HENNEPIN COUNTY
MINNESOTA

CJCC

The Opioid Epidemic: Public Safety Interventions & Justice-Involved Supports

CRIMINAL JUSTICE COORDINATING COMMITTEE

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Introduction

CJCC

The surge in opioid overdose deaths has gained national attention in recent years with all levels and sectors of society now looking for ways to solve this growing problem. Opioid overdose deaths are taking their toll on communities across the country, cutting across economic, racial, and geographic boundaries, with few signs of slowing. Hennepin County is faced with many of the same challenges surrounding the rise in opioid abuse and deaths as the rest of the country. From those caught in its grip to those in a position to intervene, everyone is in some way affected by this crisis.

Hennepin County established an Opioid Strategic Planning Task Force in late 2017, which formulated a framework to move forward with prevention, treatment, and recovery efforts. Simultaneously, the CJCC (Criminal Justice Coordinating Committee) began the task of researching best practices for public safety to respond to the opioid crisis.

The county-wide Opioid Strategic Planning Task Force framework calls on all sectors of the county to work together to bring about a comprehensive and concentrated approach to fighting the opioid epidemic. In the CJCC report, the focus is narrower, with discussion surrounding the identification of issues posed by the crisis specific to public safety interventions and justice-involved supports. Specific, proven examples are provided of how groups across the country are combatting the opioid epidemic within public safety and the criminal justice system, with analysis of how these interventions could be adapted in Hennepin County. Some technical language will be employed throughout the report; therefore, a glossary of terms is appended.

There is an often quoted parable in public health, where a couple of fisherman notice kittens in the river, nearly drowning in the water. They begin to pull the kittens out, saving their lives day after day as more continue drifting down the river. Eventually, worn down by caring for all of these kittens, the fishermen think to walk upstream and figure out how and why the kittens are ending up in the river in the first place. To successfully combat any behavioral health crisis that we currently face, we need people at all stages of the river: preventing more individuals from getting in upstream, teaching those individuals how to navigate the waters, saving lives when they need to be pulled out, and offering comprehensive care thereafter. These activities correspond to prevention, treatment, rescue and recovery efforts necessary to address the opioid epidemic.

While this report is neither universal nor exhaustive, it provides a starting place. There is no single solution to this public health and public safety threat, but by working collaboratively across disciplines and departments, we can work together to better serve the residents of Hennepin County.

Background: The Rise of Opioid Abuse

Marketing: In the 1990s, physicians' common fear of prescribing opioid painkillers began to subside in response to aggressive marketing and promotional pushes by large pharmaceutical companies.[1] From 1999-2010, the number of prescriptions written for opioids in the U.S. quadrupled, mirroring the exponential increase in overdose deaths during his same period.[2] [3]

Treating Chronic Pain: In 1995, pain was dubbed the "5th Vital Sign" by the American Pain Society, equating it in importance with other measures like blood pressure and temperature.[4] With the prescribers and patients alike aiming for the often unrealistic goal the absence of pain, opioids were prescribed in escalating doses.[5] There was a lack of information and education on prescribing for the subjective levels of pain that patients were reporting, but insurance companies were quicker to cover the costs of opioids, as opposed to alternative therapies for pain treatment, such as physical therapy, meditation, and acupuncture. This led to an uncritical hike in opioid prescriptions.

Increasing Supply of Opioid Drugs: The number of opioid painkiller prescriptions written in the United States peaked in 2010, but with a crackdown on prescribing since then, the prescribing rate dropped to 66.5 prescriptions per 100 people in 2016.[6] While at the lowest rate it has been in 10 years, it is still 300% of what it was in 1999.[6] The large amounts of opioids that were dispensed primarily during the early 2000s led to a surplus in medicine cabinets, and an inherently greater chance for misuse and abuse among those who were prescribed the drugs in the first place and those who sought to use them non-medically.[7] Recently, many states and private pharmacies have strictly limited the number of days' supply allowed for prescription opioids to seven days or fewer.

Current Challenges

Today, there are about 2 million American adults addicted to prescription opioids,[8] and about 4% of them (or 80,000 adults) will end up transitioning to heroin or synthetic opioids.[9] Augmenting these numbers is an increasing number of people whose first-time opioid use is with heroin as opposed to prescription opioids.[10] While the availability of prescription drugs has decreased, the availability of street drugs, like heroin, has increased.[11] It is unclear whether increased demand for heroin has increased the supply, or whether a flood of heroin entering the market has increased use of the drug. Further complicating the current state of the epidemic is the adulteration of heroin by the emergence of fentanyl and fentanyl analogs.[12] While finding the balance between over- and under- prescribing prescription opioids remains a constant battle, the greatest contemporary challenge with regard to the opioid crisis has become the more widely spread usage of heroin, fentanyl, and fentanyl analogs.

What are Opioids?

The human body contains an opioid system which manages pain and operates the brain's reward system. Essentially, an opioid is any substance, whether natural, man-made, or produced in the body that is able to bind to the opioid receptors within this system.[13] Some opioids, like heroin and morphine, are natural derivatives of the opium poppy plant, known as "the joy plant."[14] Other opioids are chemically modified or completely manmade to have a similar structure to the poppy plant.[14] No matter the source, when an opioid binds to an opioid receptor, an effect is produced, such as relieving pain, slowing breathing, making a person "feel good," and having overall anti-depressive effects.[13] Opioids activate the same reward processes that are produced with other pleasurable activities.[13]

What is Fentanyl?

Fentanyl is an opioid manufactured legally for medical use, but can also be manufactured for illicit use. Fentanyl and its analogs are attractive to traffickers because they are more easily produced and create cheaper highs per dose than heroin.[12]

Only 2-3 milligrams of ordinary fentanyl (the equivalent of 5-7 grains of table salt) can cause respiratory depression, making it a dangerous part of the heroin market.[15] Carfentanil, an emerging fentanyl analog, is even more potent and therefore even tiny amounts can be deadly.[16] With a dozen or more possible fentanyl analogs, the toxicology of identifying these substances can become very complex.[19] Such a wide range of possible synthetic opioids makes it increasingly difficult to determine the exact opioid responsible for death in the event of an overdose and thus have a better understanding of how, why, and where to target traffickers.

Why are Opioids Addictive?

Compared to other addictive substances, opioids are unique in their addiction pathway.[17] Continued opioid use produces *differential tolerance*, wherein a person develops tolerance to the pain-numbing effects of the drug more quickly than to other symptoms, such as slowed respiration.[18] Because of this, users need more of the drug to feel the same effects, but their bodies have not developed the tolerance to handle these larger amounts - most importantly in terms of keeping up with the slowed respiration that opioid drugs cause.

Opioid use also results in an intense withdrawal period in the absence of the drug.[19] When abused, opioids flood the brain and highly activate the brain's reward system. As a person's brain gets used to the presence of these excess opioids, it stops or slows the production of the natural opioids that are produced by the body and are supposed to be there. Thus, the unpleasant sensation associated with withdrawal is the result of a lack of presents of opioids – natural or otherwise – in the brain.

The Three Waves of the Opioid Epidemic

First Wave – Prescription Painkillers

The opioid crisis has its roots in overdoses from prescription painkillers. In Minnesota, prescription painkillers are still the leading cause of opioid overdose death; however, across the country deaths due to prescription painkillers have begun to level off or decrease, as recent guidelines and limits on prescribing have been implemented.[20] [21] While addiction to prescription opioids still remains a problem, the epidemic as a whole has shifted to new waves.

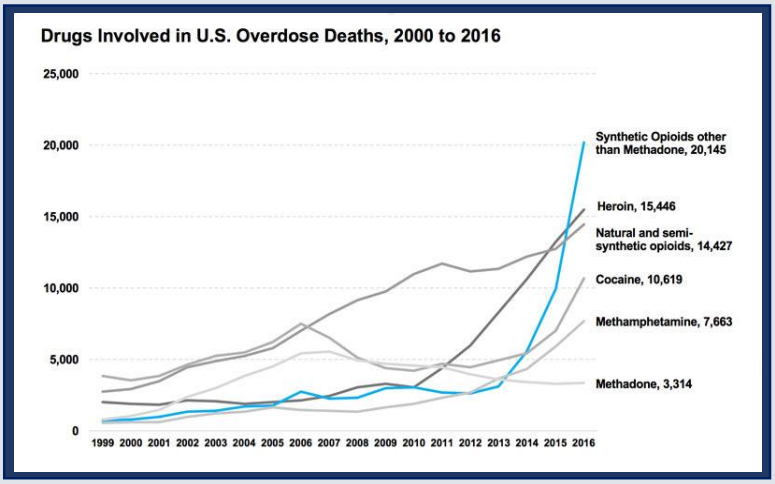
Second Wave – Heroin

The supply of heroin in the United States increased by 143% from 2010-2015 as drug traffickers began aggressively expanding their market.[22] This was paired with a sharp increase in heroin-related deaths over the same time period.[28] [29] Perhaps due to cheaper prices of street drugs and the tighter restrictions on opioid prescribing during this time, heroin use became more popular. The small percentage (4%) of opioid painkiller users making the transition to heroin suggests that prescription opioid use is only one factor associated with heroin use; still, 94% of those who made this transition reported doing so because heroin was cheaper and more readily accessible. There is also an increasing trend of initiating opioid use with heroin as opposed to starting with the often milder prescription opioids.

