The Dayton Police Department

Problem-Oriented Policing Project

Recovery Beyond Addiction

Opioid epidemic reduction efforts through law enforcement, community, and addiction

recovery collaborations

(East Patrol Operations Division Commander Joseph Wiesman)

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Summary

With a record 50,000 opioid fatalities occurring in 2017, Americans have become all too familiar with the effects of the opioid crisis (21). This epidemic hit one Midwest city harder than most: Dayton, Ohio. Dayton quickly became an epicenter for the opioid epidemic across the United States. People may wonder why Dayton has been hit harder than some of the larger cities across the country. The answer in part is that Dayton is centrally located in southwest Ohio. It is in close proximity to the borders of Indiana, Kentucky, and Michigan as well as access to several major highways including Interstate 70 and Interstate 75.

Substance misuse has never been treated like other chronic illnesses, which is why it is hard to understand how to help the substance users. With the crack cocaine epidemic taking flight in the 1980's, the government, at all levels, and began using mass criminalization and incarceration for substance misuse (35). It did not work for the crack epidemic; a different strategy needed to be taken in order to reduce overdoses associated with the opioid epidemic.

Dayton needed to try whatever means necessary to stop the opioid overdose epidemic that was clearly plaguing the city. While most will say the problem still exists, the City and surrounding communities have made great strides in reducing the number of fatal overdoses since 2017. In the first six months of 2017, there were 378 overdose fatalities. Overdose deaths were significantly reduced to 132 within the first six months of 2018 (35). That is a 65 percent reduction over a one year time period (35). This reduction came as a result of several factors including the creation of the Dayton Police Department's *Mobile Crisis Response Team* and community collaboration efforts. As opioid misuse continues to spread to cities across our nation, this model is one that other cities can- and should- learn from.

The SARA Process

Scanning

Drugs have been around forever and different drugs phase in and out over time. One year it may be crack or cocaine, while in another it may be methamphetamines. Since 2010, the major drug that has been plaguing the City of Dayton and Montgomery County is opioids. The number of opioid related deaths across the nation have doubled over the last five years, resulting in the level of a national epidemic. Since 2011, Montgomery County has had the highest overdose fatality rate in Ohio when population is taken into account - a state whose opioid fatality rate has consistently ranked amongst the highest in the nation (Figure 10)(35).

Over the last decade, Dayton is one of the communities that has been hit the hardest with the opioid crisis. 140,371 residents call Dayton home. Dayton is the largest city in southwestern Ohio's Montgomery County. Like many other midsized American cities, Dayton had been home to many manufacturing jobs, which required hard work and labor, leaving many working age and retired citizens with chronic pain or unemployment. Prescriptions for opioids seemed to be a common response to this chronic pain problem. Studies have shown that one in four patients who use prescription opioids for more than a few weeks have the potential to become addicted, which was the case for so many residents and citizens in Dayton (24).

The Center for Disease Control and Prevention, in conjunction with the State of Ohio, developed a system for reporting to help address the misuse of prescription opioids (29). In 2011, the state began cracking down on for-profit clinics in an attempt to reduce the number of opioid prescriptions that were being written to patients that did not need them (26, 33). With this crackdown, over 92 million unnecessary doses of opioid prescriptions weren't written to

patients from 2012 to 2015 (26, 33). However, this unintentional crackdown, led patients who were addicted to opioids to find an alternative, cheaper drug to fuel their addiction (6). Heroin was top on the list for a cheaper alternative. Dayton soon became a source city in the mid 2000's, which means that the drugs were supplied directly to Dayton and then distributed to other parts of the country (12). With Dayton becoming a source city, this led to more cheap and potent heroin being readily available to residents and visitors.

The Dayton Police Department became aware of the large use of opioids throughout the community around 2012, when a United States Department of Justice grant funded an analysis of the crime in the eastern neighborhoods and found that approximately 90 percent of the property crimes were related to opioid use by the offenders (15).

By 2016 with the introduction of fentanyl, drug overdoses in Ohio were the leading cause of death for those younger than 55 years old. Fentanyl was involved in approximately 58 percent of overdoses across the state (2, 10, 28). Montgomery County on the other hand- was disproportionately impacted- having the highest unintentional overdose rate in Ohio due to fentanyl (7).

Analysis

From 1999 to 2016, 630,000 people died of opioid related drug overdoses across the United States. While this increase was happening across the nation, it was also increasing in Dayton. In 2016, 42,000 Americans died due to opioid overdoses and opioid misuse (2, 10, 28). This caused the age-adjusted overdose fatality rate to more than triple since 1999 (20).

