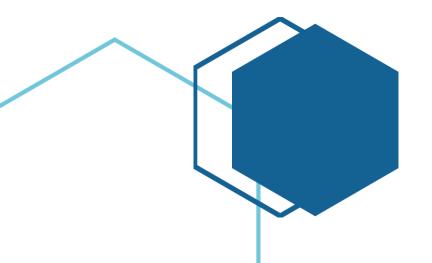


Parma Police Department (Ohio) Drug-Related Overdose Incidents Data Update January 1, 2017 — December 31, 2020

An analysis of City of Parma, Ohio drug-related overdose incidents using de-identified individual-level data

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The Begun Center for Violence Prevention Research and Education, Jack, Joseph and Morton Mandel School of Applied Social Sciences, Case Western Reserve University promotes social justice and community development by conducting applied, community-based and interdisciplinary research on the causes and prevention of violence, and by educating and training social workers, teachers, law enforcement and other professionals in the principles of effective violence prevention. The Center also develops and evaluates the impact of evidence-based best practices in violence prevention and intervention, and seeks to understand the influence of mental health, substance use, youth development and related issues on violent behavior and public health.

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A Word about the Data

Utilizing data from various datasets for this report creates challenges in clearly communicating the data's differences while examining the same population, time frame, and issue. Individual sections differentiate the data utilized for various analyses. This report summarizes data collected from two sources:

- 1. Fatal and nonfatal drug overdose data from the Parma Police Department (PPD) in Parma, Ohio; and
- 2. Fatal drug overdose data from the Cuyahoga County Medical Examiner's Office (CCMEO) for all drug-related deaths in Parma and deaths of Parma residents.

Both datasets include all drug types tracked; neither are specific to opioids. There are three important data considerations:

- 1. Data descriptions will differ based on whether PPD or CCMEO data is used. Parma PD data includes incident location (i.e., the overdose scene), whereas CCMEO includes residence location (i.e., the known city of a person who experienced overdose).
- Data reported in one table may appear different or inconsistent with that reported in another table even though they are conveying similar information. Any apparent inconsistencies are due to using only PPD or only CCMEO individual datasets instead of combining them.
- Parma PD incidents include individuals who have experienced fatal and nonfatal overdoses within the City of Parma, regardless of whether those individuals are residents of Parma. There are sections, however, that specifically focus on residents of Parma.

Executive Summary

1 January 2017 - 31 December 2020

- 8% (50 of 626) of suspected drug overdose incidents to which Parma Police Department (PPD) responded resulted in a fatality.
- 70 individuals (of 519 total subjects) overdosed two or more times and accounted for 28.3% of all incident responses (177 of 626).
- Males between the ages of 25-39 accounted for 43.1% of both fatal and nonfatal overdoses PPD responded to in Parma (270 of 626).
- Fentanyl and fentanyl analogues (including carfentanil) accounted for 97.6% of accidental drug overdose fatalities (41 of 42); carfentanil was listed as a cause of death drug in 26.2% of the cases (11 of 42)
- Fentanyl or carfentanil was listed as an additional cause of death in all drug related deaths within the city of Parma as reported by the CCMEO, where heroin was listed as a cause of death, (17 incidents). All cocaine related deaths (9 incidents) also included fentanyl or carfentanil as a cause of death drug.
- Naloxone was administered in 77.3% of all PPD overdose incidents (484 of 626). Naloxone was administered in 46% of fatal incidents (23 of 50) and 80% of nonfatal incidents (461 of 576).
- When known, PPD reported the number of doses of naloxone administered; the average number of doses per incident was 3.2.
- Residences (homes and apartments) accounted for 77.3% (484 of 626) of overdose incident locations, 8.2% (51 of 626) of overdoses occurred in a parking lot or on the street, and 9.3% (58 of 626) of incidents occurred at gas stations/convenient stores, businesses, retail stores or dining establishments.
- 92% of fatal overdoses reported by PPD occurred at a residential location (46 of 50).
- Parma PD responded to 93 locations two or more times during the reporting period.

