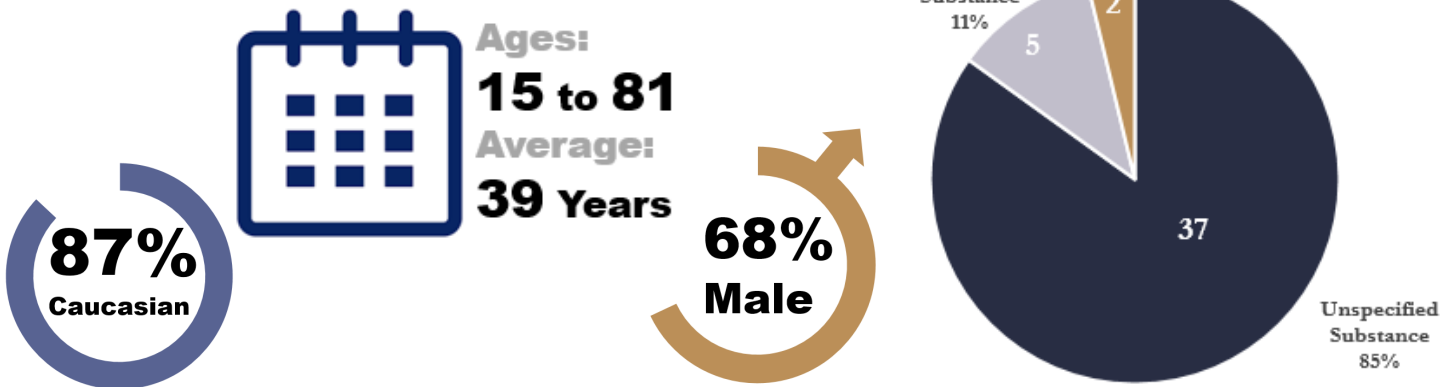


Drug Overdose Surveillance Report

Lake County, Ohio: July 2019

The following report outlines emergency department (ED) and urgent care (UC) drug overdose events by Lake County residents during the month of July. During the aforementioned timeframe, a total of 53 recorded drug overdose ED/UC events met the inclusion criteria listed below and occurred among Lake County residents, accounting for 0.7% of all July ED/UC visits, and increasing from the previous month's 42 drug overdose ED/UC visits. No fatalities were reported among the cases presenting to EDs/UCs during the month of July.

In July, Lake County drug overdoses occurred among individuals ranging from 15 to 81 years of age. Two cases involved minors, ages 15 and 16, for whom the cause of overdose was unclear. In total, six events involved an illicit substance, two involved a prescription medication, and 45 involved an unspecified substance (Figure 1). Moreover, 28 ED/UC visits resulted in routine discharge, eight were discharged to treatment, six left against medical advice, one was discharged to court or law enforcement, and ten lacked reported discharge information.



Inclusion Criteria:

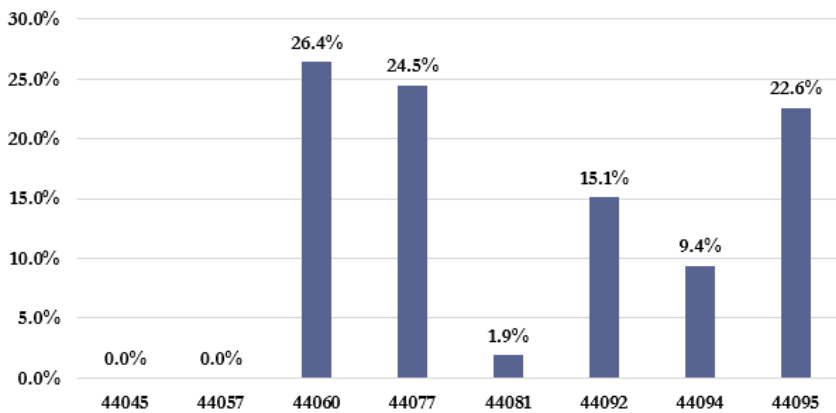
The data presented in this report was retrieved from Ohio's EpiCenter Health Monitoring System, as identified by the "Traumatic Injury: Drugs" classifier. This report contains information about Lake County residents, regardless of ED/UC location, and drug-related cases include all ED/UC admits specifying 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