127 unintentional drug overdose fatalities occurred in Montgomery County in 2010, but rose to 566 by 2017 (Figure 1). This rise in unintentional drug overdose fatalities corresponded

[4]

with the presence of fentanyl throughout the community. Fentanyl contributed to 41% of overdose related deaths in 2015 while heroin contributed to 45% (35). By 2017, fentanyl contributed to 64% of overdose related deaths while heroin only contributed to 9% of those deaths (5).

With the rise of opioid related deaths from 2015 to 2018, the financial impact to the City of Dayton due to this epidemic rose as well from 2015 to 2018. The City of Dayton distributed more than $500,000 for naloxone (also known by the brand name Narcan,) a medication designed to rapidly reverse an opioid overdose. The cost for this naloxone was borne by a number of institutions. While the half million dollar price tag was just for naloxone, the City spent an additional $340,000 in 2016 on emergency response by first responders. By 2017, that price tag almost doubled to $610,000. While the direct costs are astounding, the indirect costs are high too. Over 90 percent of individuals interviewed about property crimes in Dayton's East Patrol Operations Division stated they had a drug issue (15).

The City of Dayton and the Dayton Police Department realized they needed to take a new approach to the opioid epidemic. A medical response was needed, not a criminal justice system intervention (4). In the 1980's, Dayton was greatly affect by the crack epidemic and the primary response was increased action by law enforcement, prosecution, and incarceration for those convicted of crack use, trafficking, etc.. While the crack epidemic affected mostly communities of color, the opioid epidemic affects a majority of Caucasian citizens. In Montgomery County, the average overdose victim is a Caucasian male in his thirties. In 2017, nearly two thirds of overdoses were of people aged 25 to 44 with most of those victims being males, one third of them were females (Figure 2 and Figure 3). Approximately 80 percent of

those who died from an overdose were Caucasian (8). While the opioid epidemic is primarily

affecting the Caucasian community, deaths among those of color have risen greatly. By 2017,

approximately 16 percent of those who overdosed were black, which is a significant increase

from 10 percent in 2010. However, 98 percent of syringe service users in 2017 were white (33).

Studies suggest that nearly 80 percent of people who inject heroin first used prescription

opioids. With the rise of crack in the 1980's, lawmakers created the war on drugs policy. Dayton

officials realized this policy failed and could not be repeated. In recognizing that the crack

epidemic mostly affected communities of color and the opioid epidemic is affecting Caucasian

communities, lawmakers worked to create solutions to treat all addiction crises and treat them

as diseases. In 2016, Ohio passed House Bill 110 in response to how addiction was treated.

House Bill 110 authorized immunity from prosecution in minor drug offenses (which are

defined as misdemeanors or felonies of the fifth degree) for qualified individuals seeking or

obtaining medical assistance in a drug overdose, whether it is the individual in question or

another individual. This all began with partnerships and a collaborative effort (35).

Response

Law enforcement was blind to the opioid epidemic in the beginning due to the lack of

data sharing across agencies. In 2012, East End Community Center and the Dayton Police

Department received a Byrne Criminal Justice Innovation grant from the United States

Department of Justice to address the high property crime rates. It was not until the Dayton

Police Department began looking at the root cause of each crime and recognized many of the

offenders have a drug problem. The need to fuel individual drug problems was the cause for

why property crime was so high in Dayton's East Patrol Operation Division. Overall, the Dayton

Police Department realized that the property crime issue could not be solved before first addressing the offender's drug addiction issue (35).

The partnership between East End Community Center (which serves as an advocate for low income individuals and families) and Dayton Police Department were crucial to addressing the opioid crisis. East End Community Center helped the Dayton Police Department take a more community based approach that focused on treating addiction, rather than criminalizing it. This partnership helped bridge the gap between police and the community (35).

In the beginning, the Dayton Police Department recorded the names of individuals who have overdosed or exhibited substance abuse behaviors. These people were then connected to support services and treatment. The Dayton Police Department later created an automated system that generated a daily report for those who have overdosed in the last 24 hours. East End Community Services and the Dayton Police Department originally tried offering "walk-in" services for high risk substance users, but soon found this plan to be ineffective at attracting the necessary clientele. Realizing that services needed to be brought directly to the user, *Conversation for Change* came about. *Conversation for Change* is a community based initiative that actively seeks individuals, who have overdosed to share information about paths to recovery (34). This partnership also gave rise to two initiatives that have been vital in combating the opioid epidemic*: GROW blitzes* and the *Mobile Crisis Response Team*.

