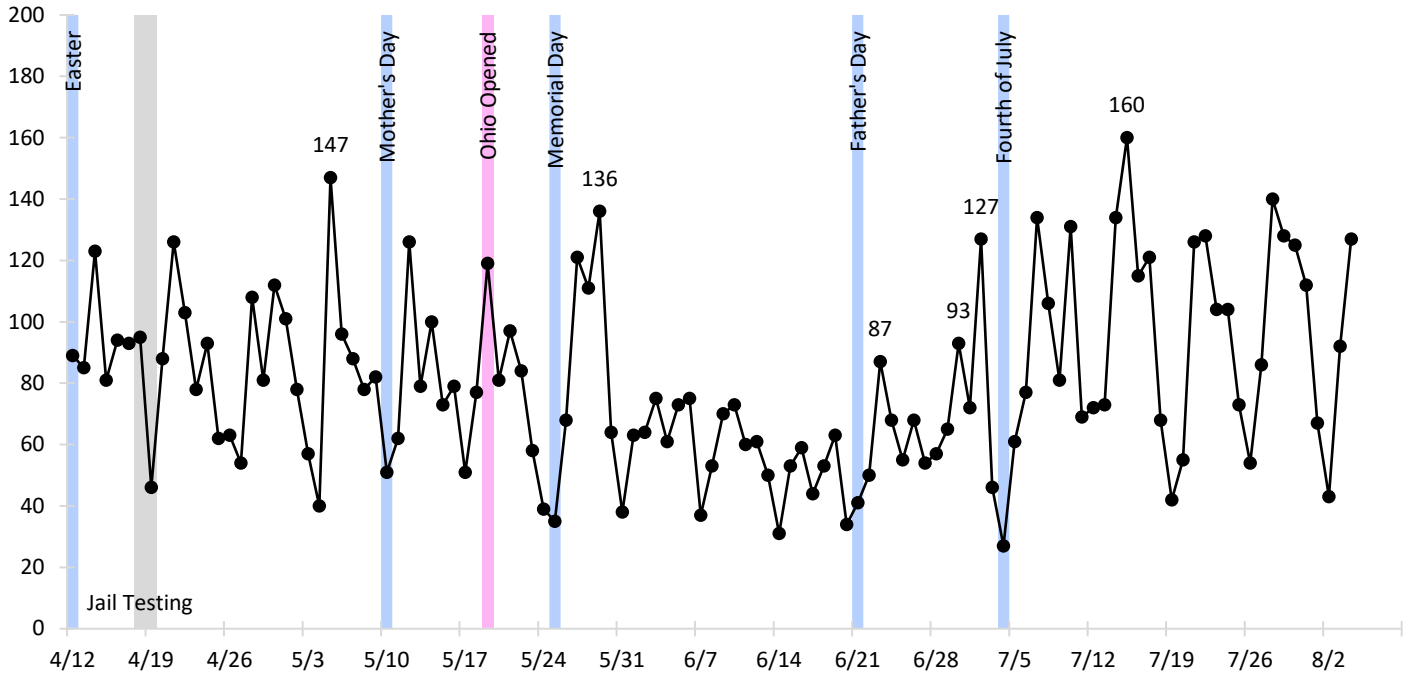
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Daily Hospitalization Change