Third Wave – Fentanyl and Fentanyl Analogs

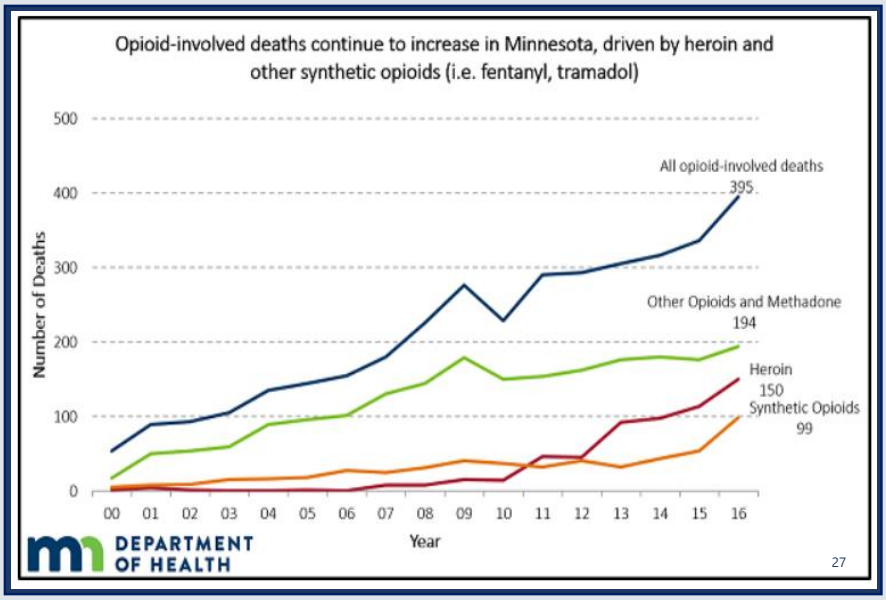
In 2016, fentanyl and fentanyl analogs overtook heroin as the leading cause of opioid overdose deaths in the United States, precipitating the current phase of the crisis.[23] Not all users actively seek out fentanyl as they would prescription painkillers or heroin, but fentanyl is increasingly being mixed with heroin and other substances within the U.S. drug market. However, fentanyl and fentanyl analogs can produce more intense highs and leave users not satisfied with the highs associated with regular prescription opioids or heroin. [24] With its high potencies and imprecise mixing with other substances, users can only make a guess at the correct dose. The risk of incorrectly guessing the correct dose outweighs the dependence on and addiction to opioids among users.

The increasing fentanyl supply in the United States is primarily coming from Mexico and China, by way of the black market ordering on the internet as well as the Mexican and Canadian borders.[25] As of March 2017, a law was passed in China to better regulate fentanyl flow into the U.S. The effects of this new legislation remain to be seen. [26]



Minnesota

At the end of 2016, the state of Minnesota had 10.6 opioid overdose deaths per 100,000 residents, the 6th lowest rate out of all states.[27] Still, since 1999, the rate of overdose deaths has risen in Minnesota by more than 500%.[28] From 2015-2016 alone, the death rate rose by 18%, totaling 395 opioid-related deaths in 2016 and making Minnesota 1 of 27 states to have a statistically significant increase in opioid overdose deaths during that year.[29]



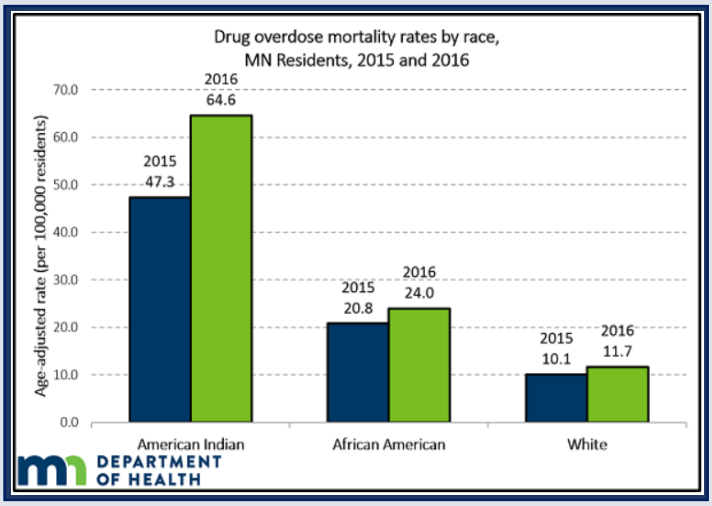
Prescription drug overdose remains the leading cause of opioid overdose death in the state. This trend is not consistent with the rest of the country; in 2016, the U.S. as a whole saw fentanyl cause the highest number of opioid overdose deaths. As many have warned, the surges in some states of opioid overdose deaths, particularly those due to fentanyl, could be a "preview of coming attractions" for states like Minnesota that may not yet have reached their peak with regard to the opioid epidemic.[30] Fitting with this warning, from 2015-2016, deaths due to synthetic opioids rose by 83% in Minnesota, signifying an upward trend.[31]

Distribution & Disparities of Opioid-Related Deaths in Minnesota

Geography: The 7-County Metro (Hennepin, Ramsey, Washington, Scott, Anoka, Carver, and Dakota counties) has a higher overdose mortality rate than Greater Minnesota (all counties except the 7-County Metro).[31] Interestingly, in Greater Minnesota, prescription opioid deaths are down and heroin and synthetic opioid deaths have risen only slightly, while deaths due to psychostimulants like methamphetamine are increasing sharply.

Gender: Across the state, men have a higher number and mortality rate of drug overdose death compared to women, and this proportion is increasing.[31] In 2016, men accounted for 67% of all opioid overdose deaths in the state.

Race: While Minnesota has one of the lowest opioid death rates in the country, the state has one of the greatest disparity of opioid deaths based on race in the United States.[27] In Minnesota, American Indians are six times more likely and African Americans more than twice as likely to die from drug overdose than white Minnesotans. This stark difference means that while American Indians represent only 1.5% of the population of Minnesota, they represent 6% of all overdose deaths in the state. Similarly, the African American population makes up 7% of the state population but accounts for 10% of all drug overdose deaths. Data from 2016 shows the mortality rate increasing for all races in Minnesota, but increasing at a faster rate among American Indians and African Americans, thereby increasing the disparity.



Age: The age distribution of drug overdose deaths has been shifting younger since the start of the epidemic.[31] Statewide, adults age 25-54 have the highest number of overdose deaths. Comparing mortality rates, all adults aged 25-54 in the 7-County Metro area have fairly equal probabilities of opioid overdose deaths. However, in Greater Minnesota, the opioid overdose mortality rate is much higher for the 35-44 age group. This suggests that there are perhaps slightly different phenomena influencing opioid use and abuse between these two areas.

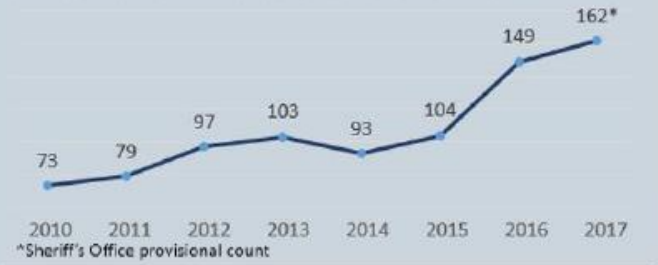
Hennepin County

Hennepin County has not remained immune to the opioid epidemic and its implications. In a similar position to the whole state of Minnesota, Hennepin County has seen increases in opioid overdose deaths in recent years, and equally important, has a large disparity in deaths by race. These increases in overdose deaths have put pressure on the already over-taxed health and justice systems, thus challenging a stronger response from these sectors. The state of Hennepin County's opioid crisis is outlined on Page 7 of this report.

The Opioid Epidemic in Hennepin County

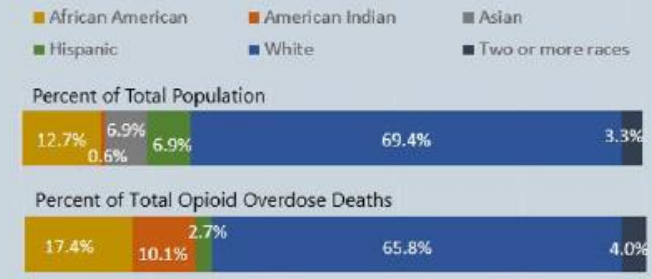
SYSTEM IMPACT

Hennepin Co. total opioid overdose deaths [32]

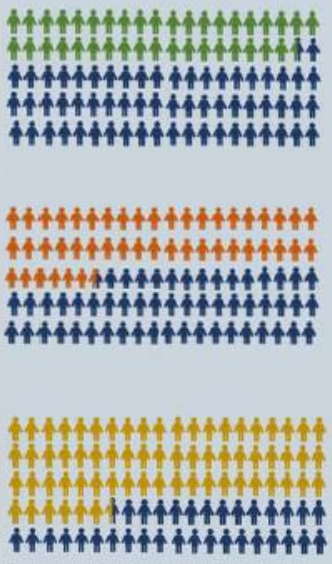


*Sheriff's Office provisional count

Hennepin Co. Opioid Overdose Deaths by Race, 2016 [32]



Prescriptions per 100 Residents, 2016 [33]



Hennepin Co: **38.6**

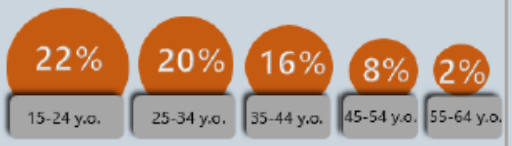
Minnesota: **46.9**

U.S.A.: **66.5**

Carfentanil [37]

made its first appearance in Minnesota and Hennepin Co. in 2017

Percent of Deaths involving Opioids by Age Group in Hennepin Co., 2016 [32]



400+ lawsuits [35]

have been filed against opioid distributors, retailers, and manufacturers by cities, counties, American Indian tribes, and more. Hennepin County is among those who have filed. These consolidated suits allege the defendants fueled the opioid epidemic by deceptive marketing practices and false claims about opioid drugs' addictive natures. The suits are being overseen by Judge Dan Aaron Polster of the federal-level Northern District of Ohio. Judge Polster is pushing for a settlement that would lead to meaningful solutions, with the first bellwether trials scheduled for March 2019.

21,740 LBS [36]

of medicine collected in Hennepin Co. drop boxes in 2016

83% [27]

Average capacity of Hennepin Co. Opioid Treatment Centers

OVER 50 [34]

Lifesaving rescues were performed with naloxone by police in Hennepin Co. from Jan 2017-Feb 2018

Opioid Use and Abuse in the Hennepin County Jail

1 out of 5 inmates have used or abused opioids. Ninety-Six percent of these were actively using when they entered the jail.

64% of previous or current opioid users in the Hennepin County jail have previously overdosed on opioids. Ninety-Five percent of these have been administered naloxone.

74% of opioid users in the Hennepin County Jail have some degree of mental illness.

18% of jail inmates have received inpatient addiction treatment.

Responding to the Epidemic

The opioid epidemic in America is unique in that it has impacted young, old, rich, poor, black, white, male, female, rural and urban individuals. Thus far, few interventions have managed to slow the increasing rates of opioid overdose death. The widespread nature of the epidemic is perhaps the reason it has been difficult to control; taking a deeper look at the crisis is important in understanding the source and scope of the problem.