The *Mobile Crisis Response Team* and *GROW blitzes* pair service providers and police officers who actively seek individuals in the community that have overdosed. The *GROW blitzes* target high overdose areas in an attempt to get the substance users in those neighborhoods support and treatment options before they overdose (Figure 4). Members of the *Mobile Crisis*

Response Team follow up on every overdose to help get the substance user treatment and support care. They also follow up with family members to provide them with resources on how to help their loved ones through this time.

While incomplete data such as those that are unreported is a key contributor to not knowing the size of this epidemic, the *Mobile Crisis Response Team* receives a daily detailed report on all reported overdoses that occur across the city. This report includes a photograph of the overdose victim, the number of times they have overdosed since April 2017, location of the overdose, the amount of naloxone that was used, and the victim's address. This information is vital because it gives insight to the team before they respond to the victim's address (35).

Another challenge for understanding the magnitude of the opioid epidemic issue that arose was in the toxicology reports of those victims of fatal overdoses. Across the country, fentanyl analogues were not commonly tested for and were sometimes hard to detect (23). Eventually, knowing which of these analogues were driving the overdose fatalities provided valuable insight into drug use, the production, and trafficking patterns. This knowledge changed the game for law enforcement, treatment, and intervention efforts. To address this problem, the Montgomery County coroner now tests for many compounds including 30 variations of fentanyl analogues. The coroner began testing for these analogues in 2016 (28).

As the magnitude of overdose fatalities throughout Dayton and Montgomery County continued to grow, more and more agencies were getting involved in addressing this growing epidemic. Many of the partners got together and came up with a plan on how to address this increasing crisis. The partners presented their collaboration plan to the community in September 2016 and *COAT* was created (35). *COAT* stands for Community Overdose Action

Team, which is an inter-agency collaborative that seeks to stabilize the number of people dying from drug overdoses and reduce the number of fatal overdoses. In addition, it will identify what services are being offered, look for any existing gaps in services, and explore potential new or expanded ways to combat the drug overdose problem. While monthly overdose fatalities were lower in the year 2018, compared to the first six months of 2017, it is hard to determine a precise cause; *COAT* made significant contributions to service provisions during this time frame. In 2017, *COAT* was responsible for developing or enhancing 45 services, from solidifying treatment options and care, to expanding outreach to people in active addiction within the community (35).

Dayton's approach to the opioid crisis is rooted in the understanding that addiction is a disease, not a crime. While this is the understanding, a comprehensive effort to address the opioid epidemic must include law enforcement actions to reduce the availability of these deadly substances. In 2017, the Dayton Police Department seized more than 22,000 grams of fentanyl and 13,000 grams of heroin (8) while in 2018, they seized approximately 23,431 grams of fentanyl and 6,230 grams of heroin (Figure 8)(7). The Miami Valley Bulk Smuggling Task Force was formed as a response to the region's genesis as a source city- a United States locale that serves as a hub for transporting illegal drugs throughout the country. The task force consists of nine agencies that target major drug cartels sourcing high amounts of drugs to the Dayton area (35). In 2017, this task force seized more than 33,850 grams of fentanyl compared with just more than 1,228 grams in 2016 (7). In 2018, the fentanyl seizure by the Miami Valley Bulk Smuggling Task Force rose to 53,715 grams and heroin rose to 31,382 grams (Figure 9) (7).

The Montgomery County Drug Free Coalition conducted seven law enforcement blitzes in 2017 alone. These blitzes not only give officers the chance to apprehend those distributing and using the illegal drugs; they are an opportunity for law enforcement to connect people in active addiction with treatment options along with educating the community on the dangers of opioids (35).

On June 5th, 2017, the City of Dayton filed a lawsuit against the pharmaceutical companies, distributors, and physicians it charges with causing or contributing to the opioid epidemic. Dayton was the first of many cities and states to file suit. The lawsuit fundamentally argues that the companies mislead physicians and the public about the risk of addiction and the effectiveness of their medications. The named physicians in the lawsuit contributed to the use of opioids to treat pain (1). Vocalizing the link between trusted doctors and addiction to opioids helps the public understand that addiction is a disease that can happen to anyone. The City of Dayton has spent more than $500,000 on naloxone alone since 2015 and more than $1.3 million on fire, paramedic, and police responses to overdose calls. These costs do not include treatment, recovery, lost productivity, or other interventions (14) (Figure 5).

