

COVID-19 Weekly Update

Week Ending July 4th, 2020

Prepared by Krista Westrick Payne, PhD

Current Trends in Ohio | State-Level

Note: On Thursday of this past week the Ohio Department of Health experienced some technical issues with the Ohio Disease Reporting System.

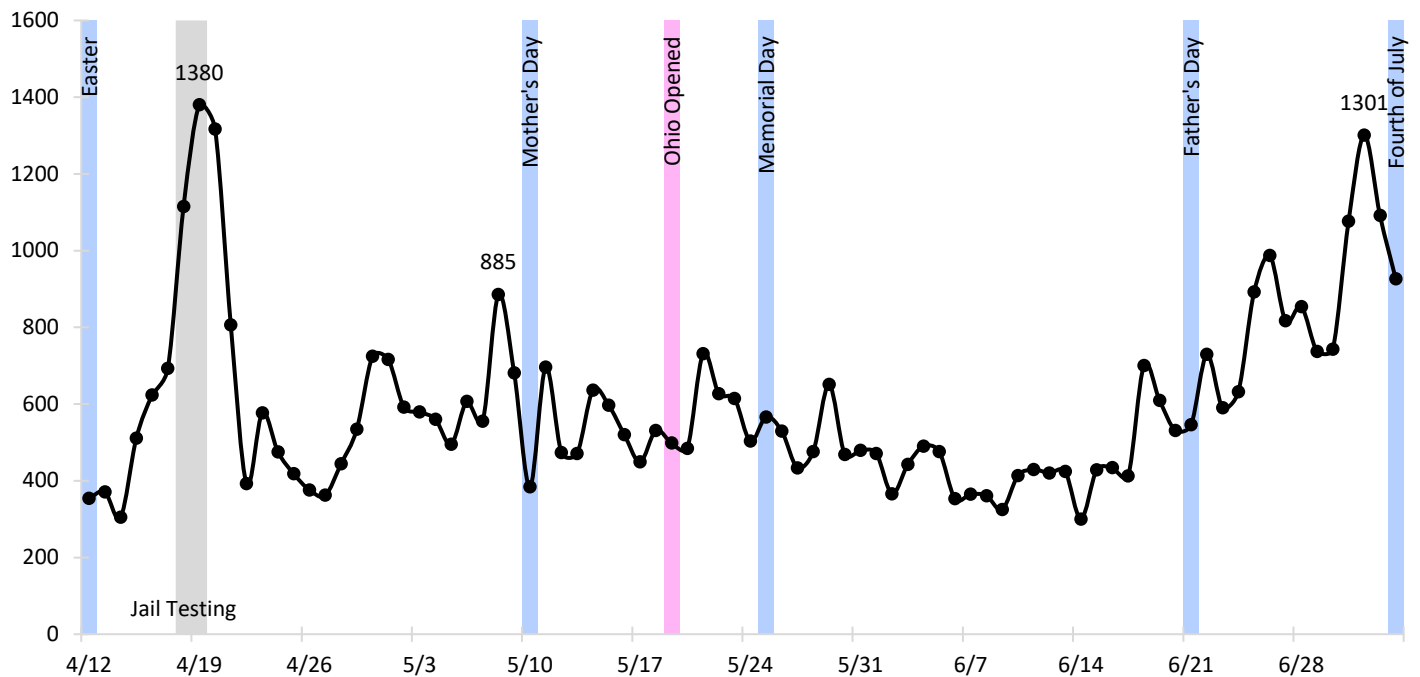
Every day the Ohio Department of Health reports the total number of cases of COVID-19, hospitalizations due to COVID-19, and COVID-19 deaths for the entire state here: <https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home>. They also report the change over the last 24 hours in reported cases, hospitalizations, and deaths here: <https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/current-trends>. The following report is based on these numbers.

Daily Case Change

Figure 1 represents the daily change in reported cases from April 12, 2020 through July 4, 2020.

- Since middle to late June, the state of Ohio has experienced an increasing trend in the daily change in reported cases.

