"Madison Addiction Recovery Initiative"

BJA SPI FINAL REPORT

A partnership between the City of Madison (WI) Police Department and the University of Wisconsin Department of Family Medicine and Community Health and Penn State University Department of Family and Community Medicine

Submitted: April 30, 2021

This project was supported by Grant No. 2016-WY-BX-0004 awarded by the U.S. Department of Justice Bureau of Justice Assistance (BJA). The BJA is a component of the Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the SMART Office. Points of view or opinions in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice. The funding agency had no involvement in the conceptualization of the project design; it approved the project protocol prior to the award initiation.

Acknowledgements

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- Veronica White, University of Wisconsin Department of Industrial Engineering; Data analysis for MARI program evaluation.
- Dr. Laura Albert, University of Wisconsin Department of Industrial Engineering; Data analysis for MARI program evaluation.
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- Sarah Johnson, Public Health Madison-Dane County, MARI project team representative.
- Christine Taylor, Dane County Human Services, MARI project team representative.
- Kim Hurd, MARI Assessment Hub Coordinator for Connections Counseling LLC.
- Jim Powell, Madison Police Department, BJA-SPI MARI grant finance administrator.

The authors wish to extend our sincere appreciation to staff at the United States Department of Justice (USDOJ) and Bureau of Justice Assistance (BJA) for their support and funding of the *Madison Addiction Recovery Initiative* (MARI) through the **Smart Policing Initiative** (SPI).* We would also like to extend our appreciation for the guidance and technical assistance provided by the Center for Naval Analysis (CNA). Subject Matter Expert (SME) Stacy Ward has been by our side throughout keeping us on task, asking important questions and simply being available whenever needed. SME Professor Scott Decker was of great assistance during the initial phase of the MARI project, including preparation of the MARI SPI Action Plan. Lastly, the CNA SPI staff team (Christopher Sun, Emma Wohl and Monique Jenkins) have also provided exceptional service and support throughout the project.

** The Bureau of Justice Assistance awarded a grant to the City of Madison, WI Police Department for the Madison Addiction Recovery Initiative (MARI) in October 2016 under the BJA **Smart Policing Initiative** program. From 2017-2020, the Smart Policing Initiative was referred to as the Strategies for Policing Innovation Initiative. From 2021 to the present, it is referred to as the Smart Policing Initiative again. While the name changed over time, objectives and principles of the SPI program remained consistent across all years of this award.*

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Executive Summary

Overdose deaths, addiction, and drug-related crime have dramatically increased in the United States (US) over the past decade. Evidence based strategies have shown that addiction treatment improves outcomes; including reducing crime, but only a minority of individuals with addiction ever receive treatment. In the spring of 2016, the City of Madison (WI) Police Department (MPD) sought funding from the US DOJ Bureau of Justice Assistance Smart Policing Initiative (SPI) program to fund the ***Madison Addiction Recovery Initiative (MARI)*** in hopes of linking individuals suffering from addiction with treatment. Upon being awarded an SPI grant in October 2016, MPD employed a comprehensive community policing, multidisciplinary, problem-solving approach to create the MARI *Action Plan.* MARI introduced new and innovative collaborations and partnership agreements for the department. It also created the need for MPD to implement addiction-related training and new operating procedures for front line patrol officers that were aimed at diverting adults suffering from addiction, who committed eligible drug use-related crimes, away from the criminal justice and, instead, linking them with substance use disorder (SUD) assessment and treatment (i.e., Pre-Arrest Diversion). It is also important to note that MARI was implemented at a very challenging time for policing in general, as the role of the police in the United States is under unprecedented scrutiny. Through a strong commitment to ***inclusion, equity and social justice*** by Dane County, the City of Madison, MPD and the MARI Operations Team, significant efforts were undertaken so that MARI could support and help as many individuals as possible. Where we encountered challenges, it is noticed and acknowledged in this report to help guide similar future efforts.

A requirement of the BJA SPI grant program is for a formal, empirically-based evaluation be conducted of the MARI implementation and its outcomes by an academic research partner. Dr. Aleksandra Zgierska was a faculty member at the University of Wisconsin-Madison Department of Family Medicine and Community Health when MPD planned the initial grant proposal. Dr. Zgierska assisted with the original grant proposal, and then continued leading the MARI evaluation effort. Between September 2017 and August 2020, law enforcement officers from the MPD (and, later on, from the Dane County Sheriff's Office), referred a total of 349 individuals who committed drug-related, eligible crimes to MARI. Of those, 263 individuals were ultimately confirmed to meet all MARI eligibility criteria, enrolled into the program as study participants, and referred to the MARI Assessment Hub for clinical assessment. The SPI grant paid for the SUD clinical assessment (approximately $400/person-assessment) and for peer support services (e.g., those provided by recovery coaches), but no grant funds were used to pay for SUD treatment. Of those eligible, enrolled and referred for assessment, 160 (61%) engaged with the Assessment Hub, completed SUD clinical assessment, and were assigned peer support. All 160 (100%) of individuals who completed SUD clinical assessment were deemed to

be in need of SUD treatment, and successfully linked to SUD treatment. Of the 263 enrolled MARI participants, 103 (39%) did not engage with the Assessment Hub, and their original charges were referred for prosecution. *Of 160 individuals who engaged with the Assessment Hub,* ***100 (62%) successfully completed six-months of the MARI program (i.e., were engaged in addiction treatment and did not re-offend) and had their original charges permanently discarded (i.e., voided) by MPD (or the Sheriff's Office).*** The evaluation of the MARI program documented that pre-arrest diversion approaches, such as MARI, can reduce crime, including arrests and incarceration, and can improve health of those who complete the six-month program. Although our 12-month outcomes, enabled by the grant award's no-cost extension, were calculated on a subsample of 223 MARI participants, they suggest the maintenance of the positive six-month impacts of MARI on crime-related outcomes; the full analyses will be finalized after all MARI participants complete their 12-month follow-up in August 2021.

In this MARI Final Report to BJA, we describe the journey as to how MARI was implemented by MPD and the partner agencies, and outcome measures investigated and reported by the MARI evaluation team, led by Dr. Zgierska. The BJA SPI program seeks to build evidence-based, data-driven law enforcement strategies that are effective, efficient, and economical. The MPD's MARI initiative accomplished that and more. While most law enforcement agencies today are trained and equipped to administer naloxone to *"save lives,"* MPD has demonstrated how law enforcement-led community-based programs like MARI can actually *"change lives."* We congratulate former MPD Police Chief Michael Koval, current Police Chief Dr. Shon Barnes, and Sheriff David Mahoney on the successful implementation of MARI in their respective agencies. We also want to acknowledge members of the MARI Ops Team, and all officers from the MPD and Dane County Sheriff's Office who referred individuals to MARI over the three-year duration of the MARI program. Lastly, we would like to dedicate this final report to all the MARI participants themselves: those who engaged with the Assessment Hub, and those who did not; those who completed the six-month program and SUD treatment, and those who did not; and those who enrolled in MARI but are no longer with us because of a fatal overdose, which claimed their lives. We believe the words of this participant perhaps sums up the MPD's MARI program best:

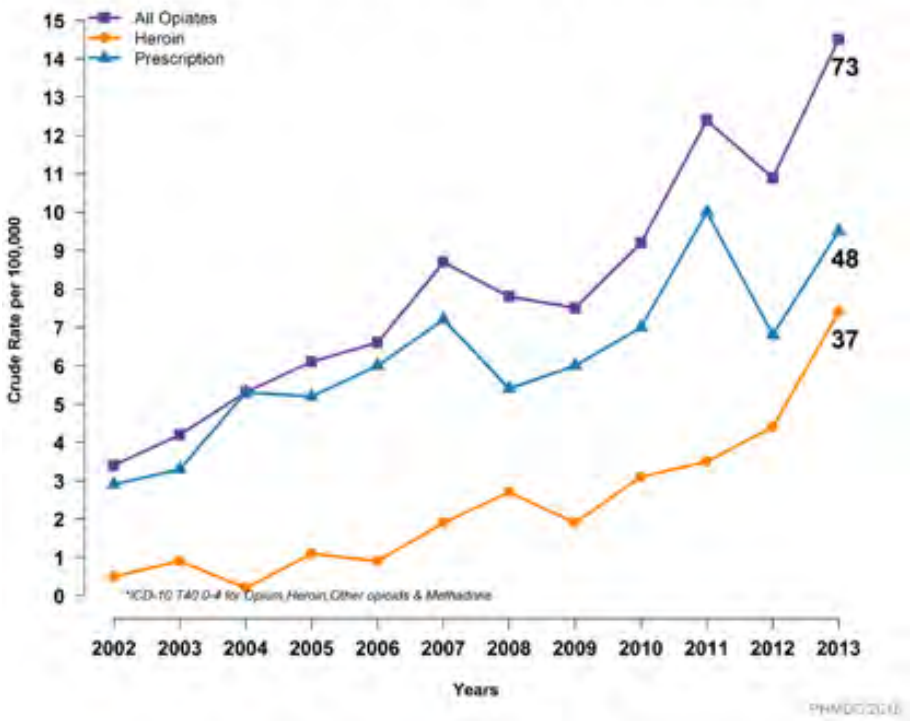
> *"I'm grateful a program like this exists. Not only did it keep me from going straight to jail, but most importantly it gave me the chance to completely turn my life around and helped me find a way out of my addiction."*

Typically, only a minority of individuals with SUD ever receive treatment. MPD has demonstrated with ample evidence that pre-arrest diversion programs like MARI, *administered by a public safety, law enforcement agency*, can not only can work, but can incentivize individuals suffering from addiction to take that first critical step toward treatment and begin their personal journey into recovery.

Overview of BJA Smart Policing Initiative (SPI) and Project Goals

From the early 2000's through 2015, the State of Wisconsin, Dane County and the City of Madison witnessed an unprecedented surge in opioid related overdoses and deaths, a crisis experienced by many other communities across the United States[1] ***(Figure 1)***.

Figure 1. Opioid-related Deaths Dane County (WI) 2002-2013



By late 2017, the Federal government declared the opioid crisis nationally a "*Public Health Emergency*".[2] There were many in Madison, Wisconsin at that time responsible for the care of persons with opioid use disorder (OUD) who shared concerns about the devastating impact of opioid overdose and misuse, and related harm on individuals, families, communities, health care and public safety. Included amongst those were affected individuals themselves, community organizations, medical professionals, policy makers, legislators and public safety first responders (e.g. police, fire and EMS).

Two commanders in the Madison Police Department (MPD) at this time, Lieutenants Cory Nelson and Jason Freedman, were so concerned by the surging numbers in opioid related overdoses and deaths that they sought out others in the community to help MPD better understand the depth and scope of the opioid misuse and overdose problem. One of those

[1] Vital Records and Hospital Discharge, Public Health Madison-Dane County, unpublished data, April 2016.
[2] Department of Health and Human Services, Determination That A Public Health Emergency Exists (October 2017).

individuals was Dr. Aleksandra Zgierska, (now at Penn State University), who at the time was a physician-researcher faculty member at the University of Wisconsin-Madison Department of Family Medicine and Community Health. Dr. Zgierska focused her professional career on advancing practice, research, education and advocacy in addiction medicine, and has been nationally recognized for her work and contributions to the science of addiction. Lieutenants Nelson and Freedman worked with Dr. Zgierska to develop a broad based coalition of local organizations to further address the problem. All were interested in ***improving outcomes related to opioid misuse.*** This unique, multi-disciplinary collaboration included representatives from scientific, treatment, public health and safety, and patient advocacy communities such as:

University of Wisconsin-Madison
Public Health Madison-Dane County
Dane County Human Services
Madison Fire Department/EMS
Safe Communities Madison-Dane County
Parent Addiction Network
State of Wisconsin Attorney General's Office
State of Wisconsin Division of Mental Health and Substance Abuse Services
State of Wisconsin Public Health Bureau of Community and Health Promotion
Tellurian UCAN, Inc.
Journey Mental Health, Inc.
UW Behavioral Health and Recovery
ARC Community Services
Connections Counseling, LLC
Meriter Hospital's *"NewStart"* Substance Abuse Treatment Program
WEA Insurance, Inc.

With input from all collaborators, the creation of a new program was *"envisioned"* by the group that would look to build upon existing successful models (e.g., evidence based) and link individuals who overdose or commit minor drug-related crimes to substance use disorder (SUD) assessment and treatment services as an alternative to arrest, prosecution and possible incarceration in the criminal justice system.

In the spring of 2016, MPD learned BJA had published a solicitation seeking proposals for the FY2016 Smart Policing Initiative (SPI). This BJA SPI grant program was created by Congress to:

1. "Invest in the development of practitioner-researcher partnerships that use data, evidence, and innovation to create strategies and interventions that are effective and economical."
2. "Build upon analysis-driven, evidence-based policing by encouraging state, local, and tribal law enforcement agencies to develop effective, economical, and innovative responses to crime within their jurisdictions."

Then MPD Police Chief Michael Koval approved MPD responding to the BJA SPI grant solicitation, and leveraging the existing collaboration between Lieutenants Nelson and Freedman and Dr. Zgierska to propose an overdose and crime reduction initiative as an SPI project. In April 2016, with assistance from the previously mentioned collaborators, the MPD submitted to BJA an SPI grant proposal seeking to create the ***"Madison Addiction Recovery Initiative"*** (MARI) in direct response to the growing number of opioid related overdose incidents and deaths in the Madison community. The proposal described MARI as a program that *"aims to improve safety and health in the Madison community by facilitating treatment referral among individuals apprehended by MPD for drug-related minor crimes…."*[3]

In October 2016, the MPD, Dr. Zgierska and community collaborators were excited and pleased to learn the BJA awarded a $700,000, three-year grant to fund MARI. The remainder of this SPI final report document will describe in detail how the MPD and Dr. Zgierska moved forward creating a multi-agency planning team to further develop and obtain approval for the required SPI MARI *"Action Plan."* This report will also describe implementation of the MARI protocol; approval of two SPI grant extension requests by BJA lengthening the period of study; and results from the evaluation of the MARI program by Dr. Zgierska and her research team from the University of Wisconsin. Recommendations and "lessons learned" will also be highlighted at the end of this report.

[3] City of Madison Police Department, USDOJ BJA SPI Program Grant Narrative (April 2016)

Targeted Problem

Soon after the MPD received approval from BJA for the MARI grant award in October 2016, Dr. Zgierska and Lieutenants Nelson and Freedman pulled together a multi-disciplinary group of stakeholders, representing agencies and groups vital to the individuals with OUD/SUD, to begin the planning and implementation process (i.e., required BJA SPI *Action Plan*). In the submitted and approved MARI *Action Plan* document, the following literature review and background data were presented to describe the "Targeted Problem" (e.g. scope and depth of the opioid overdose problem both nationally and locally) addressed by the MARI project.

2017 *Action Plan* Literature Review[4]

According to the Centers for Disease Control and Prevention (CDC) at that time, "Opioid overdoses and related deaths are a nationally rising trend. Nationally, the death rate due to synthetic opioids other than methadone, which includes drugs such as tramadol and fentanyl, had increased by 72.2% from 2014 to 2015. Synthetic opioid death rates (other than methadone) had increased across all demographics, regions, and numerous states. Fentanyl is a synthetic opioid that is 50 times more potent than heroin and 100 times more potent than morphine." [5] "From 2002–2013, past month heroin use, past year heroin use, and heroin addiction all increased among 18-25 year olds. The number of people who started to use heroin in the past year had also been trending up."[6]

The literature showed then, and continues to show today, the opioid epidemic creates wide-ranging harm which affects health, law enforcement, policy and other sectors. The current understanding of addiction as a chronic relapsing brain disease,[7] and research indicating effectiveness of treatment and its superiority to incarceration,[8] suggest that facilitating access to, and engagement in, treatment, as opposed to incarceration, can help improve criminal, safety and health outcomes in individuals and communities where OUD and related crime are prevalent. In spite of strong empirical evidence that treatment improves outcomes, only about 11% of those in need seek and receive treatment for alcohol/drug use disorders, according to the National Institute for Drug Abuse.[9] Preliminary evidence suggested then and now that "smart policing" approaches, which rely on a collaborative community effort, such as the one proposed, have the potential to increase the linkage to treatment for individuals who

[4] USDOJ BJA SPI MARI Action Plan (Approved August 2017).
[5] https://www.cdc.gov/drugoverdose/data/fentanyl.html
[6] https://www.cdc.gov/drugoverdose/epidemic/
[7] http://www.asam.org/quality-practice/definition-of-addiction, The American Society of Addiction Medicine, 2015.
[8] The ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use. The American Society of Addiction Medicine, 2015.
[9] https://www.samhsa.gov/data/sites/default/files/NSDUH-SR200-RecoveryMonth-2014/NSDUH-SR200- RecoveryMonth-2014.htm

committed a crime and are in need of such services, which, in turn, can lead to reduced crime, incarceration and overdose rates.

In the 2017 approved MARI Action Plan, we also made note how Wisconsin state leadership at the time was already demonstrating a strong commitment to opioid harm reduction. In 2015, the Wisconsin Attorney General supported a nationally recognized awareness and prevention campaign titled 'Dose of Reality'[10] ***(Figure 2)***.

Figure 2. The Dose of Reality Campaign.

The 2016 Wisconsin Epidemiological Profile on Alcohol and Other Drug Use by the Department of Health Services[11] described their focus on efforts to reduce the impact of 'opioid use for nonmedicinal purposes'. Wisconsin's Governor convened a Task Force on Opioid Abuse in 2016. At their recommendation, in 2017, the Governor issued multiple executive orders, including increased prevention and harm reduction efforts. After federal funds supporting destruction of opioid medications collected during the national take-back program ended, the Wisconsin Department of Justice filled the gap to ensure sustainability of community take-back efforts. In April 2017, Wisconsin had the third highest medication collection amount of 65,994 pounds of medication.

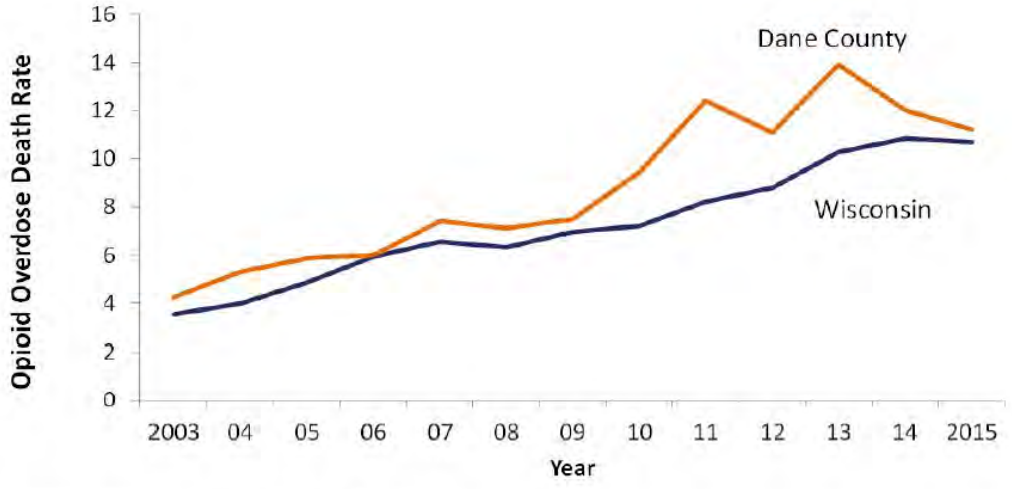
2017 *Action Plan* Opioid-Related Indicator Data

We also noted in the *Action Plan* how the overall climate in Dane County at the time was favorable for harm reduction efforts, particularly in relation to opioid and injection drug use. At that time, the rates of opioid-related overdose deaths (***Figure 3***), including those related to synthetic opioids (***Figure 4***), and the rates of SUD-associated harms, such as hepatitis C virus infections (***Figure 5***), were steeply rising both in Dane County and in Wisconsin.

[10] Wisconsin Department of Justice. (2020). Dose of Reality. Retrieved October 6, 2020 from https://doseofrealitywi.gov/about/

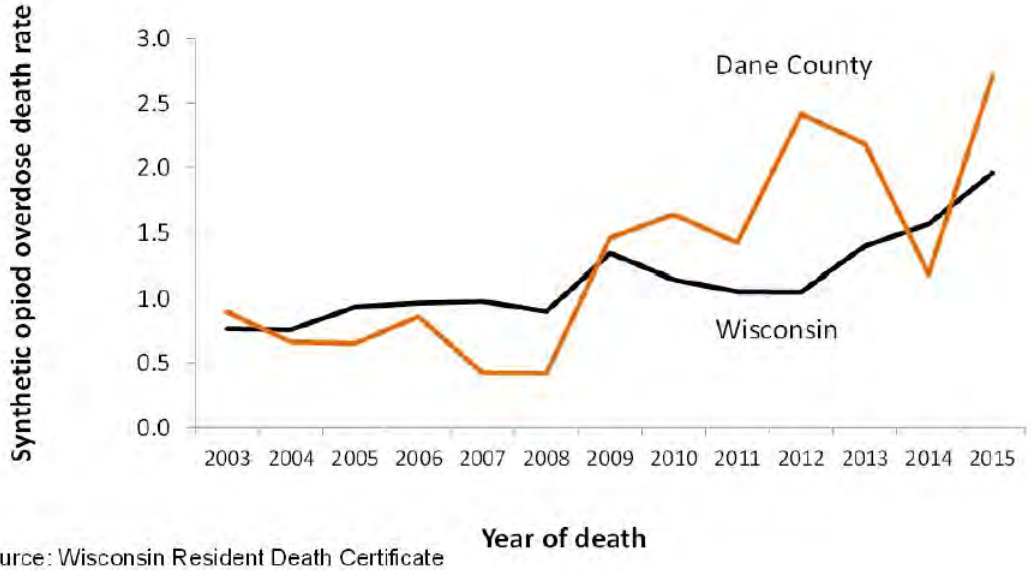
[11] https://www.dhs.wisconsin.gov/publications/p4/p45718-16.pdf

Figure 3. Opioid-related Overdose Death Rates from 2003 to 2015 per 100,000 residents in Dane County and Wisconsin



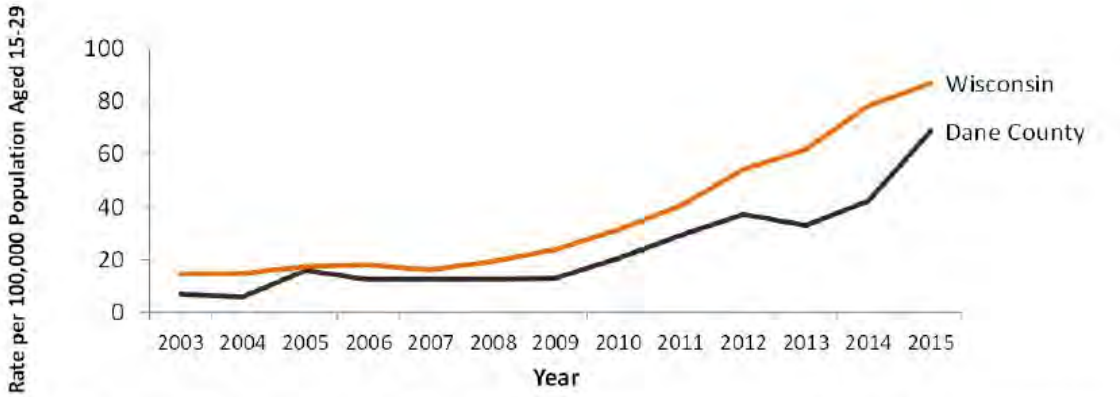
Source: Wisconsin Resident Death Certificate

Figure 4. Synthetic Opioid-related Overdose Death Rates from 2003 to 2015 per 100,000 residents in Dane County and Wisconsin



Source: Wisconsin Resident Death Certificate

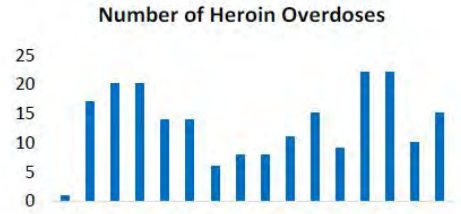
Figure 5. Hepatitis C Virus Infection Rates from 2003 to 2015 per 100,000 residents age 15-29 years old in Dane County and Wisconsin



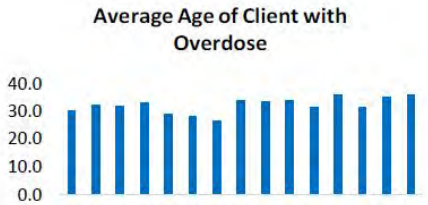
Source: Wisconsin Viral Hepatitis Program, Wisconsin Electronic Disease Surveillance System (WEDSS) data reported as of 4/17/2016. County population data from WISH 2003-2015.
Notes: HCV infection in this age group is attributed to a rise in heroin use in Wisconsin during the past several years.
For more information see the 2015 Annual Summary available at: https://www.dhs.wisconsin.gov/publications/p00440-2015.pdf

The increasing rates of overdoses were paralleled by the increase in MPD's responses to overdose incidents; these responses rose over the years, but also showed seasonal fluctuations, with the majority of overdose-related responses – to both non-fatal and fatal ones - needed by White males, on average 30-35 years old (***Figure 6***).

Figure 6. Madison Police Department Responses to Heroin Overdoses (n=212) from January 2016 to April 2017



The number of overdoses appears to vary by season.



The increase in average age of client with overdose is statistically significant.

Characteristics of Overdose Clients

	Female	Male
Black	1%	9%
White	24%	64%
Hispanic or Unknown	1%	1%

White males make up the majority of overdose clients.

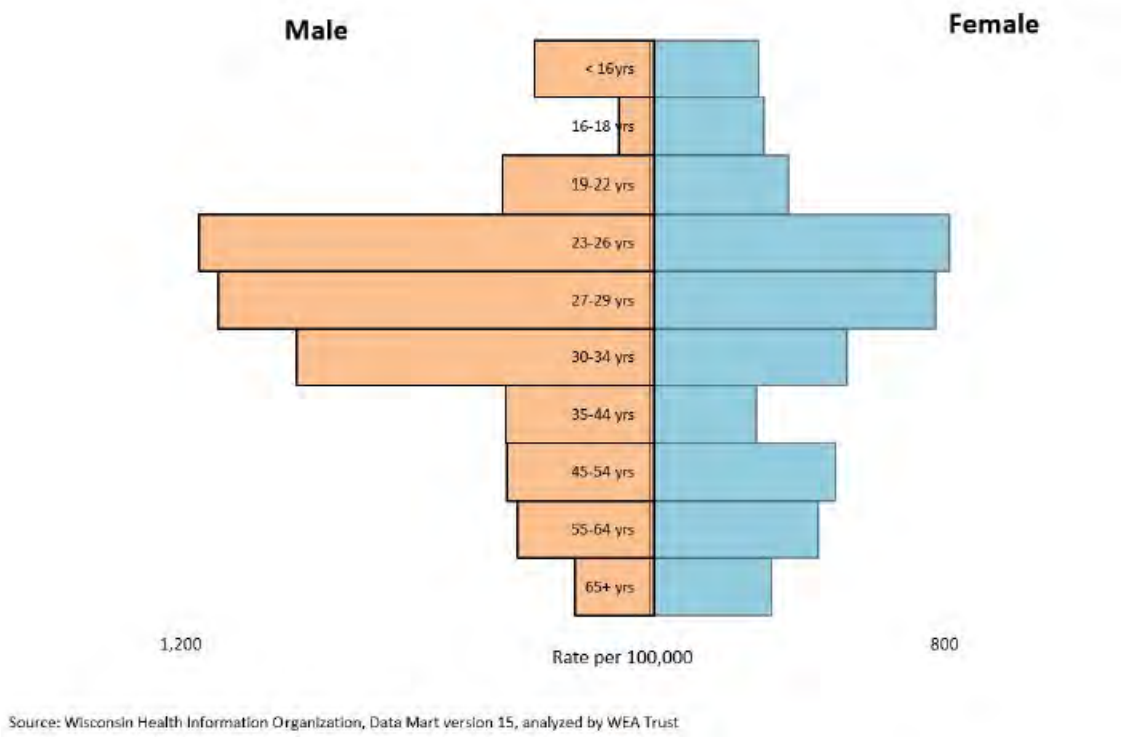
Characteristics of Decedents (n=18; 8% of clients)

	Female	Male
Black	0%	17%
White	33%	50%
Hispanic or Unknown	0%	0%

Characteristics of overdose decedents compared to OD clients will need to be monitored over time.

For the period 04/1/2014 – 6/30/2016; 1,773 unique individuals had opioid-related overdoses in Dane County among patients covered by private insurance or Medicaid ***(Figure 7)***. These include overdoses of heroin, methadone, opium, and synthetic narcotics. Of the 1,773 individuals, approximately 46% were female, 53% were male and 0.5% had unknown gender. The overdose rate per 100,000 populations was 20% higher among males than among females. Males overdosed at a younger age on average; those under age 35 accounted for 54% of overdoses in males compared to 41% among females.

Figure 7. Opioid-related Overdose Rates per 100,000 Residents in Dane County, by Age and Gender, from April 2014 to June 2016



Source: Wisconsin Health Information Organization, Data Mart version 15, analyzed by WEA Trust

Dane County naloxone administration, 2014-2016: In Wisconsin, first responders are allowed and encouraged to administer naloxone to overdose victims. In Dane County, Emergency Medical Services (EMS) reported 630 rescues requiring naloxone administration during the 2014-2015 period. In addition, the AIDS Resource Center of Wisconsin reported an additional 296 overdoses, which did not involve EMS. The Madison Fire Department experienced a dramatic increase in naloxone administration from an average of 13.2 per month in 2013, 14.0 per month in 2014, 20.3 per month in 2015, to 38.4 per month in the first 10 months of 2016.

The following data were presented in the 2017 Action Plan to help describe the ***opioid misuse and overdose problem*** across Wisconsin, Dane County and locally in Madison, where MARI took place.

Table 1: Summary of Opioid Related Data Sources used in 2017 Action Plan Document

Indicator	Jurisdiction	Source	Notes
Opioid overdose death rates, 2003-2015	State, Dane County	Wisconsin resident death certificate from WI Department of Health Services.	See figure 3
Synthetic opioid overdose death rates, 2003-2015.	State, Dane County	Wisconsin resident death certificate from WI Department of Health Services.	See figure 4
Hepatitis C Virus infection rates, ages 15-29, 2003-2015.	State, Dane County	Wisconsin Electronic Disease Reporting System from WI Department of Health Services.	See figure 5 -HVC in young people indicates recent initiation of injection drug use.
Overdose incidents responded to by the Madison Police Department.	City of Madison	Madison Police Department	See figure 6
Opioid overdose rates by age and gender, April 2014-June 2016	Dane County	Wisconsin Health Information Organization, Data Mart Version 15, analyzed by WEA Trust	See figure 7 -Claims data; represents the majority of payers.
Naloxone administration, 2014-2015	Dane County	Dane County Emergency Management, AIDS Resource Center of Wisconsin, Madison Fire Department.	See note page 11.