One of the major factors in educating and helping those addicted to opioids is a support system. Many throughout the City of Dayton recognize the importance of the community in supporting individuals beyond treatment and throughout the recovery process. Families of Addicts has worked for years to connect families, individuals in active addiction, and individuals in recovery to services and to one another. Families of Addicts is a nonprofit organization that supports people affected by addiction, offers connections to services, and advocates for additional investments for addiction resources. Families of Addicts is led by volunteers seeking

to build a community of individuals affected by addiction and reduce the stigma around addiction. Families of Addicts currently exists in five counties in Ohio with groups in other states attempting to replicate the program (13). Anyone touched by addiction is welcome to attend the weekly meetings. Meetings in Dayton regularly draw around 100 participants, including peer supporters, people in recovery, people in active addiction, people hoping to enter recovery, and family and friends (11). In 2017 alone, weekly attendance totaled more than 7,500 individuals (11). Another aspect of the support continuum in Dayton is peer supporters. Peer supporters are individuals in long term recovery who offer support and guidance to individuals in active addiction. Most importantly, peer supporters serve as models of hope and more deeply identify with those in active addiction than those who have never experienced it. East End's Peers for Change, Families of Addicts, GROW, the Mobile Crisis Response Team, the Montgomery County Jail, and Conversation for Change all benefit from peer supporters in different ways (35).

It is difficult to estimate the number of individuals in the City of Dayton who have an opioid use problem, who are in need of treatment, or who are currently receiving treatment. There are currently 792 residential treatment beds available in the Dayton area. However, state and national numbers still suggest that available treatment sources are not enough (9). Researchers at Ohio State University estimate between 92,000 and 170,000 Ohioans were addicted to opioids in 2015. They also estimated at that time, the state could only meet 20 percent to 40 percent of the need for treatment. This estimate reflects the best case scenario, so the true capacity could be lower (2, 10, 29). The process for entering treatment can be exceptionally difficult. In order to receive treatment, many individuals need to know how to

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navigate the complicated insurance requirements, being aware of the different treatment pathways, selecting the correct one that an individual is looking for, and finding an open bed. This process can take weeks or months along with many phone calls, time, and paperwork. With the Medicaid expansion, this has likely afforded many Dayton residents access to necessary treatment (27, 31). Medicaid recipients are twice as likely to receive treatment as those with private insurance or without insurance at all (36).

Assessment

While the opioid epidemic was just taking off in other parts of the United States, the City of Dayton was in the midst of the epidemic and taking action to address it. The Dayton Police Department knew they needed to treat the opioid crisis differently than they had in the past. They knew it needed to be treated as a disease rather than a crime. The Dayton Police Department, along with several partnerships, created the *Mobile Crisis Response Team* to help those in active addiction reach the services and treatment opportunities they were looking for. When the team first began, navigating treatment options and helping people enter treatment was a huge hurdle. One of their biggest accomplishments was developing relationships at centers in the region and across the state. The team's contacts at various treatment locations have assisted them in streamlining the process to get individuals the treatment they desire and need. Over a 17 month period from January 2017 through May 2018, the team responded to 266 overdose calls, followed up on 851 overdoses, made contact with 370 victims, connected with 406 family members or friends of victims, and referred 152 individuals to treatment (17). The City as a whole in conjunction with the county's Alcohol, Drug Addiction, and Mental Health Services (ADAMHS) began educating the community on substance use disorders, helping

residents better understand and support their loved ones as well as raising awareness about

dangerous events such as a bad batch of drugs on the street (35). With ADAMHS stepping in to

help, they created a free smartphone application called GetHelpNow Montgomery County. This

application helps those trying to reach treatment services by locating services throughout the

county on not just substance misuse, but also housing, food pantries, etc. ADAMHS recognized

that many individuals did not know where to turn to get help and this application was the

missing link. In 2017, ADAMHS identified a gap in treatment for individuals with a dual

diagnosis, who simultaneously experience mental health and substance use disorders (18). For

these individuals, wait time averaged three to six weeks for treatment. To address this

problem, ADAMHS worked with one of its contracted providers to relocate the dual diagnosis

beds. This reduced addicts wait time from several weeks to two days. This transition only took

four months to be established.

Another key tactic that the Dayton Police Department and county organizations

implemented was naloxone training and furnishing. Each officer on the Dayton Police

Department is required to carry two doses of naloxone in the event they are dispatched on an

overdose. While the naloxone does not cure the individual from the overdose, it reverses the

effects long enough for the paramedics to arrive on scene to treat the individual and transport

them to the hospital. In 2017, the Dayton Police and Fire Departments responded to more than

3,400 calls for service related to overdoses. In the first six months of 2018, they responded to

922 overdoses (35). The Dayton Police Department has carried naloxone since 2014 and was

one of the first police departments in Ohio to do so following a change to the state law that

permitted police to carry the drug. A 2017 National Bureau of Economic Research study

identified a nine percent to 11 percent decrease in opioid related deaths in areas with increased access to naloxone (16). Since 2015, Dayton Police and Fire Departments have administered more than 24,000 milligrams of naloxone in more than 7,300 overdoses. From 2014 to 2016, approximately 95 percent of individuals who received naloxone from the Dayton Police Department were revived (19).

