

Welcome



HAMILTON COUNTY
PUBLIC HEALTH



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HCPH Overdose Surveillance

AOHC Opioid Special Meeting – January 31, 2018

Craig Davidson, Assistant Health Commissioner



HAMILTON COUNTY
PUBLIC HEALTH

PREVENT. PROMOTE. PROTECT.



HCPH Overdose Surveillance

I. Daily Overdose Reporting

II. Monthly Overdose Reporting

III. Public Health Alert Protocol

Daily Overdose Reporting

- Daily pdf reports
- Began September 2016
- Running daily total of ED visits, 911 dispatches



HAMILTON COUNTY
HEROIN COALITION

ED Visits and Emergency Response due to Drug Overdose¹

Daily Surveillance Report for April 23, 2017

Data compiled cooperatively by Hamilton County Law Enforcement, Public Health, and Fire/EMS agencies

Estimated Overdose Hospital Visits¹ for April 23:

15

Estimated Fire/EMS and Law Enforcement Overdose Emergency Responses² for April 23:

14

Drug Overdoses* by Patient's residence**: April 17 - April 23, 2017

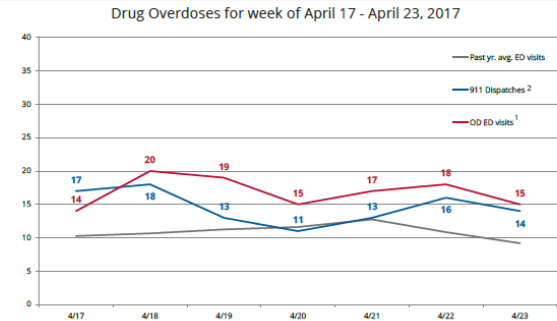
Hospital Location	Number	Percent**
Hamilton County, OH	56	48%
Butler County, OH	21	18%
Clermont County, OH	17	15%
Northern Kentucky	7	6%
Other	15	13%
TOTAL	116	100%

Drug Overdoses* by Sex: April 17 - April 23, 2017

Sex	Number	Percent**
Female	46	39%
Male	72	61%
TOTAL	118	100%

Drug Overdoses* by Age: April 17 - April 23, 2017

Age	Number	Percent**
Younger than 18	5	4%
18-24	14	12%
25-34	44	38%
35-49	40	35%
50-64	12	10%
65 and Older	-	-
TOTAL	115	100%



1. Drug overdose data are retrieved from the state's Epicenter surveillance tool. "Overdose" cases include all ED visits to Hamilton County hospitals in which drugs were indicated as reason for visit. Cases were included in analysis if the case notes for the patient included the term "overdose" or "OD." Where specified, traumatic injuries due to drugs caused by suicide attempts, adverse reactions to normal medications, or accidental overdose of over-the-counter or common drugs such as Tylenol or insulin were excluded from analysis. ZIP codes refer to the ZIP code of residence of the patient visiting the emergency department (ED). Dates are defined as 6 a.m. of a day to 6 a.m. of the following day, which more accurately reflects drug use patterns than standard day intervals. For example, January 1st refers to the period of 6 a.m. on January 1st to 6 a.m. on January 2nd. Data from the Epicenter surveillance tool is subject to at least 2 limitations. First, case notes in the Epicenter tool are limited and often do not include full details of ED visit, such as drug used or intent of use. As such, overdose estimates will include not just opioids, but potentially any drug. Second, case notes are recorded at patient intake and may change from a patient's initial examination to their final diagnosis.

2. Emergency dispatches refer to fire/EMS and law enforcement responses to 911 emergency calls related to drug overdose, in which a unit was dispatched. Call notes are reviewed and included/excluded using the same criteria as Epicenter, adapted for the format of 911 dispatch call logs.

