

Butler County General Health District COVID-19 Update (07/07/2020)

Confirmed and Probable COVID-19 Cases Reported to Butler County* Butler County Residents, 2020

Total # of Cases*:	1672*
Confirmed Deaths (07/07):	44
First Case Reported:	3/11/2020
Last Case Reported (so far):	7/7/2020
Confirmed Cases:	1638
Probable Cases:	34
Age Range:	<1-101
Median Age:	41
Mean Age:	42.9
Incidence Rate:	437.3 per 100,000

Figure 1: Cases Reported to Butler County by Symptom Onset Date*, 2020
(Confirmed and Probable)

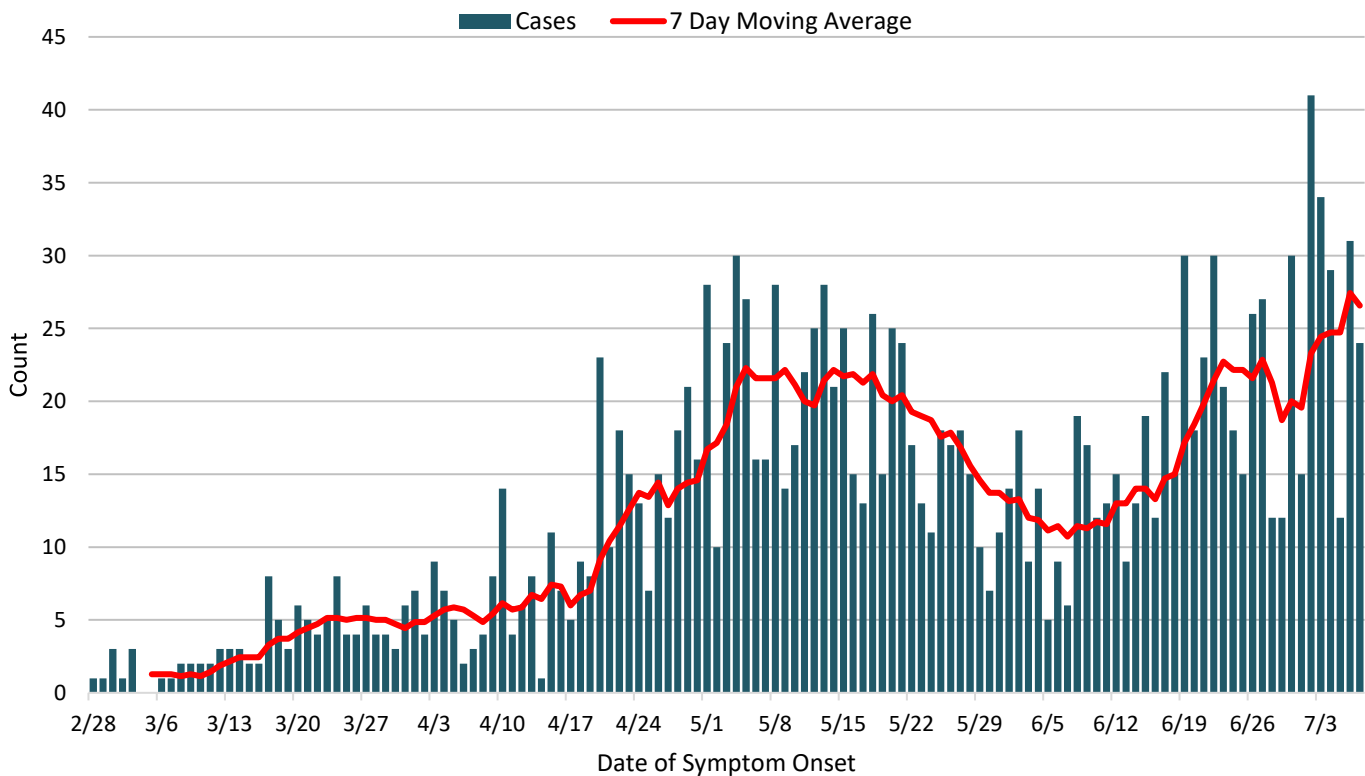


Figure 1 shows the daily incidence (new cases) by date of symptom onset. Figure 2 shows the cumulative (total ongoing) case count. Nearly one out of every four cases (25%) that have occurred in Butler County occurred in the last two weeks. Since 06/23 there has been a 32% increase in cases reported to Butler County. The summer weather, reopening of the county, celebrations, and the increase of movement in the county coincide with the dramatic increase in cases reported to Butler County. Cases have now surpassed the previous peak that had occurred in early May. NOTE: Each case reported represents a unique individual that meets case definition. Duplicate tests are removed as are tests that are performed to verify infection status. **Each person is only counted once regardless of how many tests they take.** All confirmed cases are confirmed via PCR test. Serology (antibody or antigen tests) are considered probable cases and only if they also show symptoms or have an exposure to a confirmed case. **Persons getting antibody tests to check immunity status only are NOT included in the totals of cases or deaths.**