Strategies Employed, Community Outreach & Collaboration

Evidence based "Smart Policing" strategies for opioid misuse and overdose
The original SPI MARI proposal was based on emerging evidence, which suggested that *"smart policing"* approaches, utilizing a collaborative community effort, such as MARI, had the potential to increase the linkage to treatment for individuals in need of such services, which in turn, could lead to greater engagement in treatment, reduced crime, incarceration and overdose rates.[12] Two specific program models were noted:

1. **Police Assisted Addiction and Recovery Initiative (PAARI):** In June 2015, the Gloucester, Massachusetts Police Department started the "Angel Program" (AP), which relies on police officers to assist individuals with a referral to addiction treatment. In the first year of the program, over 400 clients had contacted AP seeking help with a referral to addiction treatment.[13] In a follow-up evaluation of AP, 75% of referrals were found to have resulted in placement in treatment. Additionally, "*…most participants reported positive experiences* [with the Gloucester Police Department] *citing the welcoming, non-judgmental services."* [14] The success of AP caught on quickly in the northeast, leading to the creation of a non-profit organization, (i.e., PAARI), which today supports over 600 police departments in 34 states with "*non-arrest, or early diversion, program models*" that deflect individuals with the disease of addiction away from the criminal justice system.[15,16]

2. **Law Enforcement Assisted Diversion Program (LEAD):** In 2011, the Seattle Police Department, in collaboration with numerous local government and community agencies, created LEAD, which was envisioned as "*a new harm-reduction oriented process for responding to low-level offenses such as drug possession, sales, and prostitution… for individuals who frequently cycle in and out of the criminal justice system."*[17] "*The [LEAD] model is unique for a number of reasons. While diversion programs are common in the criminal justice system, they almost always become available after arrest, not before*."[18] When LEAD first started, it was referred to as a *"pre-booking"* intervention program and one of the first of its kind in the United States. In more recent years, LEAD is now referred to as a "*pre-arrest diversion*" program where individuals are referred to treatment or other services at the law enforcement agency level (e.g. pre-arrest) rather than a *"post-arrest*

[12] City of Madison Police Department, USDOJ BJA SPI Program Grant Narrative (April 2016)
[13] Schiff, D. M., Drainoni, M. -L., Bair-Merritt, M., Weinstein, Z., & Rosenbloom, D. (2016). A police-led addiction treatment referral program in Massachusetts. The New England Journal of Medicine, 375(25), 2502–2503.
[14] Schiff, D. M., Drainoni, M.-L., Weinstein, Z. M., Chan, L., Bair-Merritt, M., & Rosenbloom, D. (2017). A police-led addiction treatment referral program in Gloucester, MA: Implementation and participants' experiences. Journal of Substance Abuse Treatment, 82, 41–47.
[15] "Angel opioid initiative thrives despite exit of Gloucester police chief," Boston Globe, Feb. 21, 2017.
[16] The Police Assisted Addiction and Recovery Initiative (PAARI).
[17] LEAD National Support Bureau
[18] Seattle's Arrest Alternative, LEAD, moves beyond police, David Kroman, Crosscut, July 17, 2020.

diversion" program more typical in the criminal justice system which occurs at the prosecuting agency or court level. In a 2016 evaluation of the LEAD program, a non-randomized controlled trial compared LEAD participants to a control group to assess whether the LEAD program impacted participant recidivism. The evaluation found LEAD program participants had *"reduced recidivism by about 22 percentage points compared to the system as usual approach (e.g. control group)".*[19]

Proposed MARI SPI program elements

Based upon these two above successful programs, the initial MARI grant proposal envisioned a *"Smart Policing Initiative"* (SPI) that would accomplish the following:[20]

- Improve safety and health in the Madison community by facilitating treatment referral among individuals apprehended by MPD for drug-related minor crimes.
- Focus on the population of adults who committed a low-level crime, especially the growing number of individuals with OUD who disproportionately commit burglaries or engage in prostitution to support their drug use.
- Offer individuals with addiction a choice of either facing criminal charges or agreeing to undergo a clinical assessment for SUD and treatment needs, and then engage in the recommended treatment.
- In exchange for enrolling in MARI and starting treatment, MPD would hold in abeyance arrest and charges for six months, while the individual completes the MARI program. If individuals commit a crime or exhibit non-compliance with addiction treatment during the six moth follow up period, the individual would be terminated from MARI, arrested and charged with the original offense by MPD.
- Not consider relapse to drug use or overdose per se as non-compliance incidents and grounds for program termination; both relapse and overdose can happen as a part of the disease of addiction; (national statistics from the National Institute of Drug Abuse show that 40-60% of patients with addiction relapse).[21] Therefore, these incidents per se were not considered as critical as 'treatment compliance'.
- Allow additional pathways into the MARI program such as:
    1. Self or family member referral (e.g., walk-ins to the police station or phone calls with requests for help with drug abuse);
    2. Officers proactively seeking out and referring to MARI individuals known to be struggling with Substance Use Disorder (SUD) and subsequently committing low level crimes to support their addiction.
    3. Refer any individual involved in an overdose incident.

[19] Collins, S. E., Lonczak, H. S., & Clifasefi, S. L. (2017). Seattle's law enforcement assisted diversion (LEAD): Program effects on recidivism outcomes. Evaluation and Program Planning, 64, 49–56.
[20] City of Madison Police Department, USDOJ BJA SPI Program Grant Narrative (April 2016).
[21] https://americanaddictioncenters.org/rehab-guide/addiction-statistics

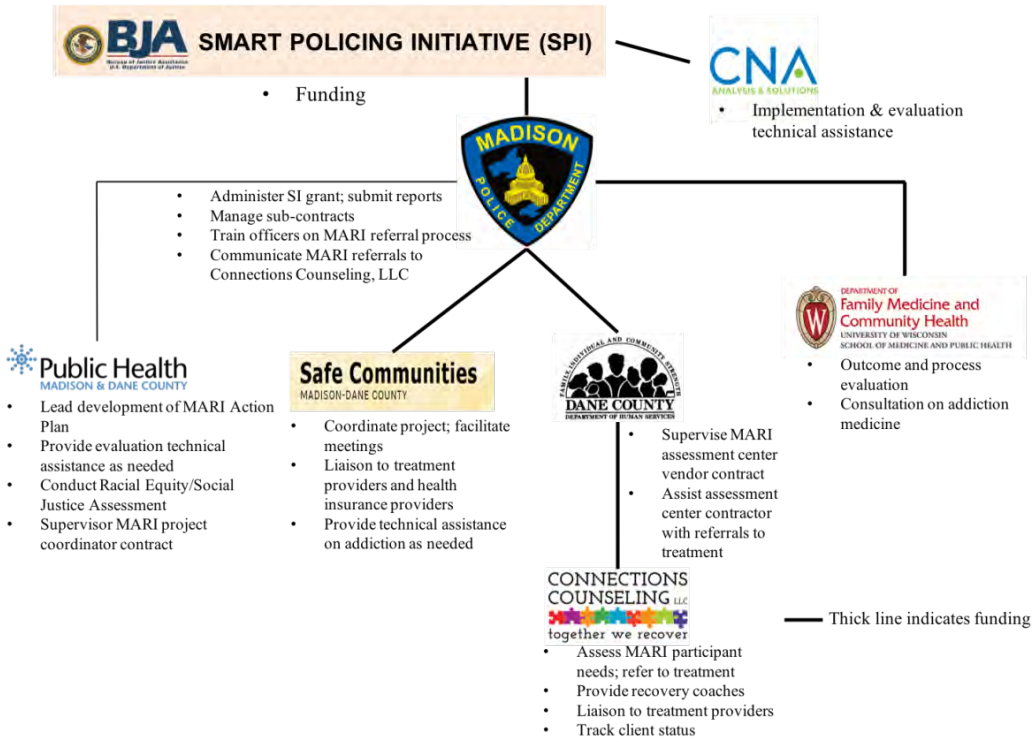
MARI Community Outreach, Collaboration and SPI "*Action Plan*" Development

In October 2016, when MPD was notified of the SPI MARI grant award, Lieutenants Nelson and Freedman, and Dr. Zgierska reached out and informed the group of earlier collaborators about the award, requesting their assistance in further developing the MARI program. BJA also provided technical assistance to MPD through CNA for program development. CNA assigned Subject Matter Experts (SME), Professor Scott Decker from Arizona State University and Stacy Ward from the Reno, NV Police Department. Decker and Ward provided guidance and support developing the required BJA SPI *Action Plan* document. ***We make a reference to this time period because we believe now, looking back, this was a very important period in the overall development of the MARI protocol ultimately implemented.*** The SME guidance recommended an *Action Plan* document containing five sections:

Section 1: Describe Targeted Problem
Section 2: Describe Approach
Section 3: Research Partner Impact Evaluation Plan
Section 4: Training and Technical Assistance Plan
Section 5: Graphical depiction of Logic Model
Section 6: Supplement materials such as contracts, MOUs, agency agreements, etc.

Over the next several months, a number of meetings with diverse stakeholders were held to create an *Action Plan* that would be <u>*workable and agreeable to all key collaborators*</u> ***(Figure 8).***

Figure 8. Madison Addiction Recovery Initiative Organization Chart



At the beginning of this work, Public Health Madison Dane County provided a staff person (Mari Gasiorowicz) to coordinate the development process. In April 2017, the City of Madison executed a *Project Coordination* services contract with a local non-profit organization, Safe Communities Madison Dane County. Safe Communities was already working on developing community responses to the growing opioid overdose epidemic in Dane County, and proceeded to hire a recently retired MPD Captain Joe Balles to serve as MARI Project Coordinator. Captain Balles was well known to MPD, and had existing relationships with others already involved in MARI to this point. He also had previous experience in community policing, problem solving, restorative justice and coordinating past US DOJ grant projects for MPD. The early core group, responsible for planning and developing MARI, was composed of representatives from MPD, CNA, the University of Wisconsin Department of Family Medicine and Community Health (i.e., Dr. Zgierska), Safe Communities Madison Dane County, Public Health Madison Dane County, and Dane County Human Services (***Figure 8***).

In addition to the above core group, collaborators and representatives from the agencies (***Figure 9***) listed below provided information and attend meetings, as needed, to support the ongoing planning and development of MARI.

Figure 9. Additional MARI stakeholders supporting project development.

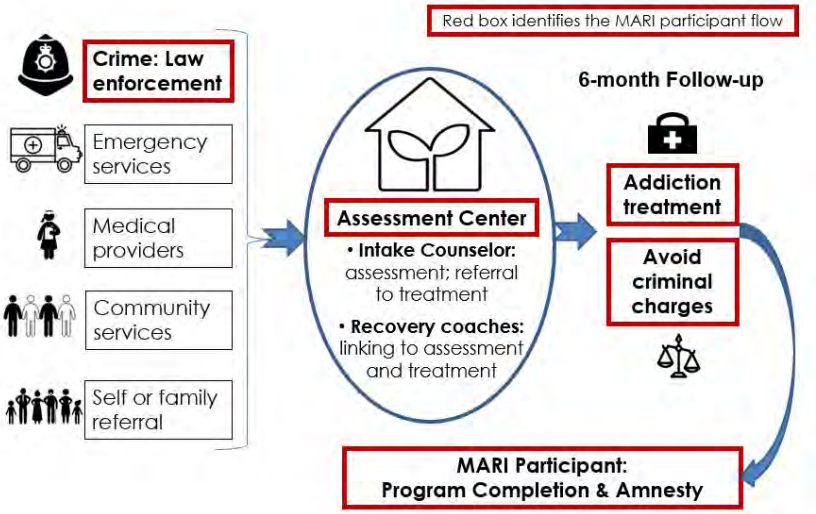
- During the spring and summer of 2017, this multi-agency MARI core group had extensive discussions to finalize language describing MARI for the SPI *Action Plan* document. In the original SPI MARI grant proposal submitted by MPD and Dr. Zgierska, a "*pre-arrest diversion*" protocol was described similar to the Seattle Police Department's LEAD program. However, also described were other pathways more similar to PAARI that connected individuals to addiction assessment and treatment, and envisioned as well for MARI (e.g., Self-Referrals or "Walk Ins", referrals by officers, EMS, Medical Providers, etc.). Ultimately,

the following *Action Plan* language was agreed to by the MARI core group, agency leadership and other MARI collaborators.[22]

- *MARI is a Smart Policing Initiative that seeks to refer persons who overdose or are stopped for low-level, drug related offenses for a professional assessment by a substance abuse / mental health counselor (assessment hub counselor in the MARI-funded assessment center) who would then determine the specific treatment needs and arrange for a referral to appropriate addiction treatment or alternative. Peer recovery coaches will support the client with addiction prior to, and potentially during, treatment.*

- *As **Figure 10** shows, while law enforcement is expected to serve as the primary source for referral to treatment, the emergency services, medical and community service providers, individuals, and their families can also refer an affected individual to the assessment center. However, only persons who committed an "eligible" crime and are referred to the MARI program by law enforcement will become MARI program participants. They will have an opportunity to avoid criminal charges, contingent upon their successful completion of the 6-month MARI program. Lack of a criminal record can help reduce barriers to securing housing and employment following MARI program completion.*

Figure 10. MARI Project Overview.



MARI Pre-Implementation Tasks and Activities

During the spring and early summer 2017 when the MARI *Action Plan* was being developed, there were a number of other tasks and activities simultaneously taking place in preparation for the projected late summer or early fall implementation of the MARI pre-arrest diversion protocol. Below is a summary of tasks and activities accomplished during the planning, pre-implementation phase:

[22] USDOJ BJA SPI MARI Action Plan (Approved August 2017).

- **MPD – Public Health Madison Dane County (PHMDC) Memorandum of Understanding (MOU):** When Safe Communities was retained in April 2017 by the City of Madison to provide MARI project coordination services, it was envisioned at the time that PHMDC would provide office space, equipment and daily, as-needed supervision for the project coordinator. The MPD formalized the role of PHMDC and on-going participation in the development of the MARI "*grant pilot project*" as it was referred to at the time. Subsequently, an MOU[23] was created between the two agencies, outlining PHMDC's supporting role in MARI. This MOU was consequential in formalizing a relationship between two agencies which had not previously worked closely together. PHMDC maintained a strong participatory role and presence throughout the MARI grant project.

- **MPD MARI In-Service Training (April-June 2017):** As part of the MPD's annual spring in-service training for all commissioned personnel (approximately 460 officers), the MPD dedicated a two-hour block of instruction for MARI. The first hour of the in-service training was led by Lieutenant Tim Patton and Officer Dan Swanson who were assigned in early 2017 as lead internal MPD coordinators responsible for the implementation of MARI, and provided a basic overview of the MARI program. Patton and Swanson's presentation provided background on the growing opioid epidemic and the impact opioid misuse, OUD and overdose on the individuals, community and the MPD patrol operations.[24] Officers also received a general overview of the expected MARI "pre-arrest diversion" protocol to be implemented later in the summer or early fall. The second hour of the MARI in-service training involved individuals with *"lived experience"* with opioids, overdose, the disease of addiction and its recovery. These individuals shared with officers their personal stories living with addiction, their current and past efforts in recovery, and the importance of treatment, which can save and change lives. Some of these individuals appeared in person, others were pre-recorded on video, which was then shared with officers at the training. Lieutenant Patton and Officer Swanson would later share with the MARI core group how impactful the second hour of the training was for MPD officers and to help launch MARI internally within the department.

- **MARI Assessment Hub Contract and Peer Support Services:** Central to the MARI program was identifying and contracting with a local clinical organization capable of providing addiction assessment, referral to treatment, and peer support services. [25] The BJA SPI grant award allocated $364,986 for the Assessment Hub services over the three years of funding. The BJA SPI grant funding was **not** designated to cover the SUD treatment costs for MARI participants, only the SUD assessment, referral to treatment, and peer support services for all MARI program participants. At that time, Dane County Human Services (DCHS) provided a minimal level of SUD assessment and referral to treatment services to Dane County residents (e.g., weekly on Monday mornings) through the County's Treatment Readiness Center. However, DCHS did not have the capacity at that time or funding to

[23] MARI Grant Pilot Project Memorandum of Understanding between PHMDC and MPD (April 2017).
[24] MPD MARI In-Service Presentation (Spring 2017).
[25] Dane County Purchasing RFP#117506 Opioid Assessor and Recovery Coach (April 2017).

support the number of expected SUD assessment referrals from MARI. Subsequently, the City of Madison and MPD signed a MOU[26] with DCHS to secure a contract with a local provider who would be capable of providing SUD clinical assessment and treatment referral, peer support services and administrative oversight. In July 2017, Connections Counseling was selected through a competitive process to serve as the official MARI Assessment Hub and provide services throughout the duration of the SPI project. Once a MARI participant completed the SUD assessment, Connections Counseling then coordinated with DCHS referral to treatment, based on each MARI participant's treatment needs, preferences, and treatment coverage and availability.

- **Common Language for MARI Collaboration:** Once the MARI Assessment Hub provider was identified and joined the core group, discussions and meetings took place to finalize MARI operating procedures and eligibility criteria. However, we would be remiss in submitting this report if we failed to highlight the need we found within the core group for creating a *"common language"* when attempting a multi-agency, multi-disciplinary collaboration like MARI. First of all, law enforcement like most professions has a language of common terms with very distinct meanings. For example, terms like arrest, investigative stop, contact, consent, booking, citation, summons, deferred prosecution, charges, offender, etc., all have very specific meanings to law enforcement personnel. Those same terms may not convey the same meaning to those whose professional background lies in public health, human services, clinical care or research. Similarly, there are terms in the field of addiction recovery and SUD that are more appropriate, less stigmatizing and recommended. In short, "*words matter and there are terms to avoid when talking about addiction*."[27]

  Creating a common, understandable, and non-stigmatizing language amongst a diverse group does not happen overnight. Consequently, creating a team environment, which supports a strong, cohesive, respectful and effective collaboration like MARI takes time and deliberate effort. **We found the work of finalizing our final MARI *Action Plan* to provide the perfect backdrop for creating a common language and common vision as to what MARI could and should be.** Throughout many meetings and discussions during the summer of 2017, the core group bonded. When Connections Counseling was added as the MARI Assessment Hub provider, the team was now complete. In August 2017, the core group officially became known as the *"MARI Operations Team"* (or "MARI Ops Team" for short) and would serve as the multi-agency steering committee to guide MARI throughout the duration of the BJA SPI grant award period.

- **Defining MARI Eligible Crimes and Other Eligibility Criteria:** The MARI Ops Team's *Action Plan* defined MARI participation as "*…only persons who committed an "eligible" crime and are referred to the MARI program by law enforcement will become MARI program participants."* MPD subsequently initiated discussions with the Dane County District Attorney's Office and the Madison City Attorney's Office to define exactly what offenses

[26] MARI Grant Pilot Project Memorandum of Understanding between DCDHS and MPD (Aug 2017).
[27] "Words Matter – Terms to Avoid When Talking About Addiction," NIH website (March 2021).

would versus would not be considered an *"eligible"* crime. Reaching consensus on the list of MARI eligible offenses between the MPD and both of these prosecutorial agencies was crucial for a couple of reasons. First and foremost being the 14th Amendment's *"Equal Protection Clause"* in the United States Constitution that bars government from official actions, which treat similarly situated people or groups of people differently.[28] Additionally, further complicating matters, many states, like Wisconsin, have "Victim Rights" statutes, which afford victims of certain crimes specific rights the law has created for them.[29] Consequently, defining what constitutes an *"eligible"* crime for a law enforcement program like MARI is possible to accomplish, but it requires time and thoughtful consideration by both law enforcement and prosecutors. Listed below is the agreed-upon set of MARI "eligible" crimes:

- Possession of Controlled Substance (excluding "with Intent or Delivery").
- Possession of Drug Paraphernalia.
- Burglary of a family member (with victim agreement and drug use related).
- Theft of a family member (with victim agreement and drug use related).
- Retail theft (drug use related).
- Theft from auto (drug use related).
- Prostitution (drug use related).

When training MPD officers on the final list of MARI "eligible" crimes, it was important to communicate the need for investigating officers to establish a nexus between the crime committed and a suspect's SUD or substance use (i.e., was the crime drug use related?). In regards to the property crimes of burglary and theft, Wisconsin victim rights statutes have specific provisions for victims of property crime. However, in cases where the victims are family members themselves (which is not unusual for families dealing with loved ones suffering from addiction), it was believed family members would be likely to agree to not pursing criminal charges if a pathway to SUD assessment and treatment would be an option for their family member, as proposed by MARI.

During the discussion to determine MARI eligible crimes, other potential eligibility criteria were considered by MARI Ops Team members. For example, Dane County Human Services had concerns regarding residency of MARI participant referrals. It was believed that some of the MARI participant referrals would have minimal or no health insurance coverage. If a MARI participant was a resident of Dane County, there were potential funding sources or options available for SUD treatment and even covered by the DCHS. If the referred individual lived outside of Dane County, DCHS was unable to offer assistance and needed to refer that individual to their primary county of residence for SUD assessment, treatment if financial assistance was needed. **Given the need for the Assessment Hub, MPD and the MARI SPI research partner to track MARI participant compliance with treatment for a six month period, it was not feasible to include non-Dane County residents in this first**

[28] Equal Protection Clause, Wikipedia, March 2021.
[29] "Your Rights as a Victim," State of Wisconsin Department of Justice website, March 2021.

iteration of the MARI program. Consequently, being a resident or having *"ties to Madison or Dane County"* became part of MARI program eligibility criteria.

In addition to a residency requirement, a number of other MARI eligibility criteria questions were identified by the MARI Ops Team. From the very beginning, MARI was always envisioned as a program for individuals who committed low level, non-violent, minor criminal offenses related to their drug use. MARI was not envisioned for individuals deeply involved in the criminal justice system or who might pose a danger of violence, including to the Assessment Hub staff. Consequently, the below list of exclusion criteria questions was developed for referring officers to assess, and if the answer to any question was "Yes" the individual was not eligible to participate in MARI:

- "Do they have a history of violence in past three years (e.g., Homicide, Battery, Sexual Assault, Stalking, Endangering Safety by Dangerous Use of a Weapon, Carrying Concealed Weapon, Robbery, Recklessly Endangering Safety, Child Abuse, Intimidate Victim/Witness, and Strangulation/Suffocation)?
- Are they a Registered Sex Offender?
- Are they currently on Probation or Parole with the Department of Corrections?
- Are they currently released on bail with criminal charges currently pending against them? If bail-related charges are for MARI eligible crimes, MARI can be offered. If bail related charge is a Felony, domestic related or non-MARI eligible crime, then MARI cannot be offered.
- Does the person currently have an active warrant for their arrest?
- Would this individual present a possible danger to MARI Assessment Hub staff?
- Has the individual previously been offered or participated in MARI?"

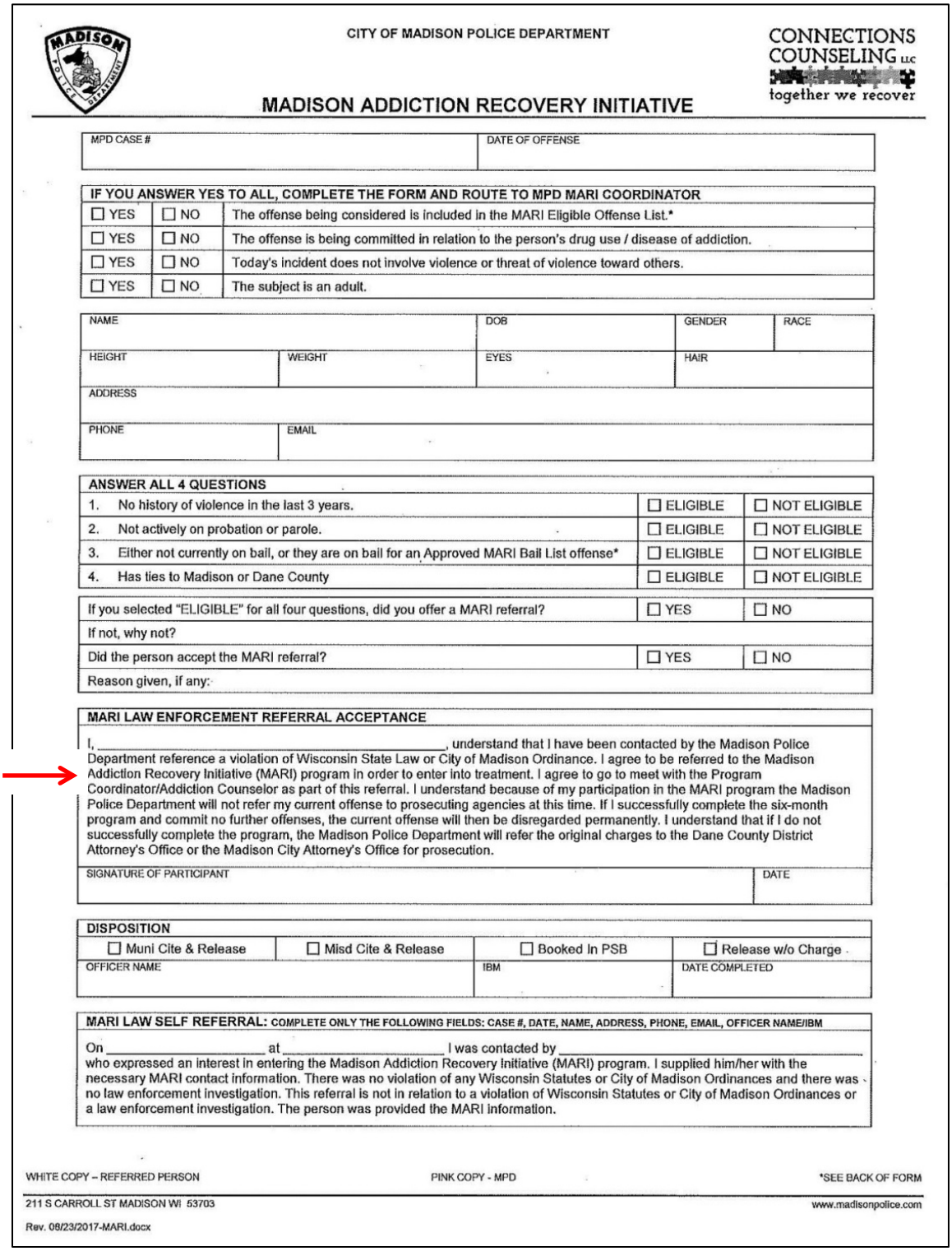
- **Finalizing MPD MARI Protocol and Referral Form:** In July 2017, an initial draft of a MARI referral form was pilot-tested by MPD's West and Central Police Districts. Officers were asked to complete a MARI referral form after investigating a MARI eligible crime, then share feedback – without an actual referral to the Assessment Hub taking place. The pilot in these two police districts was important for gauging likely questions to come from patrol officers as the MARI implementation date drew closer (September 1, 2017). Following the pilot, the two-page, carbon copy MARI referral form was finalized, printed and distributed to all MPD police districts.[30] The main page of the referral form (page one, ***Figure 11***) was a carbon copy duplicate, which officers filled out with the potential MARI participant (*and explained in more detail in the next section*).

  Page one (the original) was designed to be given to the MARI participant, and included instructions on the back ***(Figure 12)*** for contacting the MARI Assessment Hub. The duplicate (the carbon copy) of the main referral form was designed to serve as the MPD internal copy. The back side of page two provided a "*MARI Referral Guide*" for officers,

[30] Final MPD MARI Referral Form (August 2017)

including a process flowchart to assist with evaluating eligibility criteria when considering a referral to the MARI program ***(Figure 13)***.

Figure 11: MARI Referral Form – Page One



CITY OF MADISON POLICE DEPARTMENT

CONNECTIONS COUNSELING LLC
together we recover

MADISON ADDICTION RECOVERY INITIATIVE

MPD CASE #	DATE OF OFFENSE

IF YOU ANSWER YES TO ALL, COMPLETE THE FORM AND ROUTE TO MPD MARI COORDINATOR

☐ YES	☐ NO	The offense being considered is included in the MARI Eligible Offense List.*
☐ YES	☐ NO	The offense is being committed in relation to the person's drug use / disease of addiction.
☐ YES	☐ NO	Today's incident does not involve violence or threat of violence toward others.
☐ YES	☐ NO	The subject is an adult.

NAME		DOB	GENDER	RACE
HEIGHT	WEIGHT	EYES	HAIR	
ADDRESS				
PHONE	EMAIL			

ANSWER ALL 4 QUESTIONS

1. No history of violence in the last 3 years.	☐ ELIGIBLE	☐ NOT ELIGIBLE
2. Not actively on probation or parole.	☐ ELIGIBLE	☐ NOT ELIGIBLE
3. Either not currently on bail, or they are on bail for an Approved MARI Bail List offense*	☐ ELIGIBLE	☐ NOT ELIGIBLE
4. Has ties to Madison or Dane County	☐ ELIGIBLE	☐ NOT ELIGIBLE

If you selected "ELIGIBLE" for all four questions, did you offer a MARI referral?	☐ YES	☐ NO
If not, why not?		
Did the person accept the MARI referral?	☐ YES	☐ NO
Reason given, if any:		

MARI LAW ENFORCEMENT REFERRAL ACCEPTANCE

I, _____, understand that I have been contacted by the Madison Police Department reference a violation of Wisconsin State Law or City of Madison Ordinance. I agree to be referred to the Madison Addiction Recovery Initiative (MARI) program in order to enter into treatment. I agree to go to meet with the Program Coordinator/Addiction Counselor as part of this referral. I understand because of my participation in the MARI program the Madison Police Department will not refer my current offense to prosecuting agencies at this time. If I successfully complete the six-month program and commit no further offenses, the current offense will then be disregarded permanently. I understand that if I do not successfully complete the program, the Madison Police Department will refer the original charges to the Dane County District Attorney's Office or the Madison City Attorney's Office for prosecution.

SIGNATURE OF PARTICIPANT	DATE

DISPOSITION

☐ Muni Cite & Release	☐ Misd Cite & Release	☐ Booked In PSB	☐ Release w/o Charge
OFFICER NAME		IBM	DATE COMPLETED

MARI LAW SELF REFERRAL: COMPLETE ONLY THE FOLLOWING FIELDS: CASE #, DATE, NAME, ADDRESS, PHONE, EMAIL, OFFICER NAME/IBM

On _____ at _____ I was contacted by _____ who expressed an interest in entering the Madison Addiction Recovery Initiative (MARI) program. I supplied him/her with the necessary MARI contact information. There was no violation of any Wisconsin Statutes or City of Madison Ordinances and there was no law enforcement investigation. This referral is not in relation to a violation of Wisconsin Statutes or City of Madison Ordinances or a law enforcement investigation. The person was provided the MARI information.

WHITE COPY – REFERRED PERSON PINK COPY - MPD *SEE BACK OF FORM

211 S CARROLL ST MADISON WI 53703 www.madisonpolice.com

Rev. 08/23/2017-MARI.docx

See Figure 14 →

Figure 12: MARI Referral Form - Offender Copy Instructions

MADISON ADDICTION RECOVERY INITIATIVE CITY OF MADISON POLICE DEPARTMENT

You have been contacted by the Madison Police Department in reference to an offense that involves or is related to addiction and have been identified as a person who may benefit from participating in the Madison Addiction Recovery Initiative (MARI) program. MARI assists people with addiction issues who have committed low level offenses by deferring criminal charges in place of treatment. The process is as follows:

- Officer has contact with you at the scene of the incident. During the investigation, the officer will speak to you and determine if you are eligible to participate in the MARI program.
- Once it is determined you may be eligible for the MARI program, you will need to sign this form before the referral can be made. The process of signing the form and the phone call to Connections Counseling needs to take place within 72 hours.

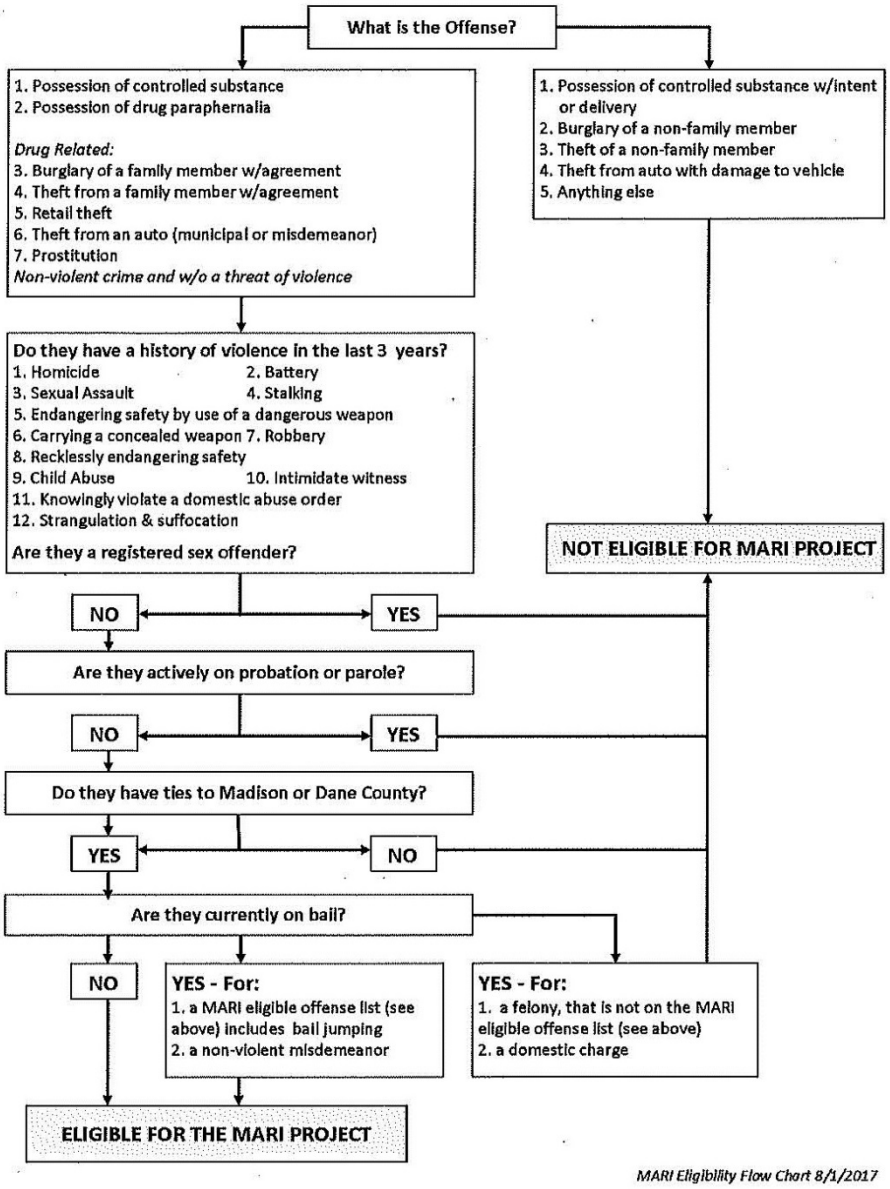
By signing this form, you have expressed your interest in obtaining treatment for your addiction in place of being charged criminally for the offense in which you were contacted by MPD.

