

Butler County General Health District COVID-19 Update (07/21/2020)

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

Total # of Cases:	2252*
Confirmed Deaths (07/21):	49
First Case Reported:	3/11/2020
Last Case Reported (so far):	7/21/2020
Confirmed Cases:	2218
Probable Cases:	34
Age Range:	<1-101
Median Age:	40
Mean Age:	42.2
Incidence Rate:	588.9 per 100,000

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

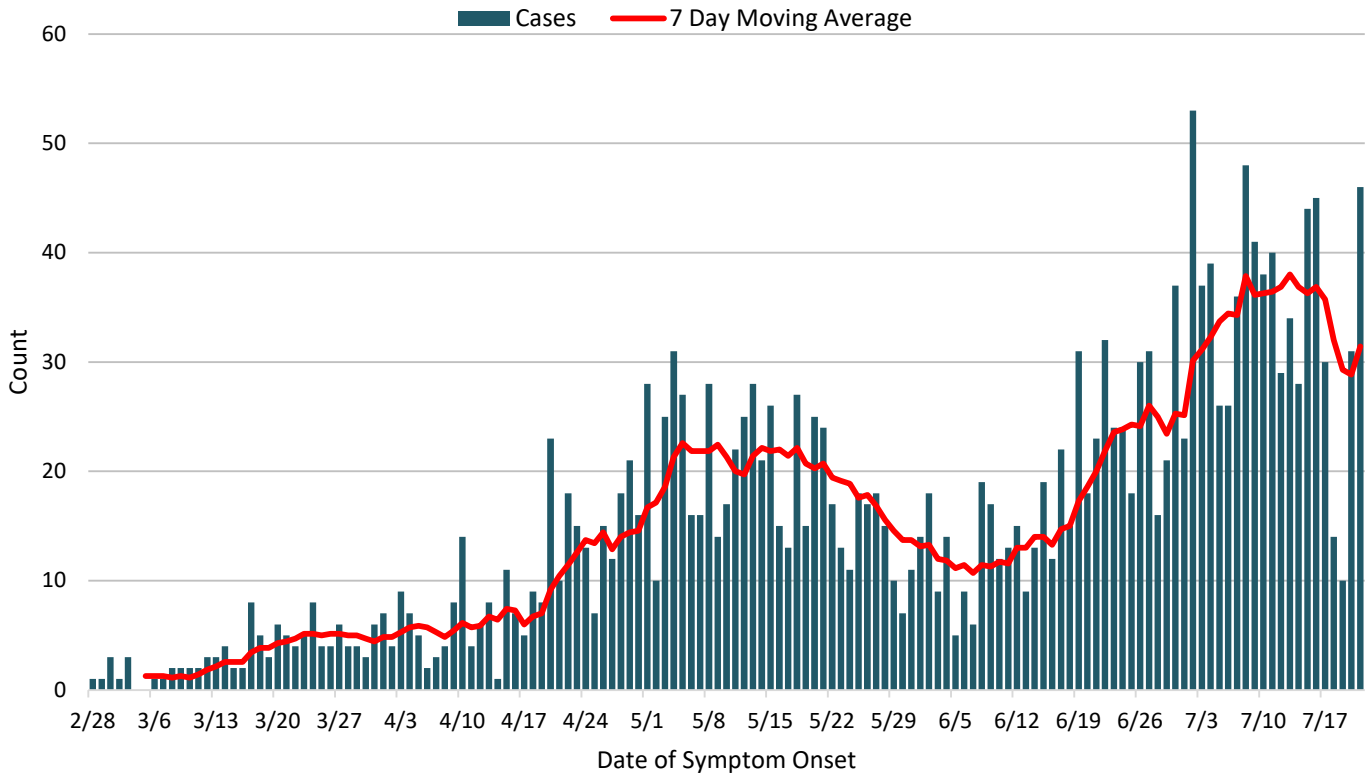


Figure 1 shows the daily incidence (new cases) by date of symptom onset. Figure 2 shows the cumulative (total ongoing) case count. The summer weather, reopening of the county, celebrations, and the increase of movement in the county coincide with the dramatic increase in cases reported to Butler County. 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.**

All figures show reported cases of COVID-19 in Butler County as of 1700 EDT 07/21/2020. Due to delays in reporting, the numbers of confirmed and probable cases on Figure 1 are subject to change between reports and confirmed and probable case counts are likely to increase. *This should not be assumed to be the total disease burden of COVID-19 in Butler County only those that have been laboratory confirmed OR meet ODH probable case criteria AND reported to Public Health.