Figure 2. Trend in 24 Hour Reported Hospitalization Change



Data Source: Ohio Department of Health State of Ohio COVID-19 Dashboard

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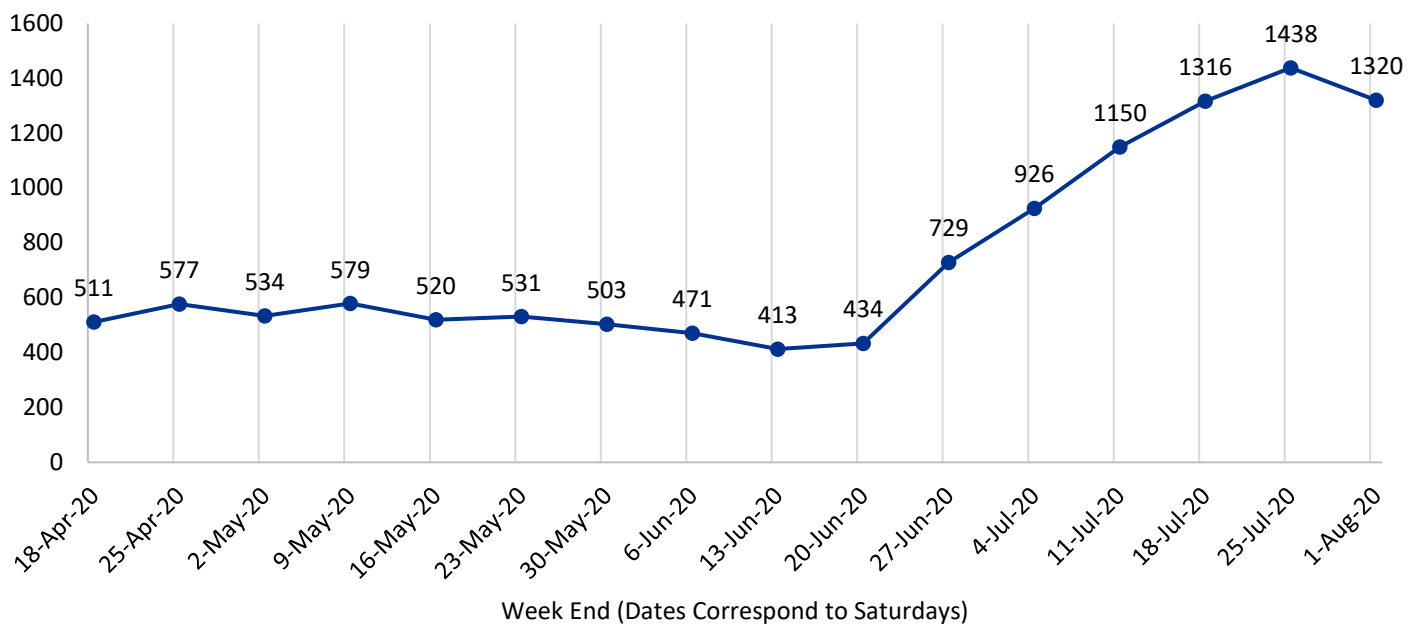
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Average Weekly Case Change

- The trend in 24-hour reported case change was lower for the week ending on August 1st than it was for the week ending on July 25th. For the week ending on August 1st, there was a median number of 1,320 cases added per day compared to 1,438 from the previous week.
- Ohio's positivity rate also experienced a decline, with the most recently reported seven-day moving average (average as of July 30) of 5.9% compared to a rate of 6.3% from the previous week.

Figure 3. Trend in 24 Hour Reported Case Change - Weekly Medians (Includes Probable Cases)



Data Source: Henry County Health Department analysis of Ohio Department of Health State of Ohio COVID-19 Dashboard

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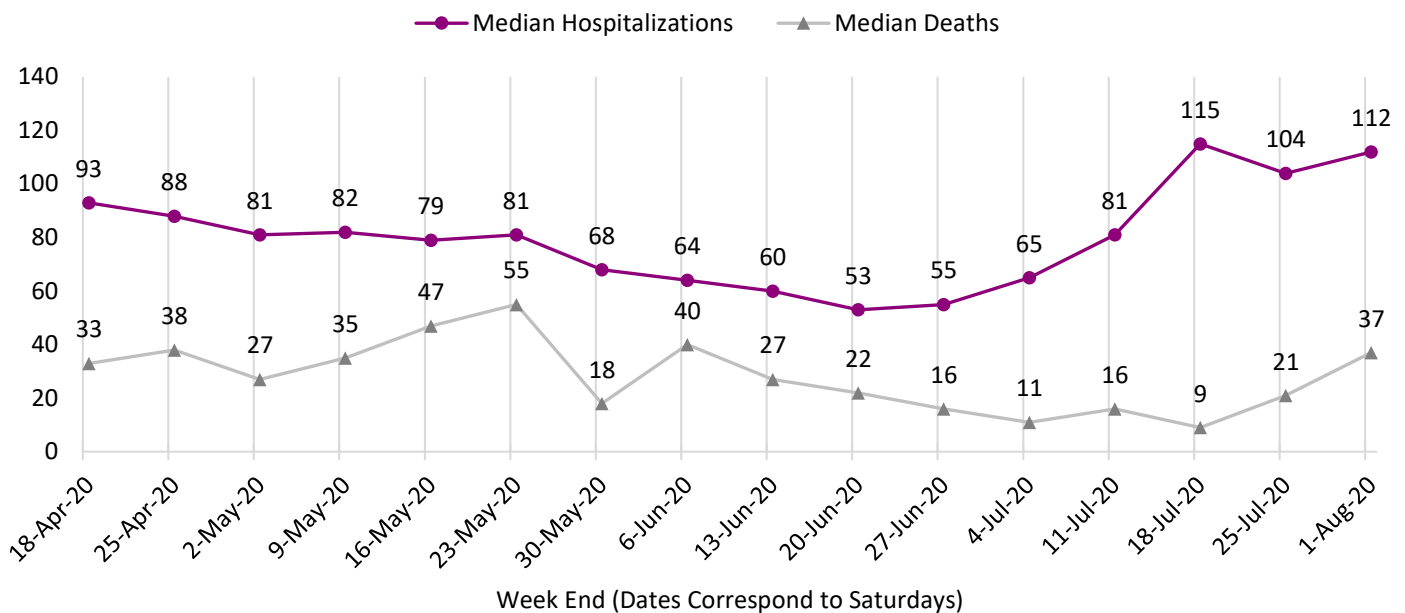
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Average Weekly Changes in Hospitalizations & Deaths