- You must call Connections Counseling within **72 hours** to set up an appointment to meet with their intake counselor. That number is (608) 233-2100 ext. 17. **Failure to call and/or meet with Connections Counseling will result in this charge being referred to the District Attorney's Office or City Attorney's Office for prosecution.**
- Connections Counseling will then work with you in setting up your treatment plan and you will begin your journey to recovery and a fresh start!

Should you have any questions about the MARI process or any charges that may be deferred, please contact the Madison Police Department MARI Coordinator at (608) 261-8591.

Figure 13: MARI Referral Form – Program Eligibility Criteria Guidance for Officers

MARI Referral Guide for Officers



MARI Eligibility Flow Chart 8/1/2017

- If person is incapacitated and unable to answer questions, please fill out form and send to the MPD MARI Coordinator at Central PD. Leave a copy of this form with the person to be potentially referred.
- Please continue to fill out and issue any and all citations (municipal, misdemeanor citations, including when felony court date is given) to person to be referred. Send the citations and this form to MPD MARI Coordinator.

- **MARI Referral Acceptance and Participation Agreement:** The most significant aspect of the MARI referral process is unquestionnably the interaction between the investigating officer and the potential MARI participant who, at the time, is a suspect in the officer's criminal investigation. In the in-service training prior to implementing MARI, officers were trained to assess and explore the relationship between the apprehended individual's illegal behavior and their drug use as part of their investigation. If the officer believed the behavior was SUD or "drug use related," the officers were asked to offer a referral to the MARI program rather than place the offending individual under arrest, booking them into jail, or issuing a summons or citation. When an officer believes a referral to MARI is appropriate, the officer engages the apprehended individual in a conversation regarding the MARI program. The officer explains that there is sufficient evidence or *"probable cause"*[31] to arrest the apprehended individual. However, since the investigating officer also believes the apprehended individual's actions were related to their SUD, they inform the apprehended individual about the MARI pre-arrest diversion program. If interested in the program, the officer and the apprehended individual review the MARI eligibility criteria. Once eligibility is determined, the officer requests the potential participant to review and sign the *"MARI Law Enforcement Referral Section,"* which serves as a consent and agreement to participate in the MARI program ***(Figure 14)***.

Figure 14: MARI Referral Acceptance Form

MARI LAW ENFORCEMENT REFERRAL ACCEPTANCE

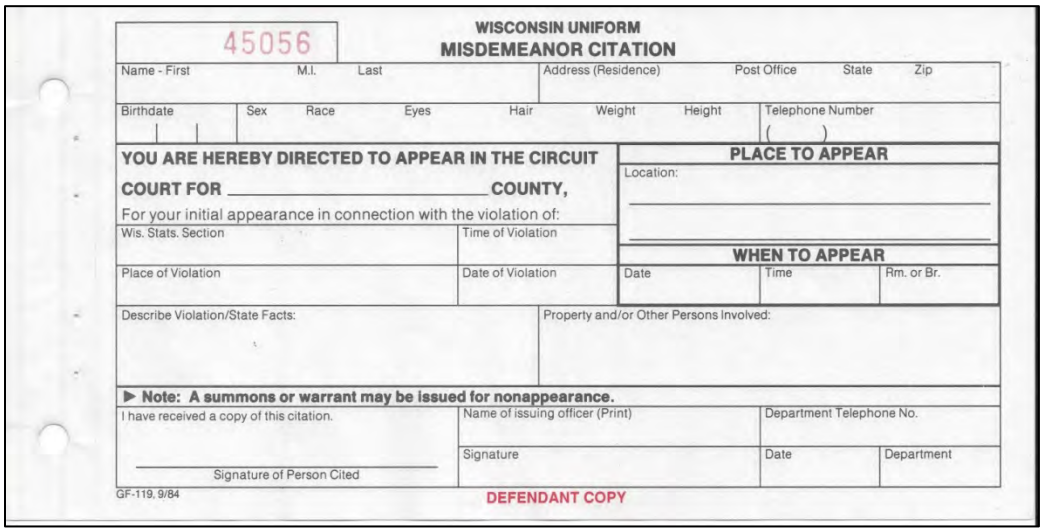
I understand that I have been contacted by the Madison Police Department reference a violation of Wisconsin State Law or City of Madison Ordinance. I agree to be referred to the Madison Addiction Recovery Initiative (MARI) program in order to enter into treatment. I agree to go to meet with the Program Coordinator/Addiction Counselor as part of this referral. I understand because of my participation in the MARI program the Madison Police Department will not refer my current offense to prosecuting agencies at this time. If I successfully complete the six-month program and commit no further offenses, the current offense will then be disregarded permanently. I understand that if I do not successfully complete the program, the Madison Police Department will refer the original charges to the Dane County District Attorney's Office or the Madison City Attorney's Office for prosecution..

SIGNATURE OF PARTICIPANT	DATE

- **MPD Misdemeanor Citation Protocol and MARI Program Brochure:** Once an individual agrees to participate in the MARI program, officers complete and issue to this individual a *"Misdemeanor Citation,"* listing the offenses with a court date approximately five weeks out ***(Figure 15)***. The MARI participant is informed that if they fail to contact the MARI Assessment Hub within 72 hours (per their signed agreement and instructions provided on back of MARI referral form), the Misdemeanor Citation, listing the original qualifying MARI crime, will be referred to the District Attorney's Office (*or City Attorney's Office if MARI eligible offense was a Municipal Ordinance violation*) for charging and prosecution.

[31] Definition of Probable Cause, Legal Dictionary, www.dictionary.law.com (March 2021).

Figure 15: Misdemeanor Citation



45056

WISCONSIN UNIFORM
MISDEMEANOR CITATION

Name - First M.I. Last | Address (Residence) Post Office State Zip

Birthdate | Sex Race Eyes Hair Weight Height | Telephone Number ( )

YOU ARE HEREBY DIRECTED TO APPEAR IN THE CIRCUIT COURT FOR _____ COUNTY,
For your initial appearance in connection with the violation of:

PLACE TO APPEAR
Location:

Wis. Stats. Section | Time of Violation

WHEN TO APPEAR

Place of Violation | Date of Violation | Date | Time | Rm. or Br.

Describe Violation/State Facts: | Property and/or Other Persons Involved:

▶ Note: A summons or warrant may be issued for nonappearance.

I have received a copy of this citation. | Name of issuing officer (Print) | Department Telephone No.

Signature of Person Cited | Signature | Date | Department

GF-119, 9/84

DEFENDANT COPY

Officers also provide the MARI participants with a brochure containing additional information about the program and available peer support services ***(Figure 16)***.[32]

Figure 16: MARI Program Brochure

[32] MPD MARI Brochure (2018).

Assessment Hub Protocols and Information Sharing: The last set of tasks and activities to be worked out in August 2017 prior to program implementation centered on the actual referral process to the MARI Assessment Hub (e.g., Connections Counseling) and related information sharing. MPD had already identified a MPD MARI Officer position in the Department's Criminal Intelligence Section who would serve as the internal MPD MARI referral coordinator (initially Officer Dan Swanson; later Officer Bernie Albright). The MPD MARI officer was responsible for reviewing all MARI referrals from MPD officers to ensure the referral met MARI program eligibility criteria. The MPD MARI Officer assigned a unique MARI identification number (ID#) to each referral received, and entered information from the MARI referral form into a MARI excel spreadsheet to protect participant confidentiality, enable sharing of de-identified data with the evaluation team, and help track each MARI participant's program compliance.

Likewise, Connections Counseling identified a position, which would be responsible for coordinating and tracking all MPD-referred MARI participants. The MPD MARI Officer would scan and email a copy of the completed MARI referral form to the Assessment Hub coordinator. The Assessment Hub Coordinator would then strive to connect with the referred MARI participant, complete a preliminary phone screening and schedule a date for their SUD clinical assessment (usually one to five days later). Upon completion of the clinical assessment (paid for by the BJA SPI grant), treatment options would then be individually explored with each MARI participant based upon the clinical assessment, participant preferences, and their current health insurance coverage. The Assessment Hub would also assign an individual in long-term

recovery, trained as a recovery coach or peer support specialist, to provide peer support services to the MARI participant at this time; acceptance of the peer support services was optional for MARI participants.

In the final planning prior to program implementation, extensive discussion took place regarding how and what information could be shared versus not shared, and with whom, regarding each MARI participant, their contact with the Assessment Hub and compliance with treatment (e.g., HIPPA, health information privacy, etc.). Complicating the discussion were the data-access needs of our SPI evaluation partner (Dr. Zgierska) so an evaluation the overall effectiveness of the MARI program could occur. After the University of Wisconsin Health Sciences Institutional Review Board (IRB) review of the proposed program and its evaluation design, on August 16, 2017, the MARI program and its evaluation were *"determined to not constitute human subjects research."*[33]

The MARI Ops Team discussed in detail ways to protect participant confidentiality while also ensuring the necessary communication between the team members. Only specific members of the MARI Ops Team who needed to know the identity of each MARI participant in order to facilitate addiction treatment and track MARI progress were allowed access to identifiable information. They were explicitly listed in the Assessment Hub "*Release of Information*" form[34] ***(Figure 17)***, which needed to be signed by the MARI participants if they wished to continue with the program.

Final MARI *Action Plan* Approval and Protocol Implementation

On August 15, 2017, the MPD and the MARI Ops Team received official word from BJA the MARI SPI *Action Plan* was approved. BJA Senior Policy Advisor Kate McNamee wrote, *"… I want to congratulate your team on producing a well-written, detailed submission that contains solid implementation and evaluation plans."*[35] It took over 10 months from the initial BJA SPI grant award announcement to create a multi-agency, multi-disciplinary team to create an SPI *Action Plan* document that was ***"workable and agreeable to all collaborators."***

On September 1, 2017, MPD officially launched the MARI pre-arrest diversion protocol in all six police districts. Police Chief Mike Koval championed the launch by recording a video message, which was played at all patrol briefings for approximately ten days promoting MARI and the Department's commitment to supporting individuals and families with SUD on their pathway toward recovery. The internal MPD MARI Officer also attended patrol briefings, both day and night, answering any questions officers might have, and was available by cell phone to take calls from officers at any time, in case of questions. In short, the MARI protocol was ready to be put to the test, and a full commitment was made by MPD to make sure the launch was successful.

[33] IRB Review Determination for Exemption or Not Human Subjects Research (2017-0919 Zgierska Exemption).

[34] Connections Counseling – MARI Release of Information Form (2017)

[35] USDOJ BJA SPI Madison Action Plan email approval and CNA review memorandum (Aug 2017)

Figure 17: MARI Program Release of Information Form

CONNECTIONS COUNSELING LLC
together we recover

Connections Counseling LLC
5005 University Ave, Ste 100, Madison, WI, 53705
Phone # : 608-233-2100, Fax # : 608-233-2101

MARI Program ROI

AUTHORIZATION OF DISCLOSURE OF MEDICAL INFORMATION

1. Patient Information

Name: **Test Test** Patient DOB: **2014-04-02**

2. Type of Information to be released is:

- Information needed to monitor your compliance to MARI program, your care plan and recommendations of Connections staff and treatment providers
- Clinical assesment documentation including diagnoses, level of biosocial severity and function and received treatment type
- Verbal communication between Connections staff, MARI diversion partners named in section 4 below and your treatment provider including discussions regarding the above topics.

3. Records disclosed From/To:

Connections Counseling, LLC, 5005 University Ave, Ste 100, Madison, WI 53705

4. Records disclosed To/From multiple parties supporting MARI diversion program:

1. **Madison Police Department**, 211 S. Carroll St, Madison, WI 53703, ph: 608.255.2345
2. **Safe Communities**, P.O. Box 6652, Madison, WI 53716-0652 ph 608.441.3060
3. **Dane County Dept of Human Services**, 1202 Northport Dr, Madison, WI 53704 ph 608.242.6488

5. Purpose or need for disclosure.

MARI Recovery Diversion Program coordination, administration and compliance

6. Duration: This authorization will remain in effect for 1 year (365 days) from date of signature below unless revoked via written request. Revocation must be faxed or delivered via US mail to Connections Counseling LLC, Attn: MARI Medical Records, 5005 University Ave Ste 100, Madison, WI 53705 or fax 608.233.2101:

I understand that my mental health and/or alcohol/drug treatment records are protected under the federal regulations governing Confidentiality of Alcohol/Drug Abuse Patient Records, 42 C.F.R.,Part 2, and the Health Insurance Portability and Accountability Act (HIPPA) of 1996,45 C.F.R. Pts. 160 & 164, and cannot be disclosed without my written consent unless otherwise provided for in the regulations. This Disclosure Authorization is specifically intended to include any references to diagnosis, testing, and/or treatments, including, mental health services and alcohol/drug services. I also understand that I may revoke this consent in writing at any time except to the extent that action has been taken in reliance on it, including provision of health care services requiring subsequent disclosure to effect payment. Unauthorized re-disclosure by recipient is prohibited, but may be a potential risk. I understand that I do not have to sign this authorization in order to receive health care benefits, except for health care services necessary to create an assessment or report for disclosure to the recipient identified in this authorization. In any event, this authorization expires automatically as follows: 1 year from patient's authorization and signature or immediately after the patient's revocation of authorization.

Patient Signature: **Date :**

MARI Post Implementation Activities, Community Outreach and Collaboration
Following the September 1, 2017 launch of MARI, three different groups formed that would guide MARI over the next three years:

1. **MARI Ops Team Meetings:** The MARI Ops Team met on the 2nd Thursday of each month from 2:00 p.m. – 4:00 p.m., typically at one of the MPD or other Ops Team member locations. The Safe Communities-based MARI Coordinator led and facilitated these meetings. A written agenda was sent to the MARI Ops Team members prior to each meeting. Minutes from the previous meeting were also prepared, distributed, corrected if needed, and approved. Most of the MARI Ops Team meetings started with an *"Inclusion Activity"* designed to build camaraderie amongst this multi-agency, multi-disciplinary group. The first agenda item was typically a *MARI Data Update* from the MPD MARI Officer and the Assessment Hub Coordinator. An overview of several data indicators related to the MARI referral process were provided (e.g., total number of interval MARI referrals, total number of new MARI participants still needing to make contact with Assessment Hub, total number of those who completed the SUD assessment, total number of those who completed the six-month MARI program, etc.). The team would listen, review the data, and discuss how to improve the MARI procedures. The MARI Ops Team did not discuss MARI participants in a way that would identify individuals, but discussion would occur around the MARI referral process, Assessment Hub procedures, broader discussion about availability and access to SUD assessment and treatment services, and any emerging challenges and ways to overcome them. When appropriate, other MARI Ops Team members, such as Public Health Madison Dane County or Dr. Zgierska, would present data on local opioid overdoses or fatalities, or the interim analysis results to help keep abreast of the opioid epidemic trends impacting the Madison community, and the MARI program's progress.

2. **Weekly MARI Participant Meetings:** Soon after MPD started to make referrals to the Assessment Hub, it became apparent that a weekly MARI referral coordination meeting was necessary amongst those MARI Ops Team members listed on the Assessment Hub *"Release of Information"* form (e.g., MPD, Assessment Hub - Connections Counseling, Dane County Human Services, and MARI Coordinator - Safe Communities). This group held one-hour meetings on most Friday mornings at the MARI Assessment Hub location. New MARI participant referrals received during the previous week would be reviewed as to whether or not the new MARI participant made contact with the Assessment Hub, completed a phone screening, and scheduled or completed the SUD assessment. While the instructions to the MARI participant were to contact the Assessment Hub within 72 hours (3 days) following their referral by MPD, it was not unusual for MARI participants to be allowed up to 5 days depending upon weekends, holidays, etc. However, if the referred MARI participant had not reached out to or been contacted by the Assessment Hub in 3-5 days, they were categorized as *"Non-Engaged"* and discharged from MARI. The MPD MARI Officer would then attempt to reach out to the offender and advise them the charges associated with their MARI eligible crime would now be referred to the appropriate prosecuting agency (e.g., District Attorney or City Attorney) for arrest and charging. If

necessary, the MPD MARI Officer would send the Non-Engaged MARI participant an updated citation listing a new, mandatory court appearance date. The MPD records management system would then be updated to reflect this arrest in the department's official records.

3. **MARI "Large Group" Advisory Meetings:** Besides the agencies represented on the MARI Ops Team, other agencies and community organizations were vital stakeholder-partners and collaborators on the creation of MARI. Subsequently, once MARI launched, this broader group of stakeholders stayed involved and kept abreast of the MARI project. This group came to be known as the "MARI Large Group," with meetings approximately 2 times each year. The Large Group offered input on the MARI implementation procedures, helped identify barriers to the program engagement, and brainstormed ways to overcome these barriers. Involvement of stakeholders representing racial and ethnic under-represented minorities (e.g., African American and Hispanic communities) was essential for promoting cultural humility and competence, and the inclusivity of the MARI program. The first meeting was in November 2017, shortly after the MARI launch date. The last Large Group meeting was held in June 2019. A final Large Group meeting was planned for June 2020 to discuss MARI transition and sustainability plans, but was postponed due to the COVID-19 pandemic-related public health restrictions. We would like to plan and hold the final Large Group meeting later in 2021, after the final report has been submitted, to provide an update on the MARI impact. For the Large Group meetings, typically a meeting agenda was prepared in advance by the MARI Coordinator and lunch was provided free of charge to attendees by the Madison Community Policing Foundation. Average attendance at MARI Large Group meetings varied between 30 and 40 persons. In the days and weeks prior to the June 2018 meeting, the City of Madison was observing a substantial increase in opioid-related fatal overdoses. Madison Mayor Paul Soglin joined the MARI Large Group to discuss it. The Mayor's message to the group was passionate and from the heart. He was deeply disturbed by the trend in overdose related fatalities, and implored all of us to continue doing everything we can to support programs like MARI, and individuals and families struggling with addiction.

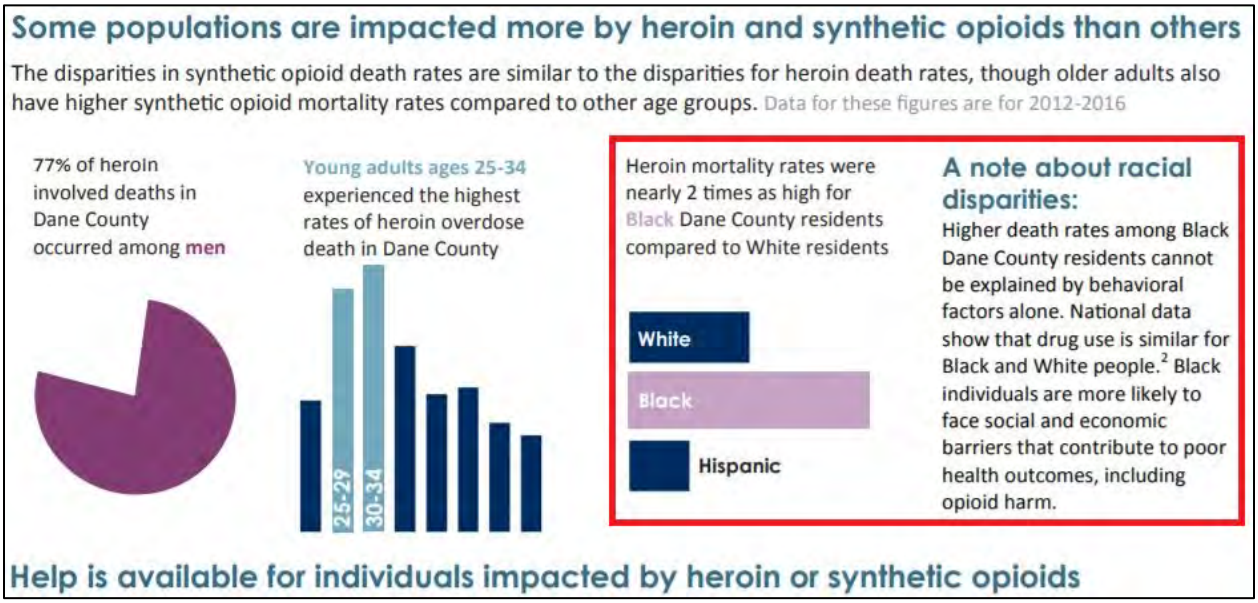
MARI Program Inclusion, Equity and Diversity Related Challenges

The City of Madison has a long community history which celebrates diversity and recognizes more equitable societies have better long-term economic, health, and social outcomes. In October 2013, the City of Madison was one of the first cities in the United States to adopt an *"Equity Impact Model"* to inform policies and practices that consider equity impacts in city government planning and decisions at all levels.[36] As the MARI Ops Team was working to define what would constitute MARI eligible crimes and other eligibility criteria (*discussed earlier*), there was great awareness and frequent discussions around inclusion, equity and diversity in all aspects of MARI. During the planning phases, PHMDC shared data from Dane County demonstrating disparities in how heroin and synthetic opioids were impacting some

[36] City of Madison Racial Equity and Social Justice Initiative, January 2018.

populations more than others. Of particular interest was how Dane County heroin mortality rates for African Americans were TWO times higher when compared to Whites ***(Figure 18)***.[37]

Figure 18: PHMDC Heroin & Synthetic Opioid Disparate Impact



In November 2017, two months after the initial launch of MARI, the MARI Ops Team was aware from MPD that a large number of potential MARI referrals were "screened out" because the referred individual had a probation or parole status. Because of Wisconsin's long history of racial disparities related to probation and parole,[38] the MARI Ops Team also knew this likely meant that certain populations, particularly African Americans, were disproportionately screened out from MARI because of this eligibility criterion. In order to further explore disparate impacts of the existing MARI protocol, a MARI Large Group meeting was convened at the Villager Mall on November 17, 2017. MPD and the MARI Assessment Hub started the meeting by providing an update on the first two months of MARI referrals by MPD and on the Assessment Hub participant engagement. PHMDC and the City of Madison's Office of Civil Rights then used the City's *"Racial Equity and Social Justice Tool (RESJ)"*[39] to facilitate a discussion and consideration of equity issues, and how communities of color and low income populations can be better included. Listed below are key recommendations resulting from the RESJ process and discussion with the MARI Large Group's stakeholders:

1. The MARI Assessment Hub (i.e., Connections Counseling) should work with other local minority-focused non-profits (e.g., Centro Hispano, Madison Urban Ministries, Nehemiah) in order to increase diversity of peer support staff.

[37] Heroin and Synthetic Opioids: How the opioid epidemic is changing Dane County (2018)
[38] Wisconsin Racial Disparities Project, Professor Pamela Oliver, University of Wisconsin Madison.
[39] City of Madison Office of Civil Rights, Racial Equity & Social Justice Initiative Tools (2021).

2. Efforts should be made, if possible, to disaggregate data by education level to ensure equitable access to MARI across education levels.
3. Further explore how MARI works with those involved in prostitution/human trafficking.
4. Explore lessons learned from other diversion programs that offer equitable access to treatment and services (e.g., Pathfinder program).
5. Integrate MARI training into onboarding for new officers and ongoing training for all.
6. Collaborate with and inform Dane County judges and defense attorneys about MARI.
7. Explore treatment options provided locally by the Wisconsin Department of Corrections since MARI is not an option for some individuals, such as those with a Probation or Parole status, and not all may equally benefit from MARI – some, with more advanced disease, may need more structured case management to be successful in treatment.
8. Greater efforts should be made by MPD to refer individuals to MARI for all eligible crimes, rather than predominantly for crimes from overdose scenes.
9. Refer individuals to MARI for other SUDs, such as alcohol use disorder.
10. Communicate broadly about the wide option of services available in Dane County, and link people with additional services outside of SUD treatment (e.g., mental health, etc.).
11. Create communication plan to target outreach and education about MARI to communities of color and other underrepresented minority populations.

The recommendations from the MARI Large Group meeting and RESJ discussion guided the work of the MARI Ops Team through the remainder of the MARI project period. In April 2018, MPD staff and the MARI Project Coordinator met with administrators from the Wisconsin Department of Corrections to further discuss the possibility of allowing those on Probation or Parole to be eligible for the MARI program. After extensive discussion, the consensus from that meeting was to continue the *status quo* and not offer MARI to those on Probation or Parole, and to explore the topic again at a later date, with the new program planned to be built upon the MARI experiences. As stated previously, MARI was intended for individuals who committed low-level, drug use-related crimes who had not already been extensively involved in the criminal justice system. Wisconsin Department of Corrections officials believed at that time individuals on Probation or Parole who have a SUD already have treatment options available to them (e.g., through the Department of Corrections), and involvement with MPD's MARI program would only complicate community level supervision of the offender.

One recommendation from the REJS discussion was quickly implemented by the MARI Assessment Hub. By early 2018, the Assessment Hub had hired and trained a diverse group of recovery coaches and peer support specialists - all people with "lived experience" of SUD and its recovery – to provide peer support services. The peer support group consisted of 2 white males (ages 55 and 60 years); 1 white female (age 44 years); 1 African American male (age 72 years); and 1 African American female (age 58 years). In addition, the African American Opioid Coalition had been engaged as members of the MARI Large Group and was always available to MPD and the MARI Ops Team throughout the project to consult on how African American families and individuals were being impacted by the opioid crisis in Dane County.

Recognizing and Celebrating MARI Program "Completers"

In the first month following the launch of MARI, MPD officers made 16 referrals to the MARI Assessment Hub. As this initial group of MARI participants moved through their six-month pre-arrest diversion program, the MARI team started discussions about ways to recognize and celebrate successful completion of the MARI program by this first wave of participants. Subsequently, on March 16, 2018, the MARI Assessment Hub hosted a celebration for the first six MARI participants who had successfully completed their six-month program (e.g., "Completers"). The participants, along with their families and support persons, recovery coaches, and even an attorney for one of the participants, attended the event. Police Chief Koval addressed the group congratulating them on their progress in their recovery journey. Chief Koval encouraged them to "stay the course," and to reach out and provide peer support to others they may know who are also struggling with the disease of addiction. As part of the celebration, Chief Koval asked each MARI "Completer" to step forward and presented them with a letter (***Figure 19***) confirming that the criminal charges, associated with their referral to the MARI program, were voided by the MPD.[40] After this initial celebration event, it was not feasible to continue to hold similar celebrations for all MARI "Completers." Instead, the MPD MARI Officer made sure the Assessment Hub Coordinator was provided a signed copy of the Chief's letter so that the Assessment Hub Coordinator could present it to the "Completers" at their final MARI discharge meeting.

LEAVE WHITE SPACE

[40] Copy of MPD MARI Program Completer Letter

Figure 19: MARI Program Completer Letter – example, signed by Acting Chief Victor Wahl

Madison Police Department
Victor Wahl, Acting Chief of Police
City-County Building
211 S. Carroll St.
Madison, WI 53703
Phone: (608) 266-4022 | Fax: (608) 266-4855
madisonpolice.com

May XX, 2020

MARI PARTICIPANT
123, W Main Street
Madison, WI 53703

Dear PARTICIPANT,

It gives me great pleasure and pride to recognize your personal achievement in having successfully completed the Madison Area Recovery Initiative (MARI) program. Your personal commitment and journey demonstrates that recovery is possible and that community involvement and support can provide valuable tools to assist in that objective.

Recovery is a lifelong journey. You have demonstrated the ability to begin this challenge successfully and I wish you strength on the path forward. Although your involvement in the formal MARI program is ending, many community and self-help supports remain available to help you attain your long term-goals.

MARI is an innovative local partnership of the Madison Police Department, Safe Communities, Dane County Human Services, Connections Counseling and UW-Madison's Department of Family Medicine. Your successful participation reinforces my personal commitment and the resolve of these community organizations to provide meaningful support in helping individuals trying to break the cycle of addiction.

Please find enclosed the citation you were issued for the original incident (if one was issued). You are welcome to tear up the citation or keep it as an aid to your recovery.

Lastly, as you become stronger in your recovery, please consider whether there are ways for you to share your insights with others who continue to suffer from addiction.

Respectfully,

Victor Wahl
Acting Chief of Police

Expansion of MARI to the Dane County Sheriff's Office

With word spreading about the successfulness of the MARI program, MPD was approached by other local law enforcement agencies also wanting to implement MARI. In January 2019, the MARI Ops Team approved expanding the MARI protocol to the Dane County Sheriff's Office (DCSO). Sheriff Dave Mahoney assigned Lieutenant Gordon Bahler as the MARI Ops Team representative for DCSO. A presentation overview of the MARI program was provided to Dane County deputies assigned to Field Services by Lt. Bahler in December 2018. From January 2019 through August 2020, DCSO referred 20 individuals to MARI, 18 who were deemed "eligible" by the MPD MARI Officer and referred to the Assessment Hub. In later sections of this report, which discuss sustainability, expansion of the MARI protocol to all Dane County law enforcement agencies will be further discussed.

BJA SPI MARI Grant Extension and COVID-19 Pandemic Impact

The initial MPD BJA SPI grant award period was for three years, from October 2016 through September 2019. We requested two no-costs extensions to the project performance period, so that the project objectives could be met.

First, as a result of extensive community collaboration around development of the MARI protocol, the approval of the SPI *Action Plan* took place nearly one year after the grant start date. Due to this initial delay, and with significant preliminary results after launch, a formal request was submitted to BJA in July 2019 seeking a no-cost extension of the MARI SPI grant award for one additional year.[41] On July 31, 2019, MPD was notified by BJA that the SPI grant extension request was approved through September 2020.

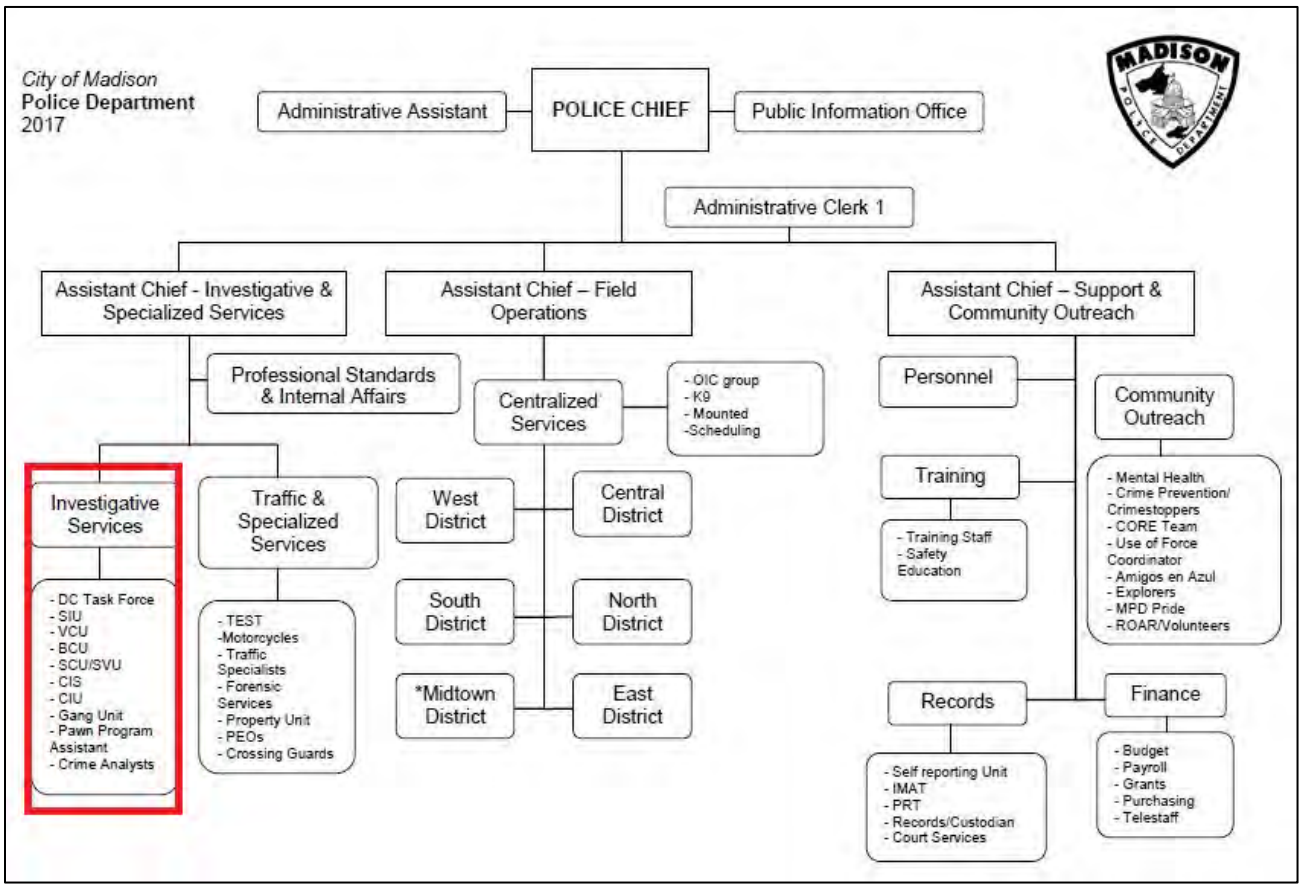
As the MARI SPI grant project entered its final six months in March 2020, the COVID-19 pandemic struck. In later sections of this report we will detail the impact of COVID-19 pandemic on the MPD's implementation and evaluation of the MARI program. Noteworthy at this time is that in July 2020, due to the pandemic, MPD requested and received from BJA the second no-cost extension through April 30, 2021. The additional time was necessary to complete an adequate evaluation of the MARI program and document accordingly in this final report.