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

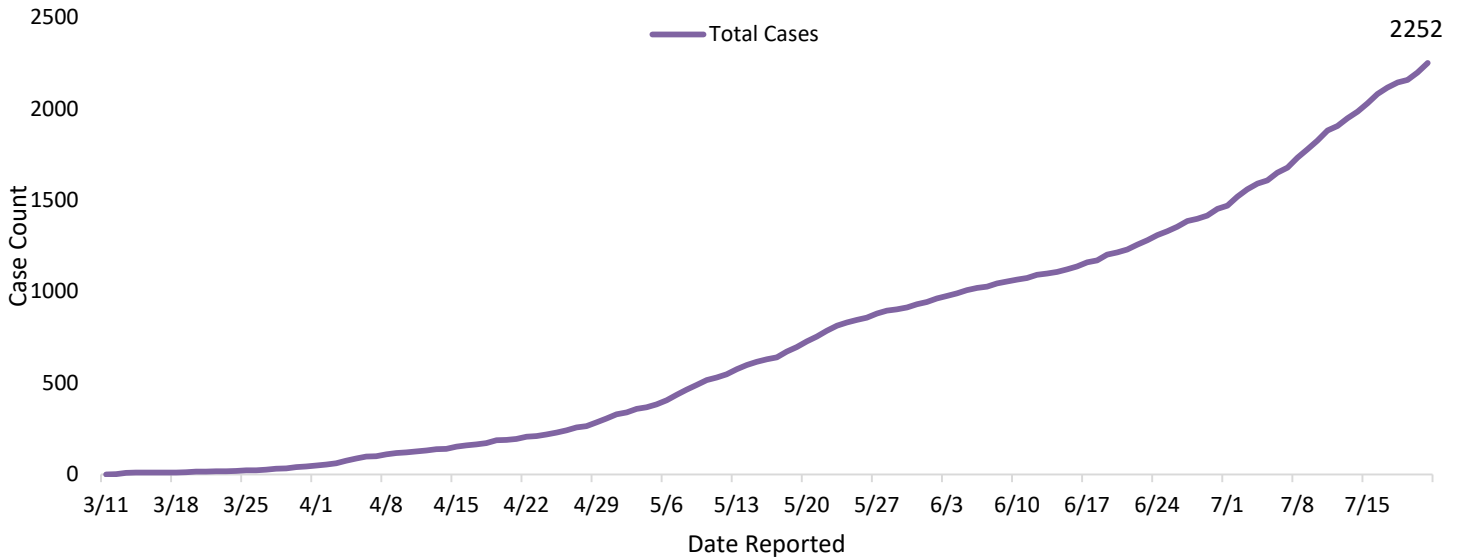
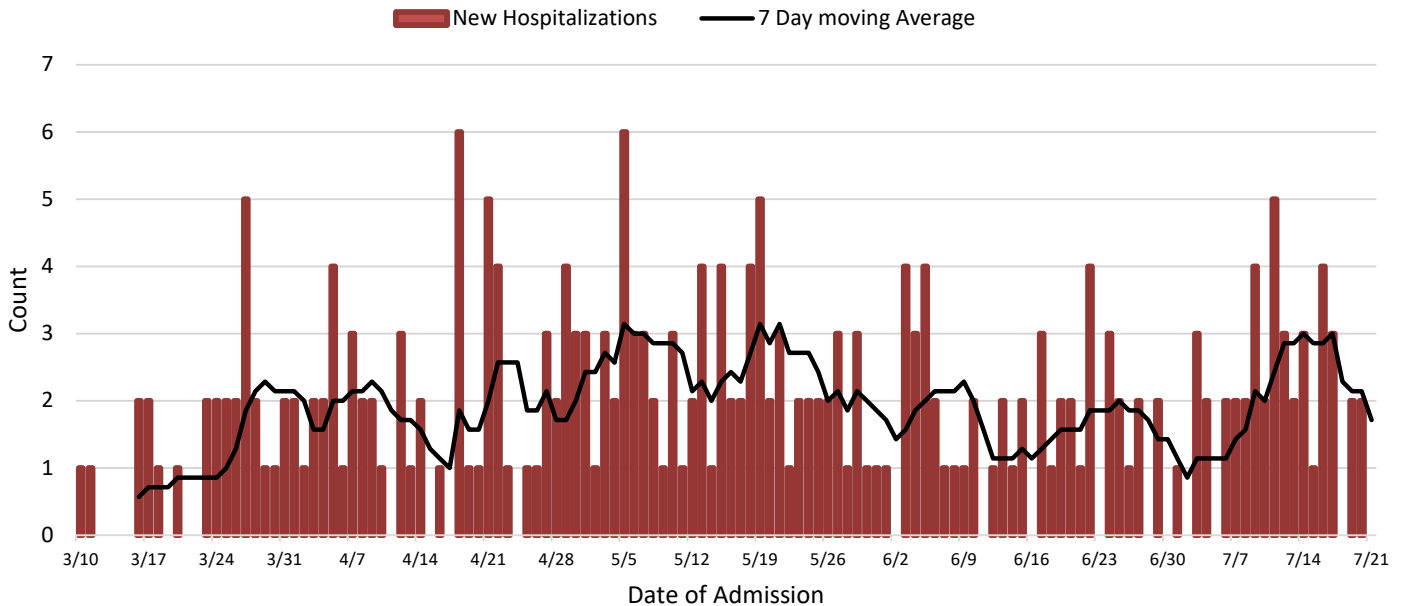


