

Butler County General Health District COVID-19 Update (10/31/2020)

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

Butler County Residents, 2020

Total # of Cases (10/31):	10,242 *
Butler County Residents (10/31):	7,838
Miami University (10/31):	2,404
Confirmed Deaths (10/31):	135
First Case Reported:	3/11/2020
Last Case Reported (so far):	10/31/2020
Confirmed Cases:	10,096
Probable Cases:	146
Age Range:	<1-101
Median Age:	35
Mean Age:	38.9
Incidence:	2,673.2 per 100,000

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

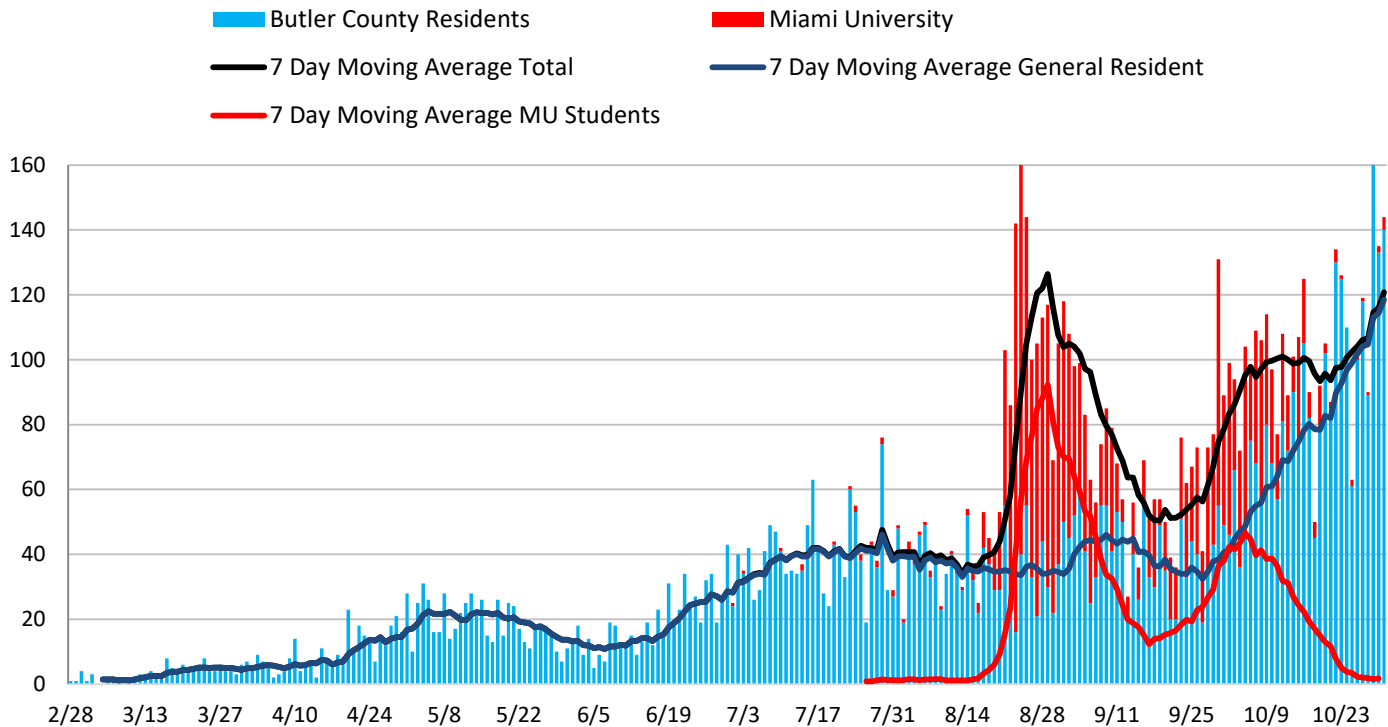


Figure 1 shows the daily incidence (new cases) by event date. Figure 2 shows the cumulative (total ongoing) case count. NOTE: Each case reported represents a unique individual that meets case definition. Duplicate tests are removed as are tests that are performed to verify infection status. **Each person 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.** PCR tests are highly reliable, and false positives are incredibly rare. Discrepancy with ODH reporting comes from the delay in transferring jurisdictions of MU students to Butler County.