[41] Final BJA MARI Grant Extension Letter & Preliminary Evaluation Report (July 2019)

Data and Intelligence

In late 2016, the MPD assigned oversight of MARI implementation to the Captain of Investigate Services (Tim Patton) who was responsible for overseeing all centralized investigative functions of the Department, including the Criminal Intelligence Section (or CIS; ***Figure 20***).[42] The CIS unit has a long historical role processing the MPD case reports and calls for service information every day and sharing that information back to the Department through a variety of means. In the mid-2000's MPD created civilian crime analyst positions and incorporated them into CIS. Today, the CIS unit is comprised of 1 sergeant, 4 police officers, and 3 crime analysts. CIS has continued to evolve over the years and adopt new information sharing technologies and platforms just like any other police department committed to community policing and problem solving through the use of data.

Figure 20: MPD 2017 Organizational Chart



MARI SPI Related *"Data and Intelligence"*

The MARI project extensively used data to inform its operations and procedures throughout the project, but no true intelligence information was ever a part of MARI according to the MPD MARI Officer assigned to CIS. Police intelligence is information gathered *"to identify individuals*

[42] MPD 2017 Organizational Chart.

or groups of individuals in an effort to anticipate, prevent, or monitor criminal activity. "[43] Traditional police intelligence operations tend to be more focused on perpetrators of violent crimes or prolific property crime offenders. However, MPD assigned MARI to CIS because the CIS unit reviewed case reports for all serious offenses and arrests. Subsequently, by performing this task every day, CIS officers and crime analysts become acutely aware of case report information or data, not necessarily intelligence, surrounding opioid misuse and overdose in the community. Simply stated, although CIS did not specifically analyze or look for opioid misuse information prior to MARI, CIS involvement in MARI did help MPD identify and utilize this untapped information source and thereby creating a greater department wide focus on the opioid epidemic and its impact on the community.

In earlier sections of this report, we described the critical role the MPD MARI Officer played throughout the implementation of the SPI and the Assessment Hub referral process. Besides reviewing MARI referrals for eligibility criteria, the MPD MARI Officer also reviewed Officer-In-Charge Reports (OIC Reports) from each of MPD's three primary patrol shifts (e.g., days, afternoons, and nights). The OIC Reports often contain summaries from the previous shift of significant patrol responses involving overdose-related fatalities (e.g., Death Investigations) or overdose incidents, where individuals were contacted by officers. The OIC would include information as to whether the individual was referred to MARI by the investigating officer, or if not, why. Below is an example of a typical narrative from an OIC report describing patrol officer response to an overdose incident:

> *"South District: Drug Incident Overdose – 11:00 p.m.: Madison Police officers were dispatched to (e.g., address) regarding a drug incident overdose. A 41 year old white male was at this residence visiting friends when he went to use the bathroom. After a while, others present became worried and forced the door open to find the subject down, unresponsive, and not breathing. Although neither a male or female present would administer CPR, a roommate administered Naloxone on scene. Once EMS arrived a second dose of Naloxone was administered. The subject was revived with the second dose of Naloxone. Responding officers found drug paraphernalia and the subject later admitted to shooting heroin. He was transported to a local hospital and issued citations for Possession of Heroin and Possession of Drug Paraphernalia. It was the OIC's decision not to guard him at the hospital. The arrestee was not MARI eligible."*

In February 2016, as opioid overdose incidents continued to rise and MARI still in its early planning stages, the MPD's CIS officers and crime analysts created a Monthly Heroin Summary report, which was shared internally by email throughout the department. This monthly report was designed to create greater awareness for MPD personnel around the opioid epidemic, impact on the community and patrol operations. Once the MARI pre-arrest diversion protocol was launched in September 2017, the Monthly Heroin Summary became an efficient and effective way to also share with the department total number of MARI referrals for that month, total number of individuals who completed MARI, etc. The report was also a way to share information about overdose incidents city wide, trend comparisons to the same month in

[43] 32 CFR § 637.17 Police Intelligence.

previous years, and even provide demographic data for individuals who were involved in overdose related incidents in the previous month. The report also provided Year-to-Date totals for overdose incidents responded to by MPD, and total number of known fatal overdose incidents investigated by MPD to that date. While normally considered a *"Law Enforcement Sensitive"* document, the MPD has authorized release of the below de-identified report from December 2020 as an example[44] ***(Figure 21).***

Figure 21: MPD CIS Unit Monthly Heroin Summary

Madison Police Department Criminal Intelligence Section

Monthly Crime Summary

December 2020 – Heroin Overdoses

CITY WIDE: In December 2020, there were 19 known overdoses. In December 2019 there were 24. This is a 20.8% decrease. Regarding this year's overdoses; 160 (70.5%) are male, 67 (29.5%) are female, 167 (73.6%) are white, 46 (20.2%) are African American, and 14 (6.2%) are Hispanic, Asian or Native American.

Year To Date overdoses = 227.

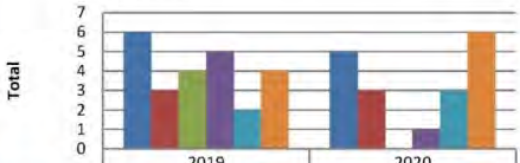
FATALITIES: In December 2020, there were 5 suspected deaths from heroin overdoses. There were 4 suspected overdose deaths in December 2019. Regarding this year's fatalities; 21 (60%) are male, 14 (40%) are female, 27 (77.1%) are white, 8 are African American (22.9%).

Year To Date fatalities = 35.

95 people have now completed the MARI program.

There were 2 people referred to the MAARI program in December 2020.

Heroin Overdoses December 2019 & 2020



	2019	2020
Midtown	6	5
West	3	3
South	4	0
Central	5	1
North	2	3
East	4	6

Heroin Overdoses by Month

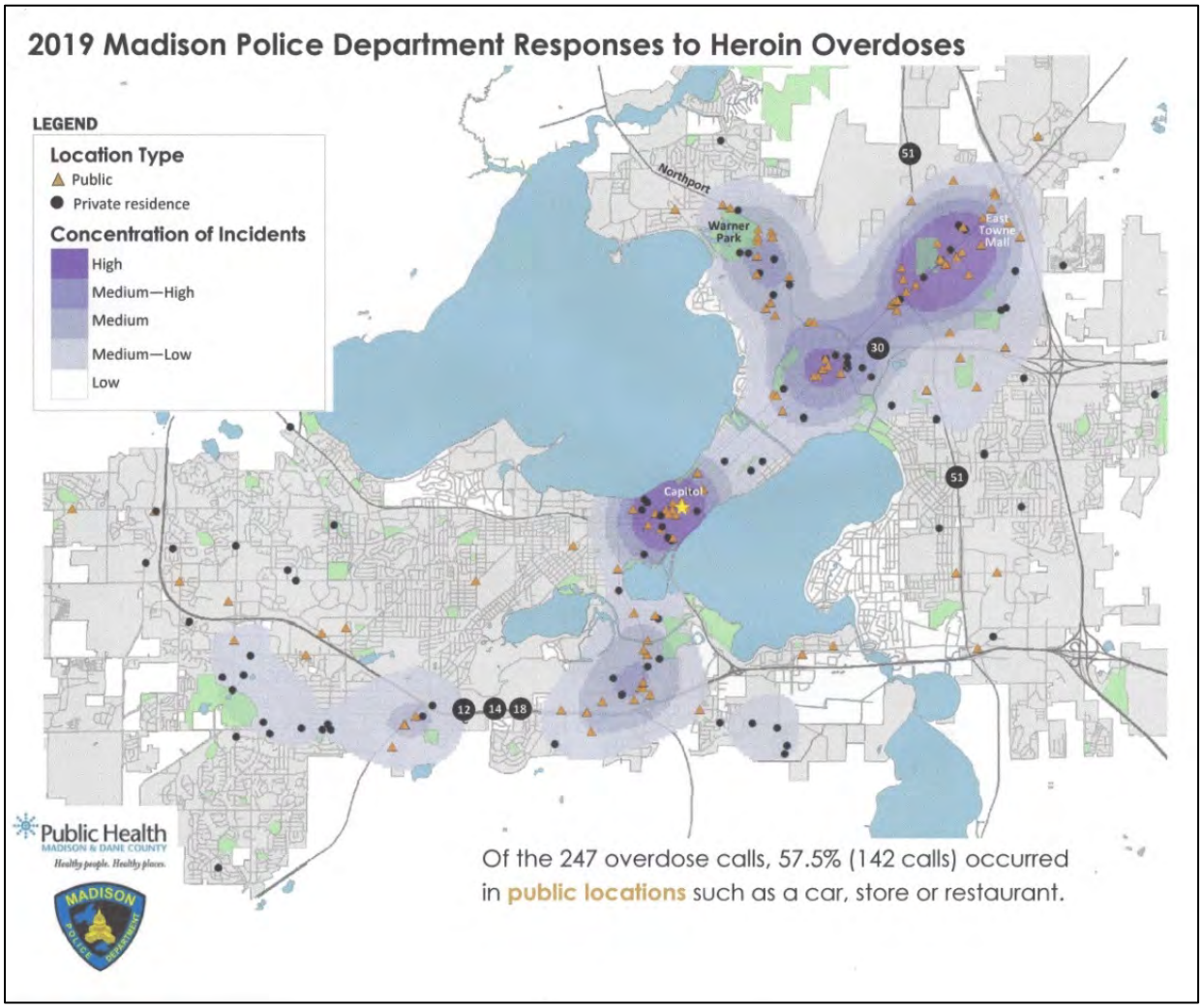
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	11	16	13	23	15	24	31	23	28	27	12	24
2020	15	21	28	26	28	21	25	14	10	8	12	19

Date	Author	Source	Dissemination	Filename
1.4.2021	Albright	LERMS	PDLE	2.Heroin.Dec.2020

[44] City of Madison Police Department, CIS Unit, Monthly Heroin Summary (December 2020).

An additional noteworthy piece of analytical information developed as part of the MARI SPI by the MARI Ops Team were annual *"heat maps"* graphically illustrating locations throughout the City of Madison where MPD overdose related incidents were occurring (***Figure 22***). The information source for the maps was address data from MPD responses to suspected overdose incidents. Another MARI Ops Team member, Public Health Madison Dane County (PHMDC), would each year take the address data file and create heat maps showing where across the City of Madison MPD responded to overdose incidents. One of the observations made by PHMDC early on from these data was how each year between 50-60% of all MPD overdose incidents were at addresses involving *"public locations"* (e.g., parks, public parking lots, business restrooms, restaurants, etc.). This information was used by PHMDC to work with other community-based organizations to better target naloxone distribution and training efforts for businesses and locations where overdose incidents were likely to occur. In 2018, in conjunction with the MARI Ops Team, PHMDC created the "You Can Save a Life" Overdose Prevention video,[45] which was used to support such community outreach and naloxone training.

Figure 22: PHDMC – MPD 2019 Heroin Overdose "Heat Map"



[45] Public Health Madison Dane County, Reducing Drug Harm website, (March 2021).

MARI SPI *"Data and Intelligence"* Impacts on MPD Operations

The following information is offered in response to the question posed for this section regarding changes in how MPD officers use data and intelligence as a result of the MARI and the integration of those changes into MPD operations. The short answer is that the MARI was never intended to involve a significant focus on "*data and intelligence*" (e.g., cross jurisdiction information sharing, implementation of new information or intelligence systems technologies, etc.). However, *"data and information"* related to opioid misuse and overdoses were important from the beginning of the MARI, and only grew in importance throughout the grant period. We just provided two examples of opioid misuse and overdose information shared internally by MPD (see previous section). This type of information sharing improved over time in quality, and was shared much more routinely than before the MARI implementation. Through the MARI collaboration, MPD has developed better sources of information, become much better informed, and more acutely aware of how opioid misuse and overdose are impacting the broader community and daily patrol operations. Today, the MARI pre-arrest diversion protocol is a fully integrated aspect of MPD patrol operations. Information shared daily and monthly on opioid-related calls for service and their community and patrol operations impact have created a greater awareness at all MPD ranks and levels as to why initiatives like MARI are important.

In the next section of this Final Report, we will describe the evaluation design and evaluation outcomes as completed by our SPI research partner. We will also describe how the information generated from the evaluation results will be shared internally with MPD officers and incorporated in the MARI transition and sustainability plan.

Analysis and Evaluation

Overview of MARI SPI evaluation plan

Our research partner, Dr. Zgierska, has played an integral role in MARI development and implementation. In the approved *Action Plan*, Dr. Zgierska recommended a robust and multi-faceted evaluation plan, which would focus on answering questions vital to the MARI SPI program itself, MARI stakeholders, and long-term MARI SPI program sustainability,[46] such as:

- What factors or processes have been associated with promoting versus hindering the program development and implementation? (Formative evaluation)
- What outputs has the program delivered? (Process evaluation)
- Have participants been satisfied with the program? (Process evaluation)
- How well is the program meeting its stated objectives?
- How much and what kind of difference did it make for the participants? (Outcome evaluation)
- How much and what kind of difference did it make on the community level? (Impact evaluation)

To answer these key questions, several different evaluation approaches were recommended by Dr. Zgierska and recently published (March 2021) in a protocol paper:[47]

1. ***Formative evaluation:*** Information about the program development and implementation was collected throughout the project to identify the facilitators, barriers, and steps taken to overcome identified barriers to program implementation. This knowledge will enable learning from the project experiences toward optimizing of future implementation on a larger scale, or in different communities. Documentation of community and stakeholder support and engagement, media coverage, and community/system changes associated with progression of the project serve as indirect measures of the community-level interest in MARI, and can inform sustainability of the MARI approach beyond the grant funding.

2. ***Process Evaluation:*** Assessment of participant engagement in the program, the scope of program services, and participant and MPD officer experiences with the program will help better understand factors contributing to program effectiveness, cost, and, ultimately, sustainability and reproducibility.

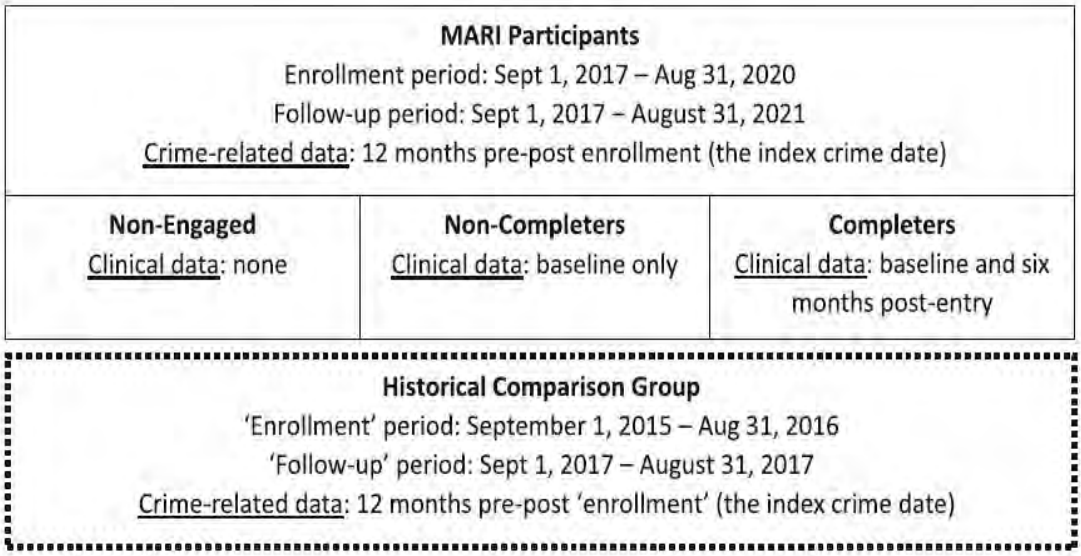
3. ***Outcome Evaluation (participant level):*** This evaluation will assess MARI's impact on individuals. The main goal of the MARI project is to test the hypothesis that facilitating addiction treatment, instead of pressing criminal charges, will lead to reduced crime

[46] Fawcett S, Schultz J. Supporting Participatory Evaluation Using the Community Tool Box Online Documentation System. In Minkler M, Wallerstein N (Eds.). Community Based Participatory Research for Health (pp. 419-424). San Francisco: Jossey Bass Publishers, 2008.

[47] Zgierska AE, White VM, Balles J, Nelson C, Freedman J, Nguyen TH, Johnson SC. Pre-arrest diversion to addiction treatment by law enforcement: protocol for the community-level policing initiative to reduce addiction-related harm, including crime. Health Justice. 2021 Mar 10;9(1):9. doi: 10.1186/s40352-021-00134-w. PMID: 33689048; PMCID: PMC7943710.

(primary outcome) and overdose (secondary outcome) among eligible adults who committed minor, eligible crime. The outcome evaluation will be completed by comparing crime related data of the MARI participants 12 months before and 12months after their 'index crime' date (program enrollment), and by contrasting outcomes between different subgroups of the MARI participants (Non-Engaged: referred but did not engage; Non-Completers: started but did not complete the program; Completers: successfully completed the program), and those in a Historical Comparison group, comprised of adults who would have been eligible for MARI, should this program had existed ***(Figure 23)***. In addition, clinical data, when available, will help evaluate and contrast the baseline clinical characteristics of Non-Completers and Completers, and assess program impact on clinical features of Completers ***(Figure 23)***.

Figure 23: MARI SPI Outcome Evaluation Overview
Three Subgroups of MARI Participants, and a Historical Comparison Group



MARI program outcome evaluation design: three subgroups of the MARI participants and a Historical Comparison group

4. ***Impact Evaluation (community level):*** Through improved access to addiction care, the MARI approach, over a longer period of time, has the potential to improve community health and safety, as assessed by the community-level reduced rates of crime, overdose, and overdose-related death, and to reduce related cost. Within the limitations of the MARI project (lack of a comparison community; limited project scope, e.g., due to the restricted MARI eligibility criteria; lack of a sufficient post-MARI follow-up period), the impact of MARI on the community-level indices of safety and health will be of an exploratory nature. Aggregate community-level data will be obtained from the project collaborators who collect such data as a part of their routine duties (e.g., city/county-level data on overdose deaths from Vital Statistics (Wisconsin Department of Health Services, 2020) or naloxone administration for overdose reversal by the first responders, such as MPD or EMS). Pre- and during-MARI community-level data will be contrasted using a similar approach to that described for outcome evaluation.

MARI SPI Goals and Objectives

In the *Action Plan* document, the following information was provided describing the overall goals and objectives for the MARI SPI that the evaluation would measure:

> *"The MARI project stipulates that improved access to appropriate addiction care (Goal 1), offered in lieu of pressing criminal charges, will lead to improved outcomes of the MARI program participants, such as reduced recidivism, crime and overdose (Goal 2). Over time, with the sustained longevity and expansion of the MARI program, this short-term participant-level change can cumulatively lead to long-term community-level improvement in crime and other addiction-related outcomes (exploratory Goal 3)."*

Goal 1: Among the 160 individuals with addiction who are apprehended annually for eligible drug-related minor crimes, MARI will facilitate treatment engagement.

Goal 1 Objective 1: To develop and implement protocol for the MARI program.

Measurement/Approach:

- *Formative evaluation approach will be used to summarize findings relevant to the development and implementation processes.*
- *"Satisfaction" and "experience" with new "smart policing" MARI approach will be assessed among participating police officers and MARI enrolled individuals using a 0-10 Likert scale to quantify satisfaction and open-ended questions to gather qualitative comments on the experience.*

Approach based on the formative evaluation principles, described above, will be used to summarize findings relevant to the MARI program development and implementation. Satisfaction and experience with the new community policing MARI approach will be assessed among the participating police officers and the MARI participants, using a 0-10 Likert scale to quantify satisfaction, and open-ended questions to gather qualitative comments on the experience. Descriptive statistics will summarize quantitative data; qualitative analysis methods will be applied to identify major themes.

Goal 1 Objective 2: To track program participant engagement.

Measurement/Approach:

- *The percentage of apprehended individuals who agree to participate in the MARI program (e.g., MARI participants).*
- *The percentage of MARI participants who complete the clinical assessment.*
- *The percentage of MARI participants who enter recommended treatment among those assessed as needing treatment.*
- *The percentage of MARI participants who successfully meet treatment requirements during a six-month follow-up period.*

- The percentage of MARI participants who successfully meet MARI program requirements during a six-month follow-up period.

Willingness to participate and interest in the program among the eligible adults will be measured by the percentage of apprehended eligible individuals who were offered MARI, agreed to participate in it, and completed a clinical assessment toward SUD at the MARI Assessment Hub. MARI program engagement will be measured by the percentage of participants who successfully completed the six-month program. Addiction treatment engagement will be measured by the percentage of treatment-compliant participants during the six-month program. Descriptive statistics will be used to describe participant engagement in the MARI program and addiction treatment, with participant-level data provided by the MARI Assessment Hub (treatment) and offered by the existing MPD database (crime).

Goal 2: MARI participants will reduce recidivism, crime and overdose

Goal 2 Objective 1: **During the six-month program period, the MARI group will reduce recidivism rate compared to the Historical Comparison (HC) group.**

Measurement/Approach:

- Frequency of crime committed by the MARI group during their six-month MARI program period.

- Frequency of crime committed by HC group during the six-month period following their "index crime."

The HC group will consist of adults apprehended for a drug-related "eligible" crime committed prior to the implementation of the MARI pre-arrest treatment diversion services. They would have been eligible for the MARI program, had it been available. The MPD will provide crime data for the HC group individuals both before and after their apprehension ("index crime") to enable a comparison to the MARI program outcomes at 6 months. Resources permitting, the assessment period will be extended to 12 months for both MARI participants and the HC group.

Goal 2 Objective 2: During the six-month program period, the MARI group will reduce crime and overdose death rates compared to their pre-enrollment rates, and to the rates of those in the HC group.

Measurement/Approach:

- Frequency of crime and overdose for the MARI group in the 12 months PRIOR TO their MARI enrollment, as compared to their six-month MARI program period data.

- Frequency of crime and overdose for the HC group in the 12 months PRIOR TO their "index crime," as compared to their six-month post-index-crime period data.

The pre-enrollment crime and overdose data will be obtained for "the past 12 months" PRIOR TO the MARI enrollment. The HC group is defined above. The pre-apprehension data will enable comparison of the MARI group prior to their MARI enrollment and the HC group (prior to the MARI existence) on baseline characteristics. Resources permitting,

the post-index-crime assessment period will be extended to 12 months for both MARI and the HC group.

When estimating the number of arrests and law enforcement contacts, the "index crime" and related contact were not counted toward the contact or arrest data for the HC and the MARI groups.

Goal 2 related data will be summarized using descriptive statistics methods for each assessed time period. A comparison of outcomes between pre- and post- periods within the same group will be conducted using chi-square test. Comparison of between-group outcomes will be conducted with a two-sample t-test (or equivalent non-parametric test). We will assess baseline demographic data as potential covariates in the analyses.

Goal 3: Through improved access to appropriate addiction care, MARI has the potential to improve community health and safety as assessed by reduced overdose, overdose death, and crime rates, and related costs.

Measurement/Approach:

Although we do not anticipate a measureable impact of our pilot-level MARI project on the community-level indices of health and safety and related costs during the program duration, we will explore the potential effects of the MARI project on these measures. Aggregate community-level data on overdose and related death and crime will be obtained through a variety of publically-available sources.

Table 2 summarizes the work undertaken by the MARI SPI evaluation team.

Table 2: MARI SPI Evaluation Plan

Evaluation Domain	Evaluation Questions	Data Sources (data collection status)
Formative evaluation	What steps and level of effort were needed to implement the project?	Project documents: • Core and large group meeting agendas and minutes (ongoing) • Project documents, e.g., briefs, slide sets, posters (ongoing) • Media reports on the project (ongoing)
	What did project partners perceive to be major strengths and challenges to the project?	• Feedback from stakeholder partners (ongoing) Survey of the partners' perspectives Present/discuss results in stakeholder group meetings
Process Evaluation	What services did the MARI program provide?	• Number of referrals from MPD to MARI (ongoing) • Number of completed MARI assessments by counselor (ongoing) • Number of participants engaged with the recovery coach (ongoing)
	Were MARI participants engaged in the program?	Among those enrolled into the MARI program, number of people who satisfied the requirements of this 6-month program (ongoing): • Assessment requirements • Treatment requirements • Lack of re-offense requirement • Overall MARI program requirements
	What was the experience of police officers and program participants with MARI?	• Two rounds of online surveys sent to MPD officers (one completed, one pending) • Surveys of the MARI participants (ongoing)
Outcome Evaluation	Did MARI program contribute to reduced recidivism, crime and overdose among the MARI program participants?	• Crime indicators, MPD database (ongoing) • Overdose indicators (MPD, participant, assessment hub counselor collected data (ongoing)
Impact Evaluation	Did MARI program contribute to reduced rates of recidivism, crime and overdose in Madison, WI? (comparison of outcomes from before the project and during the project)	Data sources (ongoing collection) • Overdose deaths (Vital Statistics) • Overdose data from the medical claims database (Wisconsin Health Information Organization) • Naloxone administration by the city's first responders and other groups

MARI SPI Results

Throughout the MARI SPI project, quarterly reports were completed by the Project Coordinator and Dr. Zgierska, submitted to MPD, reviewed and filed with BJA providing updates on the implementation and evaluation of the SPI. Semi-annually (in January and July), BJA required a separate section of the quarterly report providing updates on *"progress towards"* and *"barriers encountered"* regarding "*Goals and Objectives*" for the MARI SPI. In response to the request in this section to "d*iscuss the results of the SPI and the impact SPI had on the crime problem, or the problem addressed,"* we report on progress made and barriers encountered for each of the *"Goals and Objectives"* identified in MARI SPI *Action Plan,* and reported on throughout the SPI. Discussion of key outcomes, evaluation findings, and lessons learned from these results are presented in the *"Summary and Conclusion"* section of this Final Report.

Goal 1: Among the *a priori* estimated 160 individuals with addiction who were apprehended for drug-related eligible crimes, MARI will facilitate engagement in addiction treatment.

Goal 1 Objective 1: To develop and implement protocol for the MARI program.

Results for Goal 1 Objective 1

Measurement: Formative & Process Evaluation

- Earlier we described the extensive planning behind the development, implementation and launch of the MARI SPI by the MARI Ops Team. In short, once the MARI referral process was launched in September 2017, Goal 1 Objective 1 was effectively accomplished. Nonetheless, the MARI Ops Team continued to meet on a monthly basis throughout the three-year MARI referral period, and *formative and process evaluation methods* were regularly employed to assess the strengths and weaknesses of the ongoing basis. The "minutes" from the MARI Ops Team meetings in the first year following MARI's launch summarized a number of items identified for discussion and possible improvement:
- Do MPD officers understand the MARI referral process and eligibility criteria? If not, are there eligible participants not being referred to MARI who could have been referred?
- The Assessment Hub provider identified a need to hire more recovery coaches from communities of color.
- Dane County Human Services requested the MARI Ops Team and MPD to communicate with the MPD officers about SUD clinical assessment services available at the Dane County Treatment Readiness Center for individuals with SUD who are not eligible for or do not wish to participate in MARI.
- Based on feedback from officers during the first nine months of the MARI protocol, revisions were made to the MPD Referral Process to Reduce the Arresting Officer Workload Based on the initial experiences, the MPD MARI referral form and process were streamlined and simplified (version 2.0) in September 2018 to reduce the MPD officer "paperwork" burden and facilitate referrals to MARI. This change involved shifting of the eligibility-determination responsibilities from the arresting officer to on the MARI Coordinating Officer. The arresting officer now explains to the on-the-scene-eligible individual that the eligibility criteria will be

verified by the MARI Coordinating Officer, including the historical violence, bail conditions and residential ties to Dane County, after receiving the referral form.

- In December 2017, the Assessment Hub noted that some of the referred MARI participants were waiting to be contacted by the Assessment Hub, rather than attempting to contact the Assessment Hub and schedule an SUD assessment.
- In early 2018, it was identified and recommended by MPD to develop a website and brochure for the MARI program as a useful tool for officers when discussing the referral process with individuals who may be eligible and considering participation in MARI. Both of these program improvement recommendations were accomplished a few months later; (MARI website link, see ***Figure 16*** for MARI brochure).

During the three-year MARI referral period, the MARI Ops Team continued to meet monthly and document areas like those described above for improvement. Every meeting brought about robust discussion as there was great passion amongst the group for the MARI SPI. The MARI Ops Team's final meeting was in August 2020 as the initial three year referral process was coming to an end a new version of the MARI program was preparing to launch. Later in this report, we will address in more detail the transition and sustainability plan implemented as the MARI Ops Team transitioned to a new group and a new program, with a broader vision.

Measurement: MPD Officer survey about their "satisfaction" and "experience" with MARI

First MPD Officer Survey & Results (May-June 2018)

All MPD officers who patrol the streets and can provide MARI referrals were surveyed about their MARI experiences. The survey consisted of 3 questions (including one open-ended) and was delivered to the officers using a Survey Monkey platform between May 14 and June 1, 2018. From among 230 MPD officers who were emailed a link to this survey, 100 (43.5%) responded as the version of Survey Monkey used by MPD for the survey was limited to only 100 responses. (See Appendix A for the survey instrument questions).

Seventy-six of the respondents (76%) stated that, when serving as the primary officer, they routinely took steps to determine if someone is eligible for a MARI referral.

When asked about barriers to MARI referrals, 41 officers commented:

- Some voiced disagreement with the MARI's approach ("I don't agree with arrest-diversion programs," N=13; Other, N=7: *"Seems unsafe to release someone likely to overdose back onto the street and likely drive a car." "The best treatment for heroin users is long term confinement (Jail) with treatment occurring at the same time." "In talking with numerous addicts, it's clear the first way to get them to get clean is to get them in jail where they can't have access to opiates." "Doesn't really work. I've seen the same person reoffend within a week after referral.").*
- Some listed the existing eligibility criteria as a barrier to MARI participation *("I didn't have PC [probable cause] to make an arrest, according to the District Attorney's guidelines",* N=13; "I didn't have PC to make an arrest", N=7; Other, N=3);

- Some mentioned lack of clarity about when/how to complete the referral (*"I don't understand what to do",* N=11; *"The MARI form confuses me",* N=7).

When asked using an open-ended question about potential facilitators to MARI referrals, 58 officers offered suggestions on how to help increase MARI referrals:

- Develop streamlined, new ways for case-finding and broaden the MARI eligibility criteria so that more offenders could be offered the MARI program (N=24: *"For this particular program, I think (for the safety of the suspect) that it should be in addition to custodial arrest or an equivalent sanction."; "Perhaps if we could make the program more well known in the community, there would be less reservations [about the program]"; "[increase] knowledge about people following through, success stories"; "do post patrol contact");*
- Simplify the referral process, make it more streamlined and less time consuming for the street patrol officers (N=12: *"Less forms/hoops for the line officer to deal with. It's always 'it's just one form' but that adds up over a shift"*);
- Offer education about and refresher trainings on the MARI program and referral completion, continue reminding about the program (N=10; *"I think a lot of officers are wrapped up in the investigation and the logistics of everything and just don't think to do it unless they are reminded to do it."; "Sgt. oversight with reminder given to officers investigating overdoses that they should be evaluating MARI eligibility while in contact with the suspect."; "Continued education and maybe supervisors and OIC inquiring about the referral.")*
- Among the 58 officers who offered comments, 4 voiced disagreement with the MARI program's premise *("I do not believe that someone who is has committed a crime should receive treatment before someone who is taking the right steps to be clean of drugs."; "I don't think the referrals should be made in the first place, so I don't care to even contemplate what would create more."; "While this program was well intentioned, I'm not convinced it's the best answer for combating the opioid epidemic."; "I don't think it would be appropriate to attempt to create more MARI referrals. I have been involved in referrals where allowing the subject to leave (as an opiate addict) probably places them at higher risk of death, than taking them to Jail, where they will not be able to access drugs. The MARI program is predicated on the idea that these addicts can control their own behavior, which is by and large not the case.").*

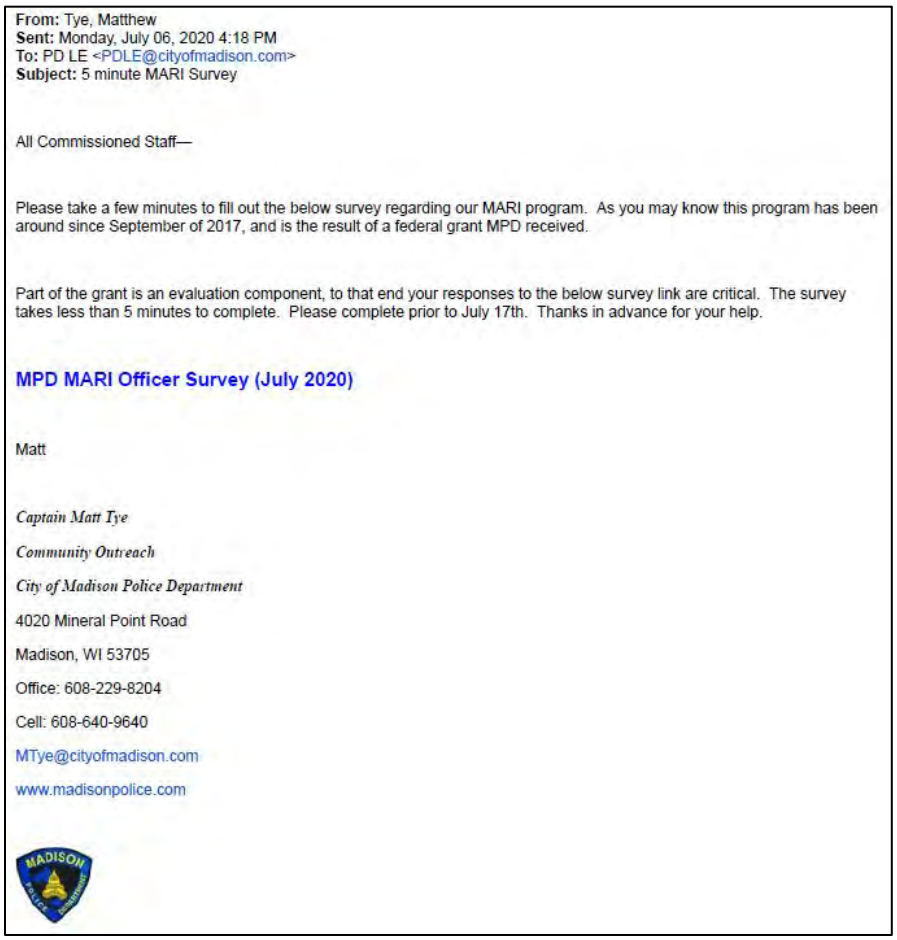
<u>Second</u> MPD Officer Survey & Results (July-August 2020)

As the MARI SPI reached the end of its initial three-year referral period, Dr. Zgierska, the MARI Project Coordinator and the MARI Ops Team designed a more comprehensive follow MPD Officer Survey. The second survey, created using the Survey Monkey platform, consisted of 16 questions asking about officer experiences and understanding of the MARI program and participant referral process (see ***Appendix B*** for the survey instrument questions).