Figure 3. New Hospitalizations of Butler County Residents by Admission Date, 2020*

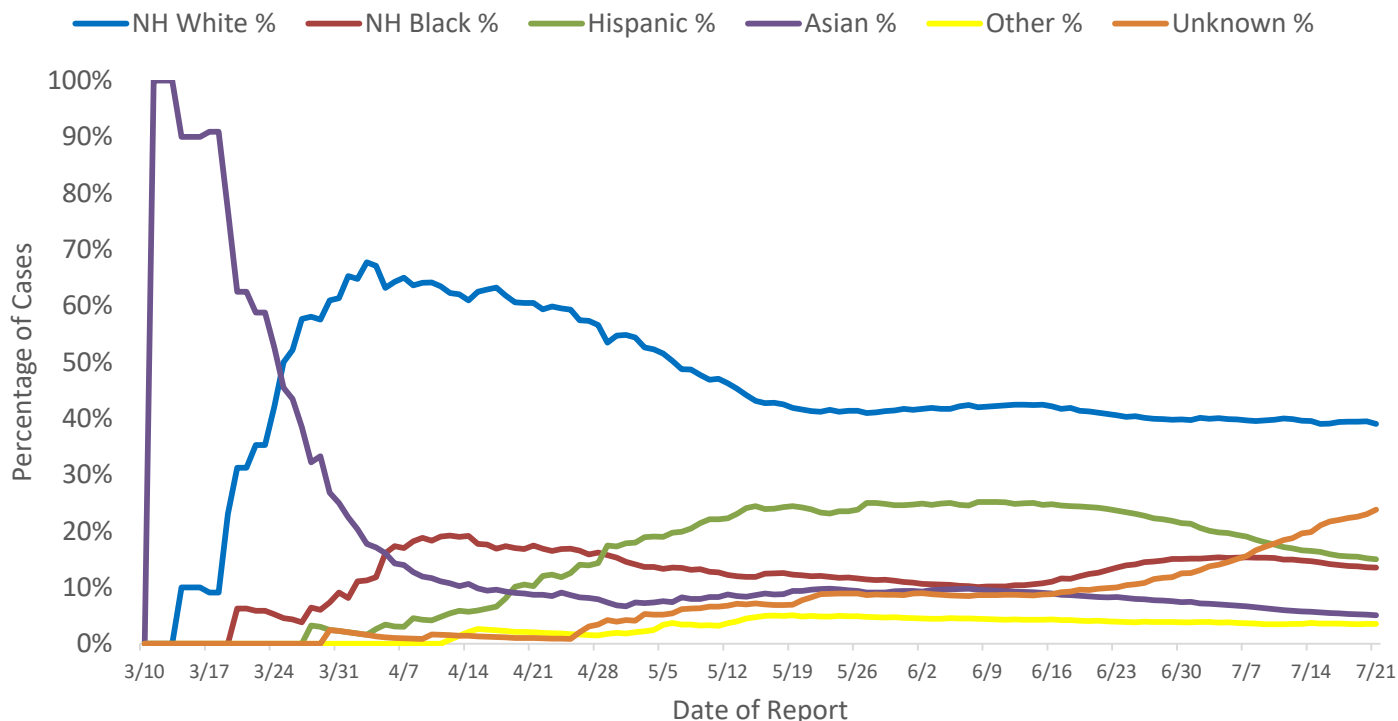


While regional hospitalization numbers are inching up, Butler County residents are also beginning to see increased hospitalizations. Possible explanations for the lack of rise in hospitalizations is that those who are most at risk for severe complications have decreased in proportion to the cases that 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. Note that last week it appeared as if there were decreasing cases, but delays showed that hospitalizations actually increased. **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 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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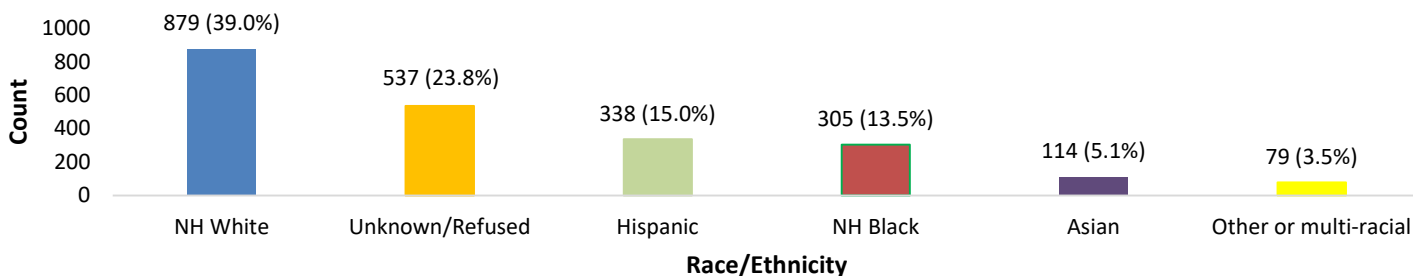