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Figure 2. Cumulative Cases Reported to Butler County by Date Reported*, 2020
(Confirmed and Probable)

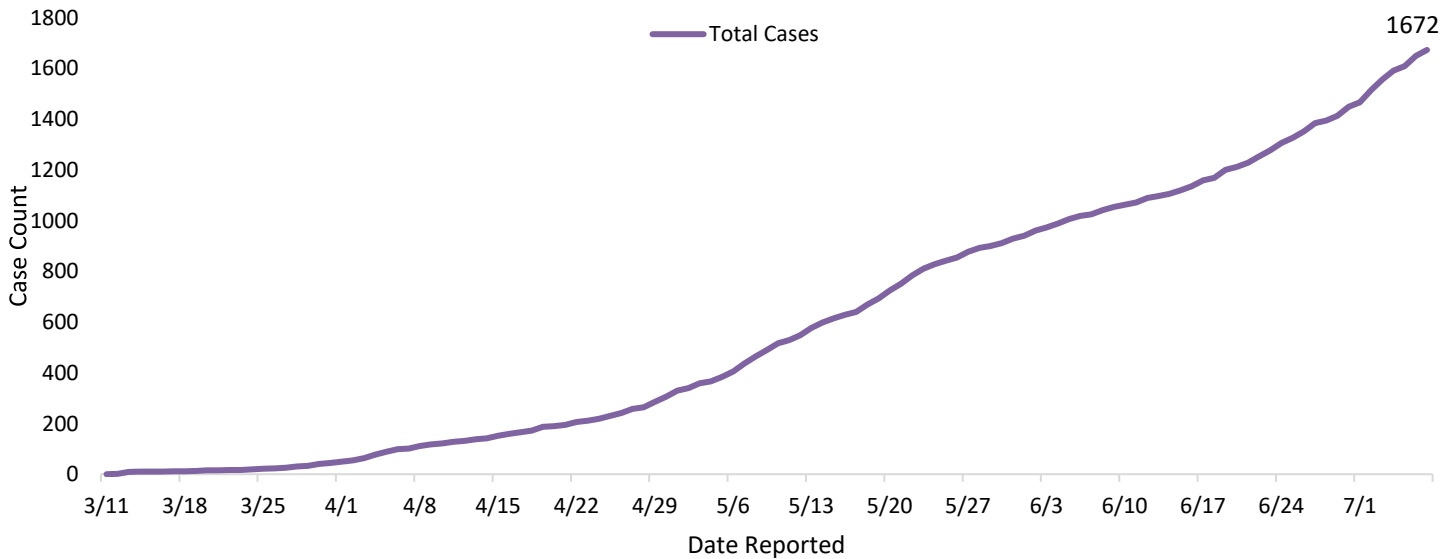
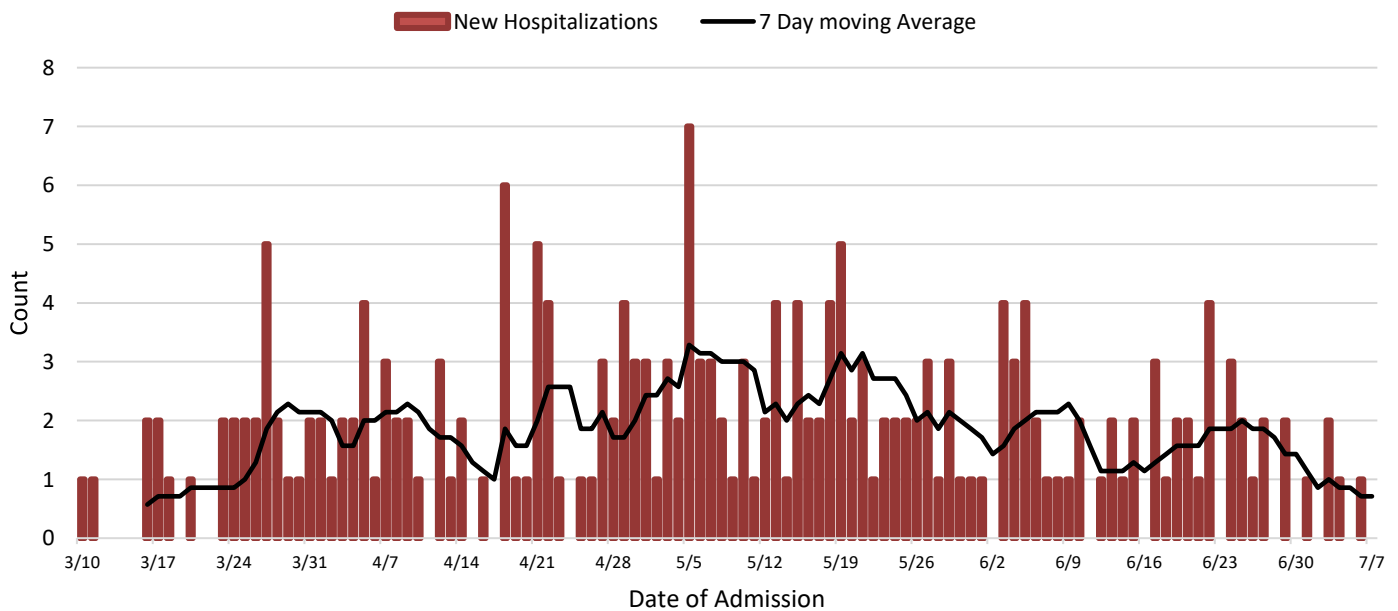