- The trend in weekly medians of 24 hour reported hospitalization change remains above 100 at 112 new hospitalizations per day. This past week's median daily hospitalizations was higher than the week preceding it (ending on July 25) when it was 104.
- Deaths continue to trend up for residents of Ohio. For the week ending on August 1st there were a median of 37 daily deaths added whereas the week before there was a median of 21 deaths added daily.
- Recall, hospitalizations, and deaths are lagged indicators. The hope is that if cases continue to drop, eventually so too will hospitalizations and deaths.

Figure 4. Trend in 24 Hour Reported Hospitalization and Death Change - Weekly Medians



Data Source: Henry County Health Department analysis of Ohio Department of Health State of Ohio COVID-19 Dashboard

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Current Trends in Ohio | County-Level

Weekly Totals for Henry County and Neighboring Counties

- In the past week, community spread appears to have slowed a bit with only four counties reporting increasing trends in the number of reported cases—Lucas, Putnam, Williams, and Wood counties. Further, those that did increase had a lower magnitude of increase than the week prior.
- Research has shown that quarantining among those diagnosed as well as among their contacts can slow the spread of disease. Contact tracing enables the quarantining of contacts. Also, to-date, research indicates social distancing, washing of hands and high touch surfaces, and the wearing of facial coverings can also help slow the spread of transmission. Incorporating all strategies at our disposal has a cumulative effect on tamping the spread.
- The biggest mover in the past week was Putnam County at a 1.7-fold increase over the week before. Last week Putnam county had a negative trend. Herein lies another data artifact...places with small populations can experience great fluctuations in events like disease onset. This is not just typical in this situation, but others as well. For example, it is not uncommon for small school districts to experience rather large fluctuations in the size of classes from year-to-year. One year the entering kindergarten class may have 48 students followed by the following year with only 27. This is another reason why data for Henry County provided by the Census (via the American Community Survey) is published in five-year continuous files. Each year only 20 Henry county residents may be surveyed, but if you add five years of data together you end up with 100 respondents ($20 * 5 = 100$). Granted, phenomenon that changes quickly (like the spread of disease) won't be picked up in these data, but it does give statisticians more confidence in the estimates they do produce for phenomenon that do not change as quickly like population size.

County	Trend	Cases* Added Week Ending...		Increase
		July 25, 2020	Aug 1, 2020	
Defiance	-	34	23	
Fulton	-	30	25	
Hancock	-	103	94	
Henry	-	41	14	
Lucas	+	619	756	1.2-fold
Paulding	-	14	6	
Putnam	+	13	22	1.7-fold
Williams	+	16	17	1.1-fold
Wood	+	143	182	1.3-fold

*Cases include confirmed and probable.