All figures show reported cases of COVID-19 in Butler County as of 1700 EDT 10/31/2020. 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)

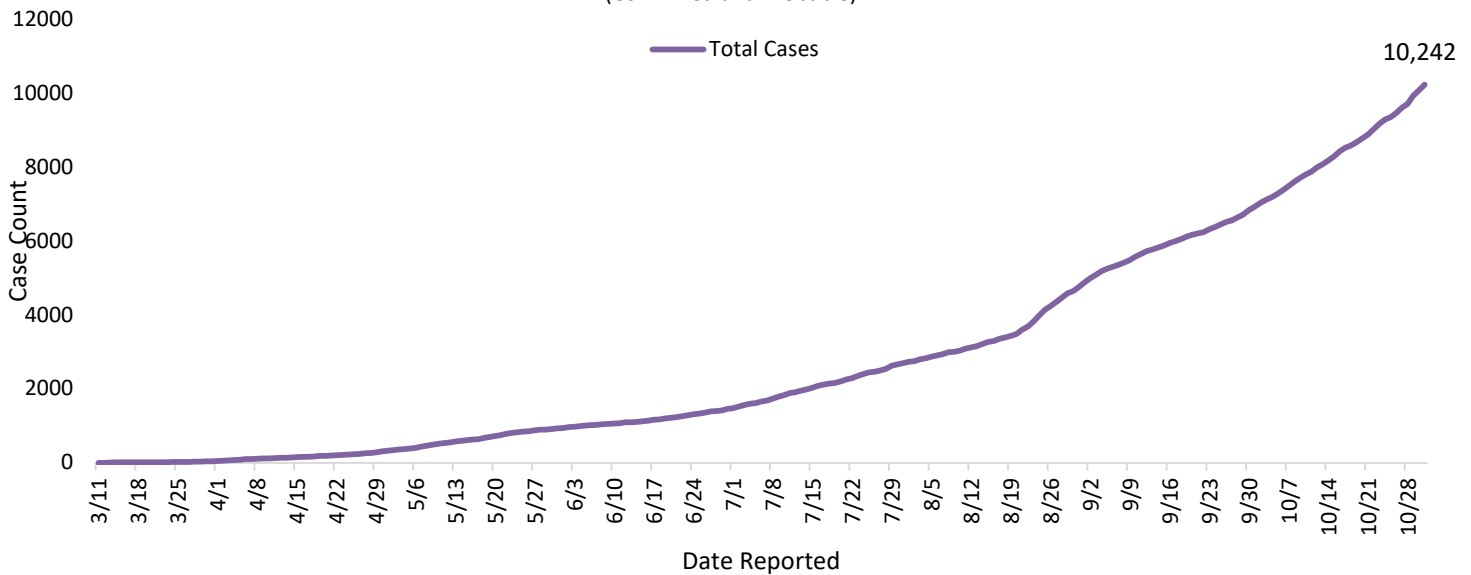
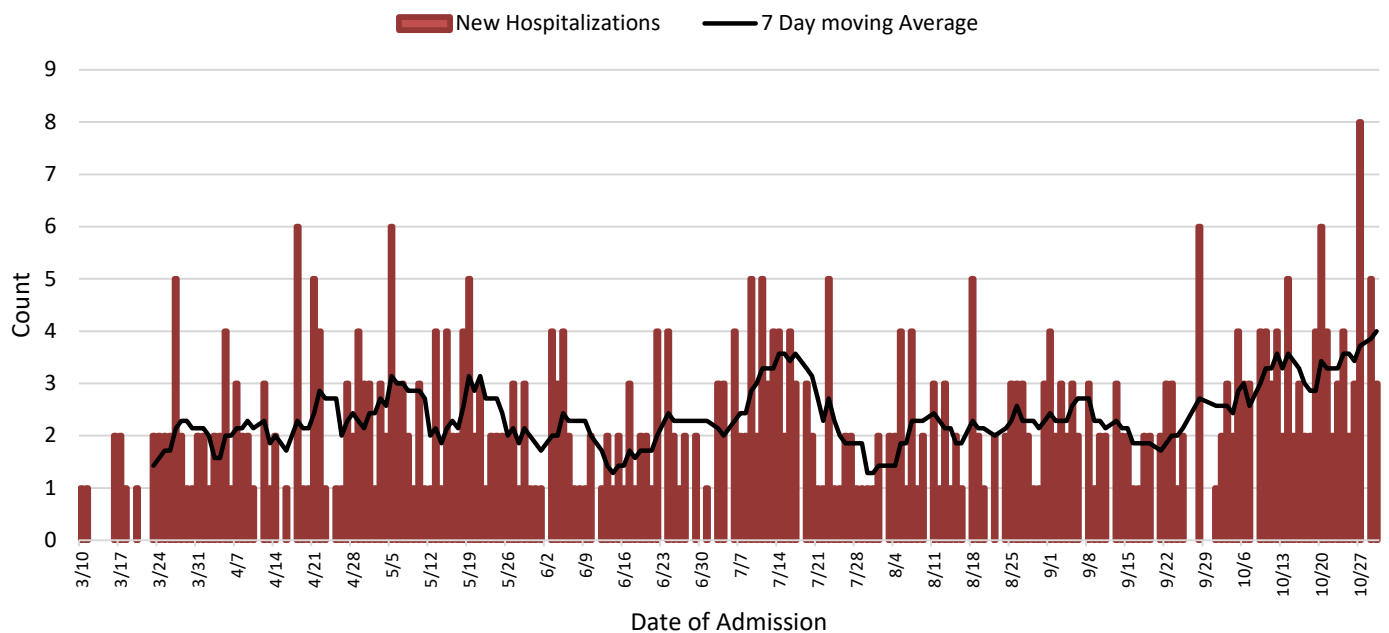


