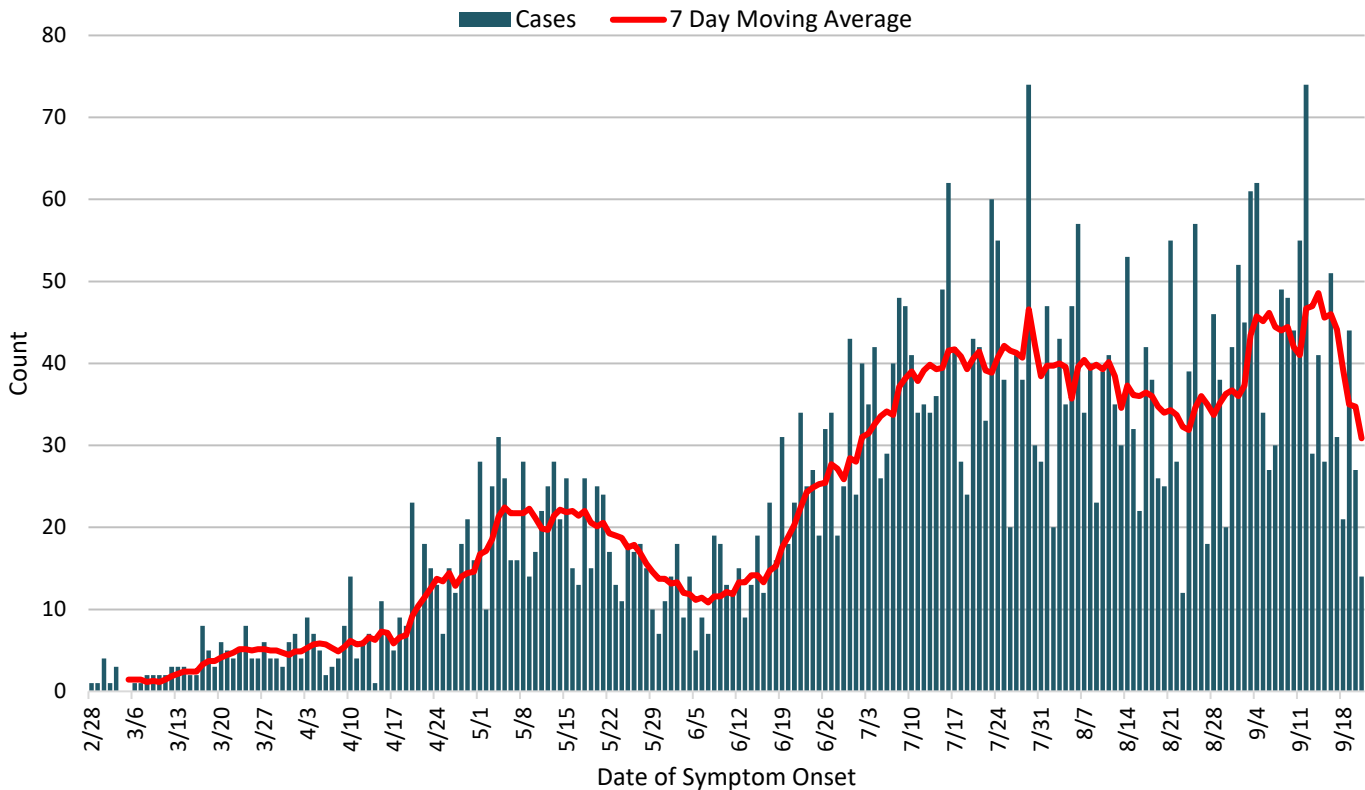


Butler County General Health District COVID-19 Update (09/21/2020) Confirmed and Probable COVID-19 Cases Reported to Butler County* Butler County Residents, 2020

Total # of Cases (9/21):	4765*
Miami University (9/24):	1458[#]
Confirmed Deaths (09/21):	106
First Case Reported:	3/11/2020
Last Case Reported (so far):	9/21/2020
Confirmed Cases:	4691
Probable Cases:	74
Age Range:	<1-101
Median Age:	42
Mean Age:	42.9
Incidence:	1,246.1 per 100,000

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



This figure as well as all subsequent figures until Table 4 and Figure 5 are exclusive of known Miami University students. Figure 1 shows the daily incidence (new cases) by date of symptom onset. 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.**

All figures show reported cases of COVID-19 in Butler County as of 1700 EDT 09/21/2020. 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.