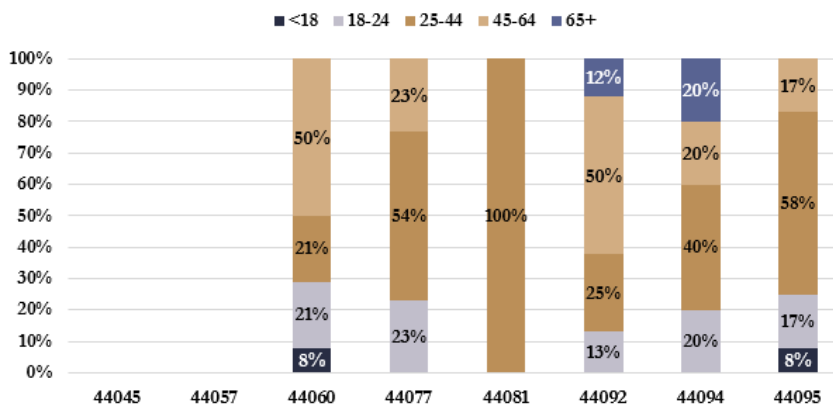
In what areas were overdoses most prevalent?

Figure 2. Overdose Occurrences by Zip Code of Residence



The greatest frequency of ED/UC overdose events occurred amongst those residing in zip code 44060, and were lowest for those in zip codes 44045 and 44057 (Figure 2). The proportion of ED/UC overdose events increased by 9.7% for 44060, 1.9% for 44081, and 12.7% for 44092, as compared to the month of June, while decreasing 9.5% for 44057, decreasing 0.1% for 44094, and increasing 1.2% for 44095, respectively.

Figure 3. Overdose Ages by Zip Code of Residence



ED/UC overdose events varied by age across each of the reported zip codes (Figure 3). Overdose event frequency was highest among those 25 to 44 years of age (42%), followed by those 45 to 64 years of age (32%), 18 to 24 years of age (19%), under 18 years of age (3%), and over 85 years of age (3%).

At which Lake County facilities did overdose events present?

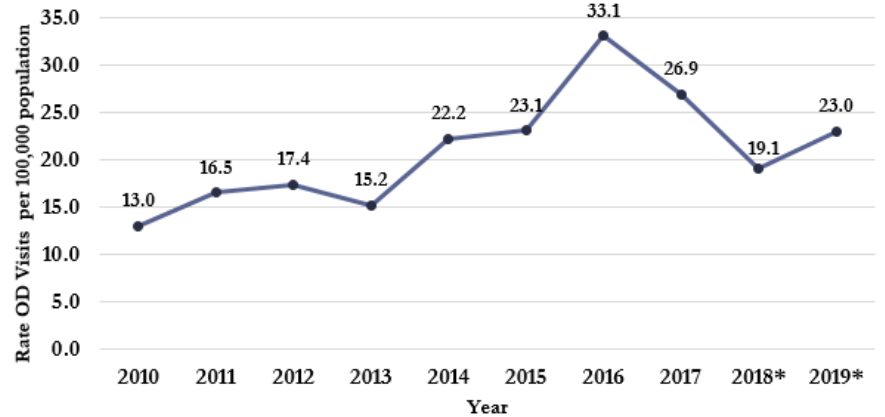
Table 1. Overdose Reporting Facility

Facility	N	(%)
Madison Campus	0	0
TriPoint Medical Center	12	23
West Medical Center	28	53
Outside of County	13	24
Total	53	100

During the month of July, the majority of cases presented to West (53%) and TriPoint (23%), and nearly one in four cases presented to facilities outside of Lake County. No cases were observed in Madison during the month of July.