OVERVIEW

Total Overdose Incidents: 626

Unintentional Fatal Drug
Overdoses: 50

Total Persons: 519

Persons Experiencing a Single Overdose: 449

Persons Experiencing
Two or More Overdoses:
70

All Overdose Incidents in which Naloxone was Administered: 77.3%

Nonfatal Overdose Incidents in which Naloxone was administered: 80%

Average Overdose Incidents per Week: 3

Hospital Transport: 86.6% of all incidents resulted in transport to University Hospitals Parma Medical Center

Introduction

In 2018 the Alcohol, Drug Addiction and Mental Health Services Board of Cuyahoga County (ADAMHS) was awarded three years of funding for the *Northern District of Ohio Opioid Data Sharing Action Plan* (award #2108-AR-BX-K033) by the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance Comprehensive Opioid Abuse Site-based Program (BJA COAP) Public Safety and Public Health Information-sharing Partnership. The Action Researcher for this project is Daniel Flannery, Ph.D., the Dr. Semi J. and Ruth Begun Professor and Director of the Begun Center for Violence Prevention Research and Education (Begun Center) in the Jack, Joseph and Morton Mandel School of Applied Social Sciences at Case Western Reserve University (CWRU). Dr. Flannery is supported by a team of researchers and data analysts at the Begun Center. The product of this effort will be a blueprint for an integrated information technology platform that will inform opioid¹ epidemic-related evidence-based practices and policymaking, as well as enhance monitoring of community trends and outcomes.

The U.S. Attorney's Office for the Northern District of Ohio *Heroin and Opioid Task Force* (HOTF) was established in 2013. It is comprised of multidisciplinary stakeholder leadership who meet bimonthly to mitigate the opioid epidemic in alignment with the HOTF Community Action Plan. The HOTF is comprised of four subcommittees: Prevention and Education, Healthcare Policy and Treatment, Law Enforcement, and Data. The Data Subcommittee (DS) was initially structured as a small work group that provided data updates to the HOTF under the BJA COAP. In January 2019, the DS structure was redesigned as an expanded, multidisciplinary action group charged with laying the groundwork for the sharing of timely, accurate, and integrated law enforcement, healthcare, public health, social welfare and medical examiner data to more effectively inform opioid epidemic best practices and policy. The DS is chaired by the Cuyahoga County Medical Examiner's Office (CCMEO) Administrator with the support of the Begun Center team.

In late May 2019 three pilot groups and one geospatial collaboration were formed within the DS. The pilot groups and geospatial collaboration were formed to focus on nonfatal data sharing and access efforts on actionable tasks. Unfortunately, no single source compiles data on fatal and nonfatal overdose incidents at the county level; however, restructuring of the pilot groups have furthered efforts to link multi-disciplinary datasets to better understand the burden the opioid crisis has had in some areas in Cuyahoga County. This report provides a summary of persons experiencing opioid-related overdose incidents within the City of Parma as reported by the Parma Police Department (Parma PD). Overdose incidents and related activities reported by Parma PD have been linked, when applicable, with CCMEO decedent data from January 1, 2017 through December 31, 2020.

¹ "Opioid(s)" is used in this report in the same inclusive way as the Centers for Disease Control and Prevention uses it to describe "natural, synthetic, or semi-synthetic chemicals that interact with opioid receptors on nerve cells in the body and brain, and reduce the intensity of pain signals and feelings of pain. This class of drugs includes the illegal drug heroin, synthetic opioids such as fentanyl, and pain medications available legally by prescription, such as oxycodone, hydrocodone, codeine, morphine, and many others" (see https://www.cdc.gov/drugoverdose/opioids/terms.html).

Parma Overview

The City of Parma is located in central Cuyahoga County on the southern edge of the City of Cleveland. Parma is the second largest city in Cuyahoga County (behind Cleveland) and the seventh largest city in the State of Ohio with an estimated population of 78,103 (U.S. Census, 2020). The Parma Justice Center, located at 5555 Powers Boulevard, houses the Parma Police Department (PPD), the Parma Detention Center, and the Parma Municipal Court. Parma PD employs 109 officers whose jurisdiction covers approximately 20 square miles split into four "beats" as indicated in Map 1. The Parma

Map 1. Parma Police Department Beats



Detention Center is an in-house jail run solely under the guidance of the PPD. The Parma Municipal Court has jurisdiction over seven additional local communities including, Parma Heights, Brooklyn, Brooklyn Heights, Linndale, Seven Hills, North Royalton, and Broadview Heights.