The model below (Figure 1) allows us to see the multiple levels of influence on opioid overdose. A person's complete environment – beginning at the individual level and extending to the interpersonal, institutional, community, and societal levels – informs his or her health – and risk of opioid overdose.[38] While not comprehensive, Figure 1 provides factors at each of these levels that can contribute to greater or lesser overdose rates. Some of the items listed are risk factors; for example, habits of poly-substance use or high prevalence of fentanyls in the drug supply put people at greater risk of overdose. On the other hand, other factors can be protective, that is, can help prevent people from overdose, such as access to treatment facilities and availability of naloxone (the life-saving opioid overdose antidote). Both risk and protective factors become intertwined with emotional and behavioral tendencies to create complex pathways leading to overdose.

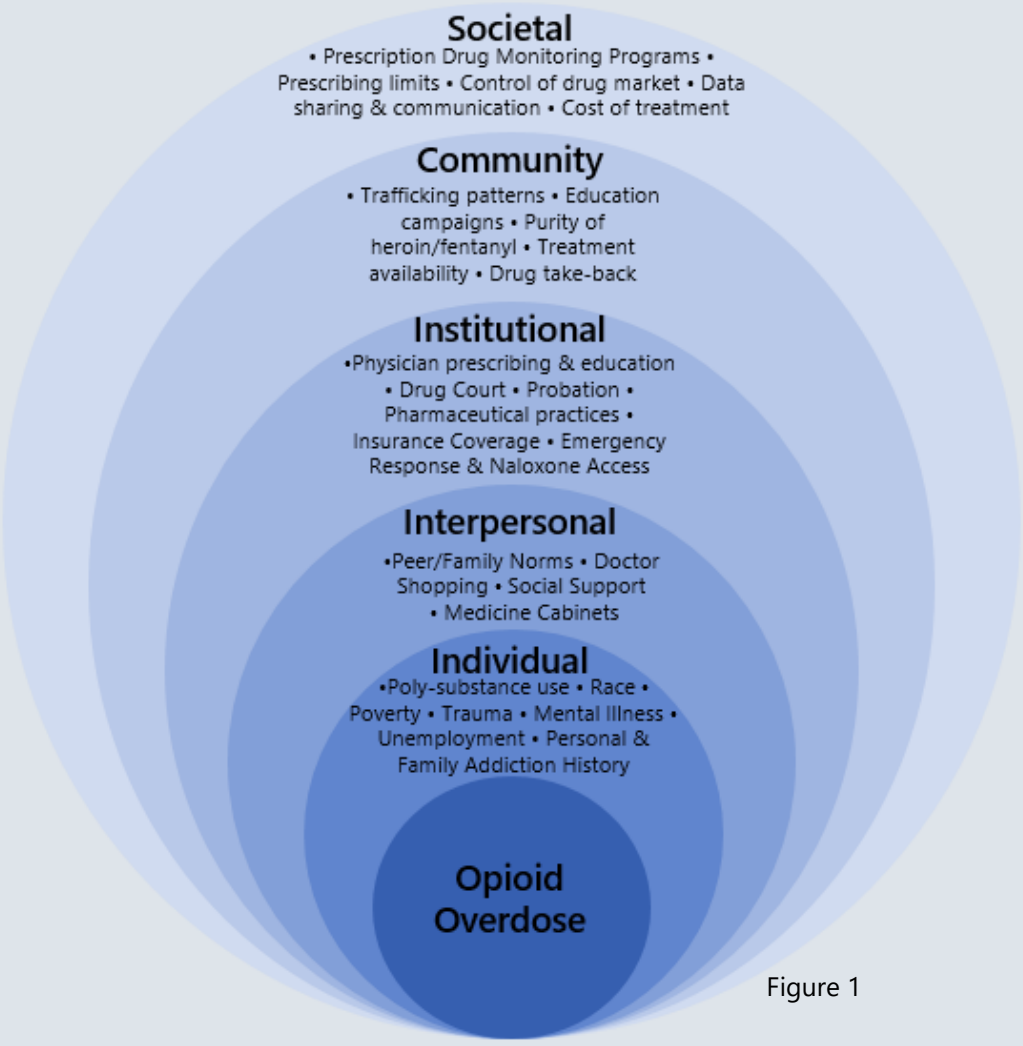


Figure 1

Intervening Comprehensively

Opioid overdose can be the result of an accumulation of many events and circumstances over a lifetime. An individual's own risk and protective factors helps to explain why some people are more prone to addiction and overdose than others, and why some areas of the country have higher mortality rates than others.[34]

For example, situations and life events causing anxiety, depression, and hopelessness are highly associated with higher opioid overdose rates.[39] Two-thirds of those with opioid addiction have had at least one severely traumatic childhood experience.[40] Physically laborious careers and the pain that comes with them, access to physicians, and prescribing rates of physicians are just some of the many other factors that play into increased overdose rates.[41] Adding fuel to this fire are social policies, community norms, prescribing regulations, access to treatment facilities, and more, which all increase the supply of opioids available for self-medication and/or make opioid use the easier option compared to alternative therapies.

County-Wide Plan

In February 2017, Hennepin County's Opioid Strategic Planning Task Force presented its approach to prevent further opioid misuse and overdose in county.[32] A dedicated 40-person team, representing pertinent Hennepin County departments and agencies, worked together to focus on nine priority areas to highlight best practice action items and build a multi-faceted, county-wide approach to combat this issue. Among these priority areas, many touch on opportunities for intervention within the realm of public safety. In addition, two of the nine priority areas assign intervention responsibility to those in the business line of Public Safety. These are listed below, along with their action items:

Public Safety Interventions: Reduce illegal distribution and use of opioids

- Develop best practices in investigating and prosecuting overdose related crimes
- Develop a diversion court for individuals with a substance use disorder who have been charged with low level offenses to ensure they have quick access to treatment and recovery supports
- Review current probationary practices in drug court to ensure compliance with best practices

Justice-Involved Supports: Increase treatment options and transition planning in correctional settings

- Develop a plan including the feasibility and effectiveness for medication for opioid use disorder (MOUD, aka Medically Assisted Treatment/MAT) during periods of incarceration
- Expand Transition from Jail to Community (TJC) and Integrated Access Team (IAT) to include opioid use disorder target population
- Establish standards to be used in law enforcement interventions

Interventions within Public Safety

Public Safety and the Criminal Justice System interact with a disproportionately high number of people with substance use disorders. However, of these people, only a small number (5%) are connected to and actually receiving gold-standard treatment.[42] Some of the opportunities for Public Safety to intervene and connect more people to treatment fall directly within the two priority areas of the county-wide strategy that are designated to public safety: public safety interventions and justice-involved supports. Other opportunities for intervention are collaborative in nature and thus may fall partly in other priority areas but are nonetheless at least partially intertwined with the work of public safety. With the county-wide framework in place and with the continuing and worsening opioid epidemic, it is now the optimal time to focus on the outlined actions items and begin to work towards implementation of practical strategies related.

The opioid epidemic is in many ways challenging public safety to reinvent drug-related arrests for the 21st century. For many years, there has been an attempt to stop drug use through punishment and coercion of those who are addicted.[43] This approach has arguably led to overcrowded jails and a continuous cycling through the criminal justice system by drug-addicted individuals, without a dent in the number of drug users or overdose deaths.[44] As a result, public safety is in many ways at the crossroads of criminal justice and public health: trying to become an access point to care for the high numbers of persons with substance use disorder who come through their doors.

Now, the field of public safety is tasked with upholding its own framework and mission, while simultaneously working to end the vicious cycle of addiction that is taking hold across the country. Evaluation and research shows that changing the perception of drug abuse as an addiction issue and connecting individuals to treatment is an effective way of stopping or slowing addiction.[45] [46] Within the criminal justice system though, there needs to be a clear distinction between drug addiction and drug trafficking or selling. Public safety walks this line, and so its intervention efforts distinctly focus on both the victims (addicts and potential addicts) and perpetrators (sellers and traffickers) of the epidemic. This requires a comprehensive approach, which can be achieved through interventions focusing on four levels – prevention, treatment, rescue, and recovery and targeting the many risk and protective factors that are associated with opioid overdose.

Level 1: Prevention Strategy

The goal of the prevention strategy is to reduce the number of people who become addicted to opioids. At the headwaters of the epidemic are the underlying causes for the opioid crisis and the opportunity to stop the epidemic from its source. With actions such as community education campaigns, safe drug disposal, and overdose surveillance, intervening in these areas upstream can set the stage for lower opioid overdose and death downstream. Prevention interventions often involve active outreach; they consist of reaching out to individuals and communities before the epidemic can fully take its toll.

Action Area 1.1: Education

Statement of the Problem

Although the scope of the opioid epidemic has brought the issue into the public eye in recent years, significant education and access to information for Americans both young and old is important in stopping the flow of new addiction. Opioid overdose has surpassed car accidents as the leading cause of accidental death in the United States.[47] Public misconceptions about the causes of opioid addiction contribute to the stigma surrounding the crisis.[48] The scope of this crisis demands something more than treating only the symptoms; the root causes must also be addressed.

Synthesis of Evidence

Prevention strategies often constitute a hard sell as they can take years to implement, require persistent behavior change, and their success is nearly invisible. However, the easiest drug addict to treat is the one that was prevented. There is no "silver bullet" to solve the opioid crisis, but equipping community members with the tools and information they need to prevent substance use in themselves and their peers can only lead to a healthier future in their respective communities.

Education campaigns, whether for the public, their school children, or individuals with substance use disorder can help to increase general awareness, reduce stigma, and provide valuable information to the public that could lead people to change their behaviors. Campaigns should be relevant to a particular audience (e.g. teens or culturally specific, etc.) and specific to a particular issue (e.g. prescription opioid misuse or treatment access).[49] Many counties and states have started educating children as young as Kindergarten age and continuing through high school, and college on safe drug use.[50] For parents and other adults, websites or mobile apps can provide a reliable place to look for information for those with questions about opioid abuse or addiction.[141]

PROGRAM SPOTLIGHT

- Sheriff Stanek of Hennepin County launched the #NOverdose Campaign in January 2017.[36] This campaign focuses on building a strong coalition of partnerships across sectors to educate parents and youth on current drug dangers, trends, and prevention. #NOverdose facilitates town hall meetings that provides a space to discuss and educate the public on opioid issues in Hennepin County. This campaign is paving the way for on-going public education and prevention in the county.