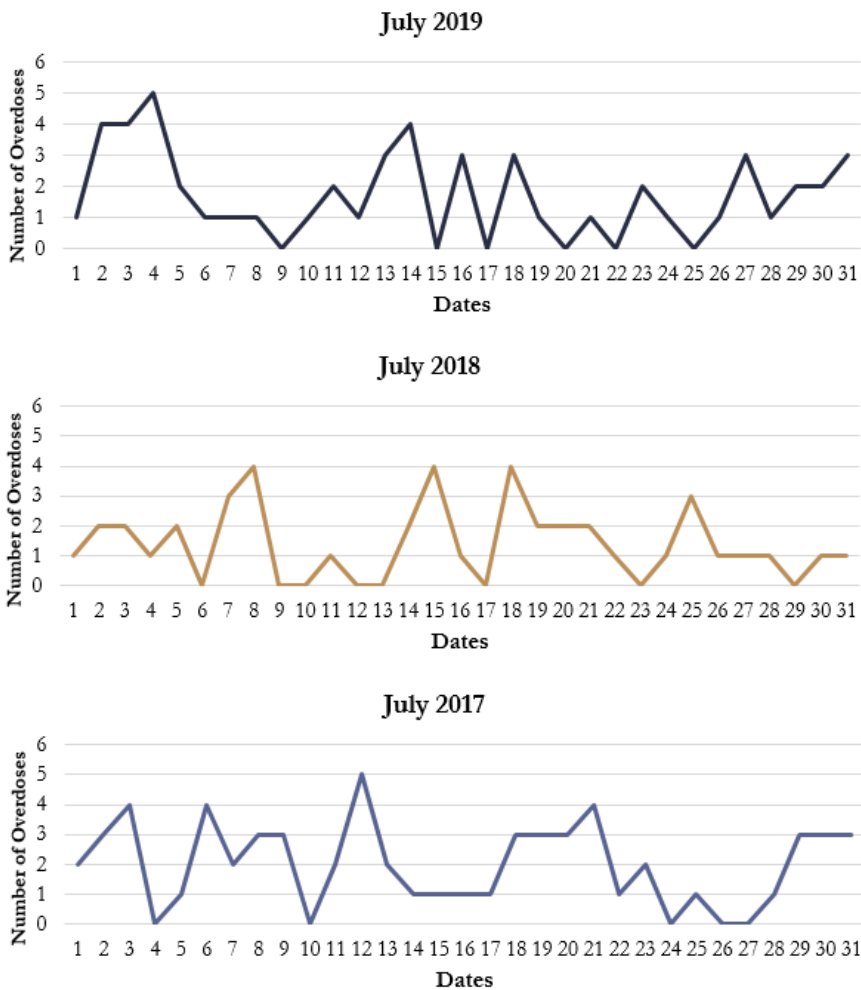
The July 2019 Lake County ED/UC overdose event rate increased 20% from July of 2018, and is 31% lower than the peak of 33.1 overdose visits per 100,000 population in July of 2016 (Figure 4).

Figure 4. Rate of July OD Visits by Year



*Rates based on most current available annual population estimates, as obtained from American Fact Finder; 2019 rates are based on 2018 population estimates.

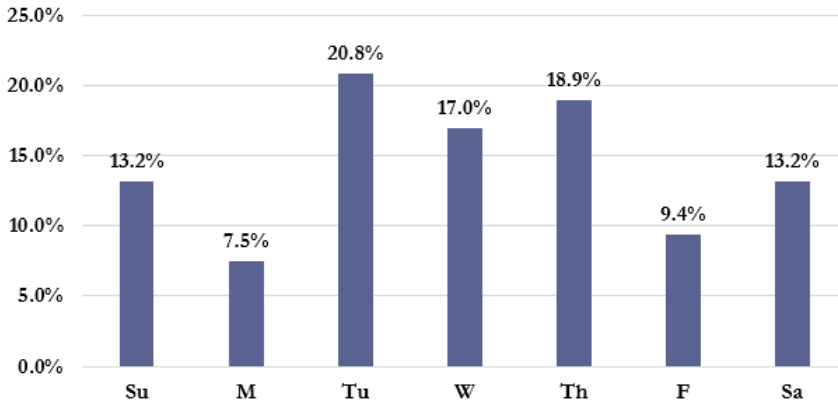
Figure 5. July Drug Overdose Daily Frequencies, 2017 to 2019



In order to provide for comparisons of daily ED/UC overdose event frequency, July ED/UC overdose events by day are illustrated for 2017, 2018, and 2019 (Figure 5). The daily maximum of five ED/UC overdose events in July 2019 is greater than the daily maximums observed in 2018, and equivalent to the maximum observed in 2017. Mean daily ED/UC overdose frequency (1.7) is higher than 1.4 observed in July 2018, but lower than July of 2017 (2). A total of six days with no ED/UC overdose events was observed during July of 2019, as compared to eight days in 2018, and five days in 2017.