Parma PD engages in several drug and opioid-related initiatives to support their community. First, PPD works closely with MetroHealth Medical Center's Office of Opioid Safety (OOS) Quick Response Team (QRT). The QRT includes a member of the PPD, the Parma Fire Department, and a MetroHealth social worker who conduct outreach to individuals who have experienced

an overdose in Parma to try to engage them in treatment. Secondly, in addition to QRT, officers also conduct welfare checks on an ongoing basis on individuals who have experienced an overdose. Third, PPD receives funding to authorize additional officer overtime to support community drug prevention-related events and activities. These activities include training to select PPD officers on motivational interviewing which support their interactions with individuals experiencing the consequences of substance misuse. Activities also include drug counseling in the jail, sponsoring and/or participating in drug take-back events that include distributing charcoal packets for at-home drug deactivation, and reporting naloxone distribution to OOS for the "Project DAWN" (Death Avoided With Naloxone) effort to supply naloxone in the community. These efforts, however, are not comprehensive of all the PPD drug-related initiatives as the PPD is involved many other activities.

Table 1.

Parma PD Suspected Drug Overdose Incidents by Year: 01 January 2017 to 31 December 2020

	2017	2018	2019	2020	Total
Nonfatal	206	111	150	109	576
Fatal	15	17	9	9	50
TOTAL	221	128	159	118	626

During the reporting period, PPD responded to 626 suspected overdose incidents, 50 fatalities and 576 nonfatal incidents (see Table 1). Thirteen of these responses were to assist two individuals who had

overdosed together and simultaneously, and 177 responses were to assist individuals who had experienced an overdose more than one time during the reporting period.

While PPD reported 50 fatal suspected drug overdose incidents during the reporting period, 34 of which were Parma residents, CCMEO death records for the same period indicated 103 Parma residents died of a drug overdose in the county (see Table 2), 66 of which died in Parma city limits. The Medical Examiner identified 32 additional fatalities of Parma residents who died in Parma of drug overdose compared to the police department's records. This difference may be due to a) PPD lack of knowledge of drugs causing a death during the initial response, b) an individual died later from complications of drug overdose and PPD was unaware, or c) an individual who died from drug overdose was transported to a hospital by someone other than a public safety worker. Additional details can be found in the *Toxicology & Drug Type* section of this report.

Table 2. CCMEO Drug-Related Overdose Deaths, Parma Residents 01 January 2017 to 31 December 2020

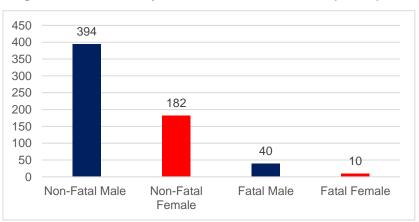
	2017	2018	2019	2020*	Total
Drug-Related Overdose Deaths	34	30	20	19	103

^{*}Not all 2020 cases were ruled at the time of this report. Cause and manner of death have been determined by the CCMEO.

Demographics

Parma PD reported a total of 434 (69%) males and 192 (31%) females who experienced an overdose (see Figure 1). Males between the ages of 25-39 accounted for 43.1% of both fatal and nonfatal overdoses that PPD responded to in Parma (270 of 626). As shown in Figure 2, individuals (combined males and females) within the 25-29 age bracket ranked highest, accounting for 20.9% of total overdose incidents (12 fatal, 119 nonfatal). The second highest age bracket was ages 30-34, who accounted for 20.1% of all overdoses

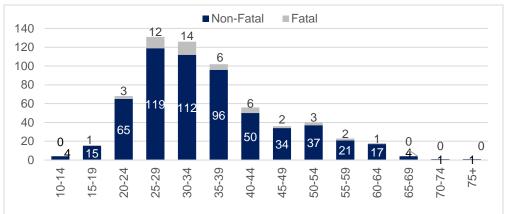
Figure 1. Overdoses by Gender and Nonfatal/Fatal (N=626)



(14 fatal, 112 nonfatal) and ranked highest in fatal overdoses at 28% (see Figure 2).