Figure 3. New Hospitalizations of Butler County Residents by Admission Date, 2020*



Hospitalizations are stabilizing for Butler County residents. However, the 7 day average is steadily increasing. **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. 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. There are 51 cases where the date of admission is unknown. **No Miami Students have been hospitalized.**

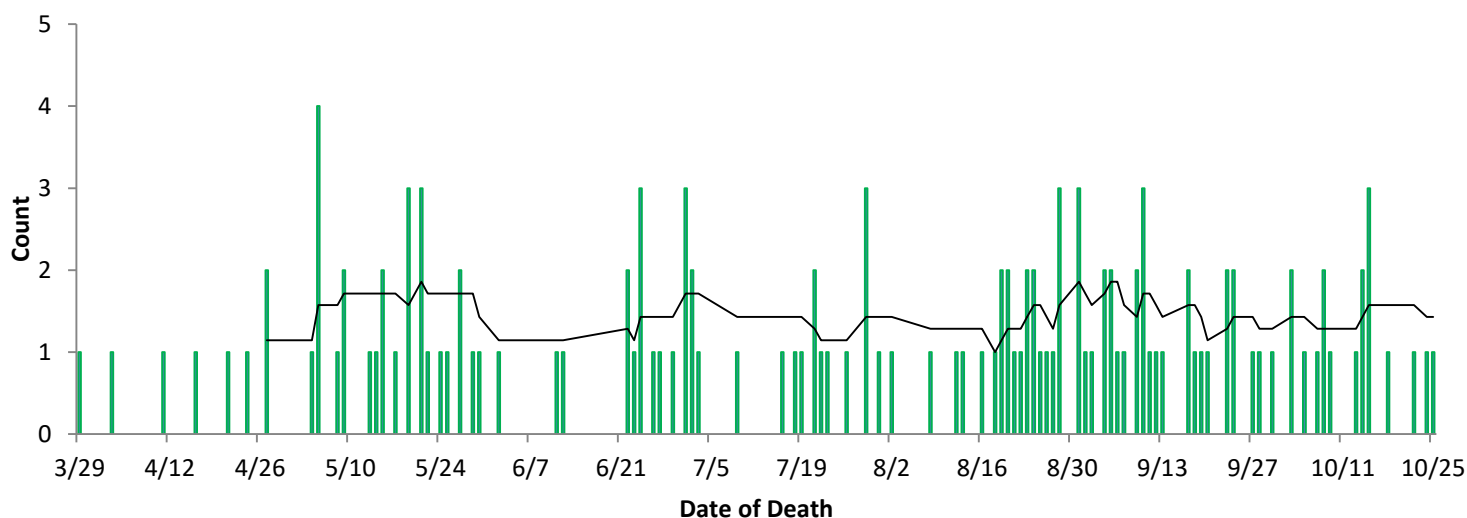
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Table 1. Death Statistics, 2020		
	N	%
Confirmed Deaths	135	1.8%
Age	N	
Range	8-101	
Median	78	
Mean	75.6	
Race	N	%
NH White	105	77.8%
NH Black	16	11.9%
Asian	4	3.0%
Hispanic	3	2.2%
Unknown	7	5.2%
Sex		
Male	67	
Female	68	
High Risk**	131	97%
Resides in Long-Term Care	56	41.5%

**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 4. 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. 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. 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. No Miami University students have died due to COVID-19.**