*Data is provisional – only confirmed or probable COVID-19 cases are included in counts. Report reflects time period since the introduction of SARS-CoV-2 into humans, measured in days. Data accessed from the Ohio Disease Reporting System (ODRS) on 09/21/2020 at 1700 EDT.

[#]This Data is NOT included in the general population count and is recorded from physician reports, hospital laboratories, Miami University, outside health jurisdictions, Out-of-state Health Departments, and ODRS at 9/16/2020 0900 EDT. Reports from all sources have been verified to determine that they meet Case Definition as described by the Council of State and Territorial Epidemiologists

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

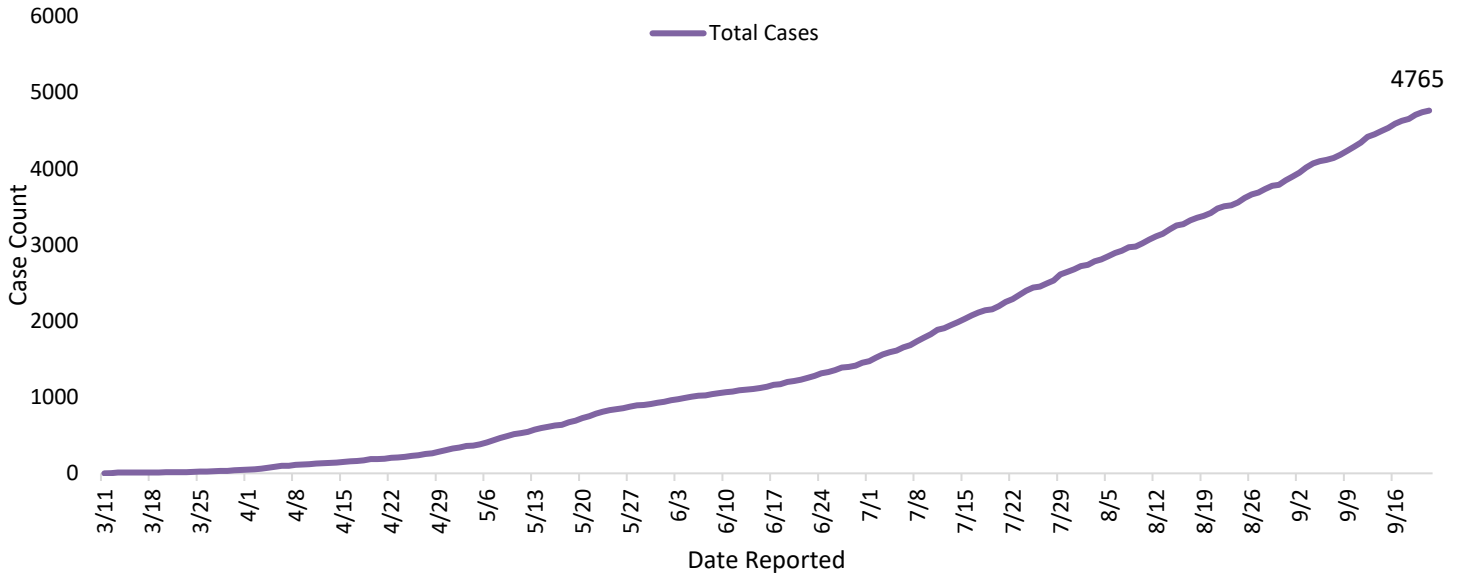
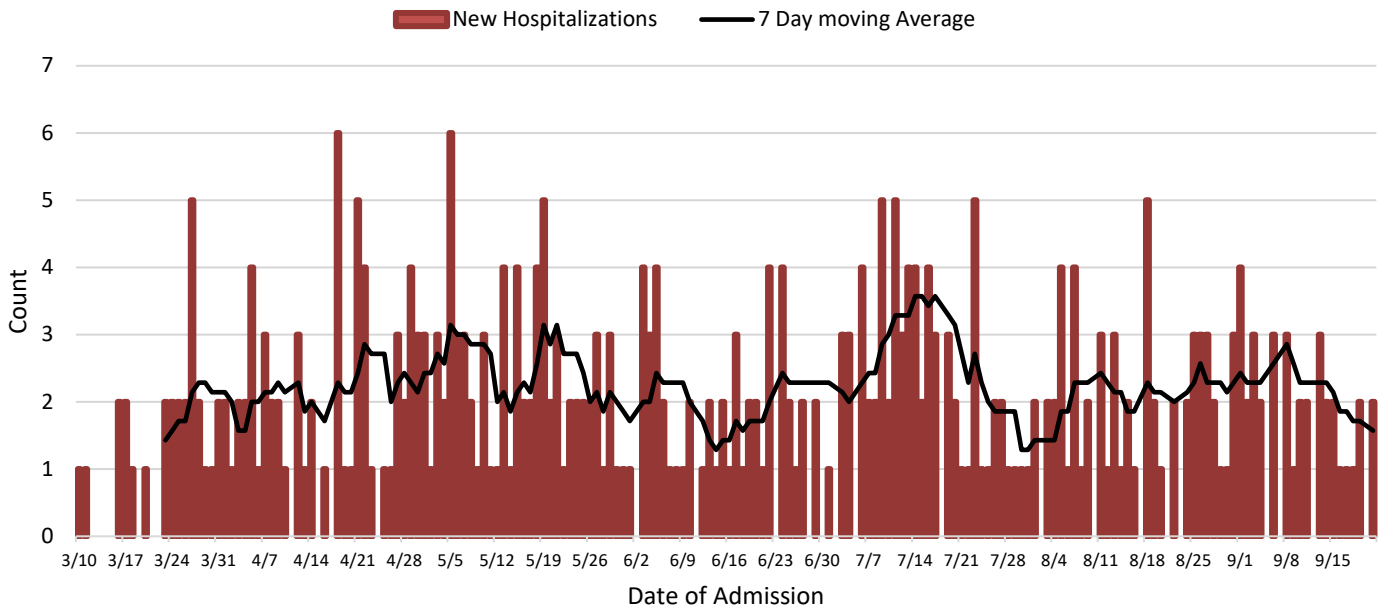