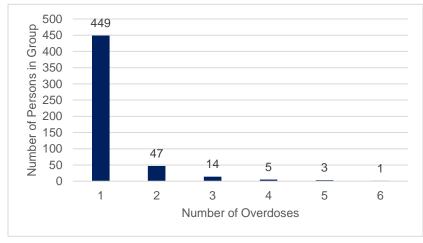
Figure 2. Overdoses by Age Group (N=626)

The 25-29 age bracket accounted for the highest number of total overdose incidents (combined male and female).



Individuals Experiencing Single and Multiple Overdose Incidents

Figure 3.
Number of Suspected Overdoses per Person (N=626)



Of the 626 PPD responses to suspected overdose incidents, 449 individuals were categorized as having a single overdose. The remaining 177 responses were for individuals known by the agency to have experienced at least one prior suspected overdose (see Figure 3). The 70 individuals who experienced an overdose two or more times accounted for 28.3% of all incident responses (177 of 626). It is possible that people identified by this dataset as having a previous single overdose may have experienced one or more other overdoses outside of the timeframe analyzed (January 1, 2017

to December 31, 2020). Additionally, it is possible that people could have experienced an overdose(s) in locations outside of Parma city limits.

Temporal Analysis

Year, month, day, and hour of the day were analyzed to determine if overdose patterns exist (see Figures 4, 5, and Table 3). The majority of overdose incidents occurred in the afternoon and early evening hours. The peak hours for overdose were from 5pm to 10pm; this five-hour period accounted for 66.8% of overdose incidents (418 of 626). Overdose incidents occurred most often on Wednesdays

The peak time period for overdose was from 5pm to 10pm (see Table 3)

and less frequently on Sundays. The month of May had the highest number of overdose incidents during the four year period: September had the lowest total.

Figure 4. Overdose Incidents by Yearly Trends: 2017-2020 (N=626)

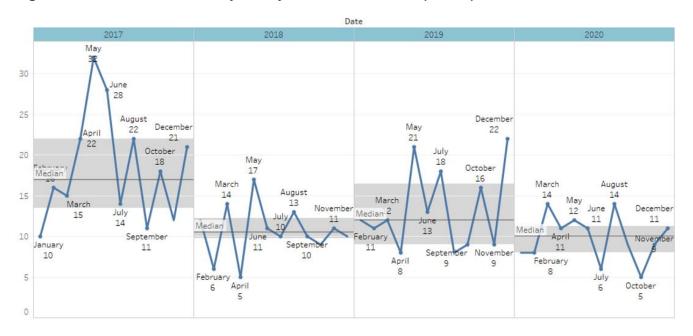
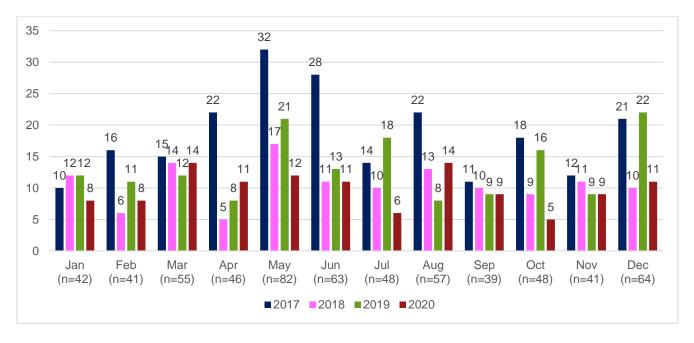


Figure 5. Overdose Incidents by Month and Year: 2017-2020 (N=626)



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Table 3 displays the number of overdose incidents occurring by day and hour. Darker shades indicate a higher number of incidents. Saturdays at 7pm had the single highest day and time with 13 incidents.