Figure 3. New Hospitalizations by Admission Date, 2020

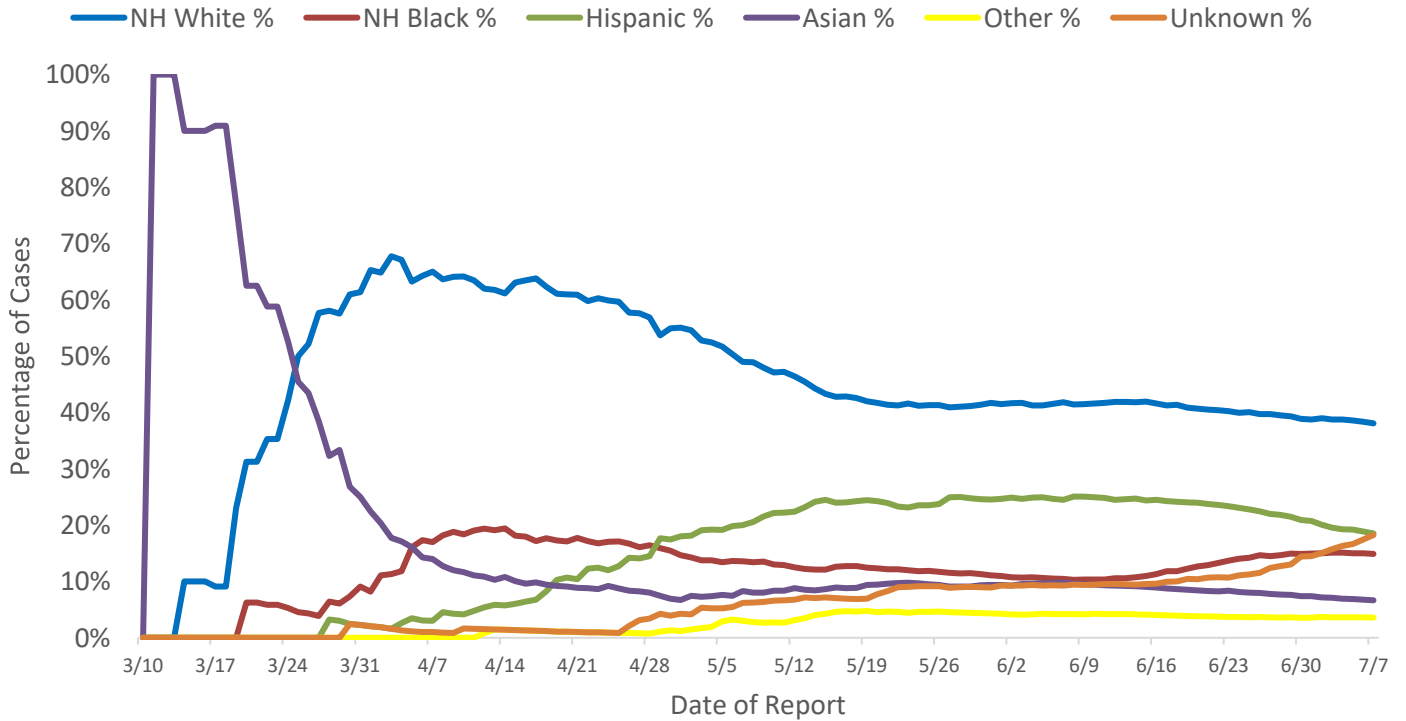


While regional hospitalization notes are inching up, Butler County hospitalizations have remained steady. Possible explanations for the lack of rise in hospitalizations is that those who are most at risk for severe complications have decreased in proportion to the cases that are testing positive. As seen in Figures 7 and 10, younger individuals are largely driving the increase in cases and are less likely to need hospitalizations. Hospitalizations appear to be decreasing both in count and as a percentage of cases. **Due to delays in reporting, and the time it takes for illness to become severe enough to require hospitalization, it is too early to tell whether this promising trend will continue.** Figure 8 also shows an increase in low-risk cases being reported. **This is not a hospitalization bed/ICU usage analysis.** These are only Butler County residents in hospitals which may be outside of Butler County, and do not include the residents of other counties hospitalized in Butler County.

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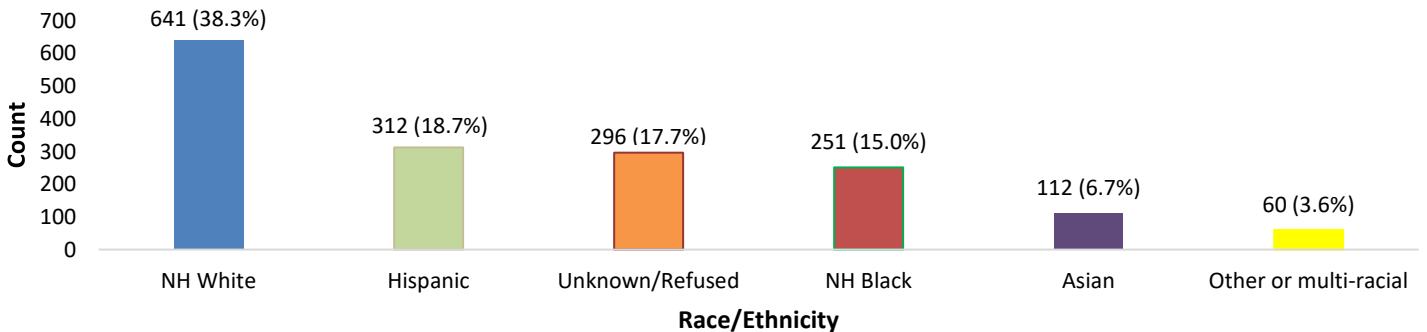
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Figure 4. Race and Ethnicity as a Percentage of Cases Reported by Date of Report*, 2020



Figures 4 and 5 relate to race and ethnicity in COVID-19 cases. While Asian cases represented the vast majority of cases at the start of the outbreak, none of these cases were imported from China and were likely introduced from domestic interstate travel. Since that time, the portion of Asians has continued to decrease. Non-Hispanic white cases made up the majority of cases until May. For another week NH White cases continued to decrease as a percentage of cases reported. The Hispanic population has been the hardest hit with the percentage of Hispanic cases far exceeding the percentage of the population that they make up. The Hispanic population makes up approximately 5% of Butler County, yet represents 19% of cases. Many of these cases have been linked to workplaces and secondary spread in housing. The share of Hispanic cases has continued to drop through the month of June. The Non-Hispanic Black population of Butler County makes up another area of concern. In Butler County, the NH Black population makes up around 9% of population, but account for 15% of COVID cases. Cases refusing interview are increasing and no racial or ethnic statistics can be attained if not reported resulting in an increase of “unknown/refused” cases.