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Figure 5. Saturday-to-Saturday Change in Reported Probable Cases by County

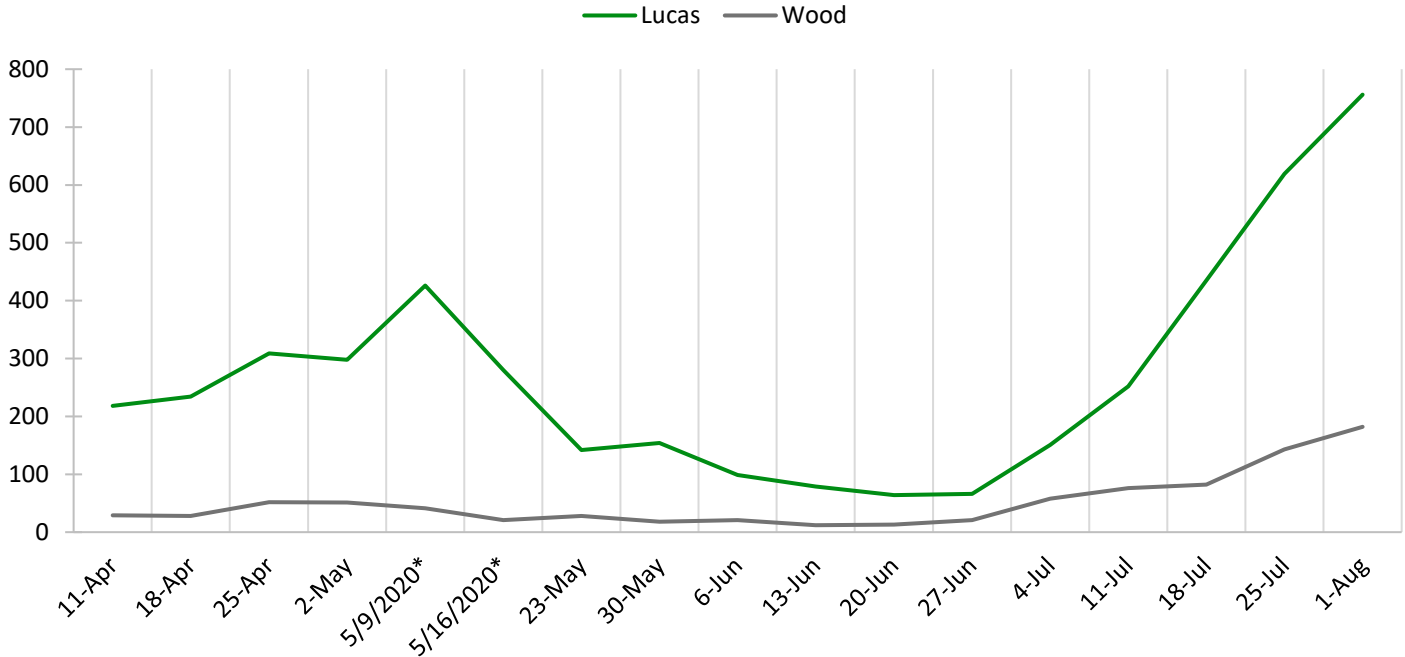
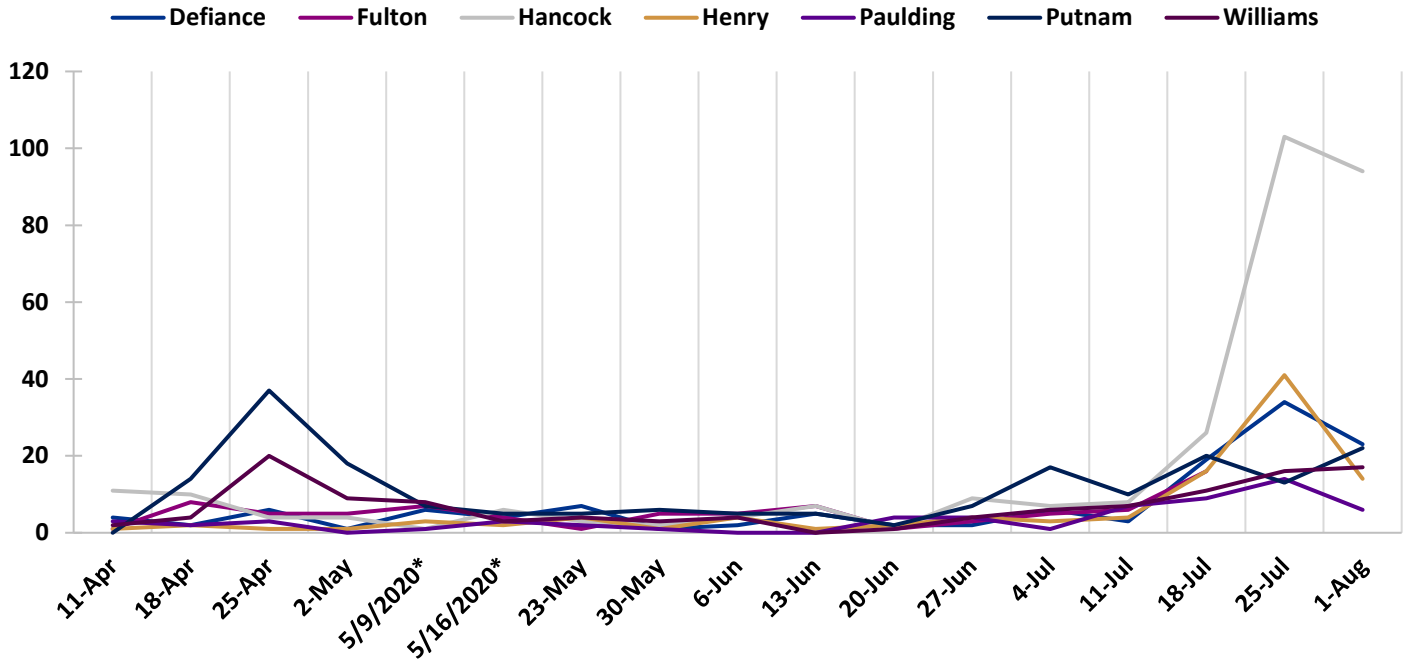