Table 3. Day of Week & Hour of Day Occurrence of Overdose Incidents: 2017-2020 (N=626)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sun	7	4	2	1	4	3	2	2	2	1	2	2	1	4	3	2	6	4	6	5	4	4	5	1	77
Mon	6	1	3	5	1	1			2	4		1	1	7	5	8	3	7	6	2	4	6	2	5	80
Tue	2	4	3	5	1	1		3	1	3	1		4	1	1	2	3	5	10	9	8	5	5	11	88
Wed	5	5	1	3	7	2	4		2	1	3	1	2	1	3	5	7	9	5	5	4	9	9	6	99
Thu	4	2	4		2	2	2	3	1	2	2	2	6	3	3	3	7	4	10	3	4	9	2	7	87
Fri	5	5	4	1	4		2	3	3	3	1		3	3	3	6	7	9	6	5	5	4	7	8	97
Sat	7	4	4	5		5	2	3	2		3	3	1	7	3	2	4	7	2	13	3	8	4	6	98
Total	36	25	21	20	19	14	12	14	13	14	12	9	18	26	21	28	37	45	45	42	32	45	34	44	626

^{*&}quot;0" is midnight

Toxicology & Drug Type

Suspected Drug Causing Overdose

In addition to reporting on suspected drugs identified by Parma police officers contributing to an overdose, the Begun Center also was able to compare these police reports to death records and toxicology reports obtained through the Cuyahoga County Medical Examiner's Office (CCMEO).

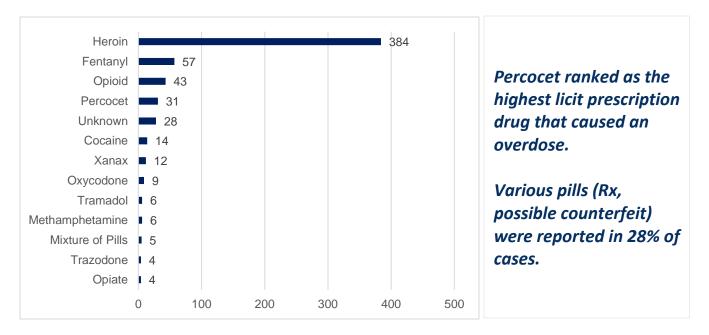
Parma police officers routinely record suspected drugs that contribute to an overdose (fatal and nonfatal). More than one suspected drug could be recorded for a single incident; e.g., cocaine and heroin recorded as drugs contributing to an overdose. A total of 703 drug type counts were included in the analysis of 626 incidents. These numbers are suspected drug types as reported on scene as testing is not completed in the field for safety purposes.

Police officers reported illicit drugs (e.g., heroin, fentanyl, cocaine) as the suspected drug type in 64.7% (455) of incidents, while legal prescription medications, diverted legal prescription medications, potentially counterfeit prescription medications and/or other pills were reported in 28.2% (198) of incidents (see Figure 6). Unknown opioids were reported in 7.4% (52) of incidents.²

Heroin and fentanyl accounted for 62.7% of suspected illicit drugs reported by Parma police officers (441 of 703), and Percocet ranked as the highest licit drug suspected causing an overdose (31 incidents) (See Figure 6). Counterfeit Percocet and Oxycodone pills containing fentanyl have frequently been reported nationally (DEA, 2020) as well as in Northeast Ohio (USAO, 2019; DEA, 2016).

² Unknown opioids were categorized using the suspected drug types opioid, possible opioid, unknown opiate, and unknown opioid.

Figure 6. Parma PD Suspected Drug Type at Scene, Reported four or More Times



Fatal Overdoses

Parma Police Department Reported Fatal Overdoses

PPD records report officers responding to 50 fatalities involving suspected drug overdose; 34 of these fatal overdose incidents were for Parma residents and 16 individuals were from other cities.

Cuyahoga County Medical Examiner Reported Fatal Overdoses

During this same reporting period³, CCMEO records indicate there were 103 fatal overdoses in which the decedent's residential address was reported as Parma, 60 of which occurred in Parma city limits (compared to 50 reported by PPD). Discrepancies in data can be due to reporting parameters of these agencies. This discrepancy highlights the challenges of comparing and merging data across agencies due to variations in how the data is recorded by each agency, as well as the value of utilizing multiple data sources to build a more accurate picture.