Figure 5. Cases Reported to Butler County by Race/Ethnicity*, 2020



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Demographics of COVID-19 Cases Reported to Butler County*

Butler County Residents, 2020
(as of 1700 EDT 07/07/2020)

Table 1: Total Reported* Cases by ZIP Code			
ZIP Code	Number of Cases	Rate per 100,000	% of Confirmed Cases
45014	423	963.2	25.3%
45011	340	488.0	20.3%
45044	240	454.4	14.4%
45069	195	397.5	11.7%
45013	119	226.2	7.1%
45015	78	647.9	4.7%
45042	66	249.5	3.9%
45056	59	218.2	3.5%
45067	47	338.2	2.8%
45050	24	280.8	1.4%
45246	19	-	1.1%
45241	16	-	1.0%
45053	9	263.2	0.5%
Butler County (inclusive)	1635		97.8%

Zip-codes not calculated have most of their population outside of Butler County. Rate given for comparison by population and will be higher than the actual amount. Eleven cases have no recorded address. Zip-codes with fewer than 5 cases have been removed for privacy concerns.

The zip-codes of reporting have changed significantly over the past month. The 45014 zip code has remained, by far, the hardest hit community in Butler County. However, that zip-code's share is dropping. The large percentage of high-risk population and proximity to congregate living settings has contributed to the sustained transmission in this zip-code. In the past two weeks, 45011, 45044, 45013, 45042, 45056, and 45069 have all increased in their portion of cases, while 45014's absolute numbers have remained rather consistent. It is important to take these numbers in stride as they only represent the residence of the cases, not where they may work, shop, worship, and socialize.

Figure 6. Reported Confirmed Cases by Sex*
Butler County Residents, 2020

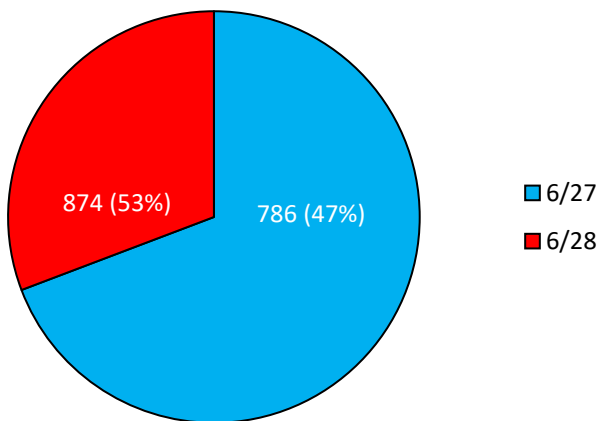
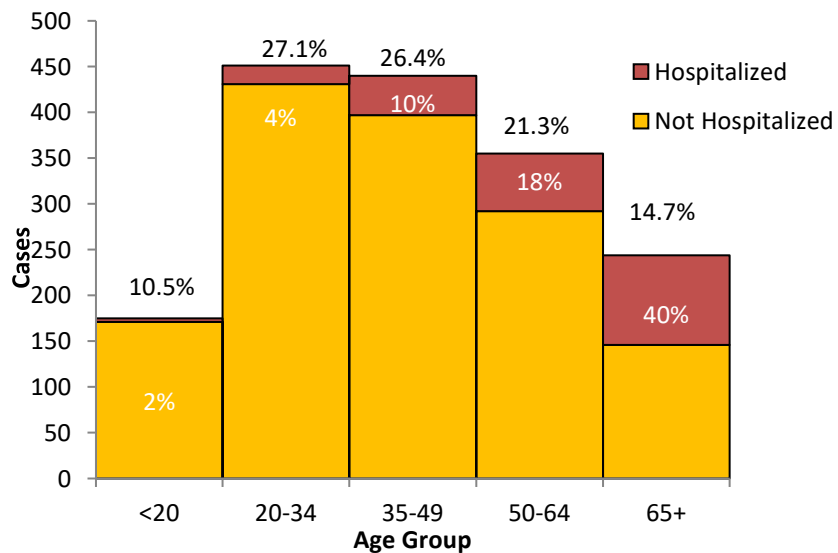