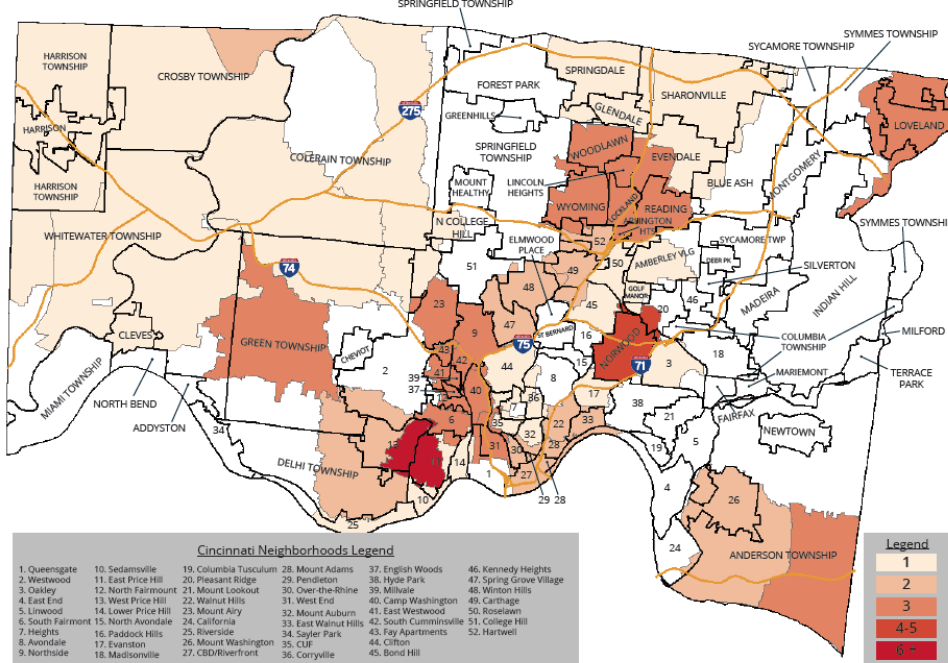
* Demographics reported from hospital & ED visits (red line), and do not include demographic information from 911 dispatches (blue line).

** Percent among those who do not have missing information for the respective demographic factor.

For any questions, contact Kevin Strobino, MPH, Epidemiologist at HCPH: 513-946-7620; kevin.strobino@hamilton-co.org.

Daily Overdose Reporting

Home ZIP Code of Drug Overdose Hospital ED Patients;
Hamilton County Hospitals & EDs, Week of April 17 - April 23, 2017



- Basic demographics
- ZIP code map

Daily Overdose Reporting

• Overdose Data Tool • Hamilton County, OH



• Overdose Data Tool • Northern Kentucky



• Overdose Data Tool • Butler County, OH

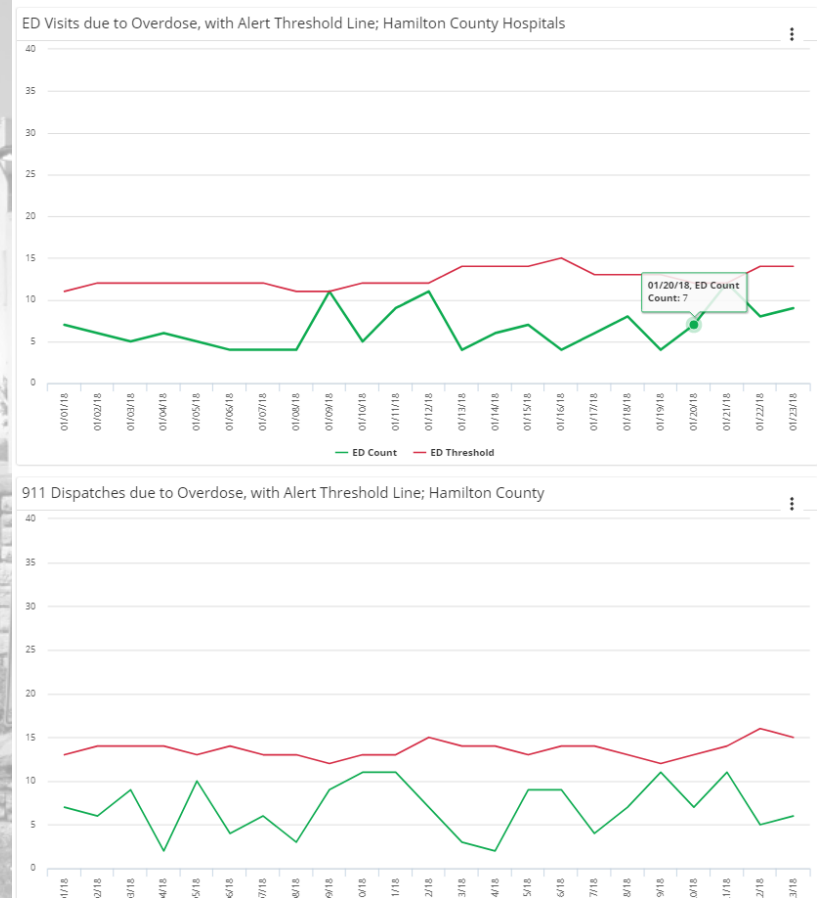
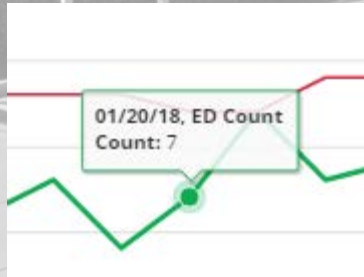