2018 Unintentional Drug
Overdose Death Rate:
Cuyahoga County: 38.3 (Source: CCMEO)
Parma: 38.4 (Source: CCMEO)

Fatality Toxicology Results

CCMEO death records were used to analyze the 50 reported fatalities PPD responded:

- 42 cases (84%) were ruled as accidental drug-related overdose deaths:
- 1 case (2%) was ruled a suicide in which the cause of death was a combination of drugs;
- 5 cases (10%) were determined not to be drug related by the CCMEO; and
- 2 (4%) individuals, reported as deceased by Parma PD, were not recorded in CCMEO records.

For those cases ruled by CCMEO as accidental drug-related overdose deaths, 83.3% (35 of 42) of individuals had more than one drug (ethanol not included) listed as a cause of death drug. Of these 42

³ CCMEO and Parma PD data both cover the period of 01 January 2017 to 31 December 2020, but not all 2020 cases were officially ruled by CCMEO at the time of this report.

• • •

cases, fentanyl and fentanyl analogues (including carfentanil) were listed as cause of death drugs in 97.6% of cases (41 of 42). Carfentanil specifically, one of the most potent fentanyl analogues, was listed as a cause of death drug in 26.2% of the cases (11 of 42), cocaine was listed as a cause of death drug in 21.4% (9 of 42) of the cases, and methamphetamine was present in 14.3% (6 of 42) of fatal overdose cases. Heroin was found in 40.5% (17 of 42) of accidental drug-related overdose deaths, and in all 17 cases either fentanyl or carfentanil was also present as a cause of death drug. Figure 7 reflects the number of times a drug type was listed as a cause of death drug in the 42 fatal cases and captures only the most prevalent illicit drug types/categories.⁴

It is worth noting that all nine cocaine related overdose deaths in which Parma PD responded also included fentanyl or carfentanil as a cause of death drug.

14 13 13 12 10 8 6 4 4 3 2 2 2 0 Fentanyl Heroin Carfentanil Cocaine Methamphetamine ■ 2017 (n=14) ■2018 (n=13) ■2019 (n=7) ■2020 (n=8)

Figure 7. Accidental Drug-Related Overdose Deaths by Official Toxicology, 2017-2020 (N=42)

Naloxone & Disposition

Naloxone

Naloxone was administered in 77.3% of all suspected overdose incidents (484 of 626). Naloxone was administered in 46% of fatal overdose incidents (23 of 50) and 80% of nonfatal overdose incidents (461 of 576). Naloxone was administered by either police or fire first responders in 93.8% of incidents (454

of 484). Family, friends or caregivers administered naloxone in 8.9% of incidents (43 of 484). Naloxone is generally not administered to individuals who are conscious/alert or those that have visibly passed away before first responders arrive at a scene.

Naloxone was administered in 77.3% of all suspected overdose incidents.

For nonfatal and fatal suspected overdose incidents, naloxone administration rates were almost identical regardless of location. For residential overdose incidents, naloxone was administered in 77.3%

⁴ An individual could have more than one drug type listed as a cause of death; for example, cocaine and fentanyl could both be recorded as cause of death drug in the final ruling from the Medical Examiner.

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of cases (371 of 484), and for non-residential incidents naloxone was administered in 85.6% of cases (113 of 142). In fatal events, location also does not appear to be a factor; 45.7% (21 of 46) of overdoses in residential locations received naloxone and 50% (2 of 4) of overdoses in non-residential locations received naloxone.

When known, PPD reported the number of doses of naloxone administered. The number of doses administered for 468 incidents was 1,491, an average of 3.2 doses per incident. The number of naloxone doses administered during fatal overdose incidents (n=23) was slightly higher an average of 3.4 doses per incident.

Disposition

In 554 of the 626 (88.5%) suspected overdose incidents to which Parma police responded, the individuals were transported to University Hospitals Parma Medical Center (UHPMC). Fifty individuals were reported as deceased on scene as a result of suspected drug overdose. Five individuals were reported by PPD as having died at a later date, most likely recorded during follow-up welfare checks.