GROW, the *Mobile Crisis Response Team*, *Conversation for Change*, *and CarePoint Syringe Exchange* all furnish naloxone to the public. In 2017, Public Health and Project DAWN partnered to train employers on how to use naloxone and share it with businesses that wished to keep it on site (Figure 6).

In 2017, *GROW* visited 311 homes, made contact with 190 individuals, and referred 21 people to treatment. In 2018, *GROW* increased its operations; in the first half of the year, *GROW* visited 423 homes, held 205 conversations, and left 221 door knockers at unanswered doors (3).

In late 2014, Public Health and the City of Dayton initiated plans to open a syringe exchange program in partnership with several local agencies. At the time of the creation of this program, used needles and syringes littered the city; several police officers had been injured by used needles and were concerned about blood-borne pathogens, which were on the rise (35). One study found that a one dollar investment in a syringe exchange program saved at least $6 in averted costs of HIV treatment. The stakeholders in this program decided to go with the "one for one" model, which is based on a successful program in Green Bay, Wisconsin. This program stated that an individual needed to exchange one needle in order to get a clean one. There has been a resulting decline in reports of syringes on the streets, or in the parks because of the

implementation of this program. 125,383 syringes were exchanged in 2017. In the first five months of 2018, 81,361 syringes had already been exchanged (35) (Figure 7).

The City of Dayton and Montgomery County have made great strides in addressing the opioid crisis. From educating citizens and individuals in active addiction, to helping those who want to begin treatment enter that stage, the Dayton Police Department, City of Dayton, and other organizations throughout the region have worked diligently to implement programs to help reduce the number of opioid related deaths throughout the region. In Dayton, data drives nearly every intervention. The data is intentionally captured, rapidly released, and thoughtfully considered in making a decision. The people and organizations in Dayton did not wait for data, but rather stepped forward and began to take action when they first noticed the problem. A coordinated response to the opioid epidemic means that the community is better poised to respond to addiction in the future, no matter the drug.

Appendix

Figure 1

Unintentional Drug Overdose Deaths Occurring in Montgomery County 2010 - 2018
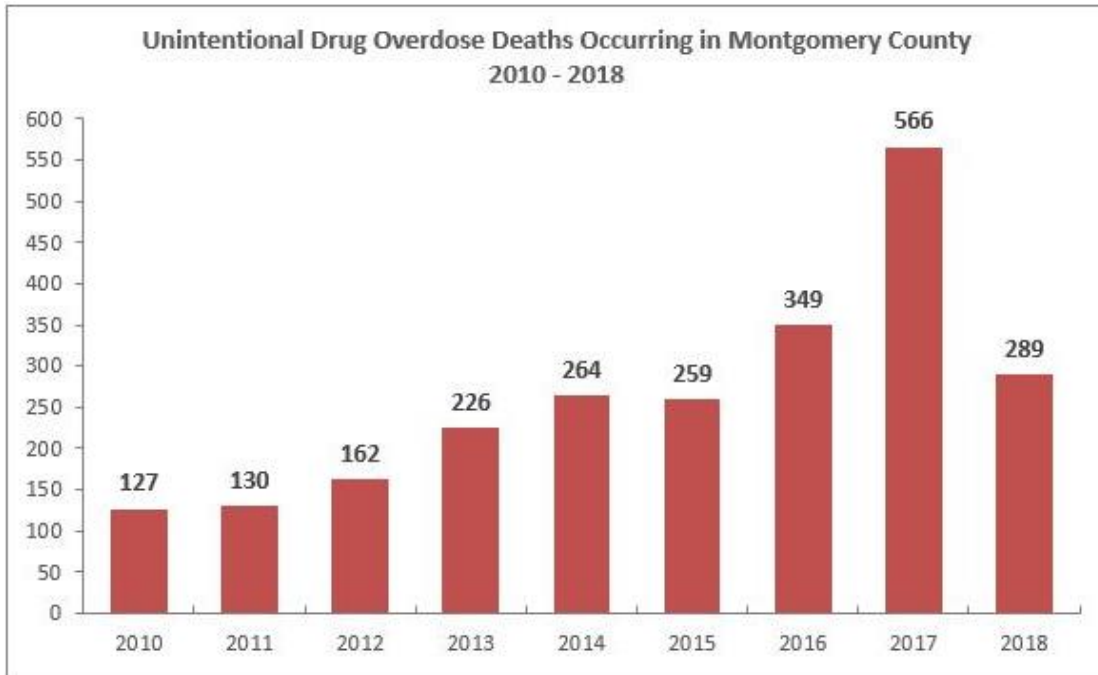
Figure 2