Figure 6. Saturday-to-Saturday Change in Reported Probable Cases by County



Data Source: Henry County Health Department analysis of Ohio Department of Health State of Ohio COVID-19 Dashboard



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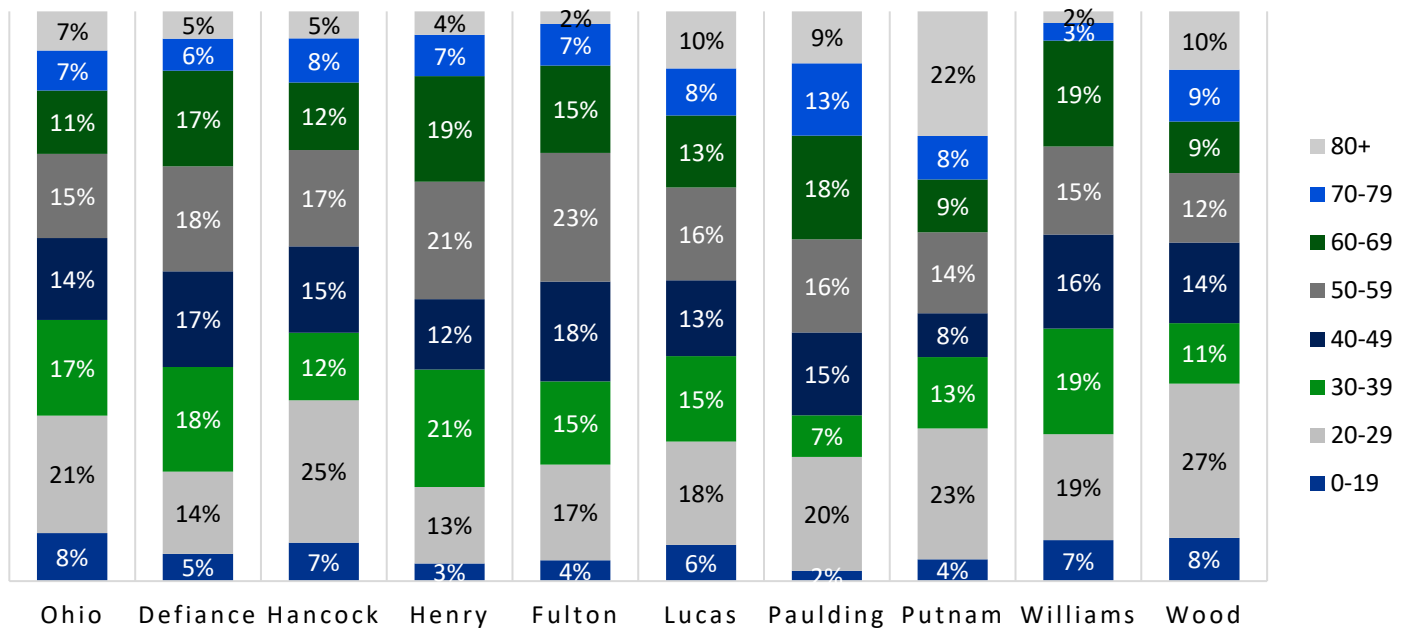
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Age Distribution