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Disposition	Incident Count
Transported to UHPMC	554
Deceased at Scene	50
Later Deceased on Follow-up	5
Jailed in Parma	4
Hospital/Treated then jailed	4
Signed Medical Release of liability on scene	3
Hospital at time of occurrence	2
Cited for Disorderly Intoxication	1
Not transported	1
Removed life support/Brain Damage	1
Signed off with Parma Fire	1
Total	626

Location

Overdose Incident Locations

Residences (homes, apartments, condos, etc.) accounted for 77.3% (484 of 626) of all suspected overdose incident locations and 8.2% (51 of 626) occurred in a parking lot or on the street. The remaining incident locations are listed in Figure 9. Fatal overdoses occurred in or around a residence in 92% of cases (46 of 50), whereas nonfatal incidents occurred in and around residences in 76% of cases (438 of 576).

Parma PD personnel who cover Beat 2 responded to 35% (220 of 626) of the drug overdose incidents, followed by Beat 1 (29% or 178) and Beat 4 (22% or 140) (see Figure 8 and Map 2). Beat 2 borders the City of Brooklyn to the North and portions of Seven Hills and Cuyahoga Heights to the East. Beat 2 is uniquely positioned at the intersection of OH-176 and I-480, two major routes in the surrounding area. Beat 1 borders the City of Cleveland to the North, Brookpark to the West, and Parma Heights to the South. These boundaries and cities can also be seen in Map 1 above.

In 13 instances, two different persons experienced an OD at the same time and location (26 subjects reported in 13 incident reports). Two of the 26 subjects experienced a fatal overdose, naloxone was administered to 22 of the 26 subjects, and 10 of the 13 incidents occurred at residential locations.

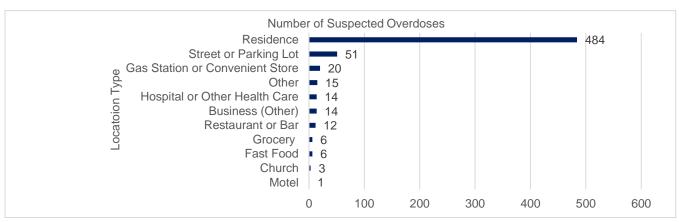
Figure 8. Drug Overdoses by Parma PD Beat Area



Multiple Overdose Incident locations

Parma PD responded to 93 locations two or more times during the period of January 1, 2017 thru December 31, 2020 and these locations accounted for 38.8% of incident responses (243 of 626 incidents). Residences (homes and apartments) accounted for 83% of locations where multiple overdoses occurred (73 of 88). The top addresses which were not residential included UH Parma Medical Center (8 incidents), three gas stations (7, 3, and 2 incidents), Parma Care Center (3 incidents), and one restaurant/bar (3 incidents). Figure 9 shows suspected overdose incidents by general location type.





⁵ The location of incident was generalized for the purposes of this report. For example, several specific fast food business names were reported in the original dataset, but for this analysis, all incidents were categorized as "Fast Food". All apartments, duplex/condo or residence including incidents occurring at the residence driveway, were categorized as "Residence". "Street or Parking Lot" could indicate a person experiencing an overdose either *in* a vehicle or *not in* a vehicle.

Residential Data

Of the 626 PPD responses to suspected overdose incidents, 69.3% (434 of 626) were for Parma residents. The remaining 30.7% (192 of 626) responses were for persons who resided in 58 other cities. Residents of Cleveland (69 or 11%) were involved in the greatest number of overdose incidents aside from Parma residents. Cities of residence appearing in four or more incidents are shown in Table 5.

Residency (address for individual reported to police) did not appear to have an impact on the likelihood of an individual experiencing a fatal overdose. Non-residents of Parma experienced fatal overdose in 9% of cases (16 of 177) and Parma residents experienced fatal overdose in 8% of cases (34 of 383).

Cleveland residents were involved in 1 in every 10 overdose incidents responded to by PPD.

Table 5.

Reported Residence (City)	Number of Overdose Incidents
Parma	434
Cleveland	69
Parma Heights	16
North Royalton	8
Brooklyn	7
Elyria	7
Lakewood	6
Brookpark	4
Brunswick	4

Geospatial Overview

Geospatial overviews are provided below. These maps were completed using Tableau[™] software. A private, interactive dashboard was provided to PPD for internal use. Map 2 displays all 626 suspected overdose incident locations from 1 January 2017 through 31 December 2020. Locations of multiple overdose incidents are shown by a change in color and radius of point. PPD Beats are labeled 1-4 and outlined with blue borders.