Drug Overdose Deaths in Montgomery County by Sex January - October 2018
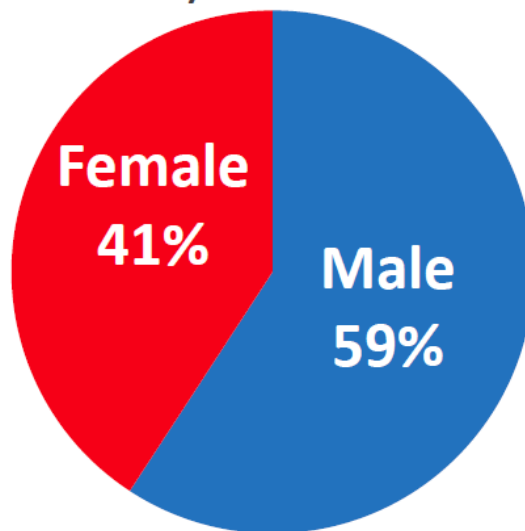
Figure 3

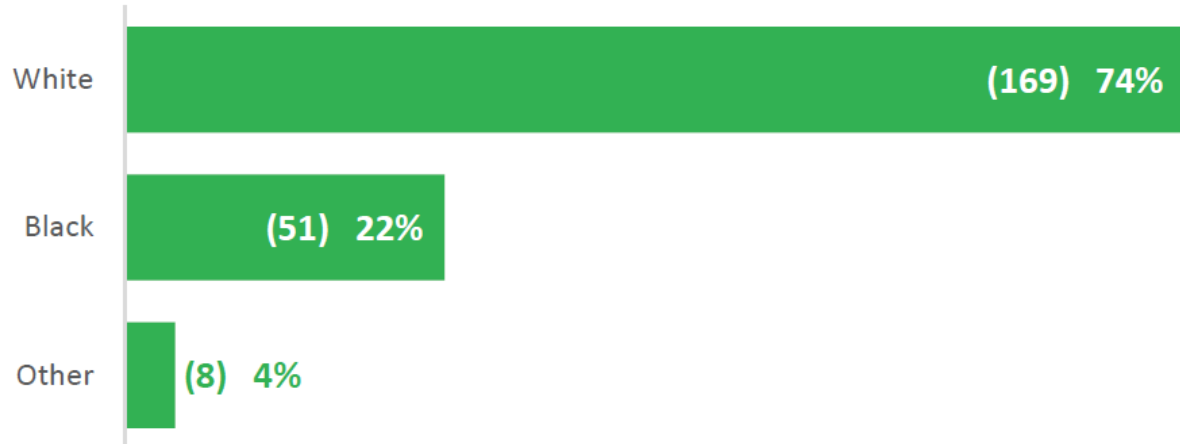Drug Overdose Deaths in Montgomery County by Race
January - October 2018