Figure 7. Reported Confirmed Cases by Age Group*
Butler County Residents, 2020

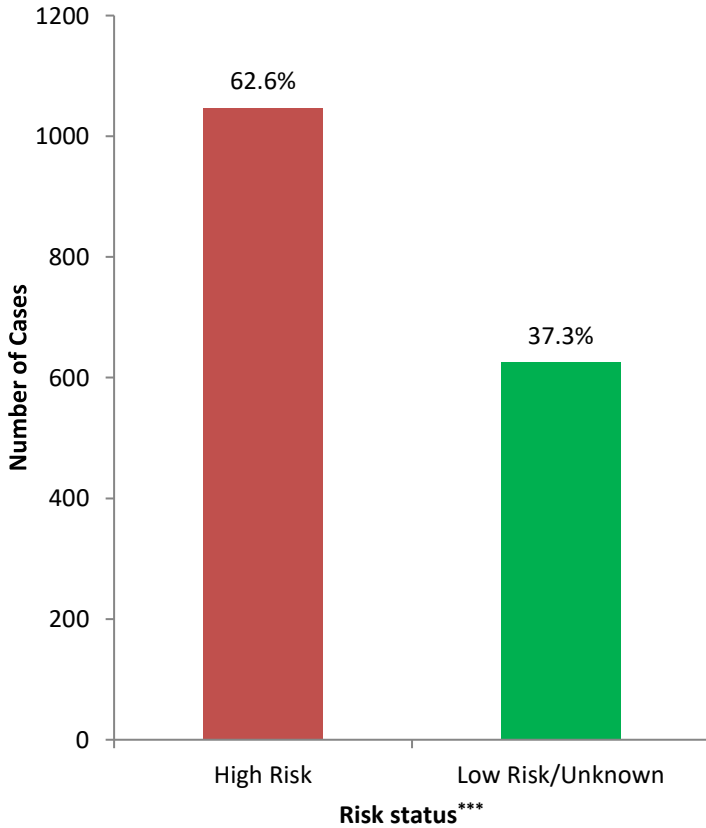


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Figure 8. Reported Confirmed Cases by Risk*

Butler County Residents, 2020



(Underlying Health Conditions or Older than 65)