Figure 3. New Hospitalizations of Butler County Residents by Admission Date, 2020*



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 25 admissions for which the date of admission is not available. **No Miami Students have been hospitalized.**

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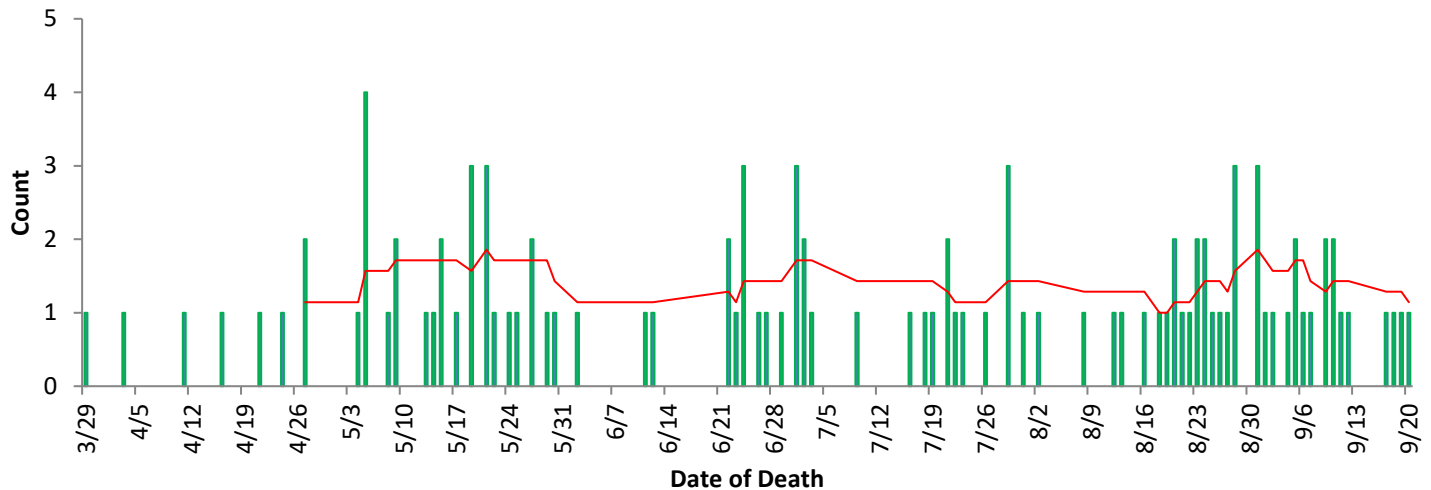
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Table 1. Death Statistics, 2020		
	N	%
Confirmed Deaths	106	2.2%
Age		
Range	30-101	
Median	77	
Mean	75.3	
Race		
NH White	82	77.4%
NH Black	16	15.1%
Asian	4	3.8%
Hispanic	2	1.9%
Unknown	2	1.9%
High Risk**		
High Risk**	105	99.1%
Resides in Long-Term Care	41	38.7%