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Figure 4. Race and Ethnicity as a Percentage of Cases Reported by Date of Report*, 2020



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 (NH) 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 15% of cases. Many of these cases have been linked to workplaces and secondary spread in housing. The share of Hispanic cases has been dropping since early 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 13.5% 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*

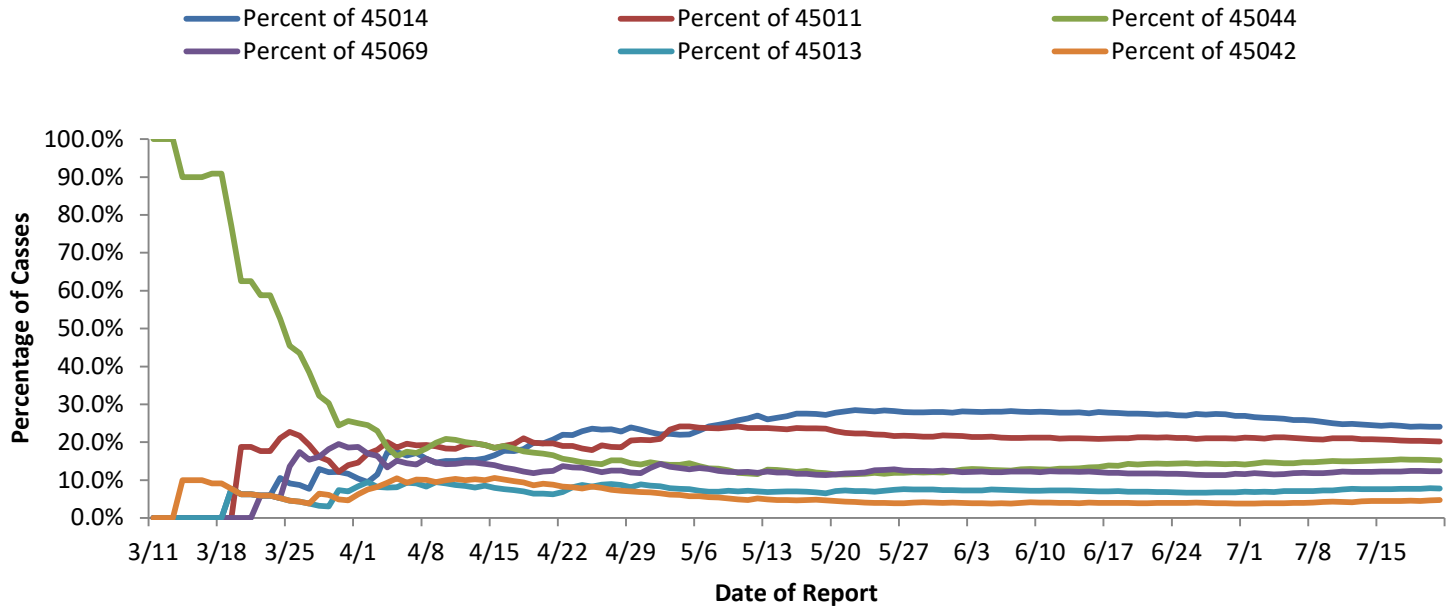
Butler County Residents, 2020
(as of 1700 EDT 07/21/2020)