The link to the online survey was administered via interdepartmental email. On Monday, July 6, 2020, lead MARI command officer, Captain Matthew Tye sent the below email ***(Figure 24)*** to all commissioned MPD officers (N=460). A follow-up email by Captain Tye was sent on July

14, 2020 and patrol briefing announcements were made over a two week period reminding officers of the MARI survey. In late August, Captain Tye believed due to summer vacations some officers may not have taken the survey so the survey link was emailed to officers on Thursday September 3, allowing one additional week. The survey response period was closed on Friday, September 11 and results provided to MPD on September 14, 2020.

Figure 24: Second MARI Survey Email from Captain Tye (July 2020)



From: Tye, Matthew
Sent: Monday, July 06, 2020 4:18 PM
To: PD LE <PDLE@cityofmadison.com>
Subject: 5 minute MARI Survey

All Commissioned Staff—

Please take a few minutes to fill out the below survey regarding our MARI program. As you may know this program has been around since September of 2017, and is the result of a federal grant MPD received.

Part of the grant is an evaluation component, to that end your responses to the below survey link are critical. The survey takes less than 5 minutes to complete. Please complete prior to July 17th. Thanks in advance for your help.

MPD MARI Officer Survey (July 2020)

Matt

Captain Matt Tye
Community Outreach
City of Madison Police Department
4020 Mineral Point Road
Madison, WI 53705
Office: 608-229-8204
Cell: 608-640-9640
MTye@cityofmadison.com
www.madisonpolice.com

Below is a summary of the MPD second survey results:

- A total of **193** MPD officers completed the second survey**.** The second survey respondents (N=193) identified themselves as:
  - Current assignment at time of the survey:
    - 111 (58%) – district patrol operations;
    - 53 (28%) – investigative services or specialty units;
    - 23 (12%) – supervisors or command staff;
    - 5 (2%) – Pre-Service training academy.
  - Gender:
    - 116 (61%) Male
    - 51 (27)% Female

        - 2 (1%) Other
        - 20 (11%) Prefer not to answer
    - Age categories:
        - 16 (9%) - 18 – 25 years old
        - 82 (44%) - 26 – 35 years old
        - 55 (29%) 36 – 45 years old
        - 29 (15%) 46 – 55 years old
        - 6 (3%) - 56 years old or older
    - *Observation on survey sample: While the MPD has 460 commissioned officers, the survey respondent demographics are reflective of district patrol operations where the MARI SPI was focused, and the overall diversity of the department.*
- Among the second survey respondents (N=193):
    - 52 (27%) reported being "very familiar" with the MARI pre-arrest diversion program; (137) 71% reported being "somewhat familiar"; 4 (2%) reported being "not familiar".
    - When asked if they review, assess or consider addiction and possible eligibility for MARI during their investigations, 89 (46%) responded considering it "most of the time," 67 (35%) responded "sometimes" and 37 (19%) reported "rarely" doing so.
    - Among the responding officers, 50 (26%) reported that they had made "four or more MARI referrals," 83 (43%) reported 1-3 MARI referrals, and 60 (31%) had not made any referrals to MARI.
    - If officers had made a referral, they were asked to skip the next open ended question and proceed to the question after that. If officers had not made any referrals to MARI (n=60), they were directed to the next open ended question asking why they had not made a referral to MARI. Despite the survey instructions, 133 officers responded to the next question as to why they had not made a MARI referral. 61 (46%) indicated they had not been a "primary officer on calls or conducted follow up with MARI eligible offenders;" 56 (42%) responded "Other;" 8 (6%) indicated they "don't agree with pre-arrest diversion programs like MARI;" 8 (6%) indicated the MARI form was confusing or did not understand how to refer someone to MARI. 50 of the 56 respondents who replied "Other" entered comments further describing why they had not made a MARI referral. 21 (42%) said they made no referral because subjects did not qualify or were ineligible for MARI; 14 (28%) replied MARI is not relevant to their current assignment; 11 (22%) said they simply forget because of other investigation priorities; and 6 (12%) indicated they make referrals whenever they can.
    - When asked which statement best described in their opinion of the current MARI referral process, 94 (50%) responded "the process is clear and well understood by officers and department personnel," 88 (46%) responded "the process is confusing at times and in need of improvement and re-training," and 8 (4%) responded "the process is not clear or understood and in need of substantial improvement and re-training."
    - 97% of respondents believed pre-arrest diversion programs like MARI are a "very" or "somewhat important" tool for police officers to have access to.

    - 79% of respondents believed the MARI program had a positive impact on MPD's relationship with the community, while 21% believed MARI had little or no positive impact.
- When provided an open-ended question asking "what changes or recommendations for change would they suggest for the current MARI referral process," ***125 officers provided very thoughtful and insightful responses***. Many offered specific recommendations, others like the one below simply expressed appreciation for programs like MARI, but thought access to SUD assessment should be more readily available:
    - *"MARI is a great start to helping people battle addictions but is too limiting. Because of the very specific criteria that are needed to refer someone to MARI, a lot of people battling addiction are left without treatment."*
- 110 officers responded to an open-ended question asking for their thoughts on how the MARI SPI program has impacted the community. Many of the responses were similar to this:
    - *"The fact that we push recovery rather than punishment to give people a second chance creates a better community perception that we are here to help and not just here to punish."*

In September 2020, the MARI Project Coordinator shared the responses of the MPD second officer Survey with MPD command and PHMDC staff who were at that time designing and coordinating the implementation and expansion of the original MARI SPI. This subsequent program, titled Madison *"Area"* Addiction Recovery Initiative (MAARI), funded by the USDOJ BJA Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP),[48] is detailed later in the ***Integration and Sustainability*** section.

Measurement: MARI Participant "Completer" Exit Survey & Its Results (March 2021)

Earlier we described how upon the successful completion of the MARI six-month program, the MARI Completers receive a congratulatory letter from the MPD police chief during their final MARI program meeting at the Assessment Hub. During this final meeting, the MARI Completers are asked to fill out the Exit Survey as a part of the program evaluation process. (See Appendix C for the survey instrument questions).

In the spring of 2018, an "online version" of the Exit Survey was implemented and presented as an icon on the computers of the Assessment Hub staff. However, it was noted that a number of the early MARI Completers had failed to complete it. Subsequently, in mid-2019, the MARI Assessment Hub coordinator requested a *"paper version"* of the survey, perceived as simpler to administer during the final program meeting.

Out of 100 Completers of the six-month MARI program, 68 completed the Exit Survey. The last MARI participant exited the program at the end of February 2021. Below is a summary of the Exit Survey results (N=68):

[48] BJA COSSAP – Pathways to Recovery Madison & Dane County FY2019.

- 62 (91%) MARI Completers indicated they plan to continue, and 6 (9%) said they do not plan to continue with addiction treatment after their MARI program completion.
- When asked to describe their overall experience with the MARI program, the responses varied depending upon the specific evaluated aspect of the MARI program. Overall, the Completers rated the program and its components in positive terms, particularly the overall program, clinical assessment and addiction treatment services. Details of the responses about specific aspects of the MARI program are presented in ***Table 3.***

Table 3: MARI Participant Survey – *"Describe your experience during MARI program"*
(Scale: 5=Excellent; 4=Very Good; 3=Good; 2=Fair; 1=Poor)

	EXCELLENT	VERY GOOD	GOOD	FAIR	POOR	N/A	TOTAL	WEIGHTED AVERAGE
Law enforcement	38.24% 26	23.53% 16	20.59% 14	8.82% 6	5.88% 4	2.94% 2	68	3.71
Assessment at Connections Counseling	60.29% 41	32.35% 22	5.88% 4	0.00% 0	0.00% 0	1.47% 1	68	4.49
Addiction treatment	57.35% 39	29.41% 20	13.24% 9	0.00% 0	0.00% 0	0.00% 0	68	4.44
Recovery coach (select N/A if you did not have experience with a recovery coach)	41.18% 28	20.59% 14	16.18% 11	8.82% 6	0.00% 0	13.24% 9	68	3.54
MARI program overall	67.65% 46	25.00% 17	7.35% 5	0.00% 0	0.00% 0	0.00% 0	68	4.60

- When asked if the MARI program impacted their perspective on law enforcement (with response choices: "*positively impacted (improved*)", "*not impacted*", "*negatively impacted, (worsened)*"), 51 (75%) indicated MARI had "*positively*" impacted their perspective, 16 (24%) said had "*not impacted*," and 1 (1%) indicated MARI had "*worsened*" their perspective of law enforcement.
- 61 (90%) of Completers indicated they had not been previously aware of the MARI program prior to being offered the opportunity to participate by law enforcement.
- 84 (94%) of Completers replied "Strongly Agree" or "Agree" when asked if "The police officer clearly explained the expectation that I need to call Connections Counseling to enroll in the MARI program." 67 (99%) replied "Strongly Agree" or "Agree" when asked if "The police officer clearly explained that the completion of the MARI program would help me erase my charge and avoid possible jail sentence".
- 53 MARI Completers provided responses to an open-ended question asking: "*What changes would you recommend so that the MARI program is more useful for others?"* 32 comments were and similar to this response from one of the Completers: *"I wouldn't change anything!"* 15 respondents made improvement recommendations and/or express gratitude to the MARI program similar to the following:
    - *"I think it would be good if there was a way to incorporate the recovery coaches more into the actual treatment/requirement side of things so there's NO confusion on what each client must do to ensure he/she is meeting their MARI requirements."*

- *"Making it more individualized. Some of us are employed and still functioning member of society. And being able to get to work is so important. Hard to do though if you are at treatment every day."*
- *"A more defined after care requirement."*
- *"Keep in touch over time with people in the MARI program to see how they're doing. If they are struggling again, help them find resources in their county. Offer MARI in every county and state."*

- Similarly, when MARI Completers were asked a final open-ended question seeking any "additional comments or thoughts related to the MARI program," 38 answered this question. Only positive responses were received. Below are some excerpts typical of the comments provided:
  - *"I'm grateful for a program like this exists. Not only did it keep me from going straight to jail, but most importantly it gave me the chance to completely turn my life around and helped me find a way out of addiction."*
  - *"This was the greatest that could of happened to me. I'm very happy with this program. I learned so much and received so much support. Thank you."*
  - *"I really appreciate all of the support and referrals that helped me get to where I am today. With concern to police officer maybe waiting some time to discuss the arrest and MARI program, my hearing was off and at the time it was very difficult to understand."*
  - *"Thanks for giving me the chance to erase my charge. Not being a felon means a lot to me and my future so thank you."*
  - *"I am extremely grateful the program exists and don't think I would have gotten clean without it."*
  - *"The MARI program is a great alternative to drug court, probation and of course jail and incarceration. The program was a huge help for me and strengthened my relationship with the police department and the community. I hope more resources are allocated to build the program and offer it to as many people as possible."*

Measurement: Assessment Hub Staff Survey & Results (March 2021)

In February 2021, as the last group of MARI participants were completing their six-month program, an online survey was created and administered to Connections Counseling staff. (See Appendix D for the survey instrument questions). The survey link was emailed to 12 staff who were involved with the MARI participants throughout the three-year MARI implementation period. A total of **eight** staff members responded to the survey; a summary of their responses is provided below:

- Seven of the responders had been involved with MARI from the beginning, and one respondent became involved with MARI a year following the initial launch, which took place in September 2017.
- Four staff responders served as MARI recovery coaches, three were administrative support staff, and one was an assessment counselor or clinician.
- Six reported having positive perceptions of law enforcement prior to MARI, 2 reported having neither positive nor negative prior perceptions of law enforcement.

- When asked if their involvement in MARI had changed their own perception of law enforcement, six indicated MARI had "positively impacted or improved" their perception of law enforcement and two indicated MARI had not changed their perception.
- When asked to elaborate further as to how their involvement with MARI changed their perception of law enforcement, the staff respondents wrote:
    - *"I heard so many times from participants how grateful they were to the police officers who were at the scene. Most of them stated they were surprised at how much they cared, as it was a different response than what they were used to. I have so much gratitude for MPD as working with them has shown me how much they truly care and want to be part of the solution by willing to learn about addiction, and find creative ways to support people with substance use disorder rather than punish. Truly amazing experience, especially willing to do pilot projects such as outreach and recovery coaches being called to the scene."*
    - *"It reinforced my positive attitude."*
    - *"Bernie and Dan [MPD MARI Coordinators] were both extremely passionate, compassionate police officers that went over and beyond which was powerful to witness."*
    - *"I was very pleased to regularly observe strong support from top MPD leadership, program managers and front line officers desire to break the hopeless cycle addiction creates by utilizing treatment resources."*
- When Assessment Hub staff were asked to assess their perception of the MARI participant experience with police officers who referred them to MARI and of the participant understanding of the MARI program…
    - Seven respondents believed MARI participants understood why they had been referred to the MARI program.
    - Six respondents believed MARI participants understood the expectation of the need for the participant to make the initial contact with the Assessment Hub.
    - Six respondents also believed MARI participants had a positive experience with the referring police officer.
    - When asked if they thought that the MARI participants believed officers clearly explained MARI program requirements, which needed to be satisfied in order for their criminal charges to be dropped or voided by law enforcement, four agreed with this statement, while the remaining four respondents were neutral in their responses.
    - When asked about specific aspects of the MARI program and perceived impact on participants, staff believed all aspects of the MARI program had a "significant" or "some" positive impact on MARI participants. No aspect was found to be not impactful. Having MARI participant treatment progress monitored by Connections Counseling staff, and having the option for a participant's arrest and charges voided by law enforcement upon the program completion, were believed by staff to have the most significant positive impact ***(Table 4)***.

Table 4: Assessment Hub Staff Survey: Responses to question about which aspects of the MARI program had the greatest, most positive impact.

(Response scale: 3= Significant Positive Impact; 2= Some Positive Impact; 1= Little-to-No Impact)

	SIGNIFICANT POSITIVE IMPACT	SOME POSITIVE IMPACT	LITTLE TO NO POSITIVE IMPACT	TOTAL	WEIGHTED AVERAGE
Having the opportunity to complete a clinical assessment and be referred for addiction treatment.	50.00% 4	50.00% 4	0.00% 0	8	2.50
Having the option for their arrest and charges to be voided by law enforcement.	75.00% 6	25.00% 2	0.00% 0	8	2.75
Having the opportunity to access a Recovery Coach / Peer Support Specialist for on-going support.	62.50% 5	37.50% 3	0.00% 0	8	2.63
Having their overall treatment progress monitored by Connections Counseling staff.	75.00% 6	25.00% 2	0.00% 0	8	2.75
Having access to Connection Counseling support groups and other recovery support services.	62.50% 5	37.50% 3	0.00% 0	8	2.63
Receiving a "Letter of Congratulation" from the Chief or Police (or the Sheriff) upon their MARI completion congratulating them on their progress and confirming that their arrest and associated charges were voided.	62.50% 5	37.50% 3	0.00% 0	8	2.63

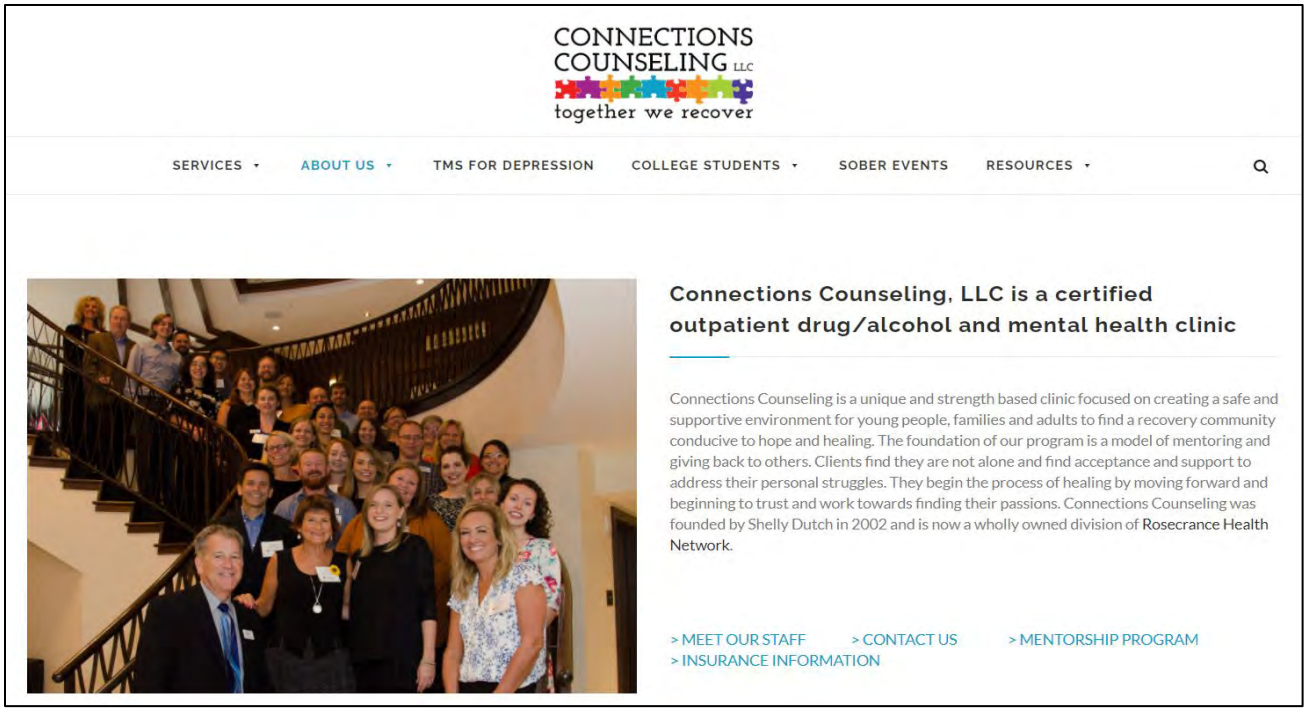
- When asked an open-ended question as to which aspects of MARI were most important to supporting participant recovery, staff replied:
  - *"Weekly contacts with Recovery Coaches."*
  - *"Having someone initiate and navigate the process of finding and starting a treatment program. It can be overwhelming and time consuming for anyone to try to find help. Having someone with a wide range of knowledge makes it so much easier."*
  - *"Making sure the environment that participant has is conducive to recovery."*
  - *"All aspects worked together, had they not had the positive contact with law enforcement, had they not had the positive contact with the CONNECTIONS counselor, had they not been paired up /assigned to a Recovery Coach that understood them, none of this process would have worked. If given a choice, most addicts would choose not to use."*
  - *"Peer coaching and councilor interaction Kim's role- having someone with lived experience to guide participants through the system in a loving and caring way- who would reach out when they disengaged and reengaged them assisting them in having hope and believing they are worth it."*
  - *"Having the option to complete an assessment and be supported by Connections Counseling staff to navigate getting into treatment. Having option to not have a felony charge was a very good motivator as well. And for those that wanted to take advantage of having a recovery coach were also much more successful."*
  - *"Having the major lever and motivator of avoiding prosecution, 2) having a "case manager" Kim keeping tabs on progress and concerns 3) availability of coaches - a significant factor for some MARI participants and minor factor for others."*

- When asked to provide comments on which aspects of the MARI program could be improved, staff provided the following recommendations:
    - *"Laying out clear guidelines and milestones for the participant. As I said earlier, this process can be overwhelming and making the journey as clear as possible improves chances for success."*
    - *"Addressing socio-economic issues that impact addiction and overdose."*
    - *"Make the Recovery Coach available at time of contact with law enforcement, so that participants see the interaction of all who helped them."*
    - *"More coaching interaction and 12 step meetings with clients."*
    - *"The most challenging portion of this program was the relationship between Connections Counseling and the county- feeling like participants who were funded by county programs were set up to fail, or jump through hoops that were unattainable. This was devastating to witness over and over again."*
    - *"The most challenging part of the MARI Program was trying to getting participants into detox even though we had a MARI bed. Often times it was being used by someone who wasn't a MARI participant and we would have to wait until that person left. This was before COVID. Also communication and decision making between detox and county was challenging at times and having to navigate the process of getting someone approved was a case by case decision. Some participants were allowed to enter detox the day after they received approval, some on Monday morning after the weekend and others were told if they weren't there by end of day, they would be discharged from MARI. You never knew what to expect. It was discouraging at times as participants would sometimes have to wait a week or two by their phones waiting to get the call. We provided hours of support during this waiting period and only then to have to discharge unsuccessful based on detox/county's approval decision making. Having Peer Support for affected family members of MARI Participants would also be another suggestion. And I believe it's already being done now with the new program, but having a coach be at the scene and waiting for them to "come to" and be supported at the hospital or incident and in getting to their assessment."*
    - *"Ability to somehow include or engage groups currently excluded. Better initial engagement with coaches (made even more difficult during COVID)."*
- All responder staff indicated MARI was successful assisting individuals with addiction who committed a crime and supporting their recovery.
- When asked at the end of the survey if they had any final "comments or ideas" to share, 6 of 8 staff responded and provided the following comments:
    - *"The MARI program would have been more helpful if clients had used their Recovery Coach more frequently."*
    - *"This program helped me as much as I helped them. Please continue it is needed!"*
    - *"I hope the program continues it really important to have an alternative to arrest and conviction."*
    - *"Stigma is very much alive and well within how the county system decides who is "deserving" of treatment and should be evaluated."*

- *"It was a privilege to be part of the MARI team and to hear so many participants say how grateful they were to have the opportunity to change their lives around, says it all."*
- *"It has been a pleasure working with the various community elements that comprise the MARI 1.0 group. Thank you for your hard work to build this program and to move it to the next level. I was honored to have a small role in this program."*

The Assessment Hub staff (***Figure 25***) from Connections Counseling was instrumental for the MARI program successful implementation.

Figure 25: Connections Counseling LLC



Goal 1 Objective 2: To track program participant engagement.

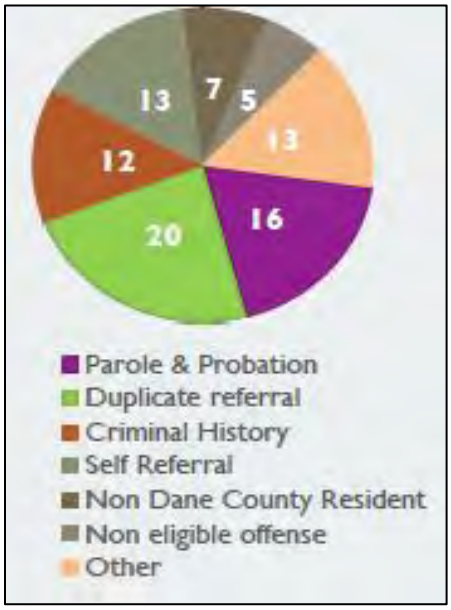
Results for Goal 1 Objective 2

Measurement: The percentage of eligible adults who agreed to participate in the MARI program

- During the active MARI referral period, from September 2017 through August 2020, **349 adults were referred to the MARI program**. These individuals expressed interest, and agreed to participate in the MARI program. Of those 349 referred adults, **86 did not meet the eligibility criteria** upon the review by the MARI MPD Officer and the offer to participate in the MARI program was rescinded, yielding **263 MARI participants (75.4% of all referred individuals).**

- Among the 263 MARI participants, **160 (61%)** reiterated their commitment by engaging in MARI and connecting to the Assessment Hub (see *Measurement* below).
- Reasons for ineligibility among 86 individuals who were referred, yet found ineligible upon the secondary review, varied, with the top reasons including: duplicate referrals (i.e., the same person appearing twice on the referral list, n=20), currently on probation/parole (n=16), Self-Referral with no qualifying MARI crime (n=13), ineligible criminal history (n=12), not being a Dane County resident (n=7), non-eligible offense (n=5), and 'other' reasons not recorded in detail (n=13) (***Figure 26***).
- Of note, the MPD did not track the cases where an individual could have been eligible, but not offered MARI, or when the individual was offered MARI but declined. Tracking of such data was deemed unfeasible and posing an undue, unnecessary burden for the patrol officers.

Figure 26: Reasons why 86 individuals were referred to, but found ineligible for MARI



Measurement: The percentage of MARI participants who completed clinical assessment

Of the 263 MARI participants who were referred by MPD to the MARI Assessment Hub:

- **160 (61%) completed the clinical assessment ("Engaged" subgroup)**.
  - All participants upon completion of the clinical assessment met with the Assessment Hub MARI Coordinator. As part of creating the participant's *"MARI Arrest Diversion Treatment Plan,"* each participant was given a two-dose package of nasal naloxone and assigned peer support (i.e., a recovery coach or peer support specialist). No participant declined peer support. However, the engagement with peer support varied among the participants during the program (see Summary and Conclusion section for further details).

- **103 (39%) participants did not engage ("Non-Engaged" subgroup)** with the Assessment Hub and did not complete the clinical assessment.
    - For these Non-Engaged individuals, MARI MPD Officer referred their initial crime to the District Attorney or City Attorney for prosecution (i.e., arrest and charging).

Measurement: The percentage of MARI participants who entered recommended treatment among those assessed as needing treatment

Among 160 "Engaged" MARI participants who completed the clinical assessment:

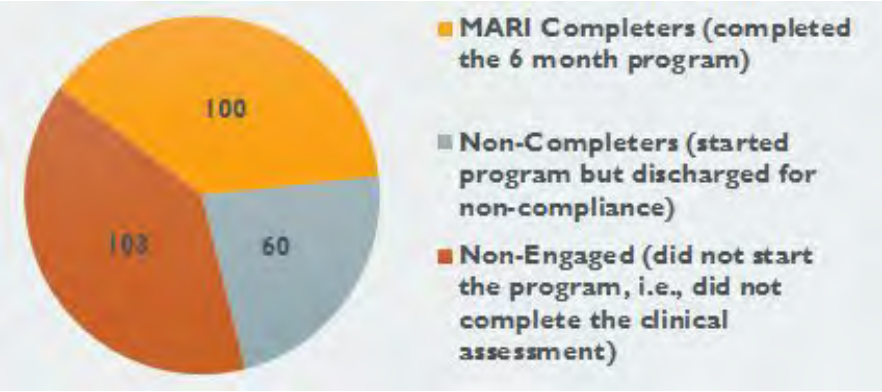
- **All (100%) met the diagnostic criteria for a substance (alcohol/drug) use disorder.**
- **All (100%) were clinically assessed as needing addiction treatment**.
- **All (100%) initiated the recommended addiction treatment**.

Measurement: The percentage of MARI participants who successfully met MARI program requirements during the six-month program period

The chart below summarizes MARI participant engagement and program completion ***(Figure 27).*** Among 160 "Engaged" participants who completed the clinical assessment:

- **100 (61%) successfully completed the six-month MARI program ("Completers")**.
- **60 (39%) did not complete the six-month MARI program ("Non-Completers")**
    - 52 (87%) were discharged due to disengaging from treatment;
    - 6 (10%) were discharged due to re-offending or committing a crime;
    - 2 (3%) died from a fatal overdose while in the six-month MARI program.
    - Subsequently, the MARI MPD Officer referred the initial crime for the non-deceased Non-Completers to the District Attorney or City Attorney offices for prosecution (i.e., arrest and charging).

Figure 27: Engagement in the MARI program among 263 MARI participants



Discussion of Goal 1 Objective 2: Barriers to Participant Engagement

During the frequent interval assessments by the MARI Ops Team of MARI program and participant progress, two noteworthy barriers or areas of concern were noted. The MARI team implemented measures to mitigate these challenges.

Barrier 1: Lack of Initial Engagement, Mitigated by the Creation of MARI Mobile Outreach Team (MOT)

In October 2018, MPD Lieutenant Patton authored a memo to our technical assistance provider summarizing year one results for MARI, and identifying areas for improvement.[49] One of the improvements proposed was the creation of a MARI Mobile Outreach Team (MOT) in order to increase the percentage of referred MARI participants who engaged or made contact with the MARI Assessment Hub and completed the SUD clinical assessment. In Lieutenant Patton's memo to CNA, he described a 37% non-engagement rate for referred MARI participants during Year 1 of the program, and proposed the following:

> *"We are proposing to implement a MARI Outreach Team consisting of MARI Officer and Connections Counseling Recovery Coach. The MARI Outreach Team will go out into the community for four hours per week attempting to contact MARI eligible individuals who have not yet called or showed up for assessment. The MOT will attempt to reach the referred individual and if unable, will attempt contact with family member of that individual. In addition to encouraging the referred individual to come in for assessment, they will be provided with a single dose of Naloxone and training on its use. There is no budgetary impact from this modification at this time. Due to the MARI Initiative not being at capacity, Connections Counseling is able to provide the 4 hours of outreach work within the current contract. MARI Officer's time is being covered in kind by MPD. The Naloxone distributed for this new outreach pilot will be paid for out of donations to MPD that have been earmarked for Naloxone distribution and are unrelated to the MARI Initiative."*

During the subsequent two years of MARI, the MOT completed the following:

- The MARI MPD Officer and the Assessment Hub Coordinator communicated weekly to identify referred MARI participants who had not engaged with the Assessment Hub. Together, they identified MARI participants suitable for the MOT home visits.
- The MARI MPD Officer and the Assessment Hub Coordinator (who was a recovery coach) traveled jointly to each selected MARI participant 'home' (based on the current MPD address listed) to make a personal connection.
- If the 'targeted' MARI participant was reached, the Assessment Hub Coordinator completed most of the interaction and engagement with the MARI participant, while the MPD Officer ensured the safety of the MOT outreach. The lived experience of

[49] MPD Lieutenant Patton MARI Update Memorandum to CNA (October 2018).

the Assessment Hub Coordinator as a recovery coach, and her ability to connect with participants, were extremely valuable according to the MPD Officer member of the MOT team. On some occasions, family members or roommates would be present during the contact and interested in learning more about MARI. At the end of each home visit, the MARI participant and any others interested in treatment were provided a "MARI Resource Bag," containing two-dose package of nasal naloxone, brochures for several recovery organizations (e.g., AA/NA/Parent Resources meeting lists, Co-Dependency Anonymous), MARI program brochure, and the MARI MPD Officer and MARI Assessment Hub Coordinator business cards. The Assessment Hub Coordinator also provided training on naloxone administration, using the *"You Can Save a Life"* Overdose Prevention video produced by the MARI Ops Team.

- If no one was home at the time of the MOT visit, the "MARI Resource Bag" was left at the door, with brochures and contact information, but the two-dose package of naloxone was removed.
- Between October 2018 and March 2020 (at which point the MOT outreach was halted due to COVID 19 pandemic):
    - The homes/addresses of 27 non-engaged participants were visited.
        - Of these 27 homes visited, contact was made at 22 (81%) of the residences; five of the visits to the listed homes/addresses resulted in 'no answer' or the residence was found vacant.
        - 25 MARI non-engaged participants and 3 others interested parties were reached during the MOT home visits.
        - 16 (64%) of the 25 reached non-engaged MARI participants had subsequently engaged with the Assessment Hub, completed their clinical assessment, and initiated treatment.
        - 11 of the 16 (69%) who engaged in the MARI program after the MOT visit went on to successfully complete the six-month program (i.e., became the program "Completers)."
    - A total of 30 two-dose packages of nasal naloxone were distributed during the MOT home visits for future fatal overdose prevention.