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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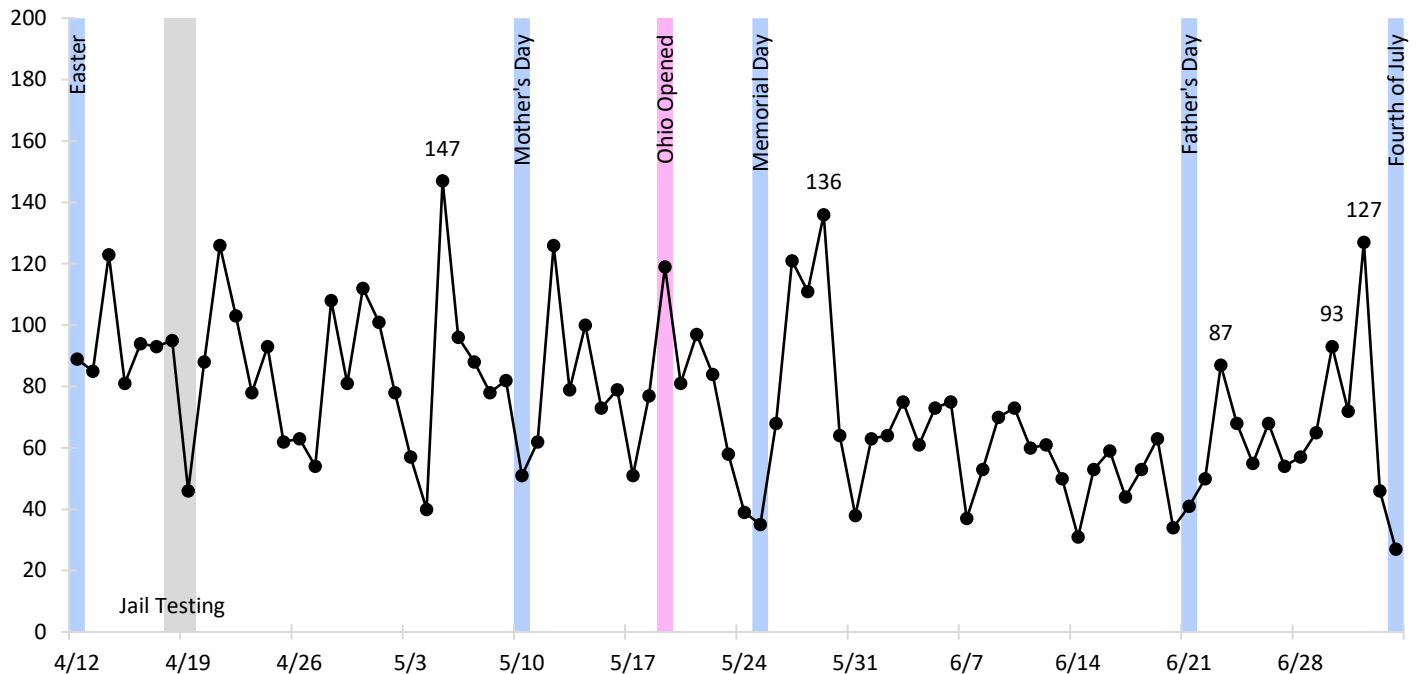
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Daily Hospitalization Change

Figure 2. represents the daily change in reported hospitalizations since April 12, 2020 through July 4, 2020.

- Notice, the daily change in hospitalizations zig-zag up-and-down. While the daily cases also do this, it is more dramatic when we look at hospitalizations, because there are much fewer hospitalizations than cases. This makes it more difficult for the human eye to notice trends. So, although the daily change in hospitalizations was quite low over the past two days, overall, the state of Ohio has experienced an increasing trend in hospitalizations. A lot of different factors can influence the daily change—some of which are known to us, and some of which are not.