Table 1: Total Reported* Cases by ZIP Code			
ZIP Code	Number of Cases	Rate per 100,000	% of Confirmed Cases
45014	512	1165.8	22.7%
45011	431	618.6	19.1%
45044	324	613.4	14.4%
45069	262	534.0	11.6%
45013	166	315.5	7.4%
45042	101	381.8	4.5%
45015	92	764.2	4.1%
45056	77	284.8	3.4%
45067	62	446.1	2.8%
45050	39	456.2	1.7%
45241	29	-	1.3%
45246	19	-	0.8%
45053	10	292.4	0.4%
45005	6	-	0.3%
Cases lacking zip code information or from zip codes with <5 cases	122	-	5.4%
Butler County (inclusive)	2252		100%

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. Zip-codes with fewer than 5 cases have been removed for privacy concerns.

45014's share of cases continues to decline. However, the top six cases have held in a stabilizing pattern recently.

Figure 6. 6 most reported Zip-codes as a Percentage of Cases Reported by Date of Report*, 2020

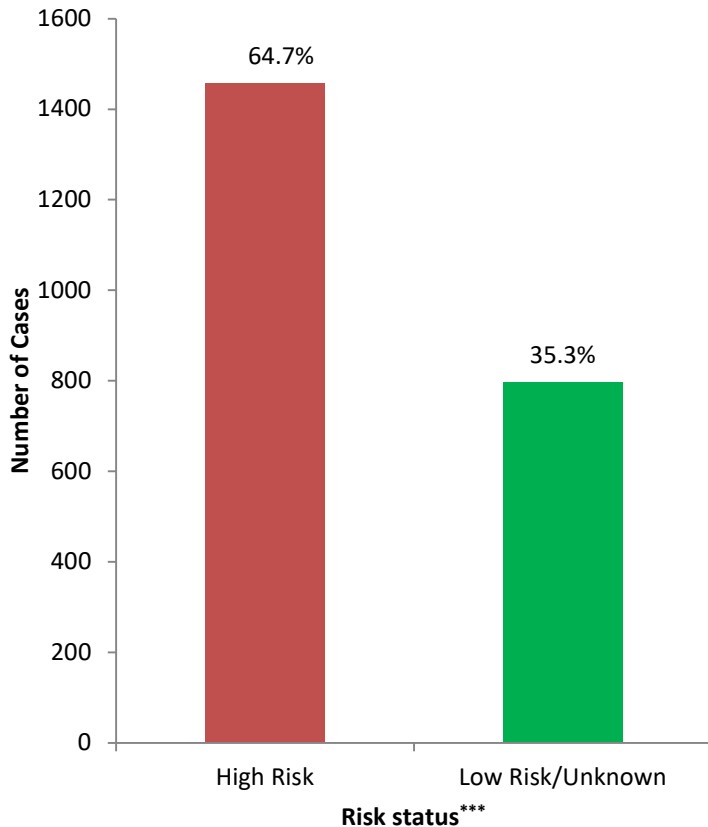


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Figure 7. Reported Confirmed Cases by Risk*

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 8. Reported Confirmed Cases by Age Group*