Barrier 2: The COVID-19 Pandemic Impact on MARI Engagement and Ways to Overcome the Negative Impact

The COVID 19 pandemic impacted the MARI SPI program in a number of ways. During our 2020 quarterly reporting to BJA, we mentioned how the transition to "telehealth" rather than "in person" clinical assessments was a major change and challenge, which hit especially hard for vulnerable populations, such as the MARI participants.

We also noted in the January 2021 quarterly report, that in 11 quarterly reporting periods prior to the COVID 19 pandemic, the "engagement rate" among referred MARI participants with the Assessment Hub was consistently near 64%. In other words, once an eligible MARI adult was referred to the Assessment Hub, nearly two out of every three referrals successfully made contact with the Assessment Hub, completed a clinical

assessment, were assigned a Recovery Coach, and received a treatment plan and referral. MARI Mobil Outreach Team, in person home visits also had to be suspended due to the pandemic. The MPD MARI Coordinator in April and May did attempt phone contact with MARI participants who failed to engage with the Assessment Hub with some success. However, following the death of George Floyd at the hands of Minneapolis Police, Madison like many other communities saw significant protests and civil unrest resulting in our MARI Officer being assigned Command Post duties for many weeks throughout the summer of 2020 and simply could no longer continue call "Non-Engaged" MARI participants.

Consequently, during the last six months of MARI program enrollment (that ended on August 31, 2020), the MARI participant engagement rate dropped to 47%. This caused the average overall engagement rate to fall to 61% compared, to the pre-COVID-19 rate of 64% during the pre-pandemic 2.5 years of the program. The MARI Assessment Hub provider, similar to many other local recovery and treatment care providers, found themselves navigating new work processes and technologies, and transitioning to "telehealth" protocols. While national organizations like the American Society for Addiction Medicine (ASAM) worked to provide important telehealth guidance for addiction services during the pandemic,[50] many communities, including Madison, still observed significant increases in opioid overdose incidents in the early months of the pandemic. MPD officers overall continued making referrals to MARI at similar rates as before the COVID-19 pandemic (***Table 5***), yet fewer referred MARI participants engaged with the Assessment Hub. These challenges will inform the subsequent efforts planned under the new MAARI initiative.

Table 5: MPD MARI Referrals by Month (N=263)

	2017	2018	2019	2020
Jan	N/A	7	5	8
Feb	N/A	1	7	10
Mar	N/A	6	6	2
Apr	N/A	5	12	6
May	N/A	6	10	11
June	N/A	3	9	5
July	N/A	10	9	9
Aug	N/A	6	7	7
Sept	15	4	5	N/A
Oct	9	10	8	N/A
Nov	10	5	7	N/A
Dec	6	6	11	N/A
Total	40	69	96	58
(Average)	**(10)**	**(5.75)**	**(8)**	**(7.25)**

[50] Supporting Access to Telehealth for Addiction Services, ASAM website (April 2021).

In the ***Integration and Sustainability*** section, we will discuss further the COVID-19 pandemic impact as a new MAARI protocol has been implemented by the new MAARI Ops Team, and efforts have been made to engage vulnerable populations like those served by MARI type programs.

Goal 2: MARI participants will reduce recidivism, crime and overdose

Goal 2 aimed to evaluate the impact on individuals of the MARI program. It accomplished it by comparing outcomes of the MARI participants (N=263) before versus after their MARI enrollment, and, in addition, by comparing MARI participant outcomes to those in a HC group (N=52), composed of individuals who would have been eligible for MARI, should it have existed.

HC group and MARI participants: baseline characteristics

White men (mean age of 30-35 years) constituted the majority of both the HC and the MARI samples, with approximately one-in-ten individuals in these samples being homeless or without permanent address (***Table 6***).

Compared to HC group, MARI group participants were older (p<0.001), without differences though in gender, race, or homelessness status between these groups (***Table 6***).

Table 6: Historical Comparison and MARI groups: demographics at the time of the index crime.

Demographics	Historical Comparison group (N=52)	MARI group (N=263)	p value*
Age, years, mean (SD)	30 (9.1)	34.94 (10.5)	**<0.001**
Women, # (%)	18 (34.6)	97 (36.9)	0.875
Race, # (%)			
White	46 (88.5)	210 (79.9)	0.175
Other	6 (11.5)	53 (20.2)	
Homeless, # (%)	7 (13.5)	30 (11.4)	0.641

* Between group comparisons: Mann-Whitney U test for continuous, Fisher's exact test for categorical variables

Goal 2 Objective 1: **During the six-month program period, the MARI group will reduce recidivism rate compared to the HC group.**

Measurements:

- *Frequency of crime committed by the MARI participants after their MARI enrollment.*
- *Frequency of crime committed by HC group following their "index crime."*

Goal 2 Objective 2: During the six-month program period, the MARI group will reduce crime and overdose death rates compared to their pre-enrollment rates, and to the rates of those in the HC group.

Measurements:

- Frequency of crime and overdose for the MARI group in the 12 months PRIOR TO their MARI enrollment, as compared to their six-month MARI program period data.

- Frequency of crime and overdose for the HC group in the 12 months PRIOR TO their "index crime," as compared to their six-month post-index-crime period data.

Results for Goal 2 Objectives 1 & 2

HC Group: Crime-related events before and after their "index crime"

As detailed in ***Table 7***, During the 12-month period prior to their "index arrest" date, 57.7% of the HC group members had at least one police contact (totaling 191 contacts), with 3.1% (6/191) noted as specifically related to overdose. In addition, 46.2% of the HC group were arrested (total 95 arrests), with the "society arrest" being most common (36.5% of participants, totaling 64 episodes), followed by "property arrest" (19.2% of participants, totaling 19 episodes) and "person arrest" (7.7% of participants, totaling 12 episodes); overall, 7.7% of participants (total 4 arrests) has their arrest marked as overdose related.

During the 12 months following the "index arrest," and compared to the 12 months pre-arrest, the HD group's total police contacts and total arrests did not change in a statistically significant way ($p \geq 0.05$). However, their overdose-related police contacts, both in terms of the percentage of participants (28.9% versus 11.5%, $p=0.049$) and the mean number of police contact episodes per person ($p=0.024$), the incarceration rate (84.6% versus 51.9%, $p<0.001$), the mean number of days incarcerated (50.0±72.0 versus 16.2±38.6, $p<0.001$), and the total number of incarceration days (842 versus 2,600) increased post-index crime (***Table 7***).

Table 7. Historical Comparison Group (N=52):
Crime-related events 12 months before and 12 months after the index crime.

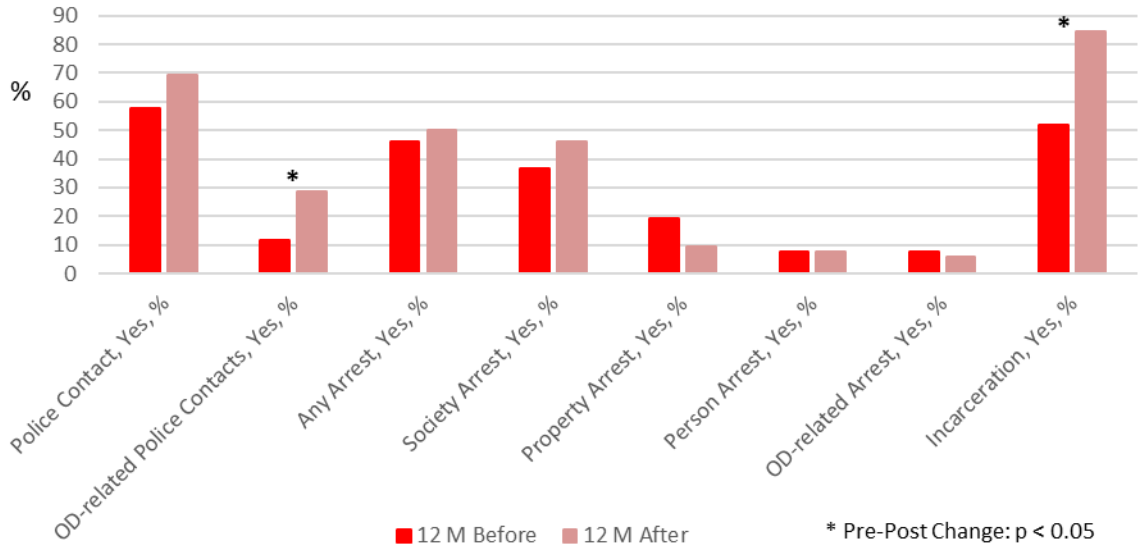
Variable	12 months before	12 months after	p value*
Total police contacts			
yes, # (%)	30 (57.7)	36 (69.2)	0.309
# episodes	191	167	0.488
mean (SD), median	3.7 (10.3), 1	3.2 (6.1), 1	
Overdose police contacts			
yes, # (%)	6 (11.5)	15 (28.8)	**0.049**
# episodes	6	18	**0.024**
mean (SD), median	0.1 (0.3), 0	0.4 (0.6), 0	
Total arrests			
yes, # (%)	24 (46.2)	26 (50.0)	0.845
# episodes	95	84	0.841
mean (SD), median	1.8 (5.2), 0	1.6 (3.7), 0.5	

Overdose-related arrests *yes*, # (%) *# episodes* mean (SD), median	 4 (7.7) 4 0.1 (0.3), 0	 3 (5.8) 5 0.1 (0.5), 0	 1.000 1.000
Person Arrests *yes*, # (%) *# episodes* mean (SD), median	 4 (7.7) 12 0.2 (1.1), 0	 4 (7.7) 5 0.1 (0.4), 0	 1.000 0.750
Society arrests *yes*, # (%) *# episodes* mean (SD), median	 19 (36.5) 64 1.2 (4.1), 0	 24 (46.2) 65 1.3 (3.3), 0	 0.426 0.604
Property arrests *yes*, # (%) *# episodes* mean (SD), median	 10 (19.2) 19 0.4 (0.8), 0	 5 (9.6) 14 0.3 (1.0), 0	 0.264 0.423
Incarceration *yes*, # (%) *# days* mean (SD), median	 27 (51.9) 842 days 16.2 (38.6), 1	 44 (84.6) 2600 days 50.0 (72.0), 13	 **0.001** **<0.001**

* Within group comparisons: Wilcoxon sign rank test -continuous, Fisher's exact test -categorical variables

The change in the percentages of HC group members who had a police contact, arrest, or incarceration event during the 12 months before, compared to 12 months after their "index crime," is depicted in ***Figure 28*** below.

Figure 28: Historical Comparison Group (N=52): Presence of police contact, arrest, or incarceration during 12 months before, and 12 months after the "index crime."



Similar trends were observed in the HC group when comparing six months after, to six months before, the index crime (***Table 8***), yet got further exacerbated by the end of 12 months (***Table 7***), particularly in terms of the prevalence of overdose-related police contacts and incarceration indices.

Table 8. Historical Comparison Group (N=52):
Crime-related events 6 months before and 6 months after the index offense.

Variable	6 months before	6 months after	p value*
Total police contacts			
yes, # (%)	22 (42.3)	29 (55.8)	0.239
# episodes, mean (SD)	2.2 (6.0)	1.5 (2.2)	0.220
Overdose police contacts			
yes, # (%)	6 (11.5)	11 (21.2)	0.289
# episodes, mean (SD)	0.1 (0.3)	0.3 (0.6)	0.170
Total arrests			
yes, # (%)	17 (32.7)	21 (40.4)	0.541
# episodes, mean (SD)	1.2 (3.8)	0.8 (1.6)	0.529
Incarceration	23 (44.2)	42 (80.8)	**<0.001**
yes, # (%)			
days, mean (SD)	7.5 (26.1)	27.8 (41.0)	**<0.001**

* p value for the comparison of 6 months before, and 6 months after, outcomes within the HC group

MARI Participants and HC group: Crime-related events before their "index crime"

Similar to the HC group members, majority of the MARI participants had police contact and engaged in criminal activity in the 12 months prior to their "index crime" (***Table 9***). In the MARI group (N=263), 167 (63.5%) had at least one contact with the MPD officers, totaling 633 episodes; 38 (14.4%) had an overdose-related contact, totaling 46 episodes in the pre-index crime year. Eighty-two (31.2%) MARI participants were arrested during the pre-index crime year (totaling 171 arrests), with 'society arrests' being the most common type of arrests; 17 people (6.5%) experienced an overdose-related arrest. Close to one-third of the MARI group were incarcerated at least once, totaling 2,683 days spent incarcerated during the pre-MARI enrollment year. The total versus mean versus median values for all the crime-related events indicate that a small group of participants contributed to these overall large numbers of contact and arrest episodes, and incarceration days.

To create optimal comparison group to 'match' the HC group, we divided the MARI group (N=263) into two subgroups: Non-Engaged (n=103) who did not initiate the active part of the program (i.e., did not complete clinical assessment) and, in this regard, 'matched' the HC group; and Engaged (n=160) who completed the clinical assessment and initiated addiction treatment, therefore, differing from the HC group, for whom MARI was not available. In the 12 months before their "index crime", the Non-Engaged subgroup, compared to the Engaged subgroup, showed a more intensive 'criminal justice' involvement, with more total police contacts

(p<0.001), and more total, society and property arrests (p<0.05); these two MARI subgroups did not differ though (p≥0.05) in their incarceration-related profile (***Table 9, Figure 27***).

Table 9. Crime-related events 12 months before the "index crime" among the MARI participants (entire group, and two subgroups: Engaged who completed, and Non-Engaged who did not complete the initial clinical assessment), and in the Historical Comparison (HC) group (N=52).

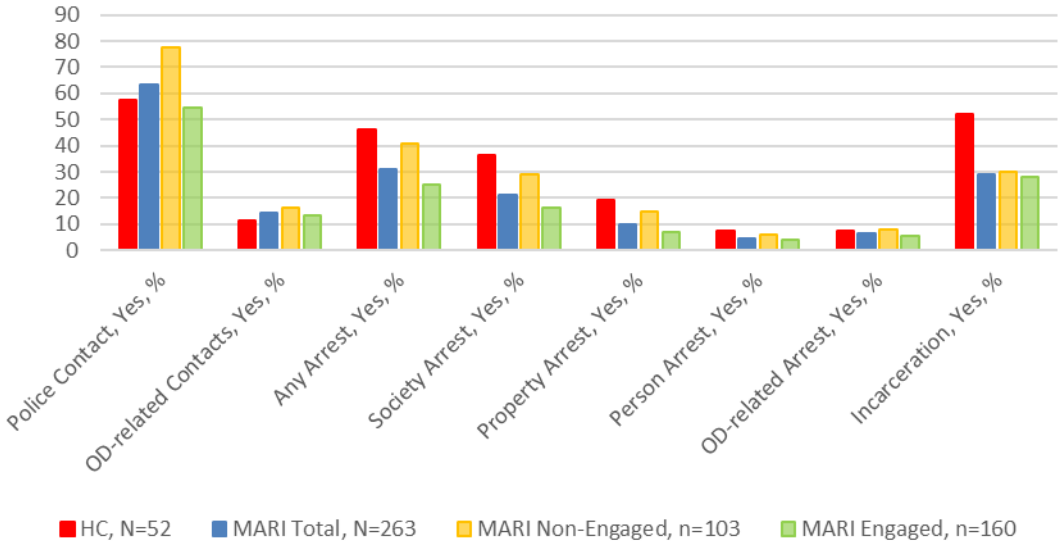
Variable	**HC group (N=52)**	**MARI group (N=263)**	*p value (HC vs MARI)*	**MARI Non-Engaged (n=103)**	*p value (HC vs Non-Engaged)*	**MARI Engaged (n=160)**	*p value (HC vs Engaged)*	*p value (Non-Engaged vs Engaged)*
Total Police Contacts								
yes, # (%)	30 (57.7)	167 (63.5)	*0.437*	80 (77.7)	***0.014***	87 (54.4)	*0.749*	***<0.001***
# episodes	191	633	*0.346*	370		263		
mean (SD)	3.67 (10.3)	2.41 (3.4)		3.59 (4.2)	***0.003***	1.64 (2.6)	*0.555*	***<0.001***
median	1	1		2		1		
OD-related Contacts								
yes, # (%)	6 (11.5)	38 (14.4)	*0.667*	17 (16.5)	*0.480*	21 (13.1)	*1.000*	*0.476*
# episodes	6	46	*0.554*	23		23		
mean (SD)	0.12 (0.3)	0.17 (0.5)		0.22 (0.6)	*0.385*	0.14 (0.4)	*0.747*	*0.424*
median	0	0		0		0		
Total Arrests								
yes, # (%)	24 (46.2)	82 (31.2)	*0.053*	42 (40.8)	*0.606*	40 (25.0)	***0.005***	***0.009***
# episodes	95	171		106		65		
mean (SD)	1.83 (5.2)	0.65 (1.4)	***0.024***	1.03 (1.9)	*0.535*	0.41 (0.9)	***0.002***	***0.003***
median	0	0		0		0		
OD-related Arrests								
yes, # (%)	4 (7.7)	17 (6.5)	*0.761*	8 (7.8)	*1.000*	9 (5.6)	*0.526*	*0.609*
# episodes	4	22		13		9		
mean (SD)	0.08 (0.3)	0.08 (0.4)	*0.759*	0.13 (0.6)	*0.964*	0.06 (0.2)	*0.592*	*0.471*
median	0	0		0		0		
Person Arrests								
yes, # (%)	4 (7.7)	12 (4.6)	*0.313*	6 (5.8)	*0.733*	6 (3.8)	*0.265*	*0.547*
# episodes	12	13		6		7		
mean (SD)	0.23 (1.1)	0.05 (0.2)	*0.327*	0.06 (0.2)	*0.621*	0.04 (0.2)	*0.234*	*0.442*
median	0	0		0		0		
Society arrests								
yes, # (%)	19 (36.5)	56 (21.3)	***0.031***	30 (29.1)	*0.365*	26 (16.2)	***0.003***	***0.014***
# episodes	64	109		66		43		
mean (SD)	1.23 (4.1)	0.41 (1.0)	***0.019***	0.64 (1.4)	*0.378*	0.27 (0.7)	***0.002***	***0.011***
median	0	0		0		0		
Property arrests								
yes, # (%)	10 (19.2)	26 (9.9)	*0.060*	15 (14.6)	*0.492*	11 (6.9)	***0.015***	*0.06*
# episodes	19	49		34		15	***0.007***	***0.034***

mean (SD) median	0.37 (0.8) 0	0.19 (0.7) 0	***0.048***	0.33 (1.0) 0	*0.470*	0.09 (0.4) 0		
Incarceration *yes*, # (%)	27 (51.9)	76 (28.9)	***0.002***	31 (30.1)	***0.013***	45 (28.1)	***0.002***	*0.781*
days, # mean (SD) median	842 16.2 (38.6) 1	2683 10.2 (31.6) 0	***0.001***	1177 11.4 (32.7) 0	***0.0124***	1506 9.4 (31.0) 0	***0.001***	*0.620*

As the next step, we compared the MARI and the HC group crime-related outcomes in the pre-arrest 12 months. During that time, MARI (N=263) and HC (N=52) groups displayed similar rate and number of police contact episodes, including OD-specific contacts (***Table 9***). However, the HC group tended to have a higher percentage of arrested individuals (46.2% versus 31.2%, p=0.053), and a higher mean number of arrest episodes per person (p=0.024), totaling 191 and 600 in the HC and MARI groups, respectively, with a worse profile of "society" and "property arrests" in the HC group (p<0.05) driving the between-group differences in the total arrests. The HC group also had higher rate of incarcerated individuals (51.9% versus 28.9%, p<0.001), and a higher mean number of incarceration days (16.2±38.6 versus 10.2±31.6, p=0.001), reaching a total of 842 days and 2,683 days in HC and MARI groups, respectively (***Table 9***).

Compared to the HC group, the MARI Non-Engaged had a higher number of individuals with police contacts (p=0.014), and a higher number of police contact-episodes (p=0.003); of note, the Engaged subgroup did not differ in this respect from the HC group (p≥0.05; ***Table 9***). The HC and the Non-Engaged groups did not differ in their arrest profiles (p≥0.05), and both had a worse record of arrests, especially the society and property types (p<0.05) than the MARI Engaged subgroup. Both MARI Non-Engaged and Engaged groups had fewer participants incarcerated, with fewer mean days spent incarcerated, than the HC group (p<0.05). Graphical presentation of these data is outlined in ***Figure 29***.

Figure 29: Crime-related events during 12 months before the 'index crime' in the Historical Comparison group (N=52), entire MARI group (N=263), and two MARI subgroups: Non-Engaged (n=103) and Engaged (n=160).



MARI Participants and HC group: Crime-related events after their "index crime"

Six months after the "index crime"

During six months following their index crime, when compared to six months before this crime, MARI group as a whole (N=263) increased their total contacts with police (p<0.05), total arrests (p=0.004), and incarceration indices (p<0.001) (***Table 10***). These worsened six-month follow-up outcomes were primarily driven by the increases in crime events in the MARI Non-Engaged Group, and, to a lesser degree, in the MARI Non-Completer group (***Table10***). These pre-post trends resembled those in the HC group during a comparable assessment period (***Table 8***).

Although the MARI Completers had a tendency toward increased police contacts (p=0.058), including overdose-related contacts (p=0.082), the meaning of this potential change is unknown, as 'contact' was defined as any police contact, regardless of its nature (eg, it could have been due to a criminal offense but it also could have been due to being a bystander reporting overdose). In addition, the Completers did not increase their total arrests or percentage of incarcerated people, but decreased the mean number of days incarcerated (p=0.042; ***Table 10***).

Table 10. MARI group (N=263) and subgroups:
Crime-related events 6 months before (6M PRE) and 6 months after (6M POST) the 'index crime.'

	MARI N=263			**MARI Non-Engaged n=103**			**MARI Non-Completers n=60**			**MARI Completers n=100**		
Variable	6M PRE	6M POST	p value*	6M PRE	6M POST	p value*	6M PRE	6M POST	p value*	6M PRE	6M POST	p value*
Total police contacts, *yes*, # (%)	123 (46.8)	158 (60.1)	**0.003**	63 (61.2)	74 (71.8)	0.140	29 (48.3)	39 (65.0)	0.097	31 (31.0)	45 (45.0)	0.058
#episodes, mean (SD)	1.4 (2.3)	1.6 (2.4)	**0.025**	2.1 (0.2)	2.4 (3.2)	0.476	1.5 (2.3)	1.8 (2.0)	0.077	0.6 (1.1)	0.7 (0.9)	0.082
OD police contacts, *yes*, # (%)	22 (8.4)	32 (12.2)	0.196	11 (10.7)	17 (16.5)	0.309	7 (11.7)	6 (10.0)	1.0	4 (4.0)	9 (9.0)	0.251
#episodes, mean (SD)	0.1 (0.3)	0.2 (0.4)	0.142	0.1 (0.4)	0.2 (0.5)	0.226	0.1 (0.4)	0.2 (0.6)	0.861	0.04 (0.2)	0.09 (0.3)	0.153
Total arrests *yes*, # (%)	48 (18.3)	77 (29.3)	**0.004**	25 (24.3)	43 (41.7)	**0.012**	16 (26.7)	22 (36.7)	0.326	7 (7.0)	12 (12.0)	0.334
#episodes, mean (SD)	0.4 (1.0)	0.6 (1.3)	**0.004**	0.6 (1.3)	0.9 (1.5)	0.153	0.5 (0.9)	0.8 (1.5)	0.236	0.1 (0.3)	0.1 (0.4)	0.234
Incarceration, *yes*, # (%)	53 (20.2)	107 (40.7)	**<0.001**	22 (21.4)	54 (52.4)	**0.002**	20 (33.3)	30 (50.0)	0.096	11 (11.0)	12 (12.0)	0.843
days, mean (SD)	5.1 (19.9)	5.8 (20.1)	**<0.001**	7.2 (24.8)	7.0 (19.1)	**<0.001**	6.1 (21.1)	11.8 (21.2)	0.097	2.4 (11.4)	1.0 (5.0)	**0.042**

* p value for the comparison of 6 months before, and 6 months after, outcomes within each group

In summary: As summarized in ***Table 11***, The HC and MARI Non-Engaged groups showed increases in arrest and incarceration metrics, while MARI Non-Completers trended toward worsened incarceration outcomes during the six-month follow-up, compared to the six-month period preceding their 'index crime'. At the same time, the percentage of arrested and incarcerated MARI Completers did not change, and their mean days spent incarcerated decreased.

Table 11. Summary of Arrest and Incarceration: 6 months before (6M PRE) and 6 months after (6M POST) the "index crime" among the Historical Comparison (N=52) and MARI (N=263) participants

	6M PRE	6M POST	p value*
% Arrested (Total Arrests)			
Historical Comparison (N=52)	32.7	40.4	0.541
MARI Total (N=263)	18.3	29.3	**0.004**
MARI Non-Engaged (n=103)	24.3	41.7	**0.012**
MARI Non-Completers (n=60)	26.7	36.7	0.326
MARI Completers (n=100)	7.0	12.0	0.334
% Incarcerated			
Historical Comparison (N=52)	44.2	80.8	**<0.001**
MARI Total (N=263)	20.2	40.7	**<0.001**
MARI Non-Engaged (n=103)	21.4	52.4	**0.002**
MARI Non-Completers (n=60)	33.3	50.0	0.096
MARI Completers (n=100)	11.0	12.0	0.843
Days Incarcerated: mean (SD)			
Historical Comparison (N=52)	7.5 (26.1)	27.8 (41.0)	**<0.001**
MARI Total (N=263)	5.1 (19.9)	5.8 (20.1)	**<0.001**
MARI Non-Engaged (n=103)	7.2 (24.8)	7.0 (19.1)	**<0.001**
MARI Non-Completers (n=60)	6.1 (21.1)	11.8 (21.2)	0.097
MARI Completers (n=100)	2.4 (11.4)	1.0 (5.0)	**0.042**

* p value for the comparison of 6 months before, and 6 months after, outcomes within each group

Additional analyses – six-month arrest prevalence findings, after applying different analytical methods to overcome potential shortcomings related to each individual approach: Evaluation focused on measuring the association between change in recidivism and program participation can be suggestive, but does not definitively demonstrate that the program had a direct (or causal) effect on these outcomes. With only observational data, such as those collected during the MARI program, average outcomes may be influenced by numerous confounding variables, and causal effects are difficult to measure without participant random assignment to the program's arms. Estimates of association that are not adjusted for the potential confounders may thus even suggest incorrect conclusions. Causal inference methods attempt to address this

limitation by using conceptual knowledge of the system of interest to adjust for possible differences between the 'intervention' groups. We applied causal inference methods to estimate average causal effects of MARI on the risk of arrest recidivism in the 6-month period after their 'index crime'. We used observational data on MARI participants (n = 263) and a historical comparison group (n=52) for 12 months before through 6 months after the index crime, and estimated average effects on arrests of assignment (i.e., referral) to MARI via (1) an intention-to-treat (ITT) analysis, (2) a per protocol analysis, and (3) a complier average causal effect (CACE) analysis, which adjusts for partially missing, or unobserved, compliance among those who completed the six-month program. Each type of analysis sought to answer the question on whether MARI reduced arrests. The summary of these analyses is presented below; details will be submitted to the Journal of Alcohol and Drug Dependence for a peer-reviewed publication[51].

The analyses focused on a six-month recidivism, with a 'yes/no' variable indicating whether an individual was arrested at least once in the six-month period following the index crime. We chose to approach this variable in a binary fashion (yes/no), because the continuous variable (i.e., the number of previous-year arrests) was positively skewed indicating that the presence of outliers could affect the results. The MPD dataset's baseline variables (age [years], sex [male/female], race/ethnicity, residency, and arrest in the 12 months preceding the index crime [y/n]) were also assessed. Race/ethnicity was a categorical variable indicating whether an individual was White, Black/African American, Hispanic, American Indian, or Asian/Pacific Islander. Residency was a categorical variable indicating whether an individual resided in Madison, outside of Madison, or had no permanent address at the time of their index crime.

For these analyses, the project sample was divided into two main groups: Historical Comparison (N=52) and MARI participants (N=263). In addition, individuals in the MARI group were subdivided into three categories: Completers (n=100), Non-Completers (n=60), and Non-Engaged (n=103). In order to simplify the analyses and increase statistical power, the MARI Non-Completer and Non-Engaged categories were then combined into one group, labeled as Non-Adherent group (n=163).

(1) First, the ITT analysis compared the risk of six-month arrest recidivism between the entire MARI group (N=263) and the HC group (N=52). That is, an ITT analysis comparison attempted to estimate the average causal effect of MARI *assignment* on the arrest outcome.

A total of 315 individuals comprised the 'analyzed sample' for the per-protocol analysis: 263 MARI participants and 52 HC group members. Because age and presence of previous-year arrests differed significantly ($p<0.05$) between the MARI and HC groups, they were included in the final model for estimating adjusted odds ratio (aOR), using the ITT analysis approach. The final ITT model estimated that **MARI assignment carried a statistically non-significant lower adjusted odds of six-month recidivism** (aOR=0.59, 95% CI: [0.32, 1.12], p=0.11).

[51] Zgierska AE, Balles J, Barnes, S., Tye, M., Pre-arrest diversion to addiction treatment by law enforcement: MARI implementation paper, Journal of Alcohol and Drug Dependence, (submission pending 2021-22).

(2) A 'per-protocol' analysis compared individuals who adhered to their assignment (i.e., MARI Completers, n=100) to the HC group (N=52). This approach strived to account for the likely effect of adherence to the MARI program (for example, the Completers were adherent to the assigned protocol, i.e., were the 'compliers') on the arrest outcome. The 'per-protocol' analysis stipulated that MARI Completers were comparable to the HC group prior to their index crime, and assumed that all individuals in the HC group would have completed MARI had it been offered, which could lead to a biased effect estimate, and called for a more nuanced approach, such as the CACE analysis.

A total of 152 individuals comprised the 'analyzed sample' for the per-protocol analysis: 100 MARI Completers and 52 HC group members. Because age and proportion of individuals with previous-year arrests differed significantly between MARI Completers and the HC group, they were included in the final model for estimating the per-protocol aOR. This per-protocol approach estimated that **MARI completion carried a lower adjusted odds of six-month recidivism (aOR=0.23, 95% CI: [0.10, 0.52], *p*<0.001).**

(3) Finally, the CACE analysis attempted to further reduce the bias in our estimates of the effect of MARI assignment, and to measure the causal effect of assignment to MARI on six-month arrest recidivism among individuals who would complete MARI *if* they were assigned to the program. If assumptions are imposed (described below), the CACE estimate could be considered the effective treatment effect of MARI assignment. The CACE analysis assumes that individuals either received all treatment (i.e., MARI) or none, and divides individuals into four possible compliance types: (1) never-takers: those who did receive treatment regardless of their assignment; (2) always-takers: those who received treatment regardless of their assignment; (3) compliers: those who received treatment only if assigned to treatment; and (4) defiers: those who received treatment only if assigned to a control condition. Because the HC group occurred before the MARI program existed, 'always-taker' and 'defier' groups were not possible to identify in this sample. Thus, we focused on compliers and never-takers only.

A total of 315 individuals comprised the 'analyzed sample' for this analysis: 100 MARI Completers, 163 MARI Non-Adherent, and 52 HC group members. Age and indicator of previous-year arrests were included in the final model because they differed significantly between the groups. **MARI program compliance (i.e., among the Completer group) carried a lower adjusted odds of 6-month recidivism (aOR=0.85, 95% CI: [0.80, 0.90], p<0.001)**.

In conclusion, these findings suggest that completing MARI and assignment to MARI among Completers may substantially lower the risk of six-month arrest recidivism. Of note, these results also showed that MARI assignment alone (i.e., being referred to, and becoming a MARI participant) did not lower in a statistically significant way the adjusted odds of 6-month arrest recidivism. Rather, MARI engagement and program completion lowered the adjusted odds of six-month arrest recidivism by a factor 0.23 over individuals not assigned MARI; in addition, it also lowered the adjusted odds of six-month recidivism by a factor 0.85 over individuals who were not assigned to MARI but would have completed it if given the opportunity.

12 months after the "index crime"

The no-cost extension has enabled extending the follow-up period from six to 12 months for most of the MARI participants. **Twelve-month follow-up data on crime events were available for 223 of 263 (84.8%) MARI participants** who entered MARI prior to February 28, 2020, and, therefore, completed their 12-month follow-up at the end of February 2021. The remaining 40 MARI participants will complete their 12-month follow-up by the end of August 2021.

When assessing 12 months before, versus 12 months after, the index crime, the MARI group as a whole (N=263) worsened their criminal activity profile, particularly in terms of arrest and incarceration metrics, with the Non-Engaged and Non-Completer groups driving these unfavorable changes (***Table 12***), and resembling the profile of change in the HC group during a similar follow-up period (**Table 7**).

The MARI Completers increased their police contacts ($p<0.05$) during the year post index crime, but these findings –similarly to the six month outcomes– are of uncertain meaning, while not showing an increase in arrests or incarceration (***Table 12***).

Table 12. MARI group (N=223) and subgroups:
Crime-related events 12 months before (12M PRE) and 12 months after (12M POST) the 'index crime.'