***High risk status does not necessarily make one more susceptible to transmission, but does increase the likelihood of a more severe illness

Figure 9. Reported confirmed Cases by Hospitalization*

Butler County Residents, 2020

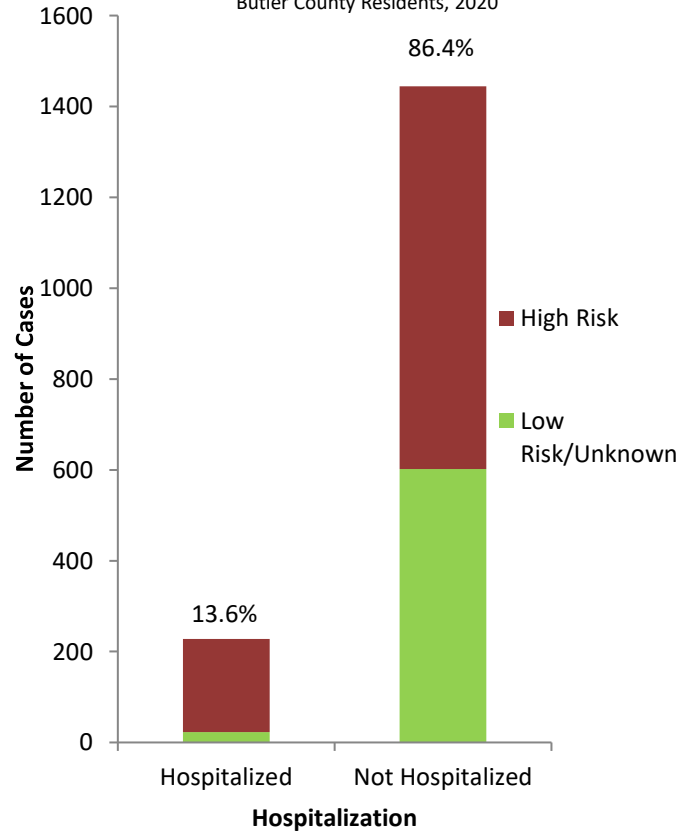
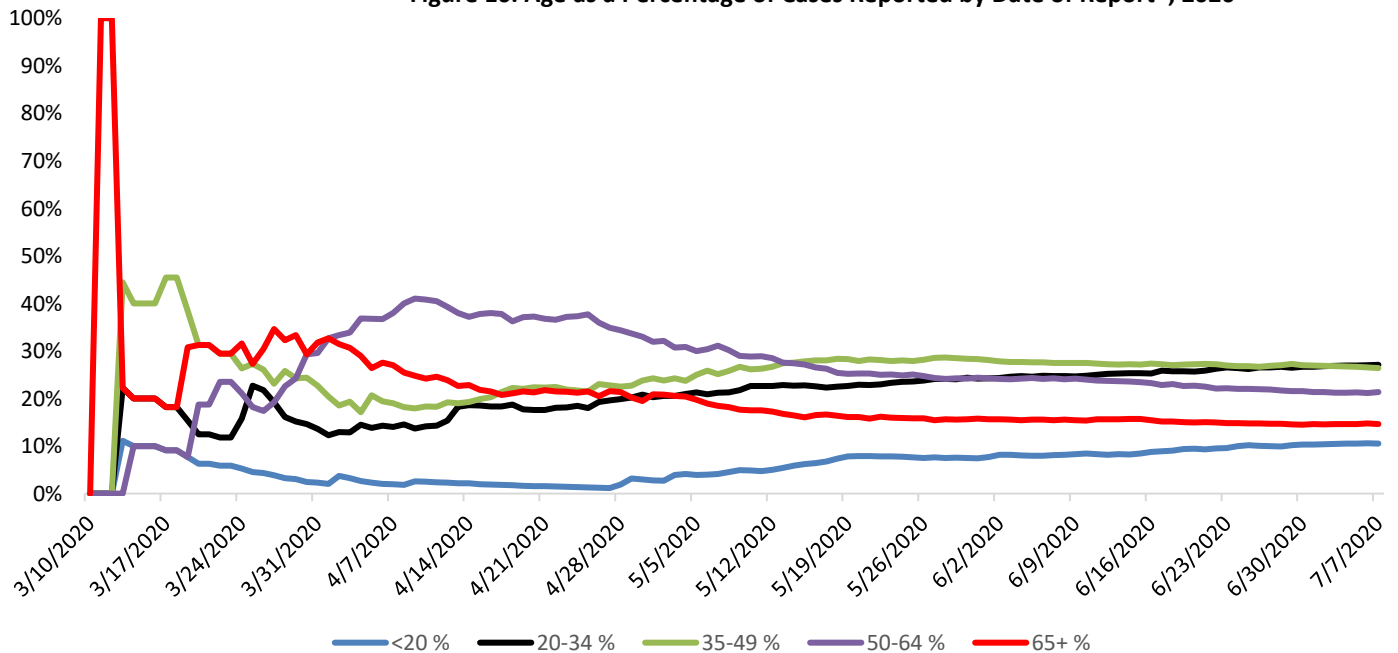