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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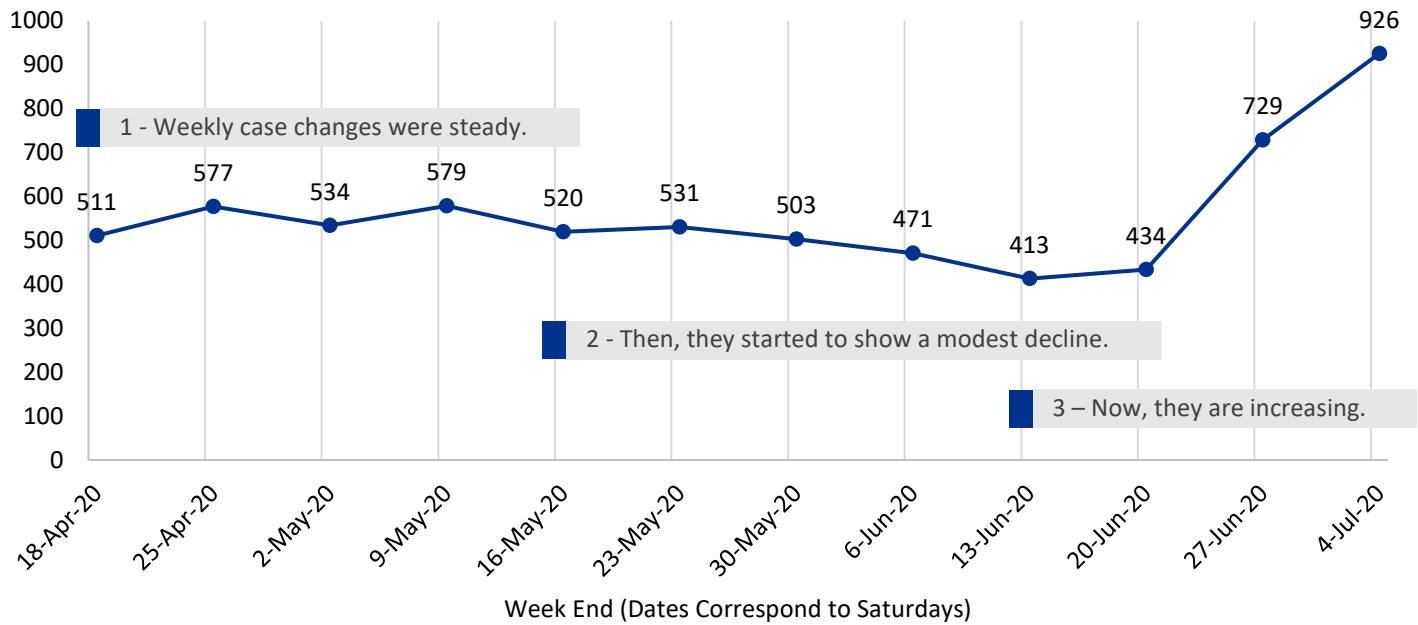
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Average Weekly Case Change

In the previous section, the “zig-zag” trend and the “known and unknown” effects on changing daily rates were mentioned. One way to clear some of the murkiness is to look at averages. Medians are a type of average used to investigate changes in behaviors/phenomena over time. They lie at the midpoint of a set of values. Because of this, there is an equal chance that any one value will fall above or below the median. Unlike the arithmetic mean—what is generally thought of when we discuss averages—the median is not influenced by extremely high or extremely low values. The next two figures visualize weekly medians in daily case, hospitalization, and death changes. The dates on the bottom (the X-axis or horizontal axis) correspond to the weekly end dates/Saturdays.

- Figure three makes the trend in daily case reporting clearer—Ohio’s weekly cases have continued to increase.