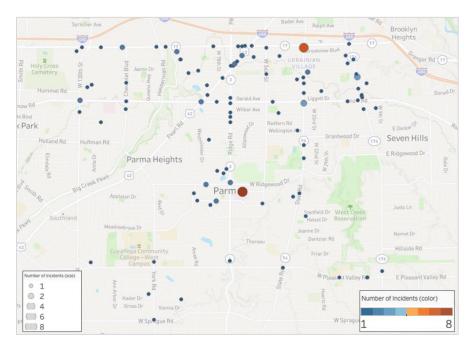
Brooklark Rd

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Map 2. Parma Police Department Suspected Overdose Incidents by Beat

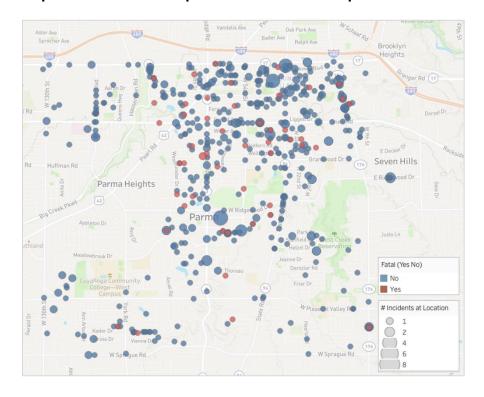
Map 3 portrays the 142 incidents that occurred in public locations (all locations other than those categorized as "residential"; see Figure 9) from 1 January 2017 through 31 December 2020. Overdoses occurred at public locations 22.7% (142 of 626) of the time, and residential addresses accounted for 77.3% (484 of 626) of overdose incident locations. Over half, 59% (85 of 142), of the individuals, who experienced an overdose in a public location, were not a resident of Parma.

Map 3. Parma Police Department Suspected Drug Overdoses in Public Locations



Map 4 displays all overdose incidents for the period of 1 January 2017 through 31 December 2020 and compares the location of nonfatal incidents (blue) with fatal incidents (red) (n=626). Fatal and nonfatal incidents were more likely to occur in the north and northeast residential and retail areas of Parma. The majority, 78% (39 of 50), of fatal overdose incidents occurred north of W. Rigdewood Drive.

Map 4. Parma Police Department Fatal and Suspected Nonfatal Overdoses



Process Review and Future Considerations

Throughout the analytical process underlying this report, representatives of the Begun Center, Parma PD, Parma Fire, and MetroHealth Quick Response Team (QRT) met to ensure a thorough understanding of the data and first response protocols within the City of Parma. During these meetings, many ideas were discussed on how to address the opioid epidemic. The overarching theme that emerged emphasized taking a broader approach to addressing the epidemic by establishing a "Community Committee" of key stakeholders to:

- Engage bordering jurisdictions for sharing drug-related overdose data;
- Improve/enhance current data collection
 - Improve and expand upon the Overdose Suspected Report sheet used by Parma PD by reviewing data collection points and improving data variable standardization
 - Utilize the TAC Computer Inc., Records Management System for overdose incident entries:
- Improve the allocation of resources and funding for
 - Community outreach
 - Harm reduction
 - Parma Justice Center support services (see below);
- Utilize the Parma Justice Center in additional ways to support those with SUD
 - Providing on-site detox
 - Creating a specialty treatment court; and
- Disseminate findings regularly to community leaders and stakeholders.

The Begun Center team will continue to collaborate with Parma PD in the following ways by:

- Providing technical assistance with data collection tools and measurements;
- Creating Geospatial Analyses to assist with harm reduction efforts;
- Providing a restricted interactive dashboard through Tableau[™]; and
- Working with Parma PD to disseminate findings.

Limitations

Data within this report is limited in scope to the City of Parma and only those overdoses to which police officers responded. Data linking and merging limitations include:

- Possible errors when matching individuals (e.g., data entry spelling errors, variations of names);
- Comparing resident location versus incident location for overdose individuals (i.e., resident location may or may not be the incident location);
- Datasets examining both residents of Parma versus non-Parma residents; and
- Data entry and follow-up variations within the data for individuals that suffer a fatal overdose after initial police report.

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