Butler County Residents, 2020

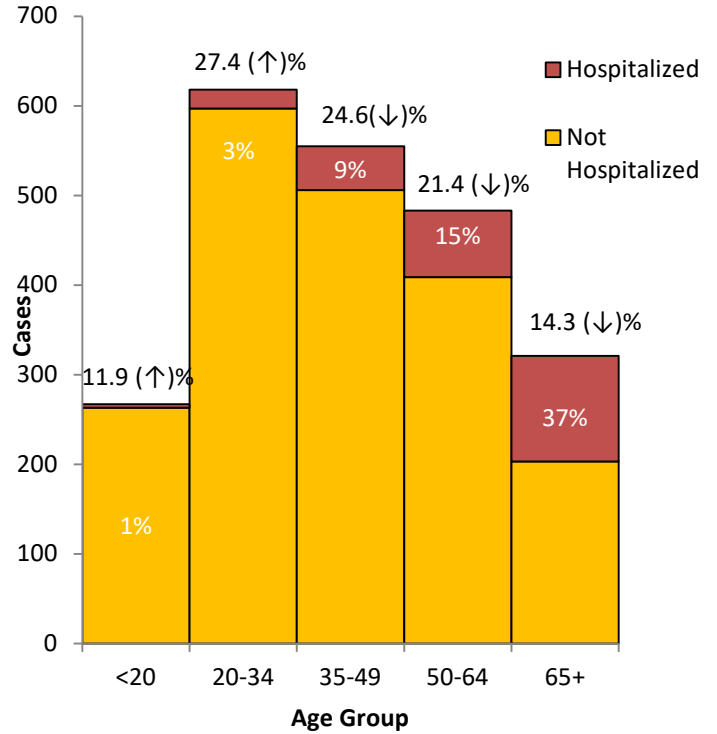
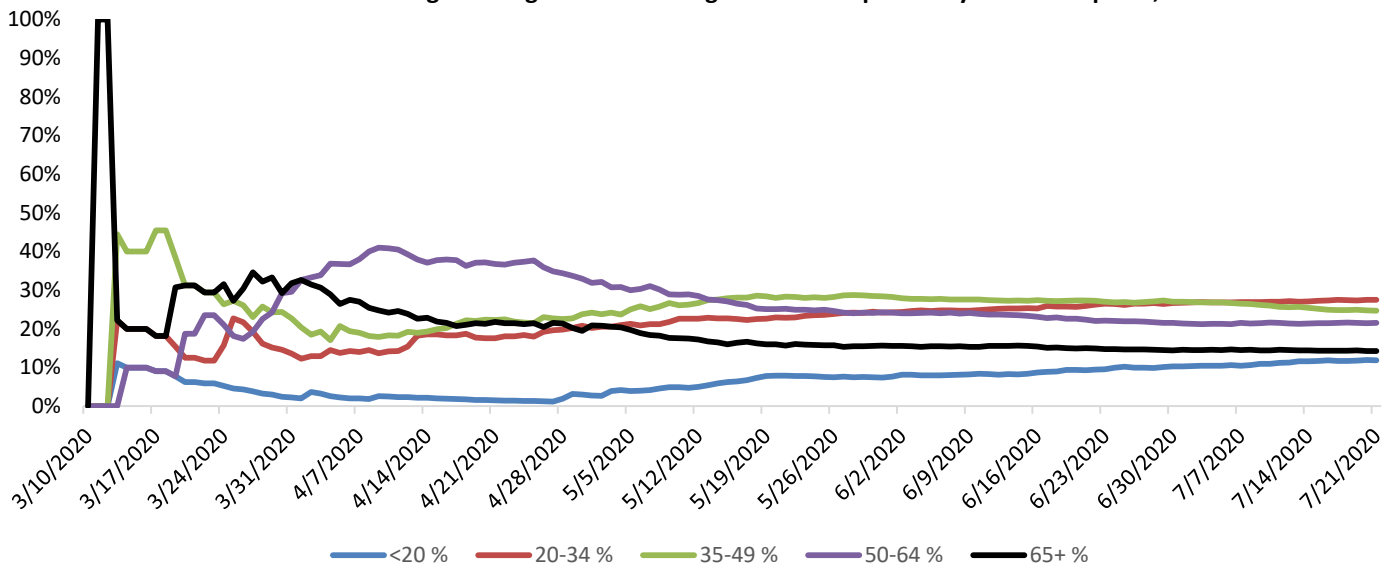


Figure 9. Age as a Percentage of Cases Reported by Date of Report*, 2020



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.