**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 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. The trend of deaths has mostly been consistent through July and August. 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	Trend	Rate per 100,000	% of Confirmed Cases
45011	842	↑ 50 (6.3%) from 792	1,208.4	17.7%
45014	824	↑ 36 (4.6%) from 788	1,876.3	17.3%
45044	737	↑ 46 (6.7%) from 691	1,395.3	15.5%
45013	560	↑ 46 (8.9%) from 514	1,064.4	11.8%
45069	540	↑ 42 (8.4%) from 498	1,100.7	11.3%
45042	277	↑ 11 (4.1%) from 266	1,047.2	5.8%
45015	157	↑ 7 (4.7%) from 150	1,304.2	3.3%
45067	156	↑ 9 (6.1%) from 147	1,122.5	3.3%
45056**	153	↑ 6 (4.1%) from 147**	565.9	3.2%
45050	118	↑ 5 (4.4%) from 113	1,380.4	2.5%
45241	70	↑ 2 (2.9%) from 68	-	1.5%
45005	30	↑ 1 (3.4%) from 29	-	0.6%
45246	23	↑ 2 (9.5%) from 21	-	0.5%
45053	18	↑ 3 (20%) from 15	526.3	0.4%
45064	11	No Change from 11	-	0.2%
45062	7	No Change from 7	-	0.1%
Cases lacking zip code information or from zip codes with <5 cases	242	-	-	5.1%
Butler County (inclusive)	4765	↑ 282 (5.9%) from 4483**		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.

**Some persons previously reported for 45056 as positive (non-student population) were later found to actually be MU students. They were removed from the totals for 45056 this week, thus the number appears to have decreased. Actually, these individuals are now included in the MU-only report that follows. No person was counted twice as all individuals are coded as either MU or not MU, to ensure that double counting does not occur.

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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 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	44	9	0	1
17	4/25	58	21	2	2
18	5/2	109	16	2	2
19	5/9	151	19	0	8
20	5/16	139	16	0	4
21	5/23	183	24	1	8
22	5/30	101	12	1	6
23	6/6	107	14	4	1
24	6/13	80	12	1	2
25	6/20	116	13	0	0
26	6/27	174	18	2	8
27	7/4	204	10	0	7
28	7/11	291	21	2	1
29	7/18	257	22	5	2
30	7/25	298	13	2	5
31	8/1	283	10	1	5
32	8/8	250	16	4	2
33	8/15	282	13	1	2
34	8/22	256	14	3	7
35	8/29	267	23	4	10
36	9/5	322	11	1	8
37	9/12	322	13	3	8
38	9/19	289	10	0	3
39	9/26	55	2	0	1

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**Butler County
General Health District**