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Table 2: Total Reported* Cases by ZIP Code

ZIP Code	Number of Cases	Change from previous week	Rate per 100,000	% of Confirmed Cases	Total deaths
MU Student Body	2404	↑16 (0.7%) From 2,388	18,492.3	26.2%	-
45011	1395	↑165 (13.4%) from 1,230	2,002.1	15.0%	17
45014	1244	↑ 131(11.8%) from 1,113	2,832.6	13.4%	35
45044	1159	↑ 146 (14.4%) from 1013	2,194.2	12.5%	29
45013	999	↑116 (13.1%) from 883	1,898.8	10.7%	25
45069	911	↑123 (15.6%) from 788	1,856.9	9.8%	5
45042	531	↑ 88 (19.9%) from 443	2,007.5	5.7%	3
45015	241	↑34 (16.4%) from 207	2,002.0	2.6%	6
45067	311	↑311 (14.3%) from 272	2,237.7	3.3%	-
45056**	222	↑ 17(8.3%) from 205	1,581.4	2.4%	9
45050	203	↑29 (16.7%) from 174	2,374.8	2.2%	4
45241	124	↑ 15 (13.8%) from 109	-	1.3%	1
45005	52	↑ 6 (13.0%) from 46	-	0.6%	1
45246	26	↓1 (3.7%) from 27	-	0.4%	-
45053	45	↑ 5 (12.5%) from 40	1,315.8	0.5%	-
45064	23	↑3 (15%) from 20	-	0.2%	-
45062	14	↑ 1 (7.7%) from 13	-	0.1%	-
Cases lacking zip code information or from zip codes with <5 cases	267	-	-	3.4%	-
Butler County (inclusive)	10,202	↑ 904 (9.7%) from 9,298	2,673.1	100%	135
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.					

**Exclusive of verified Miami University Students living in Oxford, OH 45056. So this zip-code may decrease as students are identified.

Coronavirus Disease 2019 (COVID-19) Case Definitions used by the Ohio Department of Health for Confirmed and Probable cases.

Confirmed

- Positive for SARS-CoV-2 RNA (via FDA-authorized test) with or without meeting epidemiological or clinical criteria

Probable

- Positive for SARS-CoV-2 antigen in a respiratory specimen (via FDA-authorized test) AND meeting either the epidemiological OR clinical criteria.
- No laboratory testing and meeting the epidemiological criteria AND the clinical criteria.
- Positive for SARS-CoV-2 antigen or antibody (regardless of FDA-authorized test) AND meeting both the epidemiological AND clinical criteria.
- Death certificate listing COVID-19 as a cause of death or significant condition contributing to death with no SARS-CoV-2 RNA laboratory testing.

Criteria

Epidemiological:

In the 14 days prior to onset (or first positive test if asymptomatic):

- Close contact with a lab-confirmed case of COVID-19.
- Close contact to a case with compatible illness and epidemiological link to a confirmed case.
- Member of a risk cohort as defined by public health authorities during an outbreak

Clinical:

- Compatible symptoms
 - Two or more of the following: Fever, chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion, runny nose;
- OR
 - At least one of the following symptoms: cough, shortness of breath, difficulty breathing, new olfactory or taste disorder;
- OR
 - Severe respiratory illness with at least one of the following: clinical or radiographic evidence of pneumonia, acute respiratory distress syndrome (ARDS);

AND

- No alternative more likely diagnosis.

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Table 3. 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 Confirmed Deaths (by date of death)
11	3/14	11	1	0
12	3/21	6	3	0
13	3/28	15	7	0
14	4/4	45	16	2
15	4/11	51	19	1
16	4/18	44	9	1
17	4/25	58	21	2
18	5/2	109	16	2
19	5/9	151	19	8
20	5/16	139	16	4
21	5/23	183	24	8
22	5/30	100	12	6
23	6/6	107	14	1
24	6/13	80	12	2
25	6/20	116	13	0
26	6/27	174	18	8
27	7/4	206	10	7
28	7/11	292	21	1
29	7/18	260	22	2
30	7/25	300	13	5
31	8/1	287	10	5
32	8/8	256	16	2
33	8/15	280	13	2
34	8/22	416	14	8
35	8/29	897	24	10
36	9/5	671	12	9
37	9/12	476	19	9
38	9/19	386	15	5
39	9/26	401	13	5
40	10/3	595	9	5
41	10/10	687	18	5
42	10/17	722	30	6
43	10/24	762	23	3
44	10/31	944	32	1

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