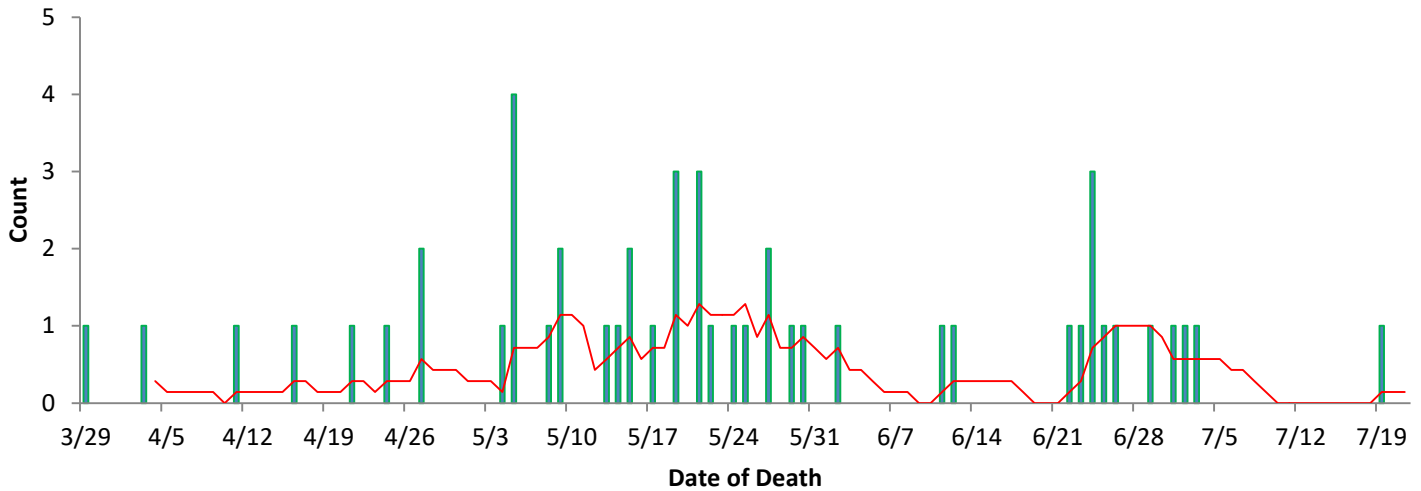
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Table 2. Death Statistics, 2020		
	N	%
Confirmed Deaths	49	2.2%
Age		
Range	43-101	
Median	75	
Mean	74.7	
Race		
NH White	33	67.3%
NH Black	11	22.4%
Asian	3	6.1%
Unknown	2	3.3%
High Risk**		
High Risk**	48	98.0%
Resides in Long-Term Care	27	55%

**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 10. 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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Clinical Statistics for Reported Butler County Cases

Butler County Residents, 2020
(as of 1700 EDT 07/21/2020)

Table 3. Hospitalization Statistics (03/11/2020- 07/21/2020)			
	N	Percentage of Hospitalized Cases	Percentage of all cases
Total Hospitalized	267	100%	11.8%
Cases with information	252	94.3%	11.2%
Admitted to Intensive Care Unit (ICU)	30	11.2%	1.3%
Required intubation	22	8.2%	1.0%
Range of Length of Stay (in days)	<1-43	-	-
Median Length of Stay (in days)	5	-	-

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 11.8% which is within range of the national data.

Table 4. New Reports by MMWR Week, 2020						
MMWR Week	End of Week	New Cases Reported (by date of report)	New Hospitalizations (by date of report)	New ICU Admissions (by date of report)	New Confirmed Deaths (By date of death)	
11	3/14	10	1	1	0	
12	3/21	6	3	0	0	
13	3/28	15	7	5	0	
14	4/4	45	16	6	2	
15	4/11	51	19	3	1	
16	4/18	45	9	0	1	
17	4/25	58	21	2	2	
18	5/2	109	17	2	2	
19	5/9	151	19	0	8	
20	5/16	140	16	0	4	
21	5/23	184	24	1	8	
22	5/30	101	12	1	6	
23	6/6	107	14	4	1	
24	6/13	78	11	1	2	
25	6/20	115	13	0	0	
26	6/27	173	16	1	7	
27	7/4	204	11	0	4	
28	7/11	290	17	1	0	
29	7/18	263	17	2	0	
30	7/25	107	4	0	1	

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