• Overdose Data Tool • Clermont County, OH

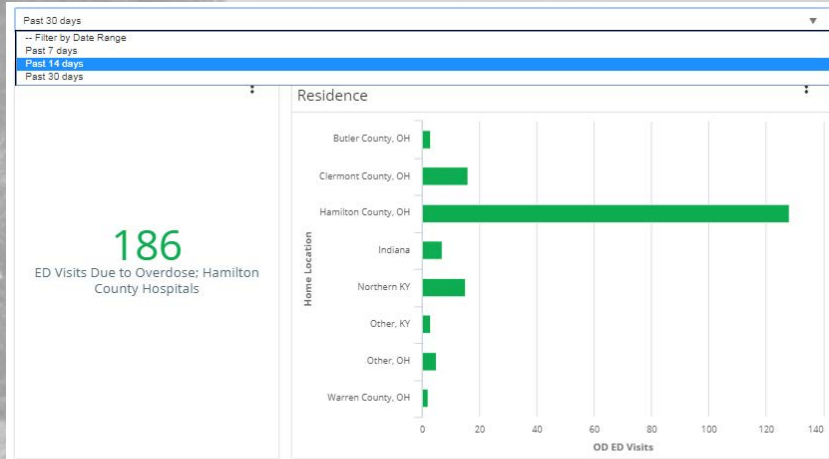


Daily Overdose Reporting

- Same data presentation as pdf report adapted for online tool
- Interactive interface

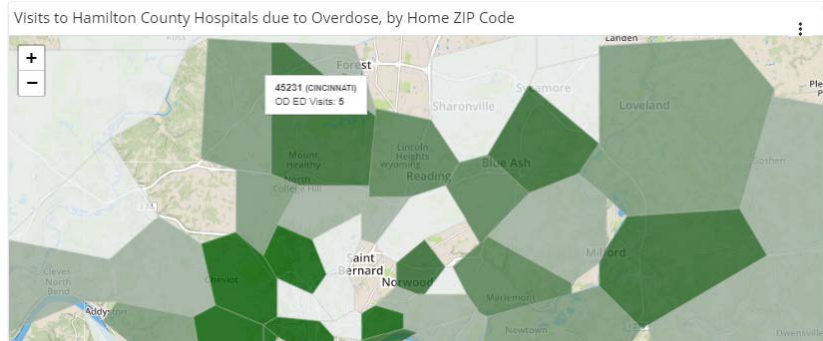


Daily Overdose Reporting



The above figures reflect the number of individuals who were seen at a Hamilton County hospital for overdose and where they reported living.

Below is a map showing the home ZIP code of patients to Hamilton County hospitals over the specified time period.



- Same data presentation as pdf report adapted for online tool
- Interactive interface

Past 30 days

-- Filter by Date Range

Past 7 days

Past 14 days

Past 30 days

Residence

45231 (CINCINNATI)
OD ED Visits: 5

Monthly Overdose Reporting

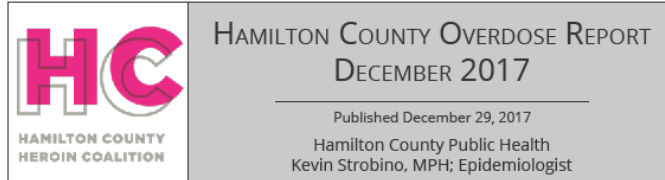


Figure 1. Monthly counts of emergency department visits,¹ 911 dispatches,² and deaths due to overdose,³ Hamilton County, December 2016 - December 2017⁴