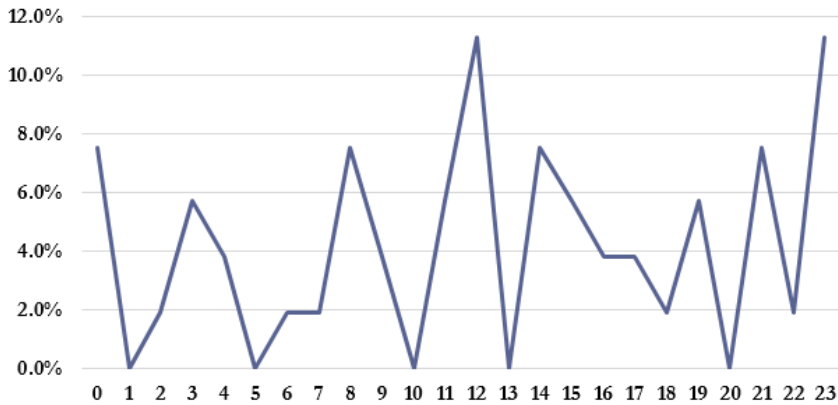
A single peak in ED/UC overdose events was observed on July 4th, 2019, with secondary peaks on the 2nd, 3rd, and 14th. During July of 2018, three peaks were observed on the 8th, 15th, and 18th, and a single peak in July 2017 was observed on July 12th.

Figure 6. Overdose Occurrences by Day of Week



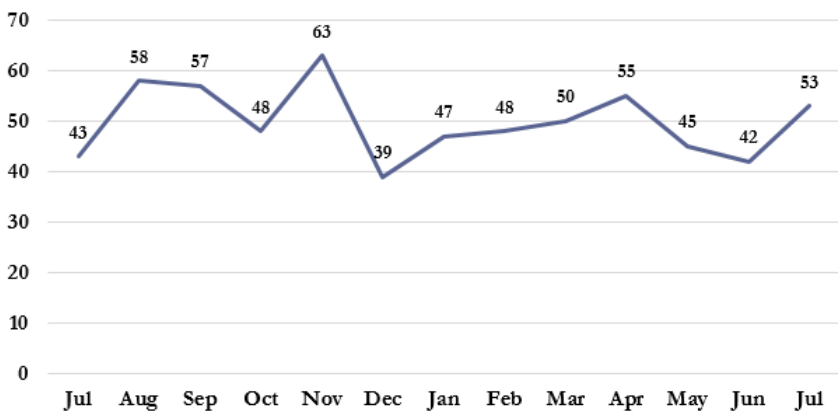
When organized by day of week, July ED/UC overdose events peaked on Tuesday (20.8%), and were lowest on Monday (7.5%). Overdose events tended to be higher mid-week, moderate during the weekends, and lowest just before and after the weekends.

Figure 7. Overdose Occurrences by Hour of Day



July ED/UC overdose events peaked at noon and 11:00 pm, with secondary peaks during the midnight hour, as well as 8:00 am, 2:00 pm, and 9:00 pm. A peak at 11:00 p.m. was also observed in June. No ED/UC overdose events were reported during the hours of 1:00 am, 5:00 am, 10:00 am, 1:00 pm, or 8:00 pm during July.

Figure 8. Overdose Counts - Past 12 Months



When organized by month, ED/UC overdose events increased 35% between July and August, decreased 17% between August and October, increased 31% between October and November, decreased 38% between November and December, increased 41% between December and April, decreased 24% from April to June, and increased 26% from June to July (Figure 8). To date, 340 ED/UC drug overdose events have been observed in 2019.

Lake County General Health District Resources



Project DAWN Naloxone Clinics

Signature Health

38882 Mentor Avenue, Willoughby, OH 44094;
First Wednesday of each month at 4:00 pm.

Crossroads Health (formerly Beacon Health)

9220 Mentor Avenue, Mentor, OH 44060;
Second Tuesday of each month at 4:30 pm.

Lake County General Health District

5966 Heisley Road, Mentor, OH 44060;
Third Thursday of each month at 12:30 pm.

Windsor Laurelwood Center for Behavioral Medicine

35900 Euclid Avenue, Willoughby, OH 44094;
4th Wednesday of each month at 7:00 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: 8/6/2019



**Lake County
General Health District**

Public Health
Prevent. Promote. Protect.