	MARI N=223			**MARI Non-Engaged n=81**			**MARI Non-Completers n=51**			**MARI Completers n=91**		
Variable	12M PRE	12M POST	p value*	12M PRE	12M POST	p value*	12M PRE	12M POST	p value*	12M PRE	12M POST	p value*
Total police contacts, *yes*, # (%)	140 (62.8)	158 (70.9)	0.087	64 (79.0)	66 (81.5)	0.844	31 (60.8)	39 (76.5)	0.135	45 (49.5)	53 (58.2)	0.298
#episodes, mean (SD)	2.4 (3.5)	2.5 (3.1)	0.240	3.7 (4.3)	3.5 (4.1)	0.854	2.3 (3.1)	3.1 (2.8)	0.073	1.2 (2.2)	1.2 (1.5)	0.420
OD police contacts, *yes*, # (%)	31 (13.9)	45 (20.2)	0.102	13 (16.0)	21 (25.9)	0.177	12 (23.5)	7 (13.7)	0.309	6 (6.6)	17 (18.7)	**0.026**
#episodes, mean (SD)	0.2 (0.5)	0.3 (0.6)	0.066	0.2 (0.7)	0.4 (0.7)	0.120	0.3 (0.5)	0.3 (0.8)	0.326	0.1 (0.3)	0.2 (0.4)	**0.016**
Total arrests *yes*, # (%)	69 (30.9)	89 (39.9)	0.060	33 (40.7)	42 (51.9)	0.207	19 (37.3)	28 (54.9)	0.112	17 (18.7)	19 (20.9)	0.852
#episodes, mean (SD)	0.7 (1.4)	0.9 (1.6)	**0.033**	1.1 (2.0)	1.3 (1.9)	0.167	0.6 (1.1)	1.4 (2.0)	**0.033**	0.3 (0.6)	0.3 (0.6)	0.751
Incarceration, *yes*, # (%)	76 (34.1)	136 (61.0)	**<0.001**	31 (38.3)	63 (77.8)	**<0.001**	26 (51.0)	43 (84.3)	**0.003**	19 (20.9)	30 (33.0)	0.163
days, mean (SD)	10.2 (31.6)	12.8 (38.0)	**<0.001**	11.4 (32.7)	15.0 (36.2)	**<0.001**	12.2 (33.3)	23.7 (59.6)	**0.013**	7.8 (29.4)	4.1 (14.0)	0.122

* p value for the comparison of 6 months before, and 6 months after, outcomes within each group

Additional analyses – 12-month arrest prevalence preliminary findings, after applying different analytical methods to overcome potential shortcomings related to each individual approach: Applying a similar framework as for the six-month additional analyses (detailed above), the intention-to-treat (ITT), per-protocol, and CACE analyses, completed on the subset of 223 MARI participants who had their 12-month data available, showed similar – if not better – findings at 12 months. **It showed that MARI referral reduced in a statistically significant way the adjusted odds for arrest at 12 months** in all these analyses (ITT: aOR=0.49, 95% CI 0.26,0.91; per-protocol aOR=0.25, 95% CI 0.12, 0.53; and CACE: aOR=0.86, 95% CI 0.8,0.92). These preliminary analyses for 12-month outcomes will be finalized after the remaining 40 MARI participants complete their 12-month follow-up period at the end of August 2021.

In summary: As summarized in ***Table 13***, The HC, MARI Non-Engaged and MARI Non-Completer groups, but not the Completers, showed increases in the incarceration outcomes during the 12-month follow-up, compared to the 12-month period preceding their 'index crime'. Increases in incarceration could have contributed to the findings of a lack of statistically significant increase in the arrests (i.e., people do not commit a crime, which can lead to an arrest, while incarcerated).

Table 13. Arrest and Incarceration 12 months before (12M PRE) and 12 months after (12M POST) the "index crime" among the Historical Comparison (N=52) and MARI (N=223) participants

	12M PRE	12M POST	p value*
% Arrested (Total Arrests)			
Historical Comparison (N=52)	46.2	50.0	0.845
MARI Total (N=223)	30.9	39.9	0.060
MARI Non-Engaged (n=81)	40.7	51.9	0.207
MARI Non-Completers (n=51)	37.3	54.9	0.112
MARI Completers (n=91)	18.7	20.9	0.852
% Incarcerated			
Historical Comparison (N=52)	51.9	84.6	**0.001**
MARI Total (N=223)	34.1	61.0	**<0.001**
MARI Non-Engaged (n=81)	38.3	77.8	**<0.001**
MARI Non-Completers (n=51)	51.0	84.3	**0.003**
MARI Completers (n=91)	20.9	33.0	0.163
Days Incarcerated: mean (SD)			
Historical Comparison (N=52)	16.2 (38.6)	50.0 (72.0)	**<0.001**
MARI Total (N=223)	10.2 (31.6)	12.8 (38.0)	**<0.001**
MARI Non-Engaged (n=81)	11.4 (32.7)	15.0 (36.2)	**<0.001**
MARI Non-Completers (n=51)	12.2 (33.3)	23.7 (59.6)	**0.013**
MARI Completers (n=91)	7.8 (29.4)	4.1 (14.0)	0.122

* p value for the comparison of 6 months before, and 6 months after, outcomes within each group

MARI Related Overdose Fatalities

During the course of the MARI program, we were aware some MARI participants would likely relapse and some even overdose. The MARI MPD Officer monitored the OIC reports and other sources of information to track and monitor overdoses citywide to see if they involved MARI participants. We also became aware of overdose incidents through the collection and analysis of MPD "Overdose Contact" data as reported earlier (see ***Data and Analysis*** section). In October 2020, the MARI MPD Officer and the MARI Project Coordinator created a list of 10 MARI participants confirmed by the MPD as deceased due to a fatal overdose incident responded to by MPD. However, this approach would not detect all fatal overdose incidents, for example because they could have fallen outside of the MPD jurisdiction. Therefore, in addition to relying on the MPD overdose data, and with our C.N.A SME Stacy Ward's recommendation, we embarked on the evaluation of the status of all MARI participants and HC group members by leveraging the MPD and public health department's access to the county-level mortality data. Over a ten-day period in late March 2021, MPD staff from the Records Section and staff from the Dane County Medical Examiner's Office checked MARI participants and HC group members against available fatality records at the local level. This search yielded 18 matches between MARI participant and HC members and local death record data. The data on the MARI and HC group members were provided as aggregate data only, tabulated by year (***Table 14A***) and by the follow-up period after the "index crime" (***Table 14B***).

According to the county-level mortality records inspected from March 22-29, 2021, a total of five (9.6%) individuals in the HC group, and 13 (4.9%) MARI participants died due to a fatal overdose (***Table 14A***). Among the MARI participants, majority of these fatalities occurred in the Non-Engaged subgroup, affecting seven (6.8%) of these individuals, followed by Non-Completers (5.0%), particularly during the first six months of the follow-up period (***Table 14B***). Among those who initiated MARI (Non-Completers plus Completes, n=160), six (3.8%) individuals died due to an overdose, including three MARI Completers; these fatalities occurred after their six-month MARI follow-up was completed.

Table 14: Vital Records Data on Fatal Overdose among the MARI participants (N=263) and the Historical Comparison group members (N=52) after their "index crime:"

A: by calendar year when overdose death occurred

	2016	2017	2018	2019	2020	Total # (%)
MARI group (N=263)	-	0	1	4	8	**13 (4.9%)**
Non-Engaged (n=103)	-	0	1	2	4	7 (6.8%)
Non-Completers (n=60)	-	0	0	1	2	3 (5.0%)
Completers (n=100)	-	0	0	1	2	3 (3%)
HC Group (N=52)	0	3	1	1	0	**5 (9.6%)**
Total MARI + HC	0	3	2	5	6	18

B: by the follow-up period duration after the "index crime"

	0-6 Months	7-12 Months	12+ Months	Total
MARI group (N=263)	7	3	3	**13 (4.9%)**
Non-Engaged (n=103)	5	1	1	7 (6.8%)
Non-Completers (n=60)	2	0	1	3 (5.0%)
Completers (n=100)	0	2	1	3 (3%)
HC Group (N=52)	0	2	3	**5 (9.6%)**
Total MARI + HC	7	5	6	18

In summary: The HC group (9.6%), followed by the MARI Non-Engaged group (6.8%) had the highest rate of fatal overdoses. Completers had the lowest rate (3%), with all three overdoses taking place after the initial six months of MARI's active "management" and follow-up.

Additional MARI Participant Outcome Data

- ***MARI participant clinical assessment data***

    - The collection of clinical data by the Assessment Hub staff, as a part of routine clinical assessment of all patients served by the Hub, enabled:
        - better 'baseline' (upon program entry) characterization of 160 MARI participants who engaged with the Assessment Hub;
        - comparison of clinical 'baseline' characteristics between program Completers and Non-Completers; and
        - comparison of baseline (program entry) and exit (after completing the six-month MARI program) clinical data among 100 program Completers.
    - The collected clinical data included evaluation toward the severity of addiction and of mental health problems commonly co-occurring with addiction, and linked to the addiction treatment outcomes:
        - ***General Anxiety Disorder-7 (GAD-7)***[52] questionnaire includes seven items (with each response scored from 0-3) and measures the severity of anxiety symptoms, with higher total scores corresponding to higher symptom impact and severity, and indicating:
            - minimal symptoms (total scores 1-4);
            - mild symptoms (total scores 5-9)
            - moderate symptoms (total scores 10-14)
            - severe symptoms (total scores 15-21)

          For GAD-7, a total score of ≥10 clinically represents a "positive screen" toward a generalized anxiety disorder. In addition, it may also indicate

[52] GAD-7 Questionnaire: (https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/410326).

presence of three other common anxiety disorders: panic (sensitivity 74%, specificity 81%), social anxiety (sensitivity 72%, specificity 80%), and post-traumatic stress (sensitivity 66%, specificity 81%) disorders. Score reduction over time indicates improvement.

- ***Patient Health Questionnaire-9 (PHQ-9)***[53] questionnaire includes nine items (with each response scored from 0-3) and measures the severity of depression symptoms, with higher total scores corresponding to higher impact and severity, and indicating:
    - minimal symptoms (total scores 1-9);
    - mild symptoms (total scores 10-14);
    - moderate symptoms (total scores 15-19); and
    - severe symptoms (total scores 20-27).

  For PHQ-9 (similar to GAD-7), a total score of ≥10 clinically represents a "positive screen" toward depression. Score reduction over time indicates improvement.
- ***Brief Addiction Monitor (BAM)***[54] questionnaire includes 17 questions, assessing assess three functional domains related to recovery: the individual's extent of drug use (*Drug Use* subscale), risk factors associated with relapse, continued use or worsening addiction severity (*Addiction Risk* subscale), and the extent of protective factors associated with the initiation and maintenance of recovery (*Protective Factors* subscale). Although there are no defined diagnostic "screening thresholds" for BAM (which they exist for GAD-7 and PHQ-9):
    - scores ≥1 on the *Drug Use* subscale indicate alcohol or drug use;
    - scores ≥12 on the *Addiction Risk* subscale suggest an increased relapse risk, with the need for additional assessment and treatment; and
    - scores ≤12 on the *Protective Factors* subscale suggest subpar protective factors or supports, and place an individual at increased relapse risk.

  Score reduction over time on the Drug Use and Addiction Risk subscales, and score increase on the Protective Factors subscale indicate improvement, placing individual in a better position toward achieving recovery.

- ***Analyzed sample***: The clinical assessment data were missing for three out of 60 Non-Completers (entry data), and for ten out of 100 Completers (either entry or exit assessment data). Some assessments were reported "lost" because of online or computer issues, while others (at exit) were missing because of participant

[53] PHQ-9 Questionnaire: https://pubmed.ncbi.nlm.nih.gov/11556941/

[54] BAM Questionnaire: Cacciola, J. S., Alterman, A. I., DePhilippis, D., Drapkin, M. L., Valadez, C., Fala, N. C., ... McKay, J. R. (2013). Development and initial evaluation of the Brief Addiction Monitor (BAM). Journal of Substance Abuse Treatment, 44, 256-263.

inability to present and complete them (e.g., due to the COVID 19 pandemic or geographical relocation). Therefore, **the clinical data was available for analyses for 57 Non-Completers (entry data) and 90 Completers (entry and exit data)**.

- ***MARI participant clinical assessment results***
  - ***Baseline/Entry (Non-Completers and Completers):*** Upon their program entry, the Non-Completer and Completer group mean scores placed them in the mild depression and anxiety symptom severity range, and indicated current substance use, elevated 'addiction risk', and marginal protective factors (***Table 15***), picturing overall a population of individuals at increased relapse risk. This profile was particularly unfavorable for the Non-Completer group, which at baseline displayed much higher *Addiction Risk* than *Protective Factors* scores.

Table 15: Clinical Assessment Findings: MARI Non-Completers and Completers upon the program entry, and MARI Completers upon completing of their six-month program ("exit").

Variable	Non-Completers: Entry, n=57	Completers: Entry, n=90	*p value*[1]	Completers Exit, n=90	*p value*[2]
Depression symptoms (PHQ-9) score mean (SD)	11.0 (7.1)	10.4 (7.4)	*0.643*	5.2 (5.5)	***<0.001***
Anxiety symptoms (GAD-7) score mean (SD)	9.9 (5.6)	8.3 (6.1)	*0.097*	4.8 (5.6)	***<0.001***
Brief Addiction Monitor (BAM) score					
Drug Use, mean (SD)	4.0 (2.3)	3.7 (2.2)	*0.492*	0.5 (1.0)	***<0.001***
Addiction Risk, mean (SD)	13.1 (5.1)	12.2 (5.9)	*0.359*	6.8 (4.2)	***<0.001***
Protective Factors, mean (SD)	10.4 (4.5)	12.4 (4.5)	***0.008***	15.3 (5.1)	***<0.001***

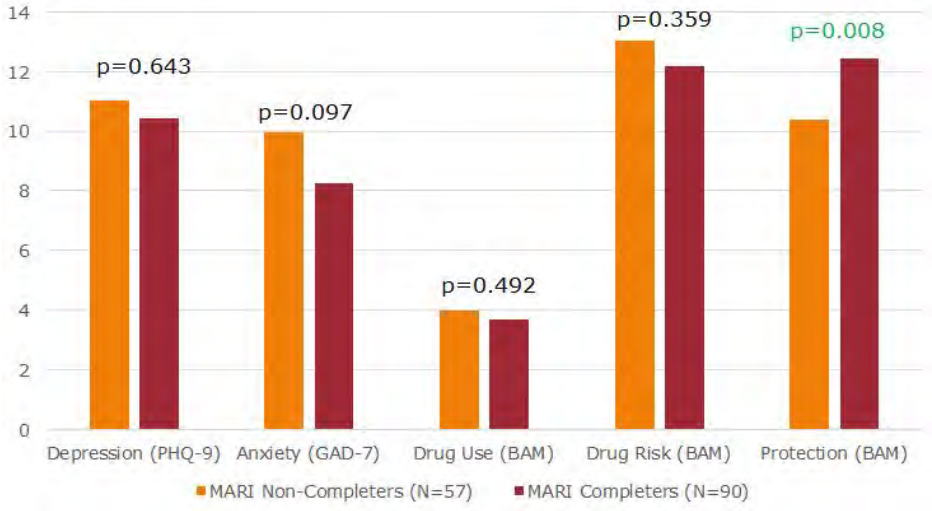
[1] Comparison of the baseline (entry) scores between the MARI Non-Completer and Completer subgroups

[2] Comparison of the baseline (entry) and program completion (exit) scores within the MARI Completer subgroup

BAM: Brief Addiction Monitor; GAD-7: General Anxiety Disorder-7; PHQ-9: Patient Health Questionnaire-9

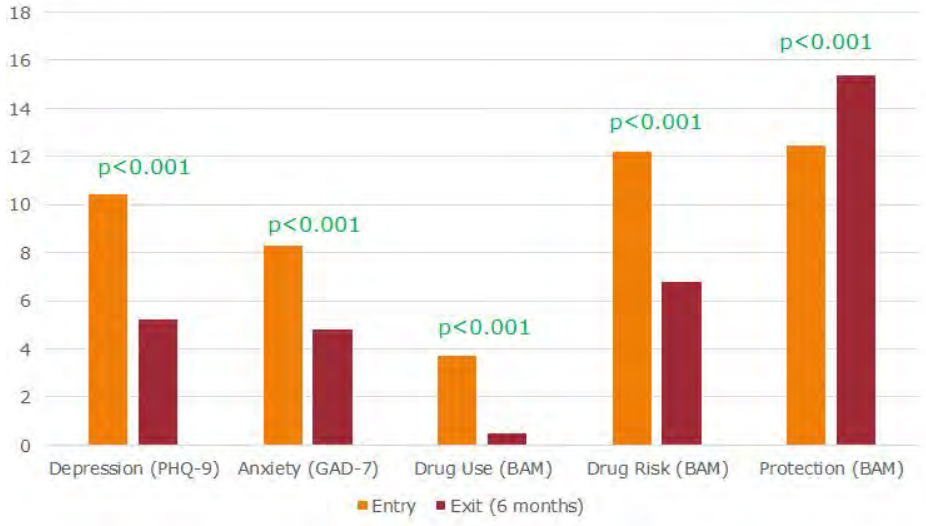
A comparison of these baseline characteristics between these two MARI subgroups indicated an overall less-favorable clinical profile of those who later did not successfully complete the program (Non-Completers) than the future Completers, reaching statistical significance for the BAM's *Protective Factors* score, which was higher in the Completers group (***Table 15; Figure 30***).

Figure 30. MARI Non-Completers and Completers:
Clinical Assessment Scores upon Entry to MARI



- ***Pre-Post/Entry/Exit (Completers only):*** Upon completion of the six-month MARI program, Completers showed improvements (p<0.001) on all clinical predictors of relapse: anxiety, depression, addiction risk severity, drug use, and protective factors, with the *Protective Factors* score much higher than the *Addiction Risk* scores (***Table 15; Figure 31***).

Figure 31. MARI Completers (N=90)
Clinical Assessment Score Comparison at Program Entry and Exit



In summary: Among those who completed the initial clinical assessment, i.e., MARI Non-Completer and Completer groups, the future-Completer group had a better profile of so-called protective factors, which reduce the risk of relapse, and help support addiction recovery. Completers showed marked improvements in their psychological health (i.e., reductions in the

anxiety and depression scores) and reduced relapse risk (i.e., decreased drug use and relapse risk scores, and increase in protective factors scores).

- ***Prosecution of MARI Non-Engaged and Non-Completer Participants***
  Of the 263 MARI participants, 103 did not engage with the Assessment Hub (Non-Engaged) and 60 were discharged from the MARI program for non-compliance with treatment or re-offense (Non-Completers). Subsequently, MPD and the Dane County Sheriff's Office reviewed the original MARI case, related to the 'index crime' for these participants, to determine if arrest charges should be forwarded to the District Attorney or City Attorney for prosecution.

  The prosecution related outcomes for 163 Non-Engaged and Non-Completers MARI participants are summarized below:

  - **158 (96.9%) of these cases were referred by law enforcement for prosecution on the original charges.** Five cases were not forwarded for prosecution, including three individuals who died from a subsequent fatal overdose shortly after their initial MARI referral; one who became incarcerated (for three months) shortly after his MARI referral on other warrants; and finally one for whom charges were dropped by MPD and information provided to the individual how to access the Dane County Treatment Readiness Center (TRC) on their own.
  - **13 were deemed to be *"municipal ordinance violations"*** and referred to the Madison City Attorney's Office for prosecution (*we have no further outcome data to report on cases referred to the City Attorney's Office*); and
  - **145 (89.0% out of 163) were referred for *"criminal charges"*** to the Dane County District Attorney's Office.
    - To date, **out of these 145 cases referred Dane County DA for prosecution:**
      - **99 (68.3%) resulted in charges filed in Dane County Circuit Court;**
        - Of the 99 criminal cases resulting in charges filed by the DA in Circuit Court, 76 were criminal prosecutions, and 23 were assigned to Drug Court or the Deferred Prosecution program.
      - **34 (23.4%) resulted in no charges filed**
        - Of these 34 cases, 20 were dismissed or declined for prosecution; and 14 had no available information describing as to why the charges were not filed.
      - **12 (8.3%) did not have information** available about the resulting charging decisions at the time of this final report submission.

In summary: The vast majority (145 people, 89%) of 163 individuals who did not complete the MARI program (Non-Engaged and Non-Completers) had **"criminal charges"** related to their 'index crime' referred for to the **District Attorney's Office** prosecution, 99 (68.3%) resulted in charges being filed; 34 (23.4%) resulted in NO charges according to available documentation, 12 (8.3%) had no documentation available at time of final report submission.

Goal 3: Through improved access to appropriate addiction care, MARI has the potential to improve community health and safety as assessed by reduced overdose, overdose death, and crime rates, and related costs.

Results for Goal 3

- ***Measurement:*** *We will explore the potential effects of MARI on the community-level indices of health and safety, and related costs during the program duration, using aggregate community-level data on overdose and related death, and crime.*

- ***Community-level Property Crime:*** Law enforcement officers often investigate crimes (offenses), make arrests and then find those responsible for the crime suffer from some type of SUD. Specifically, property crime is often suspected by law enforcement as committed by individual's likely suffering from addiction. When MARI was created, it was hypothesized that projects such as MARI, if implemented full scale, with impact measured over a longer period of time, could reduce property crime. Because of the limited scope and follow-up period of the current MARI program, the evaluation of property crime during the MARI period was not expected to yield a meaningful, measurable impact. Summarized below are the MPD property crime data[55] for 2015 through 2020, representing an exploratory assessment of the potential MARI impact (***Table 16***). Although the raw numbers of total property crime dropped slightly from 2016-2017 (when MARI was started to be implemented) to 2019, despite the growing population of the City of Madison (*2015 population: 243,122; 2020 population: 263,332*), these changes cannot be directly attributed to MARI.

Table 16. MPD Property Crime Offense Data (2015-2020)

WIBIRS Group A Offenses	2015	2016	2017	2018	2019	2020
Robbery	219	235	212	244	225	
Burglary	1,203	1,017	934	1,070	1,083	
Theft-Pick Pocketing	69	40	34	40	36	
Theft Purse Snatching	26	9	10	8	6	
Theft-Shoplifting	1,592	1,644	1,722	1,625	1,600	
Theft From Building	1,107	991	922	979	849	
Theft From Coin Machine	8	5	7	2	2	
Theft From Motor Vehicle	1,277	1,537	1.389	1,209	1,164	
Theft of Motor Vehicle Parts	223	192	188	162	202	
Theft – All Other Larceny	1,241	1,994	1,255	1,219	1,194	
Motor Vehicle Theft	259	392	447	560	619	
Stolen Property Offenses	59	26	26	24	28	
Arson	7	19	10	16	9	
Counterfeiting/Forgery	191	164	149	206	183	
Fraud-False Pretense	350	334	358	502	430	
Fraud-Credit Card	398	349	316	411	347	
Fraud-Impersonation	751	250	31	30	25	
Fraud-Welfare	0	1	0	1	0	

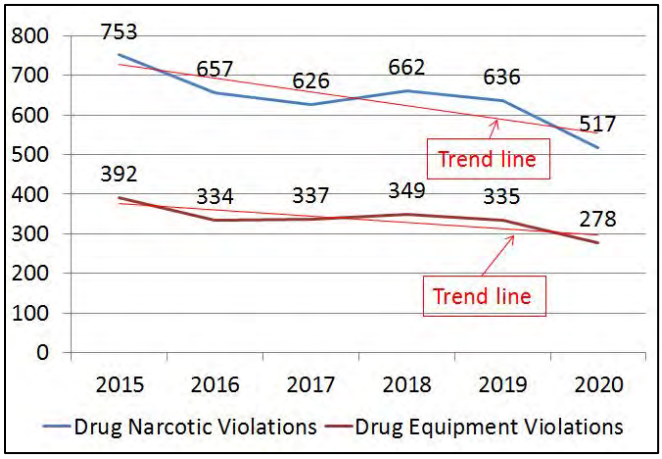
[55] State of Wisconsin Department of Justice Incident Based Reporting System (April 2021).

Fraud-Wire	8	13	7	2	2	
Identify Theft	8	353	564	592	439	
Embezzlement	59	69	6	60	59	
Blackmail	10	7	15	21	25	
Destruction/Vandalism	1,702	1,681	1,688	1,473	1,517	
TOTAL	**10,767**	**10,522**	**10,345**	**10,456**	**10,044**	

Upon reviewing the original index crimes for all 263 MARI participants, 242 (93%) were referred on *drug related crimes or charges*; only 22 (7%) were referred to MARI as the result of a *property crime.* Further study, with a design addressing specifically this issue, is needed to explore the relationship between community level property crime and SUD.

- ***Community-level Drug-related Crime:*** In regards to community level drug related arrest data, MPD has observed a decreasing trend in the number of drug related adult arrests from the years before MARI started, compared to the MARI period ***(Figure32)***.[56] Drug arrest data are collected and reported in two categories. Possession of a controlled substance (e.g., heroin, marijuana) is reported as a "Narcotic Violation." Possession of drug paraphernalia (e.g., marijuana pipe, needle with heroin residue, etc.) is reported as a Drug Equipment Violation." It is not clear if MARI has contributed to the observed decreases in both of these Violation categories over time.

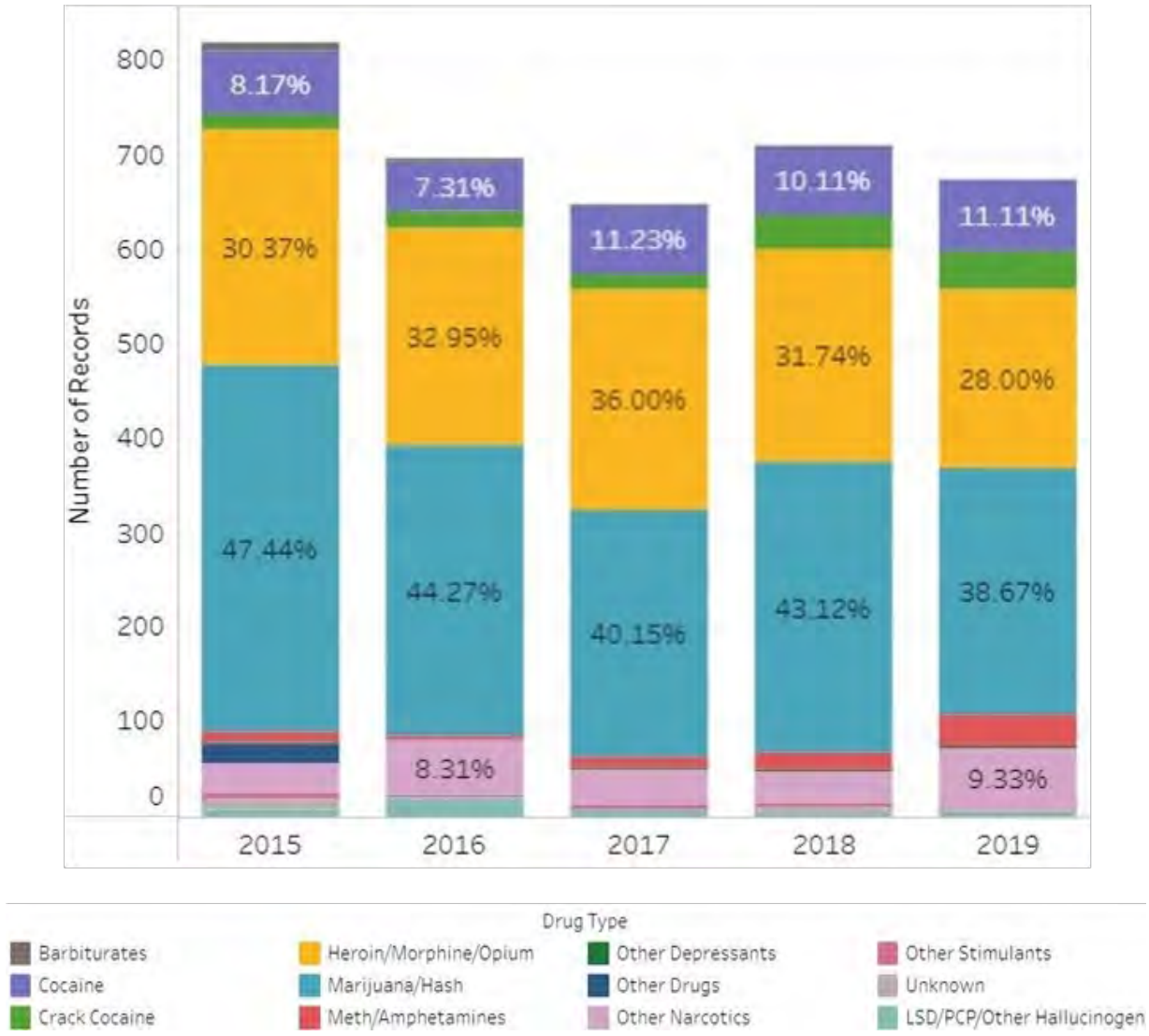
Figure 32. MPD Drug Related Adult Arrest Data (2015-2020)



In regards to the types of drugs recovered by officers during narcotic violation arrests, in 2019 marijuana accounted for 39% of MPD's such arrests. Opioids, such as heroin, morphine or opium, accounted for 28%.[57] These two categories continue to be the most prominent drugs recovered by MPD officers when making narcotic violation arrests; their prevalence likewise slightly decreased by 2019, but it may not represent a meaningful change or change that could be attributable to MARI ***(Figure 33)***.

[56] State of Wisconsin Department of Justice Incident Based Reporting System (April 2021). *2020 data provided by MPD Records Section (04/22/2021).*
[57] State of Wisconsin Department of Justice Incident Based Reporting System (April 2021).

Figure 33. Percent of MPD Drug Violation Arrests by Drug Type (2015-2019)



- ***Community-level Opioid-related Overdose Incidents***
  - ***MPD Overdose Incident Data:*** We have also monitored MPD overdose incident calls for service data throughout the SPI study period on a monthly and quarterly basis. The five year plus quarterly data presented below indicates a long-term downward trend in MPD overdose incidents ***(Figure 34)***.

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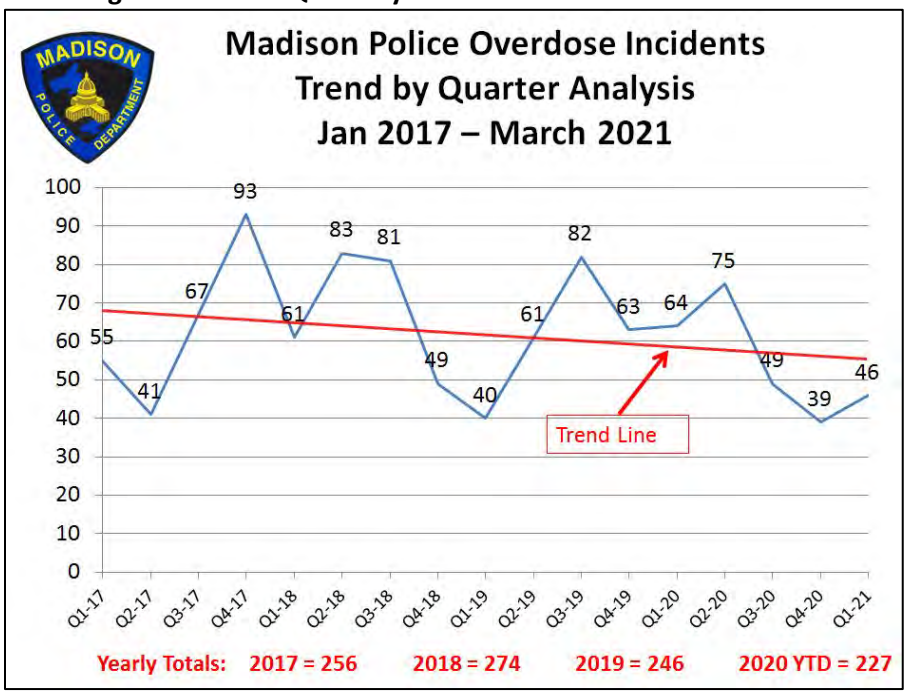
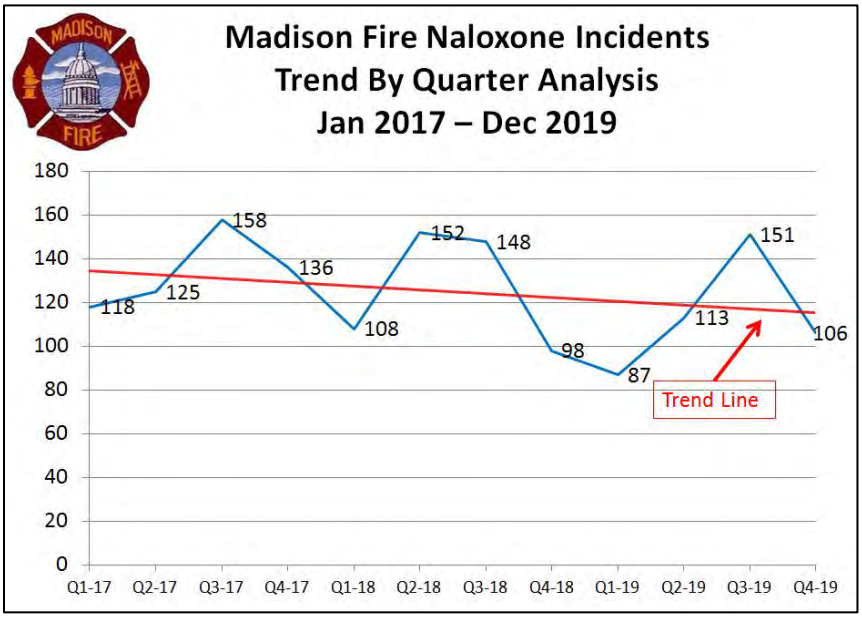
Figure 34. MPD Quarterly Totals for Overdose Incident Data



o ***Madison Fire Department Naloxone Administration Data:*** To assist with tracking and monitoring of opioid misuse impact in the community, the MPD Criminal Intelligence Section obtained naloxone administration data from the EMS division of the Madison Fire Department. Presented below are three available years (2017-2019) on the Madison EMS naloxone administration, indicating an increase in naloxone administration in 2019. ***(Figure 35)***.