White (169) 74%

Black (51) 22%

Other (8) 4%

Figure 4

Percent of Overdose Emergency Department Visits by Home Zip Code
Montgomery County, 2018
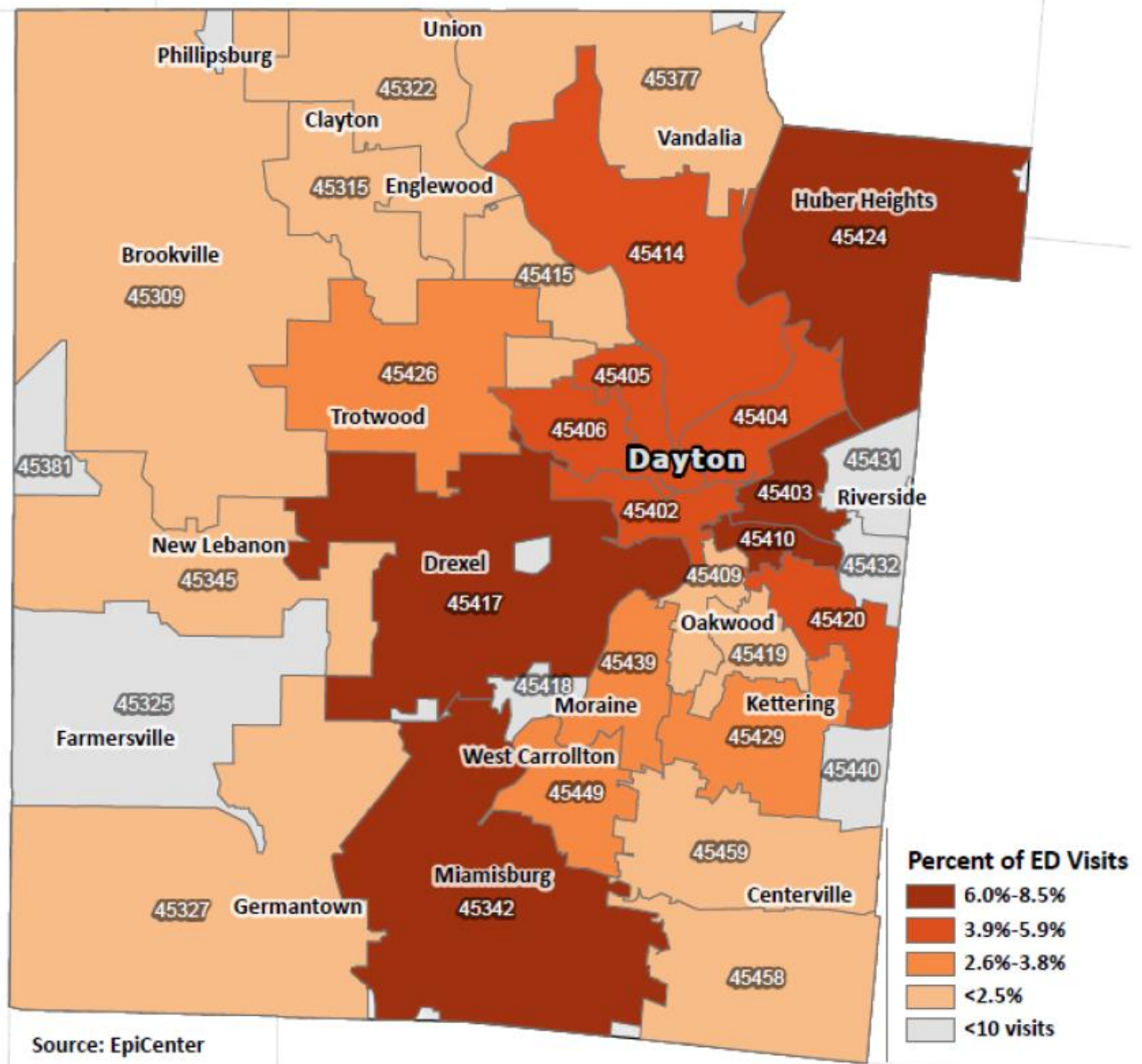
Figure 5

Cost of overdose services for Dayton Police and Fire departments

	Cost of emergency response	Cost of Narcan
2015	$248,200.00	$65,880.00
2016	$338,150.00	$98,380.00
2017	$610,950.00	$291,660.00
Total		**$1,653,220.00**

Note: The cost of Narcan is not included in the cost of emergency response.
Data were provided by the city of Dayton in July 2018 and are on file with the author.

CAP

Figure 6

Due to the availability of Narcan, fewer overdoses are resulting in death
Overdoses resulting in death in 2016 and 2018

2016
Overdoses: **927** / Narcan administered: **2392 mg**

Overdose deaths: **182**

2018
Overdoses: **922** / Narcan administered: **2727 mg**

Overdose deaths: **132**

Note: In the first six months of 2018, monthly overdose counts were similar to the same period in 2016. But more Narcan was delivered in 2018, contributing to lower rates of fatal overdose.

Source: Data were provided by the city of Dayton in July 2018 and are on file with the author.

CAP

Figure 7

CarePoint (Syringe Services) Exchanges and Distributions by Location, 2018				
Exchange/Distribution	LEC	Mt. Olive*	Vogel	Total
Syringes Exchanged	129,265	512	77,206	206,983
Condoms Distributed	22,906	0	12,901	35,807
Lube Distributed	12,748	0	6,940	19,688
Alcohol Pads Distributed	50,658	0	30,439	81,097
Cotton Balls Distributed	3,140	0	1529	4,669
Ointment Distributed	28,683	0	15,277	43,960
Cookers Distributed	16,209	0	9,042	25,251
Tourniquets Distributed	4,958	0	3,001	7,959

Figure 8

Dayton Police Department Narcotics Drug Seizures, 2018					
Drug	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Total
Cocaine/Crack (grams)	2,012	6,037	12,681	369	21,099
Heroin (grams)	285	445	5,418	82	6,230
Fentanyl (grams)	4,670	11,279	4,075	3,407	23,431
Methamphetamine (grams)	104	60,297	22,900	21,489	104,790
Pharmaceuticals (dosage unit)	165	1,037	14	0	1,216
Drop Box (lbs)	54	219	60	62	395
Other Drugs (grams)	37,621	3,805	77,874	5,682	124,262
Marijuana (plants)	0	0	100	100	200