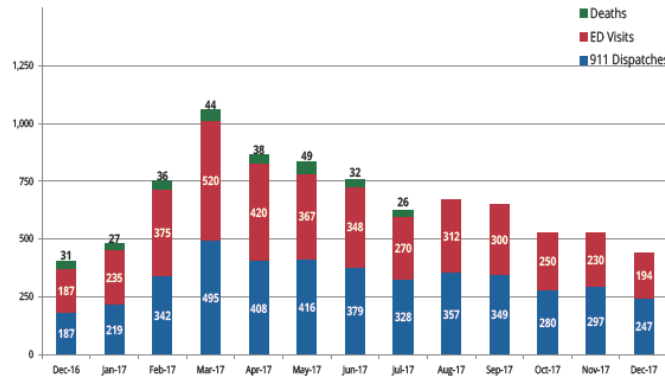


Figure 1 presents an overview of the major data sources for unintentional overdose that are explored in detail throughout this report. Estimates for emergency department (ED) visits and 911 dispatches include data through December 27 and are pro-rated to the length of the full month. Historical analysis and descriptive statistics for the daily counts of overdoses can be found on pages three and four for ED visits, page five for 911 dispatches, and page seven for Hamilton County resident deaths. These measures are defined as follows:

- **ED visits:** The number of overdose hospital visits, regardless of patient's residence, reported by all hospital EDs located within Hamilton County.
- **911 dispatches:** The number of 911 dispatches responding to overdose that occurred within the jurisdiction of City of Cincinnati, Hamilton County, and Norwood 911 dispatch centers.
- **Deaths:** The number of deaths to residents of Hamilton County due to unintentional overdose of drugs of abuse.

Death data is reported as it becomes available from the Ohio Department of Health (ODH) Bureau of Vital Statistics. The 2017 death estimates provided here are preliminary, and as more 2017 overdose deaths are identified, it is possible that monthly estimates will change, especially for the most recent months. Currently, death data for 2017 includes deaths partially into September (pictured through July).



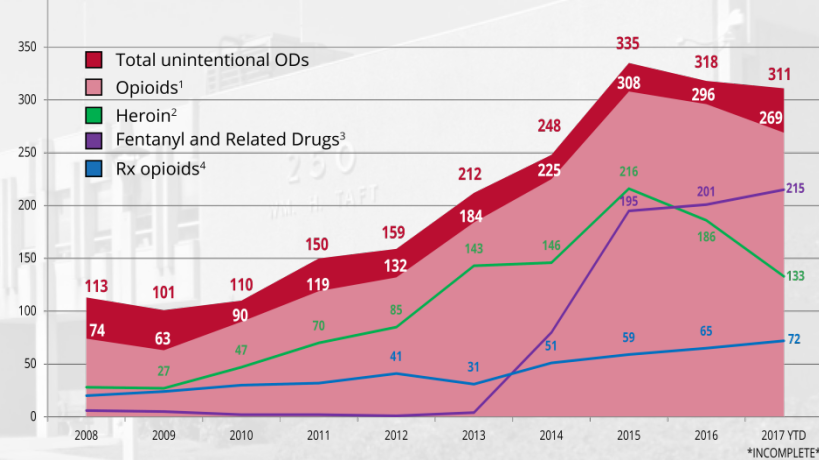
PREVENT. PROMOTE. PROTECT.

- Analysis over the long-term

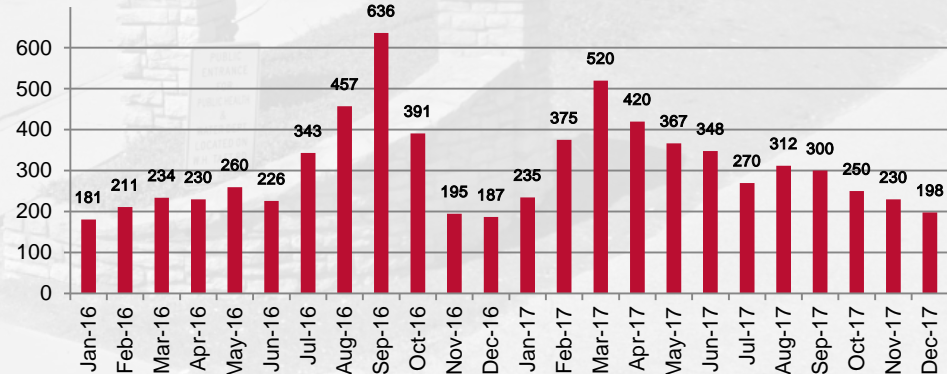
Monthly Overdose Reporting

- Data summary for all major sources (incl. ED visits, 911 dispatches, deaths, Naloxone distribution)