- In an effort to educate middle school and high school students about opioid use and abuse, Judge Marta Chou of the Hennepin County Drug Court has partnered with the FBI, DEA, local law enforcement, and a new nonprofit, Change the Outcome, to implement a new program in schools educating students about what opioids are, the potential for abuse and other matters central to addiction and recovery. This new program piloted in the Minnetonka Public Schools in November 2017 and has since been launched in the Bloomington Public Schools, Eden Prairie Public Schools and the Lewiston-Altura Public School in Winona County, Minnesota. This new program includes a documentary video focused solely on opioids, as well as an interactive panel discussion in health room classes. Each panel is composed of two local young adults in recovery from opioid addiction, a local parent who has lost a child to an opioid overdose and a member of local law enforcement. This innovative program has reached 6500 students and approximately 300 educators, to date, with the goal being to bring this program statewide.[51]

Action Area 1.2: Drug Disposal

Statement of the Problem

Research suggests that up to 92% of patients do not use their entire prescribed dose of prescription opioids after surgery.[52] This results in millions of unused pills stored in medicine cabinets across the country, which is significant because approximately 75% of all opioid misuse starts with people using medication that was not prescribed for them.[53] Only 22% of people who misuse prescription drugs received their drugs legally from a doctor. The remaining people took or were given them by a friend or relative, bought from a dealer, or doctor-shopped.[54] Increasing numbers of people addicted to opioids are initiating drug use with heroin itself.[55] However, still a significant number (about 75%) initiate their addiction with prescription painkillers, making these prescriptions a cheap gateway drug to opioid addiction.[55] Prescription drop boxes can help stop diversion of prescription painkillers to those who will misuse them. In Hennepin County, there are currently prescription drug drop boxes at 11 locations operated by the Sheriff's Office, in addition to others operated by private pharmacies including some Walgreens and CVS stores.[56] [57] While these disposal boxes do divert some prescription drugs, a large majority of the collected drugs are not controlled substances, resulting resource intensive management of the boxes.[58] Lack of transportation, convenience,

and limited hours of the drop box locations also limit their accessibility to many people. Essentially, drop boxes can be successful in diverting some drugs, but other methods of drug disposal could be more efficient.

Synthesis of Evidence

There are a few new solutions to decrease diversion of prescription painkillers and to increase their safe disposal. In the first of these options, unneeded drugs are placed in a biodegradable bag and mixed with water to deactivate the substance.[59] The Hennepin County Sheriff's Office already offers these bags in a variety of locations, in addition to many nearby cities, including Roseville, St. Louis Park, and Eden Prairie. Alternatively, another disposal option on the market includes drug mail-back programs, where individuals are given tamper-free, pre-paid envelopes to mail their drugs to a location where they will be properly and safely deactivated.

The Hennepin County Sheriff's Office is currently exploring mail-in options for drug disposal, as opposed to the standard drug drop boxes that it now operates throughout the county.

PROGRAM SPOTLIGHT

- In Milwaukee, WI, free postage-paid drug disposal envelopes are available to area residents for the disposal of unwanted or expired prescriptions.[60]
- As the first national pharmacy to do so, Wal-Mart is now giving free disposal bags and information to all of its patients receiving prescriptions for opioids.[61]

Action Area 1.3: Overdose Surveillance

Statement of the Problem

Trafficking trends and patterns paired with the worsening opioid epidemic make the prediction of future opioid spikes both challenging and more important than ever. Information such as the location of the overdose, type of drug(s) involved, and where the drug was initially obtained can take weeks or months to come together after an overdose. Understanding where and how people are overdosing can be very important in preventing future overdoses. Instead of responding in real-time, law enforcement and public health officials have historically been forced to take a more reactionary approach to opioid overdose prevention efforts.

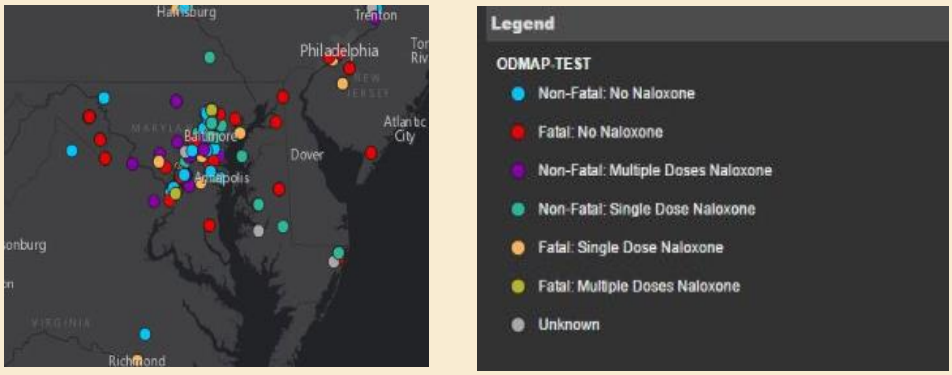
Synthesis of Evidence

By collecting real-time data at the site of the overdose instead of waiting for information from various sources to be pieced together, it's possible to see exactly where drug activity is the highest, forecast future hotspots, have doses of naloxone ready to be administered, and be able to formulate a timely response and take proactive action. With opioid overdose rates having similar trends to a communicable disease in scope and spread, pairing a law enforcement response with public health surveillance can help responders across jurisdictions be prepared for upcoming outbreaks and better monitor movement and pattern of drug use and

overdose, such as geographical correlations and theories about the way drugs travel in and out of jurisdictions.[62]

PROGRAM SPOTLIGHT

- The Overdose Detection Mapping Application Program (ODMap) is a phone app that was first implemented in various jurisdictions in the country in July 2017 and is improving the efficiency and effectiveness of law enforcement and health care providers in treating and tracking overdoses.[62] Focused on producing quick and accurate data for real-time analysis, this mobile tool links first responders on scene to a GIS- and GPS- based mapping system in which they can enter information about the overdose. Police can also enter information like date of birth and overdose history, type of drugs found at the scene, and even photographs of the drug's packaging. All of this information is linked across the ODMap database to identify trends and patterns, allowing for immediate response and exploration of overdoses.



Level 2: Treatment Strategy

The goal of the treatment strategy is to increase access to addiction treatment within the criminal justice system. Moving downstream from high level prevention strategies are efforts that target individuals who are already addicted and at high risk of overdose and death. These individuals can be assisted through screening, early identification, and treatment programs. Intervening mid-stream reduces the need for emergency response later on and increases the number of individuals on the path to being drug-free. This requires a high level of collaboration between public safety, criminal justice, and treatment providers in the community. For example, Warm Handoff Case Management Teams immediately meet with survivors and families post overdose. These team works to convince the survivor of the need for treatment, provide a chemical assessment and immediately transfer to a treatment program. Further, to ensure consistency across multiple public health and public safety sectors, experts like David Mee Lee and the American Society of Addiction Medicine's set of criteria for providing results-based care in the treatment of addiction can serve as a useful guide in all treatment interventions.[63] These criteria use six dimensions of assessment to create holistic, comprehensive, and individualized treatment plans across all levels of care.

Action Area 2.1: Pre-Arrest Connection to Treatment

Statement of the Problem

With strong stigmas surrounding addiction and a lack of knowledge among addicts on where to go for help, law enforcement is becoming the primary access point to care for individuals with substance abuse problems. Being frequently the first ones to arrive at the site of an overdose, officers are finding themselves in a new role; from administering naloxone to providing CPR and comforting grieving family members, they are forced to become experts in the complexities of behavioral health such as mental illness and addiction.

However, realistically, simply receiving a life-saving dose of naloxone is not always a strong enough deterrent to prevent further opioid abuse for many addicted people. Often times, officers are saving the same lives over and over again.[64] If drug users are arrested, there is still no impact on the supply of illicit substances. What is needed is a devaluing of the demand for drugs, which can be achieved by getting appropriate treatment for drug-seekers.

Synthesis of Evidence

While officers have played an integral role in life-saving efforts with regard to this epidemic, to truly treat the root causes of addiction requires collaboration with trained addiction specialists and evidence-based treatment. Administering naloxone in itself is not enough; it is important to intervene when possible *before* life-saving rescue is needed, and even more so *after* the administration of naloxone.[65]

Across the country, law enforcement has collaborated with addiction treatment programs to allow addicts to voluntarily come forward without fear of arrest and self-refer into treatment. This gives access to treatment for more people and decreases drug use arrests and the need for naloxone. These programs rely on the willingness of addicted people to come forward seeking help by providing a safe space for them to do so.

Alternatively, if naloxone is administered, there is an opportunity to capitalize on the "recovery window" – the period shortly following an overdose when addicts are more open to receiving help. In a "Naloxone- Plus" framework, law enforcement offers follow-up referral and treatment after they have administered naloxone to an overdose victim. Having made contact with a person likely suffering from substance use disorder, the goal of Naloxone-Plus is to maintain this connection, hopefully preventing the need to revive this same person again by linking him/her with appropriate treatment and care. This strategy is grounded in the idea that simply carrying and providing naloxone alone is not enough and that follow-up during the recovery window can help more individuals initiate and remain in treatment. Many law enforcement agencies have taken on this responsibility because as first responders, they are often the ones who make the initial connection at the site of an overdose.

PROGRAM SPOTLIGHT

- PAARI (Police Assisted Addiction and Recovery Initiative), is a program developed in Massachusetts where drug users who willingly ask the police department for help with their addiction are immediately connected with treatment and recovery services. There is no jail time or arrest for those who come forward seeking help. A social worker and/or addiction specialist is embedded within law enforcement to work with participants in the program. Participants are also connected with an "Angel" who will guide them through the process of treatment and recovery. In its first year of implementation (in Gloucester, MA), 90% of the 417 people that entered the program enrolled in a treatment program. This is compared to only 60% enrollment in treatment among those referred by emergency rooms. The PAARI model is now being used by more than 250 agencies in 30 states and communities that have implemented PAARI have observed as much as a 25% reduction in crimes associated with addiction and have saved costs by diverting people into treatment rather than entering the criminal justice system.[66]

- Quick Response Teams (QRTs), piloted primarily in Cincinnati, Ohio, consist of a law enforcement member, EMS, and a treatment specialist. The QRT visits the home of an overdose victim and follows up with the individual and family over time to encourage recovery efforts and reduce barriers to treatment. QRTs have had up to 79% of participants remain in treatment through the intervention and continued follow-up of the QRT. [67] [68]

- The LEAD (Law Enforcement Assisted Diversion) Program gives police officers discretionary authority at point of contact to divert low level drug criminals to a community-based, harm reduction intervention (instead of incarceration) for violations driven by unmet health needs, such as addiction. Instead of going through the traditional criminal justice system – booking, detention, prosecution, conviction, and incarceration – individuals are redirected to intensive trauma-informed case management. The diversion is made in the pre-booking stage, with the goal of reducing the time and costs associated with booking, charging and required court appearances. In the initial pilot of LEAD, which took place in King County, Washington (Seattle) beginning in 2011, LEAD participants were 58% less likely to recidivate than their non-LEAD counterparts. Since the pilot, LEAD has continued to produce statistically significant results in reducing recidivism and costs.[73]

- In the summer of 2018, Hennepin County will open 1800 Chicago Behavioral Health Center, providing an alternative to arrest for people with behavioral and mental health issues facing (arrest) on non-violent offenses. This jail diversion framework allows officers to divert people with mental illness away from the jail, provide another option for those that have no other place to go, and connect people with services faster. The facility contains space for detox/withdrawal management and mental health crisis stabilization, and plans to open a triage center in 2019.