Figure 9

Miami Valley Bulk Smuggling Task Force Drugs Removed or Forfeited 2016 – 2018			
Drug	2016	2017	2018
Cocaine/Crack (grams)	30,148	26,185	36,304
Heroin (grams)	7,645	2,277	31,382
Fentanyl (grams)	1,228	33,850	53,715
Methamphetamine (grams)	3,847	15,721	120,628
Marijuana (grams)	854,871	363,573	141,648
Opioids (pills)	426	1,800	1,415

Figure 10

Figure 13. Average Age-Adjusted Unintentional Drug Overdose Death Rate Per 100,000 Population, by County, 2012-2017 [1,2]
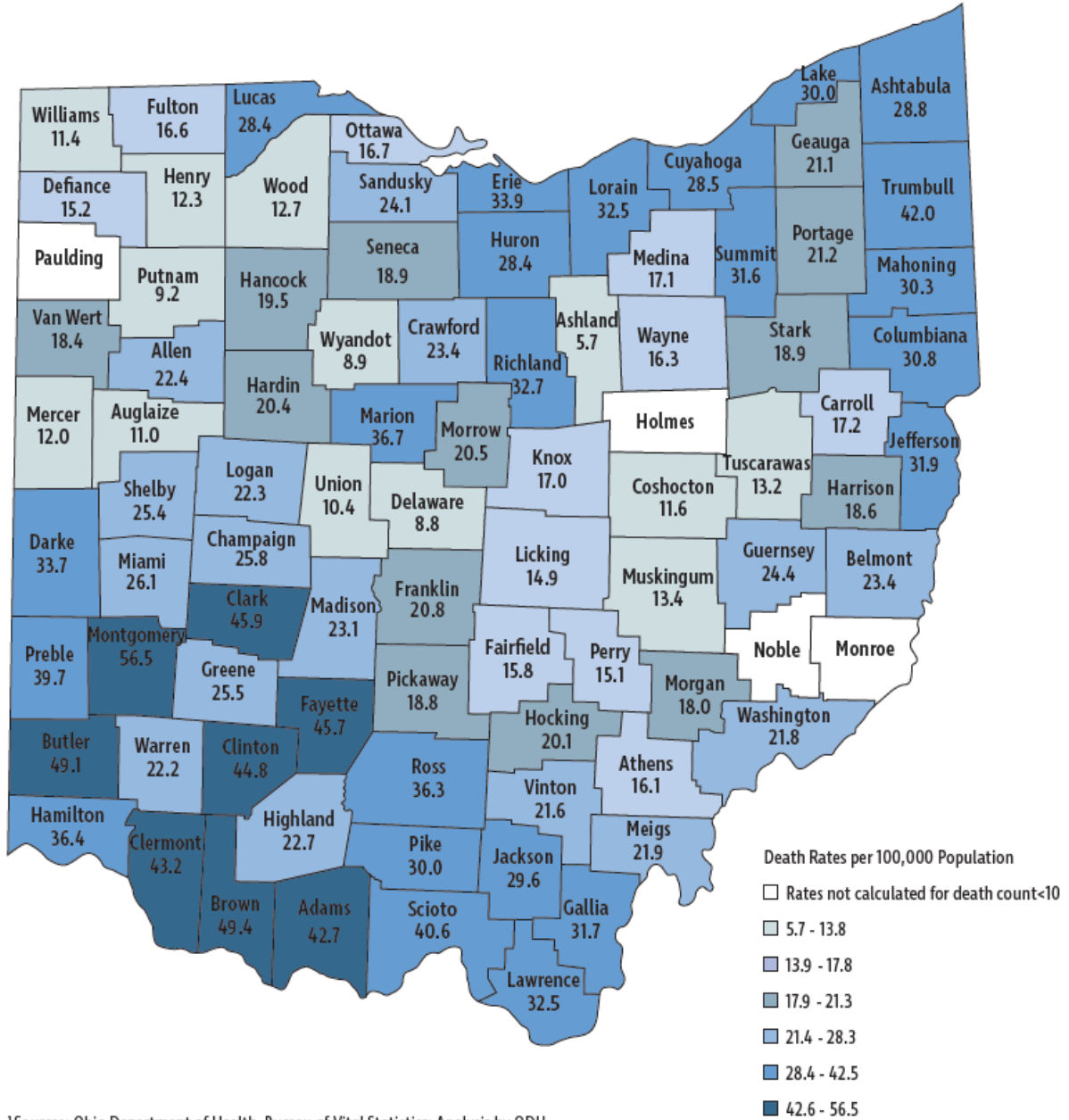
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