Age has been of paramount concern because the effects of the corona virus (SARS-COV2) seem dependent upon age, in that those who are older appear to be at greater risk of severe COVID illness, and as such have increased risk of hospitalization and death related to COVID.

Figure 7 below shows the distribution of COVID-19 cases by age for each county in our area and the state of Ohio. Notice, there is quite a bit of variation by county for individual age groups. For example, in Defiance County, 5% of residents diagnosed with COVID were aged 80 or older, however in Putnam County 22% were aged 80 or older. With so many counties and age categories, it can be difficult to see how Henry County compares.

Figure 7. Age Distribution of Resident Diagnosed with COVID-19 for Henry County, and Neighbors, and the State of Ohio



Data Source: Henry County Health Department analysis of Ohio Department of Health State of Ohio COVID-19 Dashboard

Note: County-level statistics by age and any conclusions drawn on them should be done with caution, because Henry County and five of its eight neighbors have county populations around or below 40,000 people.

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Figure 8 depicts the range of values we observe for Henry County and neighbors for each age group (the gray rectangles) as well as Henry County's percentage for each age group (the blue dots).

- Among Henry County and neighbors, the county with the lowest share of cases among those aged 0-19 can be found in Paulding County with 2% of all cases being to those aged 0-19. The highest share is found in Wood County at 8%. Henry County has 3% of its cases between the ages of 0 and 19, placing them in the lower end of the 0-19 case range.
- However, among those aged 30-39 we observe a different pattern. The values range from a low of 11% of all cases in Wood County to a high of 21% in our own county.

Figure 9 combines data on the total population and the COVID case population by age of Henry County and its rural neighbors. Doing this provides large cell sizes and more confidence in the distributions.

1. Those aged 0-19 account for 26% of the total population in rural counties, however they account for 4% of the COVID cases. Also, this youngest age grouping encompasses nearly 20 years whereas the rest (except for the 80+ age category) are limited to ten years.
2. At the other end of the age spectrum, those aged 80+ account for 5% of our NWO rural county populations whereas they account for 9% of the COVID cases.
3. This pattern is consistent with what we have observed in other areas of the U.S. Severe cases (those that are more likely to be tested) appear to be more common among the oldest individuals in our population whereas it is less common among the youngest. Further, although those under the age of 19 account for a small share of COVID cases, they can still contract the virus. What is less clear is the extent to which young children can transmit the virus and possibly infect those they live with and come into daily contact with.

Figure 8. Age Distribution of COVID-19 Cases for Henry County with Local Area Age Distribution Ranges

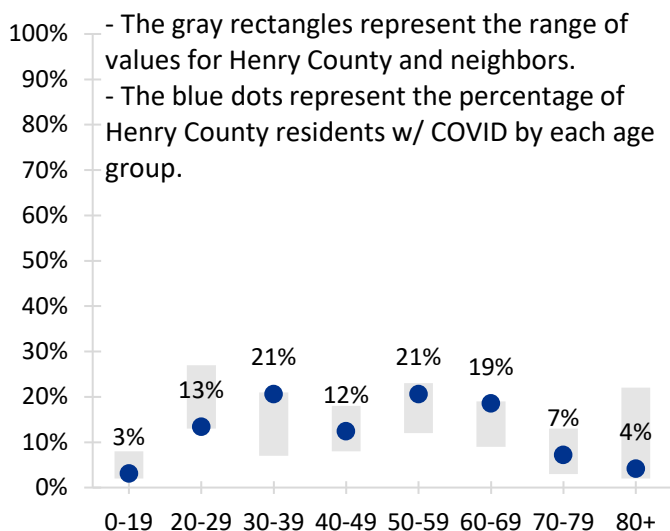
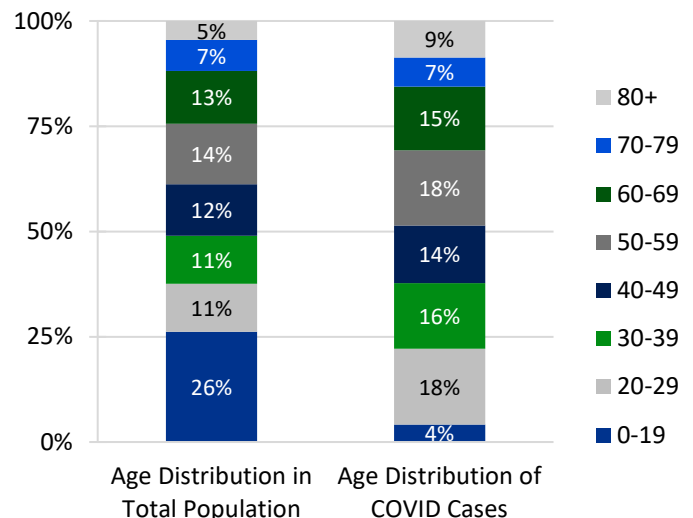