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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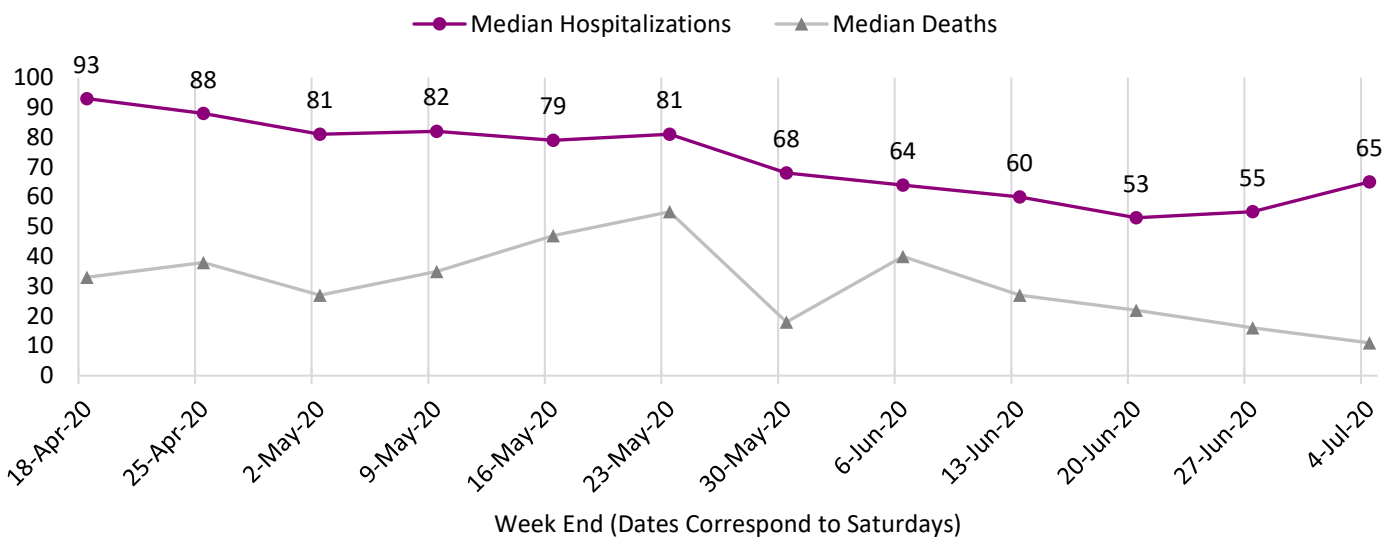
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Average Weekly Changes in Hospitalizations & Deaths

- The average increase in hospitalizations continues. This is significant for many reasons. For one, it helps those who work in hospitals—or in occupations connected to hospitals—to better plan. Many individuals are affected by a hospital’s capacity for care. This includes patients, nurses, doctors, medics/ambulance drivers, 911 dispatchers, those who maintain the equipment and buildings, and many others.
- This number is also significant when testing parameters change. For much of the pandemic testing was limited because of a shortage of supplies and capacity. The increase in cases noted in the previous sections occurred at the same time testing increased in many areas AND many states began to lift restrictions on individuals’ actions. In statistics, we call these confounding events. If the increase in cases did NOT correspond to an increase in hospitalizations, one could conclude with greater confidence the increase in cases was possibly being driven by an increase in testing. However, if an increase in cases DID correspond to an increase in hospitalizations, we are more confident in the conclusion the increase in cases is being driven by community spread.
- Notice, I am using terms related to confidence. *These are conclusions based on the best available data at the current time.* Like all things, there is always the potential for error. Be assured, population scientists are bound by ethical standards to ensure we do our best to report the data as accurately as possible while protecting the privacy and rights of individuals these data are based on.
- The median daily change in hospitalizations continues to increase. Recall, the initial increase came two weeks after the slight uptick in cases. Given the timing of the progression of COVID-19, this provides *further* evidence the increase in cases is being driven by community spread and not increased testing.
- Deaths continue to trend down.

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

- *Note:* The Y (vertical) axes of the two figures below are NOT the same. While they are both reporting number of total confirmed cases, Wood and Lucas Counties have much higher values than Henry and the other counties.
- Most of Henry County and its neighbors have seen an increase in the number of reported probable cases. Exceptions include Hancock, Henry, and Paulding counties. While ALL counties reported new cases over the past seven days, the total number for Hancock, Henry, and Paulding counties was lower this week compared to the week before.

