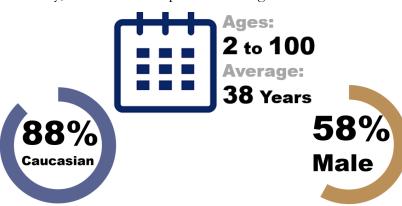
Drug Overdose Surveillance Report Lake County, Ohio: March 2019

The following report outlines Emergency Department (ED) and Urgent Care (UC) drug overdose (OD) visits by Lake County residents during the month of March, 2019, and includes one reported fatality. During the aforementioned timeframe, a total of 50 recorded drug overdose ED/UC visits met the inclusion criteria listed below and occurred among Lake County residents, accounting for 0.6% of all March ED/UC visits, and increasing from the previous month's 48 drug overdose ED/UC visits.

March Lake County drug overdoses occurred among individuals ranging from 2 to 100 years of age. In total, three events involved an illicit substance, two involved a child ingesting a substance (not included in average age calculation), one involved a prescription medication, and 44 involved an unspecified substance (Figure 1). Moreover, 25 ED/UC visits resulted in routine discharge, two were discharged to treatment, five left against medical advice, two were admitted for inpatient care, one patient was not seen, one event resulted in a fatality, and 14 lacked reported discharge information.



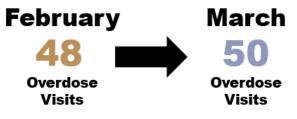
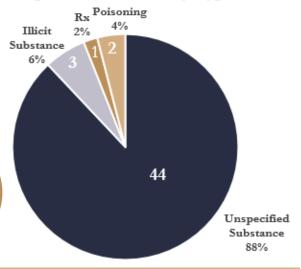


Figure 1. Overdoses by Type



Inclusion Criteria:

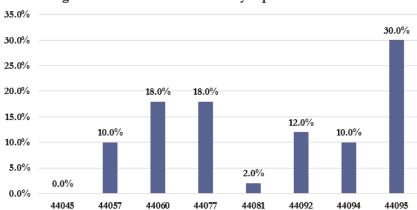
The data presented in this report was retrieved from Ohio's EpiCenter Health Monitoring System, as identified by the "Traumatic Injury: Drugs" classifier. This report contains information about Lake County residents, regardless of ED/UC location, and drug—related cases include all ED/UC admits specifying overdose or poisoning. Admits without supporting information, or otherwise indicative of a suicide attempt, intentional overdose, or accidental insulin overdose were excluded from this analysis, as were cases presenting for detox or withdrawal symptoms. In most cases, the drug responsible for the overdose is not indicated. As such, the included figures are not limited to opioid-related events.



Geographical Distribution

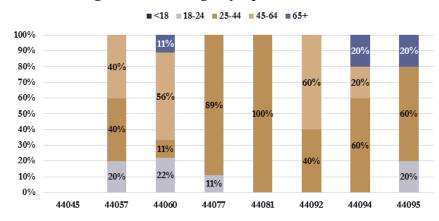
In what areas were overdoses most prevalent?

Figure 2. Overdose Occurrences by Zip Code of Residence



The greatest frequency of overdose events occurred amongst those residing in zip codes 44095, 44060, and 44077, and were lowest for those in zip codes 44045 and 44081 (Figure 2). The proportion of overdose events increased by 17.5% for 44095 and 2.0% for 44081, while decreasing by 10.8% for 44094, 4.9% for 44060, 2.8% for 44077, 0.5% for 44092, and 0.4% for 44057, respectively.

Figure 3. Overdose Ages by Zip Code of Residence



Overdose events varied by age across each of the reported zip codes (Figure 3). As in January and February, overdose event frequency was highest among those 25 to 44 years of age (62%), followed by those 18 to 24 years of age (12%), 45 to 64 years of age (12%), and 65 years of age and over (10%). Overdose events were lowest among those under 18 years (4%) during the month of March.

At which Lake County facilities did overdose events present?

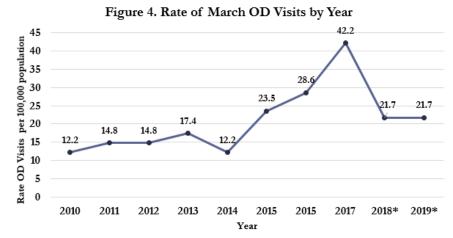
Table 1. Overdose Reporting Facility

Facility	N	(%)
Madison Campus	0	0
TriPoint Medical Center	6	12
West Medical Center	25	50
Outside of County	19	38
Total	50	100

During the month of March, half of the

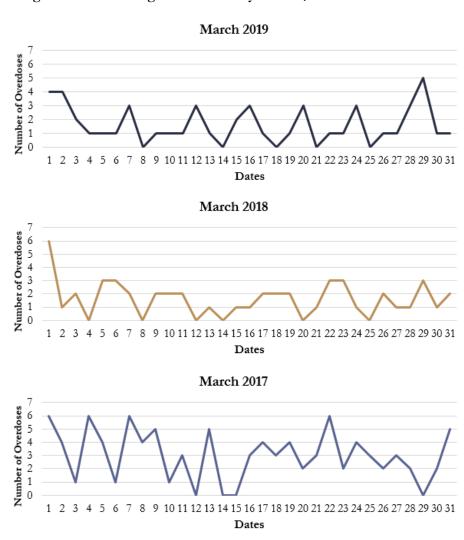
overdose events presented in the western
portion of the county (50%), and 38%
reported to facilities outside of Lake County
(Table 1). This distribution represents a
continuing westward shift from previous
months, during which time a higher
proportion of cases had been reported at
TriPoint.