Table 4. Miami University Student COVID-19 Cases by Report Date*			
Report Period	New Cases Reported	Cumulative Cases Reported	
MMWR Week 35 and prior	498	498	
MMWR Week 36	544	1042	
MMWR Week 37	247	1289	
MMWR Week 38	108	1397	
MMWR Week 39	61	1458	

Table 5. Miami University students through September 24[#]			
	New Case Count	per <u>10</u> persons	Estimated Prevalence of COVID-19 in time period
Total	1458	1.1	11.2%
Last 14 Days	141	0.1	4.0%

Rate and prevalence based on an estimated 13,000 students who have returned to Oxford, OH, given by university officials. 89 cases from prior to 8/31 have no date of report. The increase in the student population due to move-in week will have a dramatic impact on rates until the population re-stabilizes. In accordance with CDC guidelines, no immunity is assumed in these calculations.

Estimated point-prevalence: 0.8%

Based on an estimated 109 active infections as of September 24, 2020 and 10-day duration of illness.

*Due to the administrative task of reconciling the data reported out of different surveillance systems, there will be a lag in cases, and it should be assumed by those reading that there are more cases than are listed. These cases listed represent only those that the Health District verified to be unique, individual cases associated with Miami University. Cases represent physician reports, lab reports, hospital reports, and electronic reports in the Ohio Disease Reporting System 9/24/2020 0900 EDT and are provisional and subject to change. Data is inclusive of all known on and off-campus cases. Event date is defined as the earliest date that we are aware of a case in the event that illness onset is not defined. This could be the date of physician’s diagnosis, test result, test collection date, or date reported to ODH, BCGHD, or Miami University. 52 cases have an unknown Event Date.

Figure 5. Cumulative Count of Miami University Student Cases of COVID-19 by Report Date*