Action Area 2.2: Model Drug Court Initiative

Statement of the Problem

As a result of untreated addiction, many individuals cycle through the criminal justice system over and over again. Drug court gives an opportunity to participate in a treatment program mandated by the court in exchange for little to no jail time and criminal record. However, often reserved for high-level crimes, drug court does not stop the continuous progression of low-risk drug users through the system.[69]

The opioid epidemic is causing an influx of high-need, low-risk offenders in communities, and by not being connected with treatment, these users are overdosing in public places, committing low-level crimes as a means of finding their next high, and putting a heavy burden on police, emergency departments, coroners, and bystanders. This is not to mention that many lives are being unnecessarily lost to the opioid epidemic. However, there are few existing models for opioid-specific or low-risk substance abuse drug courts.

Synthesis of Evidence

Assisting high-need, low-risk individuals in getting treatment for their addiction will not only minimize the public safety threat and lives lost, but will also reduce ever-escalating costs assumed by the criminal justice system in response to the opioid epidemic.[70] This population has unique needs that are not directly met with traditional current Model Drug Court (with its population of high-risk and high need individuals), and so can benefit from a drug court intervention specifically tailored to high-need, *low-risk* individuals.

In Hennepin County, a Model Drug Court Initiative (MDCI) will begin accepting low-risk, high-need, first time offenders who are currently failing in Hennepin County's Drug Diversion Program (Diversion Solutions) and provide them with a structured environment and strong judicial oversight for a 9-12 month pilot program. This innovative program—a collaboration between the Fourth Judicial District Court, the Hennepin County Attorney's Office, the Hennepin County Public Defender's Office, the Hennepin County Human Services & Public Health Department and the Hennepin County Department of Community Corrections and Rehabilitation (DOCCR)—is scheduled to commence in Summer 2018, provided minimal funding is obtained.

This 12-month pilot will accept a small group of participants referred by the DOCCR prescreen assessment tool (a validated tool for this population) with many—if not all—of the program's participants populated by failures of the Diversion Solutions Drug Diversion Program (replacing the previous De Novo Program). Once accepted into MDCI, individuals will progress through three phases: (1) primary treatment with a current and well-regarded Drug Court Treatment Provider (and including mental health support, where necessary), (2) completing aftercare at said treatment provider, establishing a sober supportive community, and working with a peer recovery specialist, a care coordinator, a social worker and/or a probation officer

and (3) maintaining sobriety, cementing participant's sober supportive community, and enrolling in school and/or obtaining employment.

The MDCI model was conceived by the aforementioned Hennepin County partners over the course of the last year of discussions, by reexamining the current Model Drug Court, and in light of Minnesota's current Substance Use Disorder Treatment Reform. In MDCI, the goal is to ensure that participants get timely access to services to treat their substance use disorder, to ensure there is a continuum of care after primary treatment and to provide opportunities and services—like housing, education, employment, a sober supportive community, etc.—to ensure long-term recovery from a substance use disorder is a real, viable option, and to provide gainful opportunities versus a return to criminogenic behaviors and drug abuse. In addition, it is anticipated Hennepin County Medical Center will partner with this pilot program (and with preliminary discussions with HCMC's Addiction Medicine Department confirming the same)—akin to what it currents does with the traditional Drug Court to provide medically assisted treatment, such as Suboxone, Methadone, or *Vivitrol*, to participants requesting these treatments. MDCI will work to provide the right level of service at the right time and in a more treatment-minded approach for our less criminogenic individuals in the criminal system.

Using anticipated resources provided as part of the upcoming SUD reform, e.g., peer recovery specialists and care coordinators, the Model Drug Court Initiative will use these peer recovery specialists (many of whom are in long-term recovery from mood-altering substances) and care coordinators to efficiently and immediately offer wrap-around services to participants in treatment and other recovery supportive services. In particular, the National Association of Drug Court Professionals (NADCP) has established peer recovery specialists—and their involvement with drug courts—to be a best practice and important to someone's long-term recovery and MDCI will use these specialists to ensure success with its participants.

In comparing the current Model Drug Court with this new pilot program, MDCI will be shorter program (closer to 9 months versus 19 months as the average participant time in the traditional Drug Court), with less contact time with the court, and less time with probation officers and instead, participants will have more contact with a social worker assigned by Hennepin County Human Services & Public Health Department (a la the current H.O.M.E.S. Court model with said social workers). Where participants have less criminogenic behaviors and risk, it is critical to not over-deliver on certain services, like time with probation officers and the judge or to "over treat" in a treatment setting—rather, the participant's risk necessitates a soft, but firm, touch with the court and DOCCR—as recommended by the NADCP. The Model Drug Court Initiative will allow a more therapeutic response with the involvement of a drug court judge, a social worker, a peer recovery specialist, a care coordinator, and a probation officer. It is anticipated the same attorneys from the Hennepin County Attorney's Office and the Hennepin County Public Defender's Office will staff this calendar, as they do with the traditional Model Drug Court.

PROGRAM SPOTLIGHT

- In May 2017, a judge in Buffalo developed the nation's first opioid specific drug court. The court began as a result of the observation that opioid addiction was the driver of low-level community crimes and death before offenders even reached their court dates. In this model, offenders appear before the judge within a day of their arrest and are immediately sent to rehabilitation clinics. After one month of treatment, the offender must appear before the judge for 30 consecutive days, be drug tested regularly, agree to 8:00 pm curfews, and make phone call check-ins. It is an intensive program, but second, third, and fourth chances are given. Rather than fill already overcrowded jails and coroner's offices, the program was developed with a primary goal of treating addiction and keeping people alive. In the year that this drug court has been in place, over 150 offenders have completed the program and only one has overdosed.[72]

Action Area 2.3: Expansion of Integrated Access Team & Substance Use Assessments at Booking

Statement of the Problem

For offenders who end up in jail, it can be difficult to find treatment for substance use addiction and mental health disorders. The Integrated Access Team (IAT) in Hennepin County's jail is working to combat this problem by identifying and referring to care clients with co-occurring mental and chemical health needs. Through the hire of a second shift social worker/Licensed Alcohol and Drug Counselor, the jail is assessing 158% more detainees than they had previously. In the calendar year of 2017, 252 detainees were serviced by the IAT.[74] Meeting with these individuals while they are in custody shortens their incarceration time and allows them to get referrals to the appropriate treatment. This program has promising outcomes, as emergency department admissions for participants in the program dropped by 24%, and booking per program participant dropped from 4 times in 12 months to 0.3 times in 12 months.

However, more than half (58%) of the individuals who are eligible for the IAT program leave the jail before the social worker is able to offer services. Further, only 18% of IAT participants are currently referred for treatment. To be able to handle larger numbers of participants, the IAT needs additional staff and resources. By hiring an additional second-shift, full time Licensed Alcohol and Drug Counselor, more individuals will be given the opportunity to be evaluated and connected to services; thus decreasing their risk of rebooking and overdose.

Synthesis of Evidence

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an approach to treating people with substance use disorders.[75] Following this framework, best practice recommends that at the onset of booking, every individual is screened for chemical dependency in addition to mental health.[76] This allows for accurate data entry and a clearer analysis of the total

number of inmates needing connection to IAT and requiring chemical dependency services. In this way, there will be fewer missed connections and individuals released without a referral to treatment. Brief substance use assessment history and data entry at booking could allow for trend analysis, housing classification and streamlined medical nursing services. Examples of screening questions to be asked to every person that is booked include:

- Have you, your close family members, friends, loved ones, etc. experienced a non-fatal overdose?
- Are you currently using heroin or prescription opioids, or prescribed an opioid addiction treatment medication, like methadone?
- Have you been released from jail, prison, or residential substance use treatment in the last six weeks?

PROGRAM SPOTLIGHT

- Texas Christian University developed an opioid screening tool that is designed to help justice and health professionals quickly gather detailed information about opioid use. This allows for a more rapid referral to treatment services and is also able to help these professionals identify potential risk for opioid overdose.[77]

Action Area 2.4: Jail-Based Medication-Assisted-Treatment (MAT)

Statement of the Problem

Whether in jail for a few days or a year, the forced abstinence that often accompanies incarceration is not enough to treat opioid addiction. Instead, providing gold standard treatment in jail is an investment in recovery as it provides an opportunity to encourage addicts into treatment in a controlled environment where compliance with treatment can be monitored. The Hennepin County Adult Detention Center presents a unique challenge for opioid treatment as it processes a large volume of inmates that turn over quickly, leaving limited opportunity to intervene.

Medication Assisted Treatment (MAT), the gold standard addiction treatment, is underutilized within the criminal justice system as a whole despite its success with relieving substance use disorders.[78] MAT medications include the opioid-based drugs of methadone and buprenorphine, or an opioid antagonist drug known as naltrexone (brand name *Vivitrol*).

In Hennepin County, opioid-addicted individuals who enter the jail are currently placed on the Clinical Opiate Withdrawal Scale to be treated and observed for withdrawal symptoms. Legally, they can receive only up to 72 hours (3 days) of methadone treatment without a prescriber. To date, this prescriber-jail partnership has been discussed to expand treatment options but not established.