The March 2019 Lake County ED/UC overdose visit rate remained unchanged from March 2018 (Figure 4), is 49% lower than the peak observed in March of 2017, and is below the rates for March of 2015 and 2016.



*2018 and 2019 rates based on 2017 population estimate, as obtained from American Fact Finder.

Figure 5. March Drug Overdose Daily Counts, 2017 to 2019

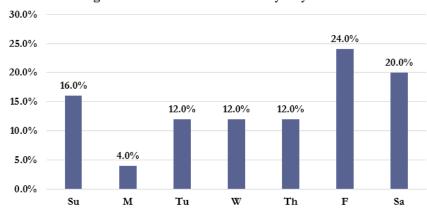


In order to provide for comparisons of daily overdose frequency, March overdose events by day are illustrated for 2017, 2018, and 2019, respectively (Figure 5). The daily maximum of five overdoses in March 2019 is lower than the daily maximums of six overdoses in 2017 and 2018. Daily overdose averages were equivalent to March 2018 (1.6), and less than March 2017 (3.0). There were five days in March 2019 with no overdose events reporting, as compared to six in 2018 and four in 2017.

Unlike the two previous years, March 2019 overdose counts peaked late in the month, with a secondary peak lasting two days early in the month, and tertiary peaks spaced throughout. In March 2018, the peak occurred the first day of the month with secondary peaks in the first and third weeks, and in March 2017, multiple peaks and secondary peaks occurred throughout the month. No overdoses have presented on March 14th across all three years.

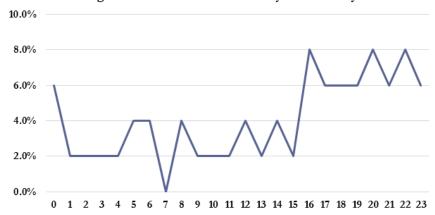
March 2019 Drug Overdose Surveillance Report

Figure 6. Overdose Occurrences by Day of Week



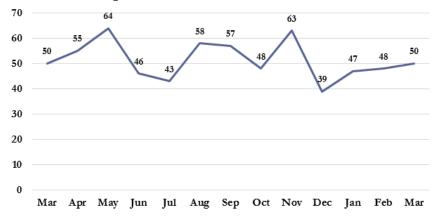
When organized by day of week, March overdose events peaked on Friday (24%) and remained high on weekend days (20% and 16%, respectively, for Saturday and Sunday), followed by a weekly low occurring on Monday (Figure 6). Mondays have consistently had the lowest number of overdose events for three consecutive months.

Figure 7. Overdose Occurrences by Hour of Day



March overdose events peaked around 4:00 p.m., 8:00 p.m., and 10:00 p.m., with a secondary peak around midnight. For the third consecutive month, no events occurred during the 7:00 a.m. hour. While times have shifted slightly, this pattern mimics the past several months with mid-to-late afternoon and later evening peaks.

Figure 8. Overdose Counts - Past 12 Months



When organized by month, overdose events increased linearly between March and May, thereafter experiencing a 33% decrease between May and July, a 35% increase between July and August, a 17% decrease between August and October, a 31% increase from October to November, a 38% decrease from November to December, and a 28% increase from December to March (Figure 8). To date in 2019, a total of 145 ED/UC drug overdose event visits have been observed, as compared to 131 during the same time frame in 2018.

Lake County General Health District Resources



Project DAWN Naloxone Clinics

Lake County General Health District

5966 Heisley Road, Mentor, OH 44060; First Wednesday of each month at 4:30 pm.

Signature Health

38882 Mentor Avenue, Willoughby, OH 44094; Third Tuesday of each month at 10:00 am.

Lake Area Recovery Center

2711 Donahoe Drive, Ashtabula, OH 44004; Second Thursday of each month at 7:00 pm.

Signature Health

4726 Main Avenue, Ashtabula, OH 44004; Last Wednesday of each month at 11:00 am.

Ravenwood

12557 Ravenwood Drive, Chardon, OH 44024; First Tuesday of each month at 5:30 pm.

Pharmaceutical Disposal Instructions

Before disposing of pharmaceuticals at one of the drop-off locations, be sure to remove or black-out identifiable information on the pharmacy label. Disposable items suitable for drop-off include:

- Unused or expired medications
- Prescriptions, non-prescription pills, syrups, and creams
- Pain and mood altering medications
- Pain relievers, over-the-counter cold and flu medication, vitamins, and pet medications

Pharmaceutical Drug Collection and Disposal Locations

Monday-Friday: 7:00 am - 8:00 pm.

Saturday: 9:00 am - 5:00 pm.

Sunday: 1:00 pm - 5:00 pm. Note: NO Sunday hours at Lakeland

Eastlake Police Department

35150 Lakeshore Boulevard Eastlake, OH 44095

Madison Township Police Department

2065 Hubbard Road Madison, OH 44057

Mentor Police Department

8500 Civic Center Boulevard Mentor, OH 44060

Mentor-on-the-Lake Police Department

5860 Andrews Road Mentor-on-the-Lake, OH 44060

Lake County Sheriff's Office

104 East Erie Street Painesville, OH 44077

Willoughby Police Department

36700 Euclid Avenue Willoughby, OH 44094

Willoughby Hills Police Department

35405 Chardon Road Willoughby Hills, OH 44094

Lakeland Comm. College Police Department

7700 Clocktower Drive, Building A, Lower Level Kirtland, OH 44094

REV: 4/9/2019