Figure 9. Age Distribution of Total Population and COVID Cases Among Henry County and Rural Neighbors



Data Source: Henry County Health Department analysis of Ohio Department of Health State of Ohio COVID-19 Dashboard



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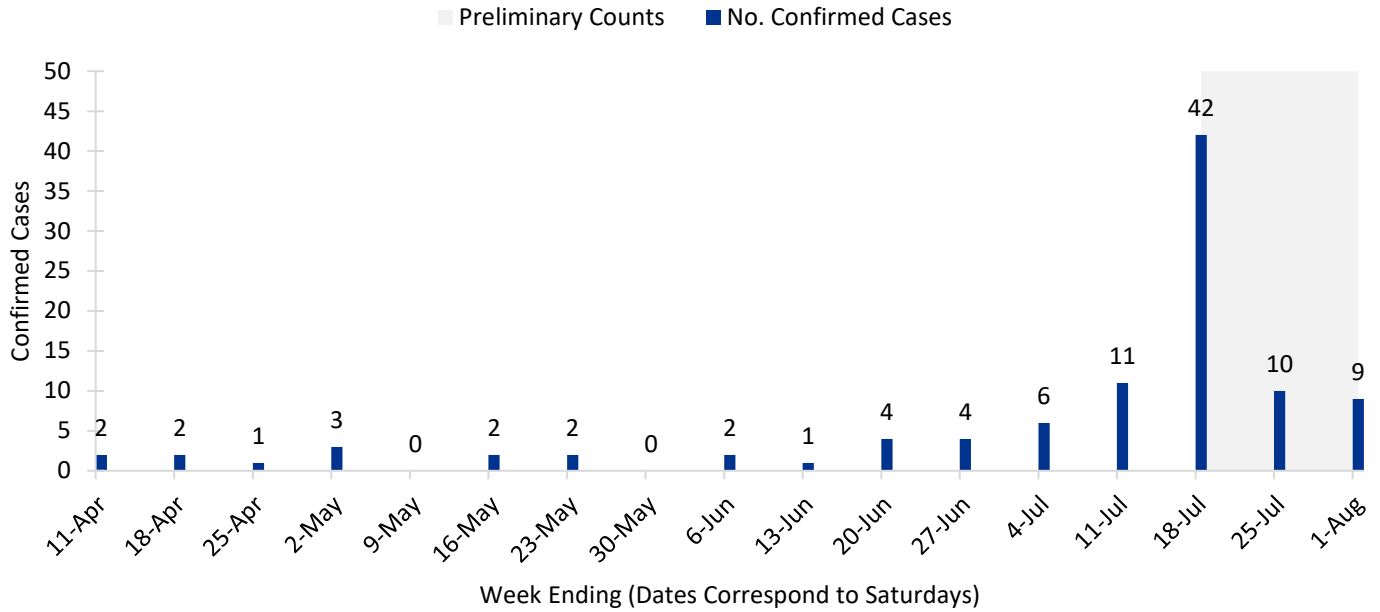
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Henry County's Confirmed Cases

Figure 10. Weekly Total Confirmed COVID-19 Cases for Henry County, Ohio As of Tuesday August 4, 2020



Data Source: Ohio Department of Health State of Ohio COVID-19 Dashboard