Synthesis of Evidence

Allowing opioid-addicted individuals in jail to go through normal withdrawal symptoms without medical assistance has been demonstrated to be less effective than MAT, and in some cases harmful for the individual.[79] While it helps with withdrawal symptoms, even limited capacity/short-duration MAT will likely not be sufficient in treating long-term addiction, especially after offenders are released and return to the same environments that fostered their addiction.[80]

Methadone and buprenorphine are met with understandable reluctance they carry a small risk of abuse, but when overseen by medical professionals and closely monitored to prevent diversion, both drugs are extremely successful. Research indicates that methadone and buprenorphine can improve client survival/decrease mortality related to opioid use, improve treatment retention upon release, decrease opioid use and related criminal activity, improve client's ability to obtain and maintain employment, reduce potential for relapse, and enhance social functioning.[79-84] Inmates who participate in MAT and counseling while in prison are less likely to test positive for opioids following their release (27.6%), compared to those who receive only counseling (62.9%) and those who receive counseling and a referral to a treatment center (41%).[85]

Naltrexone, the opioid antagonist alternative to opioid-based MAT drugs, requires complete detox from opioids before the first injection. Administered by once monthly doses, naltrexone blocks any effects of opioids taken during that month.[86] It has been shown that naltrexone may be able to decrease the rate of relapse and has a longer median time to relapse compared to people receiving no medical treatment for addiction.[87] Many jails and prisons across the country, including in Anoka County, Minnesota, offer naltrexone (brand name Vivitrol) to opioid-addicted offenders.[140]

Some corrections departments focus on drug addiction rehabilitation through therapeutic communities within the jail, often in addition to MAT.[88] Incarceration-based therapeutic communities house inmates separately to maintain a drug-free, rehabilitative, and pro-social environment. Special programs in jail for opioid-addicted offenders can help them better prepare for transition back to the community and set them up for success with continued maintenance and treatment of their addiction.[89]

PROGRAM SPOTLIGHT

- Rhode Island's prison MAT program is looked to as a national model. Inmates are screened when they arrive, and those with opioid-use disorders are given the option of treatment. The treatment is provided by a nonprofit that operates clinics throughout the state, with the goal being when prisoners are released, they will be able to easily transition their treatment at one of these clinics.[90]

PROGRAM SPOTLIGHT

- In the Louisville, KY Metro Department of Corrections, jail inmates with substance use disorder have the option to opt-in to a voluntary drug treatment program called *Enough is Enough*. The program has a non-punitive focus. In addition to *Vivitrol* injections, inmates have group counseling, meditation sessions, and start to learn new habits that can be sustained when they leave the security of the jail. Participants are separated from the rest of the jail population, allowing for the program to hold a captive audience and for participants to hold each other accountable.[91] [92]

Level 3: Rescue Strategy

The goal of the rescue strategy is to save the lives of more opioid overdose victims. Looking all the way downstream, this is the emergency response to the people who are dying in the opioid crisis; rescue intervention provides assistance to the most obvious victims of the opioid epidemic: those who have gone through the entire cycle of dependence, addiction, and overdose. Having strategies in place to deal with the emergency situation of overdoses can save lives in the immediate term, while the other levels of interventions attempt to address the roots of the problem that led to this point.

Action Area 3.1: Bystander Naloxone Response

Statement of the problem

Quick access to naloxone (also known by brand name Narcan), an overdose reversal medication, is essential in saving the lives of overdose victims.[93] [94] While it is now common practice for law enforcement to carry and administer naloxone, most overdose deaths happen in the presence of another person, or bystander.[95] These bystanders are able to revive the victim much more quickly if they have proper access to and training on naloxone.[96] Particularly with the emergence of more potent opioids like fentanyl, multiple doses of naloxone are needed within minutes of the overdose before it is too late, so waiting for officers to arrive at the scene may be too long for the victim.

While naloxone is not available directly over-the-counter, physician standing orders allow pharmacists to dispense the drug without an individual prescription to those at risk for or those that know someone at risk for opioid overdose. Many pharmacies in Minnesota, including CVS and Walgreens, sell naloxone. However, with prices for naloxone ranging from $150 for a 2-pack of Narcan (a common naloxone brand) to $4500 for a 2-pack auto-injector, cost of the drug remains a significant barrier for many people who need it.[97]

Under Minnesota law, naloxone can be administered by law enforcement, first responders, and trained laypeople. Despite its accessibility, naloxone is underutilized. As one example, public restrooms are increasingly becoming sites for drug injection. In Hennepin County, this has particularly become a problem on library property, and all too often library patrons and employees have few or no tools to respond to overdoses. This is changing now in Hennepin County, with plans in place to train library staff how to administer naloxone.[98]

Synthesis of Evidence

Bystander access to and education on naloxone use has been shown to increase the number of fatal overdoses that are reversed.[99] Numerous studies have confirmed that after brief training, naloxone can be safely administered by laypeople. In a study of community based opioid overdose prevention programs in 30 states and D.C., nearly 27,000 interventions occurred as a result of the education and take-home naloxone provided in these programs.[95]

The Steve Rummler Hope Network is leading the way with bystander Naloxone training in Hennepin County.[100] This nonprofit organization works throughout the State of Minnesota on community opioid overdose prevention campaigns and naloxone training. When bystanders complete a training, they receive a free naloxone kit. Hennepin County Drug Court and DWI court team members (including judge, probation officers, coordinators, volunteers, and more) have been trained by the Steve Rummler Hope Network, however there is an unfilled opportunity to train other essential Hennepin Staff (e.g. all probation officers, etc.)

PROGRAM SPOTLIGHT

- The Commonwealth of Virginia has a program called Revive!, which trains individuals on what action to take in an overdose situation. Upon completion of the training, all participants receive a kit containing naloxone and other supplies that may be needed during an overdose.[101]
- The Naloxbox is a new and innovative solution to increasing naloxone access. Similar to defibrillator boxes that are now present in almost all public spaces, the Naloxbox contains doses of nasal spray along with instructions on how to administer the life-saving drug. The boxes can be installed in public spaces like libraries, so that when an overdose occurs, the surrounding bystanders have the tools necessary for immediate response.[102]

Level 4: Recovery Strategy

The goal of the recovery strategy is to foster life-long sobriety in recovering opioid-addicted offenders. Prevention, treatment, and rescue efforts may help reduce overdose deaths; however, addiction recovery is a lifelong process that requires continuity of care. Successful recovery will nurture the addiction healing process, focusing on whole-person health. The recovery strategy includes interventions that are aimed at preventing relapse and recidivism.

Action Area 4.1: Transition to Community

Statement of the Problem

The criminal justice system sees a disproportionate number of people with mental health and substance use disorders, many of whom cycle through the system over and over again despite multiple connection points for treatment. For those with opioid use disorder during incarceration, about 75% will relapse to heroin within 3 months of release; this population is also at an increased risk for recidivism and overdose.[103] Upon release, addicts often return to the same environments – and same triggers – that fostered their addiction in the first place. It is often in vain to expect probationers to remain sober without assistance in treating their addiction.[104]

The smooth transition to community is therefore an essential step in reducing not only recidivism, but opioid relapse and overdose death. While more time and energy could certainly be dedicated to treatment and prevention interventions behind bars, these strategies can frequently prove to be insufficient for some people once they leave the security and stability of the criminal justice system. Without help with transition to community, it can be hard for many opioid-addicted persons to battle drug cravings while trying to piece their lives back together after incarceration. Many people who have been incarcerated with substance use disorders lack access to and knowledge of available treatment services and are thus prone to fall back into the costly cycle of the criminal justice system.

Through the Transition from Jail to Community (TJC) initiative in Hennepin County, providing released offenders with the resources they need is already a work in progress.[105] The TJC integrates services across sectors to deliver resources and information to people released from Adult Correctional Facility. Along with Corizon medical staff, TJC aides in application of insurance benefits and disbursement of prescription medications prior to release. These boundary-spanning partnerships are essential in reducing recidivism, and are equally, if not more essential for reducing recidivism and relapse in opioid-addicted offenders.

Synthesis of Evidence

As noted above, the TJC has established, connecting offenders with resources before they are released and following up with them afterwards can produce better outcomes. With regard to the opioid epidemic, it is important to take into consideration the unique needs of opioid-addicted offenders. Especially when treatment is started prior to release, it has been shown to decrease overdose and relapse after release. Medication-based treatment, particularly when paired with counseling, has been shown to reduce recidivism and overdose by large margins.[106] However, without follow-up and continuity of care, there is no long-term benefit to this, as many addicts will find it difficult to access additional doses of medication on their own. Some counties and jails are partnering with Medicaid to ensure that offenders will have health insurance to treat their addiction upon release.[107-109] This is done in Hennepin County as well, at both the Adult Detention Center and the Adult Corrections Facility.

PROGRAM SPOTLIGHT

- The Ohio Department of Rehabilitations and Corrections has contracted with a health insurance company (CareSource) to facilitate continued treatment and recovery support services for individuals transitioning back to community after a period of incarceration. Through this program, known as the Community Transition Program (CTP), CareSource provides treatment services which are primarily funded through Medicaid and recovery services which are funded through the CTP program itself. The treatment services include but are not limited to MAT, urinalysis, crisis intervention, and case management. The recovery services include housing assistance, vocational supports, life skills, transportation, and more. This guaranteed access to addiction treatment helps opioid addicted individuals returning to the community to have a lower risk for relapse and recidivism.[110]

- In Fairfax County Virginia, inmates at the Fairfax County Jail who want to learn are being taught how and when to administer the fast-acting opioid overdose reversal drug naloxone. The idea is that more lives will be saved by getting the reversal drug into as many hands as possible. In addition, the program allows inmates to start a relationship with a treatment provider. That relationship will help the individual have the tools that they need to find and receive treatment in the future.[111]

- In Hennepin County, when inmates are released from the Adult Detention Center, they meet with a discharge nurse to discuss risks they face when they leave such as drug use. As part of this discussion, inmates are given the option of taking home a naloxone kit if they first agree to learn how to use it, better preparing them to save their own lives or the lives of overdose victims in their own communities.

Action Area 4.2: Probation

Statement of the Problem

Even with pre-release services, the first few hours and days after release are the most critical.[103] During the first two weeks of release, prior inmates are over 12 times more likely to die compared to other people, with the primary cause of this death being drug overdose.[103]

Probationers face many challenges when they return to the community – including both criminogenic and non-criminogenic needs. These range from finding employment and housing to learning coping skills and receiving treatment for their addiction. All of these factors, if left untreated, can contribute to their likelihood to return to drug use and crime.

Probation Officers have large caseloads and limited resources to comprehensively address all of the probationers' needs and barriers. However, addicted probationers need a

single, comprehensive approach to help them on their path to successful reintegration and recovery. A coordinated response of integrating treatment and probation compliance will aid probationers in a safe and smooth transition to community.