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

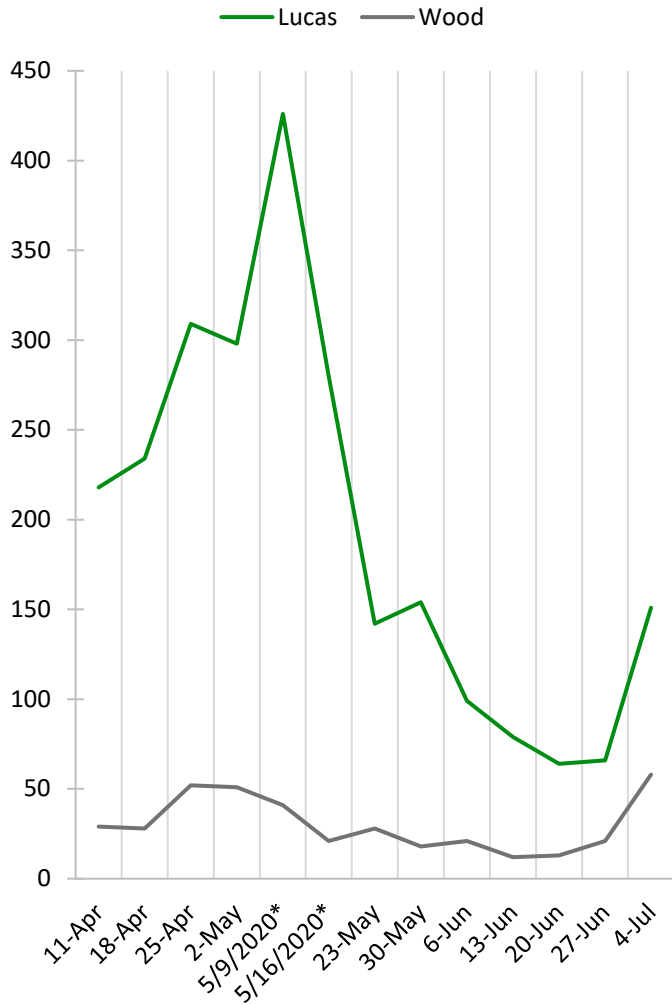
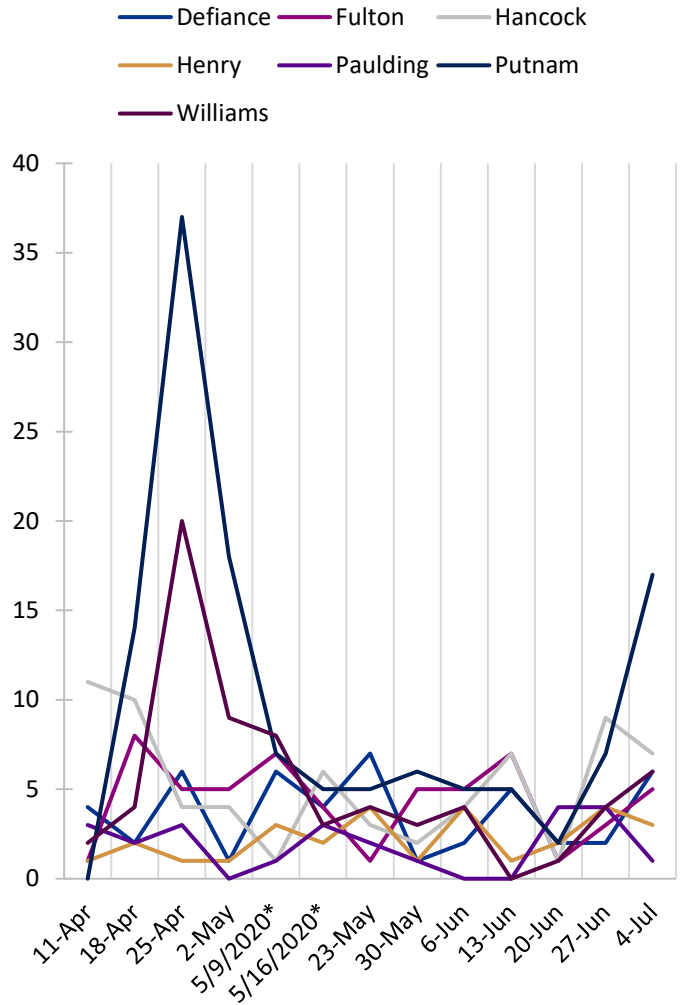