Figure 10. Age as a Percentage of Cases Reported by Date of Report*, 2020



Figures 7 and 10, as mentioned above, show that both <20 and 20-34 age groups are increasing and those age groups are now disproportionately affected.

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Clinical Statistics for Reported Butler County Cases

Butler County Residents, 2020

(as of 1700 EDT 07/07/2020)

Table 2. Laboratory Statistics (03/11/2020-07/07/2020)				
	Overall	Private Laboratories	Hospital Laboratories	Public Laboratories
Confirmatory Tests with information	1607	1107	458	32
Range (in days)	<1-27	<1-27	<1-5	1-4
Median (in days)	2	2	1	1

Table 3. Hospitalization Statistics (03/11/2020-07/07/2020)			
	N	Percentage of Hospitalized Cases	Percentage of all cases
Total Hospitalized	228	100%	13.6%
Cases with information	215	94.3%	12.9%
Admitted to Intensive Care Unit (ICU)	26	11.4%	1.6%
Required intubation	20	8.7%	1.2%
Range of Length of Stay (in days)	<1-43	-	-
Median Length of Stay (in days)	5	-	-

Tables 2 and 3 are related to facility-based statistics. The lab results have remained rather consistent. The median times for test results from all labs has dropped down to 2 days, meaning half of tests should be expected to be resulted and reported before 2 days.

There has been a steady increase in cases that require intensive care, but the number of days in the hospital has decreased, and overall number of hospitalizations is down to about 14% which is expected based on national data.

Table 4. Symptoms Reported (02/29/2020-7/07/2020)		
	N	Percentage
Cases with Information	1204	100%
Cough	656	54.5%
Fever	643	53.4%
Myalgia	521	43.3%
Headache	440	36.5%
Shortness of Breath	365	30.3%
Chills	339	28.2%
Loss of Taste or Smell	263	21.8%
Sore throat	236	19.6%
Runny nose	214	17.8%
Nausea	191	15.9%
Diarrhea	182	15.1%
Asymptomatic	151	12.5%
Abdominal Pain	95	7.9%
Conjunctivitis	24	2.0%

Symptomology has remained consistent across the board. Cough, fever, myalgia, headache, and shortness of breath remain the most common symptoms that are reported. Loss of taste or smell has been increasing and this symptom is considered as an early sign associated with young people who are driving the increase in Butler County. Asymptomatic people make up a very small portion of cases in Butler County, and the fact that it remains far lower than what national data suggests says that there are likely many cases that never get tested or seek treatment due to being asymptomatic or having mild symptoms.