Synthesis of Evidence

For high-risk probationers, more contact with probation officers predicts fewer days of drug use and crime.[112] Rather than solely strict supervision, Proactive Community Supervision (PCS) is the solution to reducing recidivism and overdose among this population.[113] Instead of a reactive form of supervision, where the probation officer sets the ground rules and probationers either comply or don't comply with these rules, PCS empowers the probationer to make real change in his or her life. A key concept of PCS is to form a professional relationship between the probationer and probation officer through the creation of a social learning environment that allows probation officers to better facilitate behavior change. Strategies of PCS are outlined here:

1. **Probationer Assessment**: The first step is to determine an appropriate level of supervision, as the wrong level of supervision can lead to adverse outcomes. The LSCMI intensive assessment tool, for example, identifies the probationer's criminogenic risk and need.
2. **Case Plan**: Once typologies are determined, the Probation Officer should work with the offender to create a case plan that is responsive to the needs determined in the assessment phase. The case plan should assign specific components and responsibilities to both the probationer and officer. Case plans that *are not* one-size-fits-all approaches lead to probationers that are more active in their responsibilities and increased contact between the probationer and probation officer. The inclusion of treatment for substance use and human service interventions as part of the case planning process, in addition to more frequent probationer contact is associated with a greater reduction in recidivism and lower drug use.[114]
3. **Case Management**: Often the components of a case plan will require services outside the walls of the criminal justice system, such as job training, Medication Assisted Treatment, and GED classes. Probationers will face non-criminogenic barriers, such as access to transportation or health insurance, in addition to criminogenic barriers, which will prevent them from achieving these aspects of their case plan. For this reason, purposeful collaboration and partnership across sectors is essential in successful completion of the case plan goals. Case management ensures continuity of treatment throughout the case plan, from pre-release to transition to community and completion of the case plan goals. This is achieved through a team based approach, in which probation officers, case managers, and service agencies work together to meet a probationer's holistic needs. Some corrections agencies have full-time staff dedicated to maintaining continuity of contact with the probationer, while others partner directly with a reentry service provider company.[115] [116]

4**. Cognitive Behavioral Therapy (CBT):** Other components of the case plan will be internally focused, such as concentrating on changing criminal behavior and thinking. CBT is the gold standard probation-counseling tool for addressing these criminogenic needs. It allows probation officers to aim to change the distorted and irrational thinking among probationers that leads to drug use and crime.[117] Strategies of motivational interviewing are used to guide probationers in their decision making and problem-solving skills. CBT allows for the development of an open and positive relationship between the offender and probation officer, which research has found is associated with significant reductions in rates of reoffending.[118]

Further, the epitome of Proactive Community Supervision comes in the form of Day Reporting Centers (DRCs). These centers, if executed correctly, reorganize traditional probation so that officers are implementing the above mentioned evidence-based practices with fidelity and consistency and thus lead to lower recidivism rates.[119] Day Reporting Centers place rehabilitation at the forefront by packaging and highlighting services that will aid the probationer in successfully reintegrating into the community. The aim is for the DRC's to be a one-stop-shop for probationers, offering services from GED classes to job training to drug treatment all within the center walls. The probation officer becomes no longer a solely authoritative figure, but rather a proactive partner working with the probationer to meet their needs.

Additionally, effective PCS requires a restructuring of the role of the probation officer. First, caseloads need to be reduced or changed to match with the needs of specific probationers. Medium to high risk probationers need more one-on-one time to achieve their case plan goals, allowing the Probation Officer proper time to conduct quality interventions within the appointment timeframe. Also, probation officers need to be trained on how to practice CBT and motivational interviewing as a method of business practice. Currently, the Department of Community Corrections trains all staff in motivational interviewing techniques. However, in the Juvenile Probation Division, Probation Officers are trained in motivational interviewing, case planning and Carey Guides (cognitive behavioral intervention tools) to best deliver service to their highest risk probationers. Carey Guides, for example, are manuals that translate evidence-based practice into specific strategies for probation officers to carry out with their clients.[120]

PROGRAM SPOTLIGHT

- In 2009, Allegheny County Pennsylvania implemented a DRC as part of their corrections department. Probation officers begin interacting with probationers while they are still serving their jail sentence. They work closely with jail reentry specialists to assess each person and create individual case plans. P.O.'s are mobile, working in the community and at the DRC instead of solely in their offices. The center is open from 8:00 am until 8:00 pm and on some Saturdays. By having probation and case goals happen in the same controlled environment, the Allegheny County DRC has seen significantly lower rates of re-booking, probation violation, and new crime since the program was implemented.[117]
- Hawaii's HOPE (Hawaii's Opportunity Probation with Enforcement) has gained national attention for its success in reducing probation violations and producing positive outcomes among drug and other high-risk offenders. HOPE's stated goals are to reduce drug use, new crimes, and incarceration; since its implementation in 2004, HOPE has continued to reach these goals. In a one-year, randomized controlled trial, 55% of probationers were less likely to be arrested for a new crime, 72% less likely to use drugs, and 53% less likely to have their probation revoked compared to a control group. HOPE is unique compared to other models in that it uses a high-level of supervision paired with swift, certain, consistent, and proportionate punishment. There is no mandate for drug treatment, but rather it is granted only if participants request it or repeatedly test positive for illicit substances.[121] [122]
- In 2014, the DOCCR's Juvenile Probation Extended Jurisdiction Juvenile (EJJ) Unit produced results of recidivism rates as low as 15%. The EJJ Team's collective evidenced-based supervision approach imbeds practices such as working evening hours, extensive field visits, family engagement, collaborating with law enforcement, utilizing technology to monitor clients, conducting curfew checks and offering cognitive behavioral interventions.

Summary Chart

Action Area	Activity	Objective	Resources	Result	Impact
Prevention					
1.1 Education	Continuation of public education campaign (i.e. website)	Increase public awareness and decrease stigma of opioid use	-Central IT -Maintenance of up-to-date information	Educated & informed public about opioid crisis resources, prevention, etc.	Reduce future opioid addiction, overdose, and death
	School-based education		-Age-appropriate curriculum -Teachers/presenters/ peer leaders		
1.2 Drug Disposal	Mail-In or Deterra Bag drug disposal	Increase safe disposal availability for unwanted controlled substance medications	-Envelopes/bags for distribution -Communication & education about safe disposal -Possible partnership with disposal company	Prescription opioids are diverted upstream	
1.3 Overdose Surveillance	Real-time app	Increase monitoring of opioid trafficking patterns and trends	-App development & training -Coordination and data-sharing across sectors	Faster response to drug trends and surges in opioid overdose	
Treatment					
2.1 Pre-Arrest Connection to Treatment	Pre-Arrest Diversion Program (i.e. PAARI or QRT)	Increase opportunities for treatment-seeking individuals prior to arrest	-Social worker/ addiction specialist staff -Client advocates/ -Partnership with treatment providers	Smaller burden on CJS from opioid-addicted offenders	Increased access to treatment & support within the Criminal Justice System
2.2 Model Drug Court Initiative	Pilot drug court for low-risk, high-need	Increase diversion options for low-risk, high-need clients	-Probation Officer -Peer recovery coaches -Court calendar time -Cog skills curriculum	Reduced recidivism among low-level opioid-addicted offenders	
2.3 Chemical Dependency Assessments at Booking	Expand capacity of Integrated Access Team	Increase substance abuse assessments & referral during booking	-Additional FTE (social worker/LADC) -Opioid dependency screening tool	Fewer missed connections with treatment & readily available data on scope of chemical dependency in jail	
2.4 Jail-Based Medication-Assisted-Treatment	Gold-standard addiction treatment in jail	Increase medication-assisted-treatment (MAT) availability in jail	-Space & staff for in-jail treatment -Physician oversight	Relieved withdrawal symptoms & reduced relapse to opioid use	
Rescue					
3.1 Overdose Response	Bystander naloxone training	Increase bystander access to and use of naloxone during an overdose	-Partner with Steve Rummler Hope Network -Naloxone kits -Promotion of the program	Quicker response time during opioid overdose	Reduced opioid overdose mortality rates
Recovery					
4.1 Transition to Community	Infrastructure to support transition to community among offenders with opioid addiction	Increase opioid addicted offenders' preparedness in transitioning to community	-Collaboration with community resources and organizations -Planning & resources for follow-up care	Offenders equipped with the tools & skills they need to successfully transition to community	Fostering of lifelong sobriety in recovering opioid-addicted offenders
4.2 Probation	Probation officer best practices for clients with Substance Use Disorder/opioid addiction	Reduce recidivism & opioid relapse after release	-Tools for opioid-specific case planning -Cog skill tools & training for probation officers -reduced case loads	Fewer probation violations and crimes associated with addiction	

Measuring Success

Compiled Metrics for Public Safety Action Areas

The action item noted on the previous page requires measurements and evaluation of its' success. The goal of these measurements is to ensure that interventions are reaching the audience for which they are intended, having the effects that are desired, being implemented correctly, and using resources efficiently.

	Action Area	Objective	Measurement
Prevention	1.1 Education	Increase public awareness & decrease stigma of opioid use	• Estimated reach of campaign messages • Knowledge surveys
	1.2 Drug Disposal	Increase safe disposal availability for unwanted controlled substance medications	• Pounds collected • Bags/envelopes distributed & collected
	1.3 Overdose Surveillance	Increase monitoring of opioid trafficking patterns & trends	• Response time to overdose surges • Usage of surveillance technology
Treatment	2.1 Pre-Arrest Connection to Treatment	Increase opportunities for treatment-seeking individuals prior to arrest	• Successful warm hand-offs • Enrollment in treatment programs • Demographic utilization
	2.2 Model Drug Court Initiative	Increase diversion options for low-risk, high-need clients	• Completion of diversion program • Recidivism
	2.3 Chemical Dependency Assessments at Booking	Increase substance abuse assessments & referral during booking	• Assessments completed • Connections to treatment • Percent of jail population with SUD
	2.4 Jail-Based Medication-Assisted-Treatment	Increase opioid medication-assisted-treatment (MAT) availability in jail	• Inmates receiving MAT • Length of MAT treatment
Rescue	3.1 Bystander Naloxone Training	Increase bystander access to and use of naloxone during an overdose	• People trained • Naloxone distributed • Naloxone administered by bystanders
Recovery	4.1 Transition to Community	Increase offender preparedness in transitioning to community	• Continuity of care after release • Recidivism
	4.2 Probation Officer Support	Reduce recidivism & opioid relapse after release	• Crimes associated with addiction • Recidivism • Behavioral Cog utilization

Sharing and Collaborating Across Sectors

Another aspect of measuring success is the efficient sharing and collecting of data. The widespread nature of the epidemic means that interventions cannot be isolated. This also means there must be a high level of sharing and collaboration across sectors. Interventions that cross sectors should also share data that cross sectors. To achieve this, and resulting from a combination of advancing technology and the need to better understand the complexities surrounding the opioid epidemic, states and counties are adopting a Big Data approach to help them solve the opioid epidemic.[124] Currently existing databases, like PDMPs, are not exhaustive nor universally accessible.