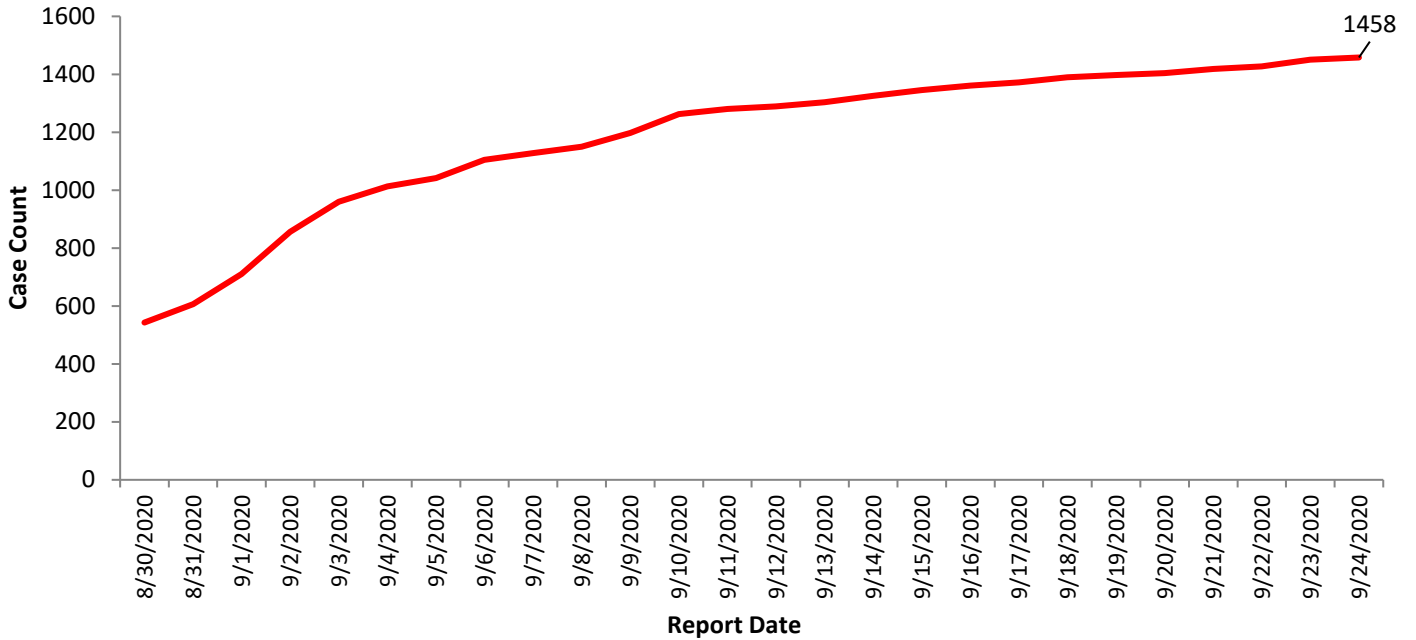
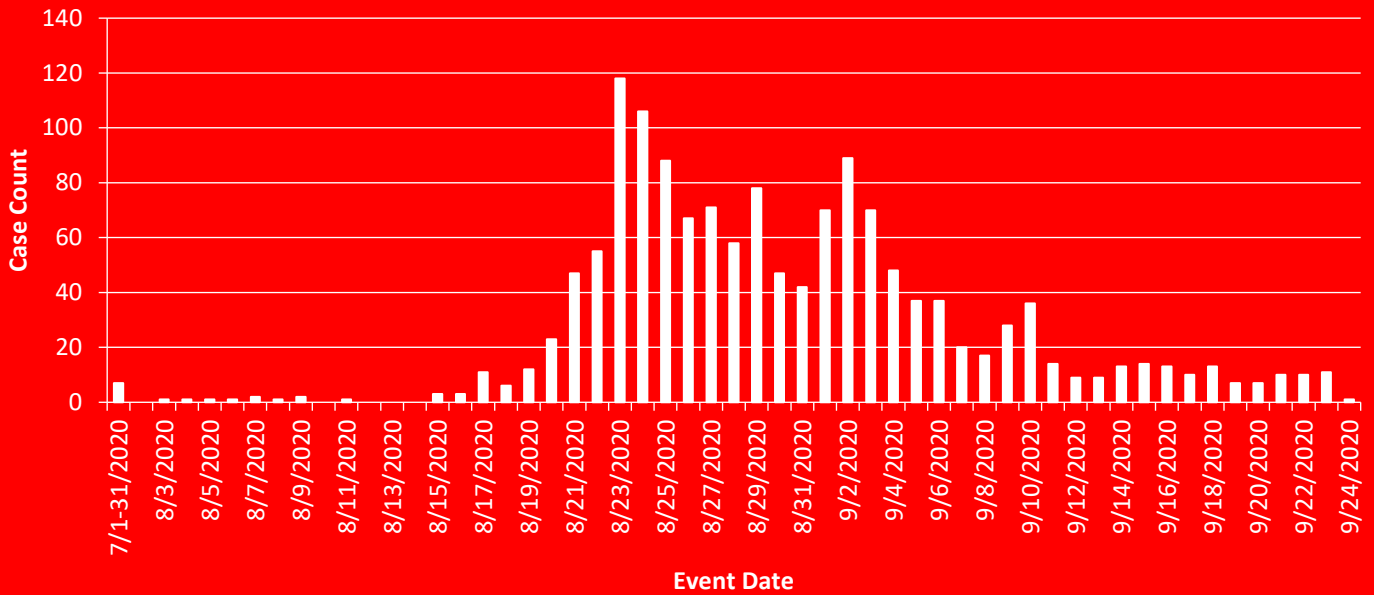


Figure 6. Case Count of Miami University Student Cases of COVID-19 by Event Date*



*Due to the administrative task of reconciling the data reported out of different surveillance systems, there will be a lag in cases, and it should be assumed by those reading that there are more cases than are listed. These cases listed represent only those that the Health District verified to be unique, individual cases associated with Miami University. Daily incidence and reports start on August 30, 2020. Cases represent physician reports, lab reports, hospital reports, and electronic reports in the Ohio Disease Reporting System 9/24/2020 0900 EDT and are provisional and subject to change. Data is inclusive of all known on and off-campus cases. **Event date is defined as the earliest date that we are aware of a case in the event that illness onset is not defined.** This could be the date of physician’s diagnosis, test result, test collection date, or date reported to ODH, BCGHD, or Miami University. 13 cases have an unknown Event Date.