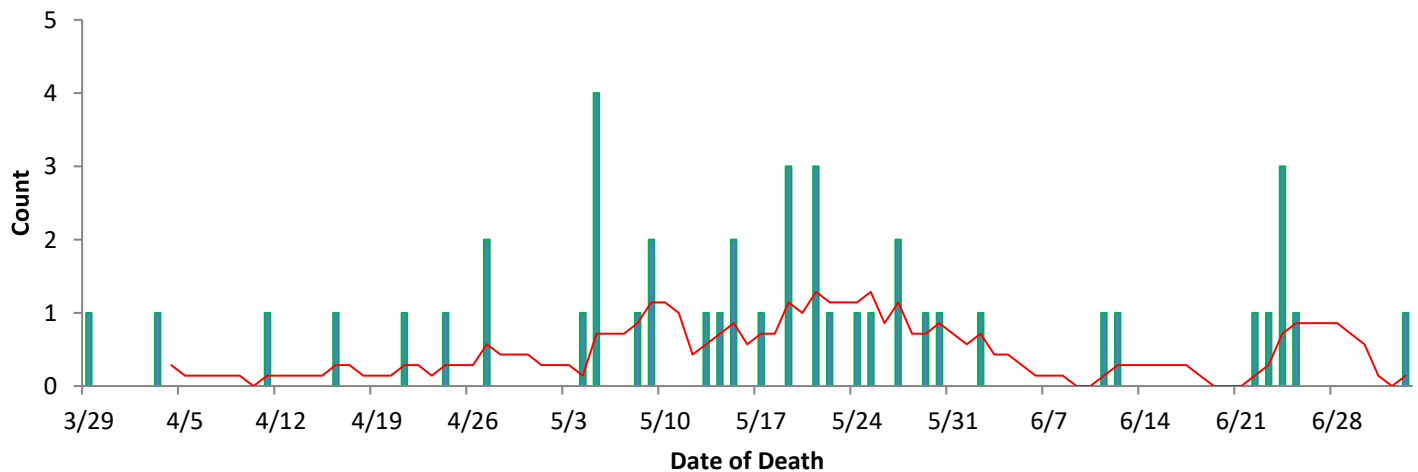
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Table 5. Death Statistics, 2020		
	N	%
Confirmed Deaths	44	2.8%
Age		
Range	43-101	
Median	77	
Mean	75.9	
Race		
NH White	30	68.1%
NH Black	11	25.0%
Asian	2	4.5%
Unknown	1	2.3%
Risk Status		
High Risk**	43	97.7%

**Individuals who are high risk are those with underlying health conditions that could exacerbate a SARS-CoV-2 infection including those who are immunocompromised or immunosuppressed or individuals who are older than 65 years of age. High risk status does not imply higher likelihood of disease transmission, but a higher likelihood of a severe illness.

Figure 11. Confirmed COVID-19 Deaths by date of death, 2020



The deaths in Butler County have almost entirely been high risk individuals, either by age or by pre-existing health conditions that would lead to a more severe outcome. Like the trend in hospitalizations and incidence there was a peak in early to mid-May and a slow decrease after that. There was a full seven days with no deaths, and the spacing of deaths may once again be increasing. As is the case with the other numbers, most newly reported deaths are delayed reports from previous weeks back, and is therefore difficult to tell the accuracy or longevity of the trend. Noteworthy is that though they make up a disproportionate number of cases, there have been no deaths in the Hispanic community attributed to COVID-19. Case definition regarding deaths is complicated and may take many weeks to make a final decision regarding cause of death as well as reconciling jurisdiction. Therefore, there may be inconsistencies in reporting between ODH and the three Butler County jurisdictions. For this reason we only include those deaths that have been confirmed and reviewed in our count while the state also includes probable deaths. **Deaths are included in this count only if COVID-19 is listed as immediate or directly underlying cause of death on the death certificate.**

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