Hamilton County resident deaths due to unintentional overdose; 2008 - YTD 2017



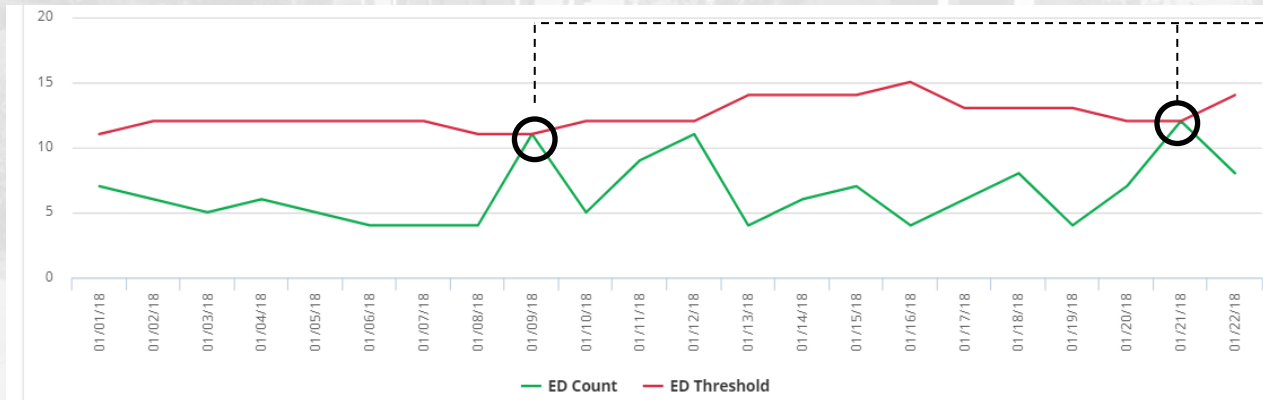
ED Visits due to Overdose; Hamilton County Hospitals, 2016-17



Public Health Alert Protocol

Each day, ED visits, 911 dispatches, and a preliminary death count is estimated as part of daily reporting.

A statistical threshold is calculated for each measure based on the Poisson Distribution model



When one of the measures exceeds the statistical threshold, it is flagged.

Public Health Alert Protocol

When any **2** measures flag over any **3** day period an overdose public health alert is issued.

Day	ED Visits	911 Dispatches	Deaths
1	x1	y1	z1
2	x2	y2	z2
3	x3	y3	z3

Day	ED Visits	911 Dispatches	Deaths
1	x1	y1	z1
2	x2	y2	z2
3	x3	y3	z3

Day	ED Visits	911 Dispatches	Deaths
1	x1	y1	z1
2	x2	y2	z2
3	x3	y3	z3

Public Health Alert Protocol



November 12, 2017

Public Health Alert: Overdose Activity Increases

Dear Colleagues,

Daily Hamilton County overdose surveillance during November 9-12 has indicated a spike in activity. The daily overdose report demonstrates an increase in Hamilton County emergency departments (ED) visits due to overdose; the ED visit count surpassed statistical thresholds for expected counts when eighteen overdoses were observed during the period of 6 am November 11 to November 12. Corroborating this spike is a statistically significant spike in 911 dispatches. Twenty 911 dispatches during the period of 6 am November 9 to November 10 occurred in Hamilton County and Cincinnati emergency dispatch centers. This is the largest spike in overdose numbers since the end of September of this year.

Local public health partners and the Hamilton County Heroin Coalition are issuing this alert to increase community awareness and advise first responders, healthcare providers, and substance users and their families of the increased risk for overdose in our community. This alert should serve as a notice to consider adjusting response capacity and implementing necessary protective measures which should include:

- Having available and using necessary personal protective equipment
- Avoid using street drugs alone
- Carrying naloxone and being prepared to use multiple doses when necessary.

Currently, we do not know what may be driving this recent change in activity. However, the increased risk is evident and drawing upon recent past increases in activity, a change in the composition of illicit street drugs in our community is likely (including mixtures of opiates, fentanyl, carfentanyl, and other synthetics).

We appreciate your continued collaboration.

Partners

INTERACT
FOR HEALTH



Thank You



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