Figure 6. Saturday-to-Saturday Change in Reported Probable Cases by County



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



Revision Date: 7/8/2020

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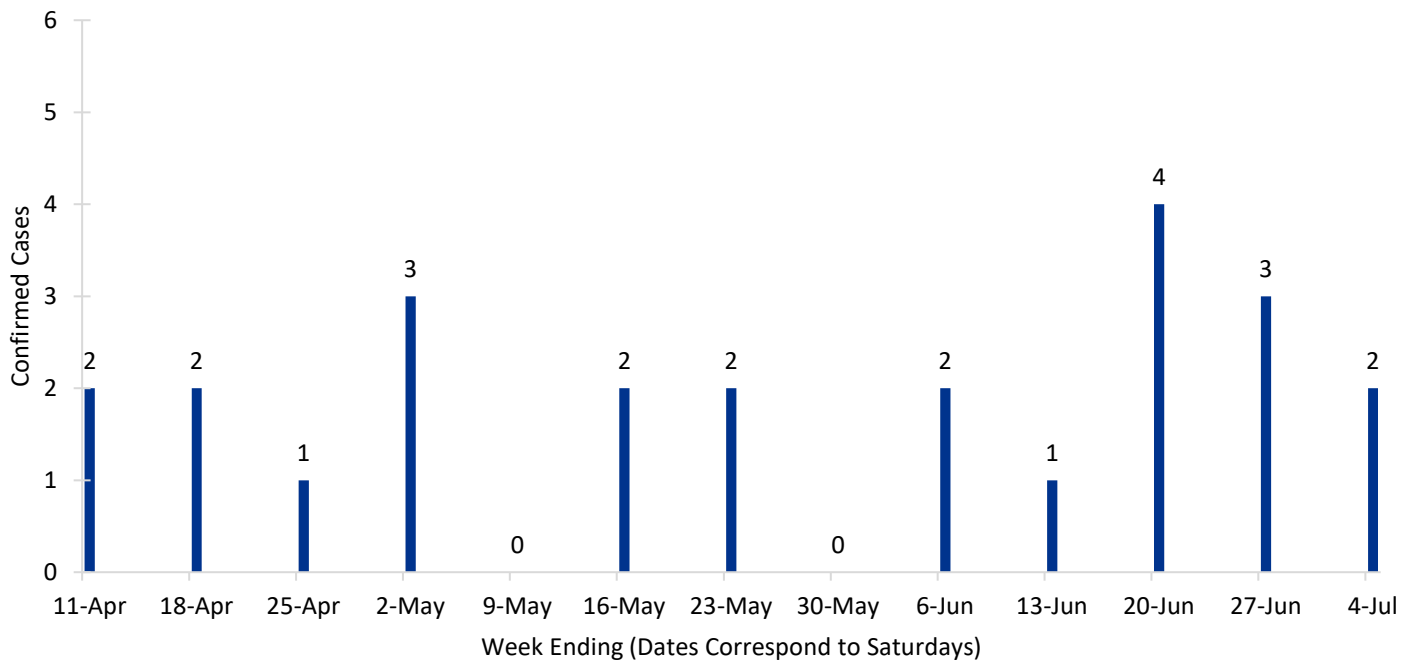
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Henry County's Confirmed Cases

- Since the pandemic began, Henry County has had 23 residents confirmed to have had COVID-19.
- This last figure shows the trend in weekly **confirmed** COVID-19 cases for Henry County, alone.
- The weeks ending on June 20th and June 27th reflect Henry County's largest weekly totals since the onset of the pandemic. However, in the last week (ending on July 4th), there was only one new case identified in Henry County.
- ODH has begun reporting on the "presumed recovered" which they define as "cases with a symptom onset date >21 days prior who are not deceased." Currently, Henry County has 16 presumed recovered among the total 24 confirmed cases.

Figure 7. Weekly Total Confirmed COVID-19 Cases for Henry County, Ohio



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