These databases have fragmented data collection and sharing, making it difficult to coordinate a response across sectors. In Big Data, complex algorithms analyze data in new ways, allowing for early identification and mitigation before problems reach crisis levels. By combing data from various agencies, it allows for a holistic view and response to the opioid crisis. For example, Big Data can help to identify patients getting a prescription that doesn't match a diagnosis or identify an individual person's barriers in accessing treatment. In Hennepin County, an innovative and collaborative effort to share data has already begun to help the Integrated Access Team in identifying mentally ill persons booked at the jail. This data sharing could be expanded to look not just at individual-level cases of opioid abuse, but to see overall trends and patterns of drug use and risk and protective factors in Hennepin County.

The State of Minnesota has begun the process of synthesized data collection and analysis through a Centers for Disease Control grant called Data-Driven Prevention Initiative. [125] This funding is managed by the Minnesota Department of Health among other activities, helped them to launch their Opioid Dashboard, which now is source for opioid-related data for the rest of the state.

PROGRAM SPOTLIGHT

- The Tracker System in Hennepin County (used to support data sharing for the Integrated Access Team) is stored within a Human Service Department portal. The Hennepin County Sheriff's Office electronically sends data such as the inmate's name, PAK identifier number and Service Priority Indicator score to be integrated with Human Services database. This collaborative effort and technology integration was a collective result of two interrelated departments realizing the high numbers of mentally ill person incarcerated and the need to properly identify this population to ensure appropriate service delivery.

- Alleghany County PA, data has been incorporated from a range of sectors, including the justice and mental health systems. The county can now track patterns by analyzing cross-departmental data to draw critical conclusions. This new system has allowed them to recognize new and revealing information, such as that 54 fatal overdoses within the last 8 years happened within a 30-day window of the victim's release from jail.[126]

Overdose Fatality Review Team

As a form of continuous evaluation, an Overdose Fatality Review Team can help to identify opportunities to expand interventions and operations in a way that will prevent future similar deaths.[127] Typically multidisciplinary, these teams are tasked with critically reviewing drug deaths to identify preventable risk factors and missed opportunities for intervention. With this information, there is an opportunity to make recommendations for improvement and inform policy through assessing whether fatalities could have been prevented.

Risks & Issues to Consider

In measuring the success of opioid prevention efforts, there are certain risks and issues to consider. The complex nature of the opioid epidemic means that intervention efforts will not always be straightforward. Some of these risks are issues are listed here:

Race: The large disparity in overdose deaths by race in Minnesota & Hennepin County is one that should be addressed by all interventions. Given this gap in death rates between races, interventions pose the danger of further widening the already large disparity. Evaluations of opioid prevention activities should monitor successful usage of the interventions by race and recommend appropriate culturally sensitive programming.

Trauma: Opioid overdose is highly associated with trauma. Identifying and treating exposure to trauma early can help lead to less addiction and overdose down the road. "Diseases of despair" are on the rise throughout the country, and opioid overdose is just one of the manifestations. Trauma-informed staff can help to relieve some symptoms of trauma to prevent future drug use and overdose.

Safety nets for drug use: There is a danger that some life-saving operations actually encourage *increased* substance use, as drug users acknowledge the safety net that these activities provide. Naloxone, in particular, can possibly cause riskier behavior among drug users if they know that they can be revived. For this reason, life-saving activities should be monitored closely and used responsibly.

Chronic pain patients: The often unseen victims of the opioid epidemic are chronic pain patients who have been stably taking prescribed opioid medications for years. These people are not the ones becoming addicted and dying from prescription opioids. Rather, with stricter rules around prescribing and reluctance to prescribe from physicians, these people are suffering from not being able to access the medication that allows them to function daily.

Other substance use: While opioid drugs are the cause of the current surge in overdose deaths, it is important to be able to adapt prevention and intervention activities to other substances. Sustainable interventions that can be tailored to the current need will be more efficient and effective than short-sighted goals. Many people in Hennepin County are dying of opioids, but many more are dying of other drugs as well, such as methamphetamines.

Other disparities: While race constitutes the largest overdose disparity in Hennepin County, continuous evaluations should monitor other potential disparities, such as by age, gender, and geography. Of particular concern are the growing numbers of opioid-addicted babies and young children left behind after parents have overdosed. These and other repercussions of the opioid epidemic need constant analysis and appropriate intervention.

Conclusion

The complex history of opioid use and abuse in this country has led to an intricate problem that cannot be fixed with a single solution. However, one of the few certainties within the crisis is the importance of a coordinated effort crossing sectors. The joint efforts of the creation county-wide framework and the dissection of potential public safety interventions in this report highlights both the desire and the need for opioid overdose interventions in the county.

The synthesis of public safety interventions to combat the opioid crisis outlined in this report gives context to how to start moving in the direction of innovative change and reaching better outcomes. This effort can be spread across the four levels of intervention, prevention, treatment, rescue, and recovery. When one of these levels is put to the side, the others feel the strain, thus making it important to act collectively. These upstream, midstream, downstream, and out-of-the-stream efforts are equally important to combat the wide scope of drug use, abuse, and overdose.

In Hennepin County, the number of opioid overdose deaths is less than in many other places. However, the trend of overdose deaths in the county is steadily increasing and it is important to be prepared for a worsening epidemic. Further, while a growing problem in the rest of the country, the racial disparity in opioid overdose deaths is very prevalent in Hennepin County. As increasing efforts are made to save the lives of all opioid overdose victims, it is equally important to bridge the gap in mortality rates between races.

Even with the increased federal, state, and local government focus on the opioid crisis in 2017, the epidemic continued to worsen. Compared to 2016, emergency department visits for opioid overdose rose by 30% and opioid overdose deaths have increased similarly.[128] [129] The largest increases were seen in the Midwest, with overdoses up by 70% across the region. These rising numbers are largely fueled by synthetic opioids, like fentanyl. No area of the country is immune, with the epidemic increasingly spreading across regions and demographics.

However, there is a bright spot: Massachusetts, originally one of the states hardest hit by the opioid epidemic, saw a decrease of 8% in their overdose deaths in 2017.[130] This is likely due to their concentrated and comprehensive efforts to fight opioid addiction and overdose. Massachusetts can be looked to as an example and possible beginning of the end of the opioid crisis. In addition, throughout the country new opioid prescriptions dropped in 2017, while the number of persons receiving medically assisted treatment increased.[131]

Working together, Hennepin County can perhaps remain immune to the worst of the epidemic. With concentrated effort, intentional interventions, and sufficient time and resources, perhaps we can reverse the upward trend of opioid overdose deaths in the county. Often looked to as an example for innovation across the country, Hennepin County, is particularly well placed to be leaders in putting an end to the opioid crisis.

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Appendix: Glossary of Terms

Addiction: The most severe form of substance use disorder; associated with compulsive or uncontrolled use of a substance; a chronic brain disease that has potential for both recurrence and recovery[132]

Big Data: A term describing the collection and synthesis of large data sets and its complex analysis to reveal trends, patterns, and associations, especially in relation to human behavior and interactions[133]

Buprenorphine: Generic name for Suboxone, a treatment medication often used in MAT that is a partial opioid agonist, meaning it produces some of the same effects as opioids, but weakened[134]

Carfentanil: One of the most potent opioids known; analog of fentanyl with a potency 10,000 times that of morphine[135]

Cognitive Behavioral Therapy: A treatment strategy that aims to change ways of thinking and patterns of unhelpful behavior[136]

Dependence: The inability to function normally in the absence of a substance; it is possible to be dependent without being addicted[132]

Diversion: A rehabilitation program in which offenders are redirected from traditional criminal justice prosecuting processes and which can replace jail time and/or convictions on the offender's record[137]

Fentanyl: A synthetic opioid up to 100x more potent than morphine[135]

Heroin: A fast-acting opioid processed from morphine, a naturally occurring extract from varieties of the poppy plant[135]

Intervention: Professionally-delivered program designed to prevent or treat substance misuse[132]

Naloxone: Generic name for Narcan; A life-saving drug that can reverse the effects of an opioid overdose[134]

Naltrexone: Generic name for Vivitrol; a treatment medication often used in MAT that blocks opioid receptors in the brain and is administered in once monthly doses[134]

Narcan: Common brand name for naloxone

Medication-Assisted Treatment (MAT): Gold standard opioid addiction treatment that combines behavioral therapy with prescribed medications to treat substance use disorders[134]

Methadone: A treatment medication often used in MAT that blocks the euphoric effects of opioid drugs; must be taken in daily doses under the supervision of a physician[134]

Medication for Opioid Use Disorder (MOUD): Alternative terminology for MAT; refers to the prescribed medications that can be used to treat Opioid Use Disorder

Opioid: The class of drugs including heroin, morphine, and fentanyl that bind to opioid receptors in the brain[134]

Appendix: Glossary of Terms

Prescription Drug Monitoring Program (PDMP): A statewide electronic database that collects data on physician prescribing and patient use of opioid drugs[132]

Prescription Drug Misuse: The taking of a medication in a manner or dose other than prescribed, even if legitimate medical complaint[132]

Protective Factors: Individual, interpersonal, organizational, community or societal factors that decrease the likelihood of drug use or overdose[132]

Relapse: A return to drug use after a period of abstinance[132]

Recidivism: A return to criminal behavior, often after completing a sentence or sanction for a previous crime[138]

Risk Factors: Individual, interpersonal, organizational, community or societal factors that increase the likelihood of drug use and overdose[132]

Screening, Brief Intervention, & Referral to Treatment (SBIRT): An approach to deliver early intervention and treatment to people at risk of addiction or overdose[134]

Substance Use Disorder: The recurrent use of alcohol or drugs that causes clinically and functionally significant impairment[134]

Tolerance: Alteration of a body's response to a substance, such that higher doses are needed to achieve the same effect that was achieved during initial use[132]

Vivitrol: Brand name for naltrexone

Withdrawal: A set of symptoms that are experienced with discontinued use of a substance to which a person has become dependent or addicted[132]

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