Figure 35. Madison Fire Department Quarterly Totals for EMS Responses Involving Naloxone Administration



- ***Dane County Opioid-Related Overdose Emergency Department (ED) Visits & Fatalities:***[58] The State of Wisconsin Department of Health Services maintains a robust opioid-related outcome database where state- and county-level data can be assessed. These data, available for years 2016-2019, reflect the Dane County totals for opioid-related ED visits and fatalities, and suggest a decrease in in opioid-related ED visits and fatalities in 2018 compared to the prior year, yet their increase in 2019 (***Table17***).

Table 17. Dane County Opioid-Related Overdose ED Visits & Fatalities

Year	# Opioid-related ED visits	# Opioid-related fatalities
2016	280	88
2017	319	92
2018	280	85
2019	332	105

- ***Public Health Madison Dane County (PHMDC) Data on Opioid-related Overdose****:* In July 2020, as many communities were seeing an increase in opioid misuse and related harm in the early months of the COVID-19 pandemic, PHMDC reported to the MARI Ops Team that locally Dane County was likewise observing such trends. However, consistent with the EMS and ED visit/fatality data, the PHMDC suggested that this increase likely preceded the COVID-19 pandemic onset. PHMDC reported how the Dane County Narcotics Task Force and the Dane County Medical Examiner Office had recently shared the following information with the County's Overdose Fatality Review Team related to new synthetic, designer drugs entering the Dane County drug supply:

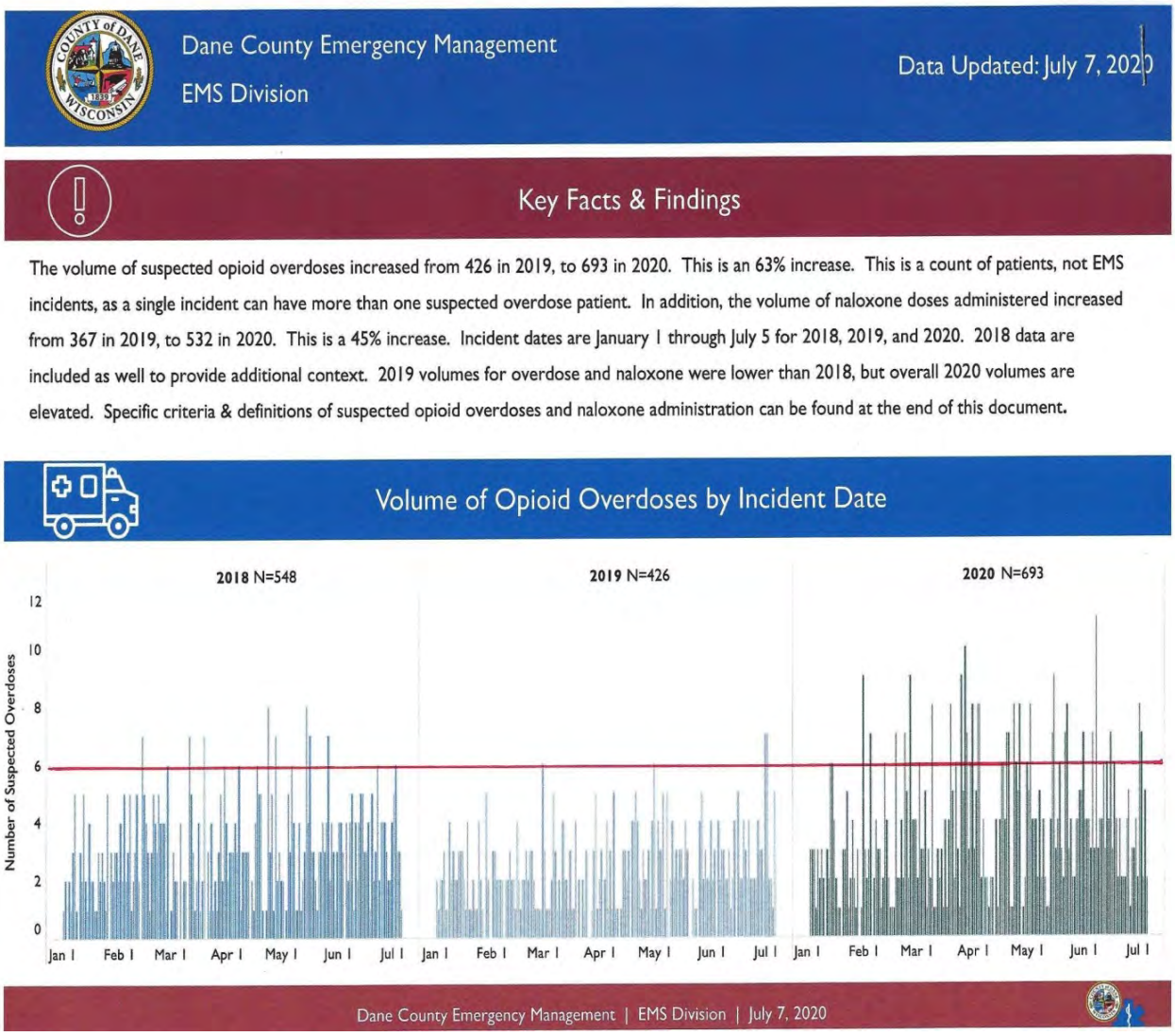
  - ***Isotonitazene****, or "Iso" for short, is a potent synthetic opioid entering the drug market; it is referred to as a designer drug. It has been seen mixed with the cocaine supply. Narcan does work, but may require additional dose administration. In Wisconsin, both Milwaukee and Dane Counties, have seen this in Medical Examiner toxicology testing.*
  - ***Flualprazolam*** *is a synthetic benzodiazepine referred to as a designer drug. Its clinical effects include sedation, [anxiety reduction], amnesia, and potentially respiratory depression. Journal article: "Over a 7 day period, 6 teenagers were transported to local emergency departments from a single high school after ingesting an illegally obtained substance [informally] named Hulk. All 6 received the drug as a free sample from a single student, believing that the substance was commercial Xanax." It has been seen in Milwaukee and Dane County toxicology reports.*

  PHDMC also shared in July 2020 with the MARI Ops Team how the EMS Division of Dane County Emergency Management that tracks suspected opioid overdose data across all Dane County EMS agencies, including the Madison Fire Department, was now responding to a significant increase in the number of suspected overdose incidents on a daily basis. Upon comparing the first part of 2020 with the corresponding periods in 2018 and 2019,

[58] Wisconsin Department of Health Services, Opioids Hospital Visit Dashboard (April 2021).

January-July of 2020 had an increased number of daily transports of overdose victims to the local hospitals. While in January-July of 2018 and 2019 Dane County EMS agencies would rarely transport more than 6 patients a day, in the first part of 2020, starting prior to the COVID-19 pandemic, the EMS agencies were routinely transporting more than six patients a day to local hospitals due to OD, and were voicing concerns about the increased OD, naloxone administration, and hospital transport rates **(*Figure 37*)**. It is likely, based on the data from other sources described above, that this increase started in later 2019, yet was not captured by the Figure below.

Figure 37: Dane County EMS July 7, 2020 "Memo," and Depiction of the Opioid Overdose-Related Daily EMS Transports to the Local Hospitals for the January-July periods, 2018-2020.



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In April 2021, for this final report, the PHMDC provided the following 2020 year-end updates on the Dane County suspected opioid OD-related EMS data:

- **Percent Difference By Year:** In 2020, the EMS agencies in Dane County responded to a 23% higher volume of suspected opioid-related ODs compared to 2019, with peak volume in May 2020, and a 19% higher volume compared to 2018.
  - **Volume by Year:** In 2020, the EMS agencies in Dane County responded to an average of 95 suspected opioid-related ODs per month. This is an increase compared to an average of 81 similar incidents per month in 2018 and 2019.
  - **When did the change and an upward shift start?** While the highest volume of EMS responses to suspected opioid ODs over the past three years took place between March and July of 2020 (the early pandemic period), the increase began as early as fall of 2019 (pre-COVID 19 pandemic).

- ***Summary of the Community-Level Overdose-Related Indices:*** Over the course of the MARI SPI, the quantity and quality of information available to track and monitor opioid misuse and its impact at the community level markedly improved. As discussed earlier, as an outcome of the MARI SPI project, MPD improved work processes associated with collecting and sharing opioid OD-related data both internally and externally. In addition, both Dane County and the State of Wisconsin also improved opioid incident-related data collection, and sharing, including through the newly-created information sharing portals, such as the State's DHS opioid data dashboard or the Wisconsin Ambulance Run Data System. The results and implications of the collected data, however, are mixed at best. The MPD OD incident data seem to be trending downward when compared to the highest quarterly reporting period in September 2017, which occurred at the very beginning of the MARI SPI project . The Madison Fire Department naloxone administration data, while for only for three years (through 2019), indicate fluctuations in the numbers, with the lowest number of administered naloxone in late 2018/early 2019. Recent PHDCM data focuses more on trends and concerns related to opioid misuse and OD incidents in later 2019 and in 2020; although the OD-related fatality data for Dane County in 2020 have not been finalized and reported yet, the available PHDCM data, the EMS transport data, and the MPD data suggest an increase in OD incidents starting in late 2019, which additionally rose in 2020.

- ***Cost of the Law Enforcement Response to Non-Fatal Opioid-related Overdose***

  In an effort to quantify costs associated with law enforcement response to opioid related misuse and OD, MPD assisted the MARI evaluation team calculating the total number of minutes officers spent responding to OD related calls for service.

  The MPD's Information Management & Technology Section (IMAT) team queried the MPD records management system to obtain the total number of minutes captured by the Dane County 911 Dispatch Center for each officer assigned to the OD incident involving the "index crime" for each member of the Historical Comparison group. The "index crime" for

the HC group was an OD incident occurring between September 1, 2015 and August 31, 2016 that the MPD responded. The IMAT team was able to extract data for 51 of 52 "index crime" incidents involving the HC group – the "time spent" data were not available for one of the HC group's "index crime" incident.

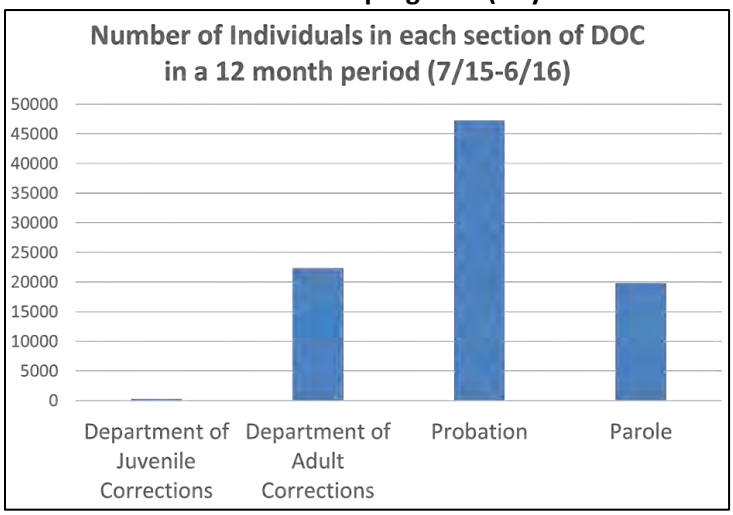
- **The MPD analyzed 51 OD-related calls for service** involving the HC group members.
- **238 total officers** were assigned to and involved in these 51 incident calls, **averaging 4.66 officers per OD incident call**. Of note, the OD incidents are frequently the '911 calls' involving *"Pulseless Non-Breathers"* and, as such, are dispatched immediately as *"Echo Level"* or emergency call, which results in a large average number of officers assigned per call.
- The Dane County 911 Dispatch Center logged **21,985 minutes** by MPD officers assigned to these 51 overdose calls, equating **366.4 hours in total (7.2 hours spent on average on each OD call**).
- According to the MPD budget officer, during the 2015-2016 calendar years, the averagely hourly cost of an MPD officer, including fringe benefits, was $53 per hour. Based on this estimate, the cost of MPD OD incident call approximated **$388.2 per OD call response**, **totaling $19,798.2** for the 51 analyzed calls in the Historical Comparison group.
- Based on the above calculations, **every 100 OD call responses would cost MPD approximately $38,820** using the 2015-2016 MPD officer salary/fringe cost estimates. Accounting for the inflation, this translates to approximately $40,000 in MPD cost per 100 OD calls nowadays.
- Based on the past four-year average of approximately 250 MPD OD-related calls for service incidents, **the annual MPD cost related solely to the OD-related call responses approximates $100,000.**
- The above estimates do not include other costs related to the OD response and other opioid misuse-related harm, such as ED evaluation, hospital care, and other clinical management; EMS cost; coroner/medical examiner cost for fatal overdoses; incarceration and other criminal justice cost; as well as individual and societal health, well-being, and productivity. Early during the MARI project, we inquired about some of the above costs, which – even without accounting for related all expenses – paint a staggering financial toll of untreated SUD.
- Based on the 2016 estimates, City of Madison Fire Department (MFD) estimated **the average MFD cost to respond to one overdose event, assuming a 30-minute average response time, approximated $1,175** (ambulance cost: $1,000 – can be reimbursed by health insurance; salary cost for one fire truck and one medic unit of 6 members: $120; equipment cost, including one dose of naloxone and other consumable equipment: $55). **This would translate to $117,500 per 100 responses, or $293,750 per 250 MFD responses**.
- Descriptive analysis conducted by our team[59] of the **Wisconsin Department of Corrections (WI DOC)** data on those incarcerated in adult and juvenile institutions,

[59] Sarin D, Zgierska AE. Cost of Incarceration and Parole/Probation and Treatment Needs for Alcohol/Drug Use Disorders. In: Gordon, AJ. Abstracts presented at the Association for Medical

aftercare, correction sanctions or placed in parole/probation from July 2015 through June 2016 revealed that:

- 89,786 individuals were involved in the DOC-managed programs (***Figure 38***): 22,311 incarcerated adults (20,928 men), 275 incarcerated juveniles (246 men), 66 juveniles in the aftercare, 82 juveniles in the corrective sanctions, and 67,053 individuals on parole/ probation (19,822 parole; 47,231 probation).

Figure 38. Wisconsin Department of Corrections (DOC): Number of incarcerated individuals across different DOC programs (July 2015 – June 2016)



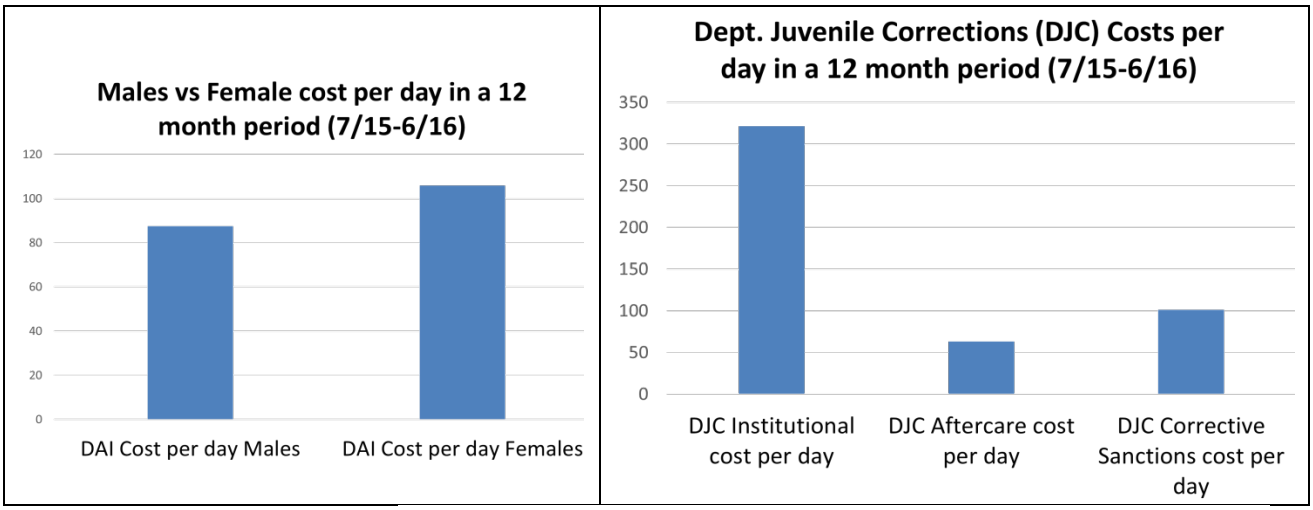
- Using the WI DOC published cost estimates,[60] the daily operational per-person cost reached $87.42 and $105.87 for an incarcerated adult man and woman, respectively; while the Department of Juvenile Corrections (DJC) cost per day was estimated at $321.48 for an incarcerated juvenile, $63.13 for a juvenile in the aftercare, and $101.24 for a juvenile in the corrective sanctions program (***Figure 39***).
- The annual DOC cost related to the above populations reached **$957,511,757** (incarcerated adults: $719,477,184; incarcerated juveniles: $32,141,892; juveniles in aftercare: $1,510,448 and sanctions: $3,023,229; parole/probation: $201,359,004). With the state's operating budget recommended at $35.938 billion in fiscal year 2015-16, the annual cost of incarceration, parole, and probation represented **2.7% of the annual operating state budget**.
- **70% of the inmates were described by the DOC as having alcohol/drug use disorder treatment needs - crimes that led to incarceration of people with addiction cost the state over $670 million in criminal justice expenses in 2015-**

Education and Research in Substance Abuse 41st Annual Conference, Washington DC, USA, November 2017. Subst Abus. 2018; 39(1):1. https://www.tandfonline.com/doi/full/10.1080/08897077.2018.1441944

[60] State of Wisconsin Department of Corrections. Corrections at a glance. https://doc.wi.gov/Pages/DataResearch/DataAndReports.aspx

2016 fiscal year. This cost related to incarceration and parole/ probation is enormous.

Figure 39. Daily operational per-person cost for male and female adult inmates, and for juveniles involved in the criminal justice system (July 2015 – June 2016)



In summary: Individuals with alcohol/drug addiction heavily utilize law enforcement and other first responder resources, and constitute a large proportion incarcerated individuals, with enormous individual, community and broader societal impacts. **Effective treatment of these individuals, especially before their arrest and incarceration when facilitated by police officers, such as in the MARI program, could help substantially reduce the staggering cost of crime and criminal justice system involvement, and improve population health**.

Integration and Sustainability

BJA COSSAP Grant Award (October 2019)

Even before MPD was awarded this BJA SPI grant award for the implementation of MARI, MPD and community collaborators were deeply committed to "***improving outcomes related to opioid misuse."*** As we have documented throughout the three year MARI period, many efforts have been made to both improve and expand the MARI program and the pre-arrest diversion protocols.

The early successes of MARI (e.g., participant engagement and program completion) supported our requests for, and led to two "no-cost extensions" granted by BJA for our SPI award. They also led to the subsequent grant application, which resulted in October 2019 in MPD receiving funding, through the BJA's Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP), for the new three-year grant award. [61] The new COSSAP-funded "Pathways to Recovery" grant, which is now ongoing, seeks to:

1. Expand the MARI pre-arrest diversion protocol to more law enforcement agencies in Dane County and State of Wisconsin (i.e., Madison *"Area"* Addiction Recovery Initiative or MAARI).
2. Explore other law enforcement diversion and first responder models to connect individuals to SUD treatment and recovery support services.
3. Employ the use of 'alternatives to incarceration' programs for nonviolent drug offenders.
4. Expand peer support services and recovery housing.
5. Increase access to naloxone.
6. Prioritize real-time data collection, analysis, dissemination, and application-toward-action.

Leadership changes and assignment of MARI within MPD

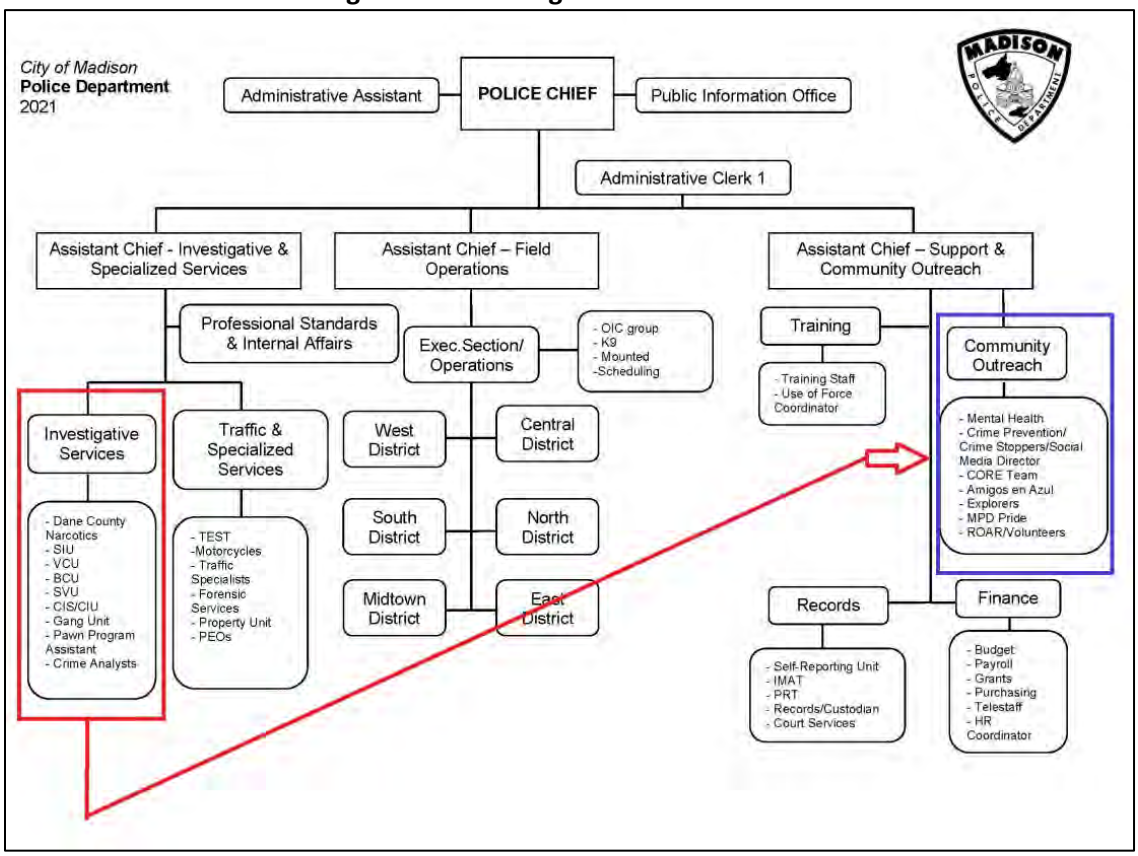
New programs like MARI not only need a strong supportive base to build from, they also need strong and committed leadership to be successful. First, we would like to recognize every member of the MARI Ops Team as each was a leader in their own right, while also representing their respective agency's interest throughout the MARI program period. Specifically, the MPD leadership at the both command and officer level was instrumental to the success of MARI. When MARI program implementation planning first started in 2017, Officer Dan Swanson was assigned as the MPD MARI Officer. He did a great job training MPD officers in the new MARI protocol, responding to their questions, and motivating them to implement the new approach. Officer Swanson was promoted to detective in early 2018, and Officer Bernie Albright was assigned to the MPD MARI Officer position. Officer Albright closely monitored all MARI referrals made by patrol officers, worked closely with the Assessment Hub to track MARI participants, and even made home visits as part of the Mobile Outreach Team. Officer Albright was also instrumental in extracting law enforcement-based data for the MARI evaluation. In short, the MPD, with explicit support and approval from its Chiefs, by assigning two commissioned police

[61] USDOJ BJA COSSAP website; Madison Police Department Pathways to Recovery Grant Award Summary

officers to serve as "MPD MARI Coordinators" demonstrated to the rest of the department the overall importance of MARI, and the MPD's commitment to ***"improving outcomes related to opioid misuse" and community-policing innovations.***

At the command level, Lieutenant Tim Patton's work as the initial MPD commander in 2017 and 2018 was very detailed, meticulous, and enthusiastic. He was always looking to see how MARI could be improved. Lieutenant Patton was assigned as a command officer in Investigative Services. MARI was initially assigned to Investigative Services and the MPD MARI Officer was assigned to the Criminal Intelligence Section (CIS), as this type of assignment seemed like the best fit at the time for the MARI SPI and the pre-arrest diversion protocol. The MPD's Criminal Intake Unit (CIU) also fell under Investigative Services, and for those MARI participants who did not engage with the Assessment Hub or failed to complete the MARI program, CIU was responsible for forwarding the original MARI charges to the District Attorney or City Attorney for prosecution. In January 2019, Lieutenant Patton was promoted to Captain and re-assigned to Operations at the MPD's West Police District. Captain Matt Tye was promoted and assigned at the same time to the Support & Community Outreach section with command level responsibility for many MPD Community Outreach programs, including the MPD's Mental Health Unit. Subsequently, MPD moved MARI at that time from Investigative Services and placed it under Captain Tye and Community Outreach, though Officer Albright continued as the MPD MARI Officer throughout the rest of the project period ***(Figure 40):***

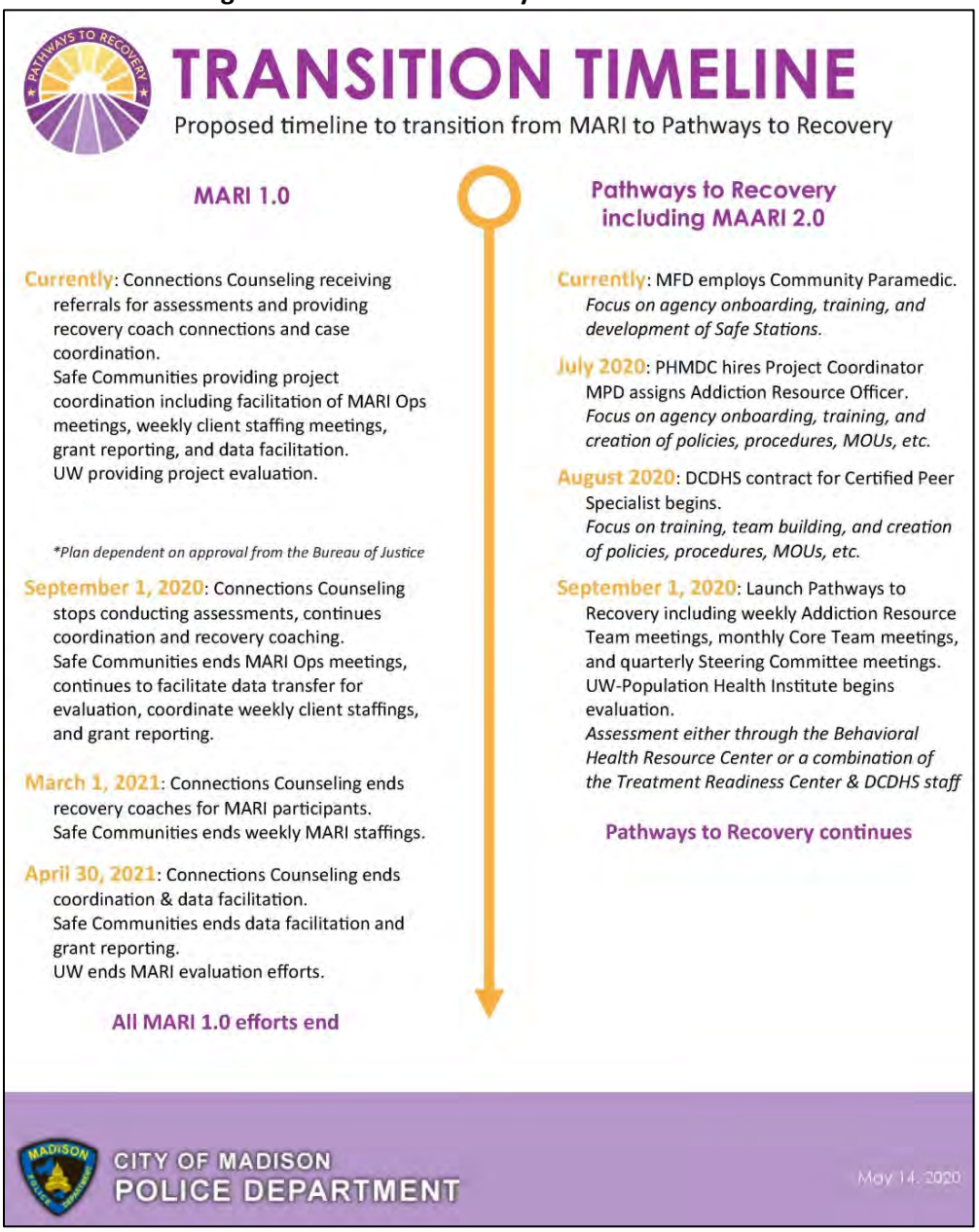
Figure 40. MPD Organization Chart 2021



Transition from MARI to MAARI & Pathways to Recovery

Despite the onset of the COVID-19 pandemic in the spring of 2020, an orderly, thorough transition occurred from MARI to the COSSAP-funded *Pathways to Recovery* grant and expansion of MARI to other Dane County law enforcement agencies. Public Health Madison Dane County (PHMDC) played a key role in this transition, as PHMDC is now directly coordinating the COSSAP grant for MPD. PHMDC created a simple, one page proposal for how the transition would occur at the end of the MARI study period to leverage MARI's gains and experiences, while facilitating additional pathways ***(Figure 41)***.[62]

Figure 41. MARI to Pathways Transition Timeline



[62] MARI to Pathways to Recovery Transition Timeline (May 2020).

In August 2020, the MARI Project Coordinator provided PHMDC and MPD a "*MARI Transition and Sustainability Memorandum*"[63] in response to a number of questions PHMDC had regarding ways to optimize the transition. This document served as an early version of "final report", providing historical information as to how certain MARI protocols and procedures came to life. The goal of the transition document was to bring anyone new to MAARI and the Pathways to Recovery grant program a solid understanding as to how MARI evolved, and some specific recommendations for improving MARI going forward. Some of the specific 'areas in need for improvement,' learned from MARI and identified in the transition document included:

1. **LE Agency MARI Officers/Coordinators**: The roles of the MPD MARI Officer or internal coordinators was key to the successful implementation of MARI. As PHDMC seeks to expand MARI to other LE agencies, it will be crucial for each new LE agency to similarly identify a "MARI Officer" to support the local officers with making referrals, to make contact with MARI participants when necessary, and to monitor participant engagement with the Assessment Hub and addiction treatment.
2. **New MAARI Referral Form – Consent to Release Authorization:** Recommendation to update the consent form so that it uses a clearer language around consent to release protected information.
3. **Weekly MAARI Participant Referral Meeting with the Assessment Hub:** Recommendation to continue a weekly MAARI Participant Progress meeting between LE and the new MAARI Assessment Hub, which will be provided by Dane County Human Services.
4. **More Internal, Ongoing MPD Communication about the New MAARI:** In the latter stages of the initial MARI implementation, it became apparent a number of MPD officers would have liked to receive more regular updates on the MARI specific procedures (especially the referral process) and progress. Going forward, we recommended ongoing, internal MPD communications to regularly provide officers with updates, including on the referred individuals. The MARI Ops Team discussed how much of a positive impact and motivation it could offer to the referring officers to know that individuals referred by them to MARI successfully completed the program, and be invited to their celebratory, program-completion meeting. For logistical and other reasons, this was not pursued during the MARI program. However, we would recommend the new MAARI to consider something similar as it has the potential to grow support amongst the rank-and-file for pre-arrest diversion programs, such as MARI and MAARI.

The MPD is currently developing a formal, pre-arrest diversion standard operating policy and procedures for the new MAARI. The three-year MARI period provided ample time test the initial MARI protocols. Captain Tye is now looking to present to the MPD's Chief Barnes and the Management Team a new standard operating procedure, which will solidify and institutionalize pre-arrest diversion practices for diverting those suffering from addiction who committed a low-level drug use-related crime away from the criminal justice system. By solidifying MARI through both policy and procedures, MPD will be well positioned to sustain the number one outcome from MARI:

[63] MARI Project Coordinator Transition and Sustainability Memorandum to PHMDC (August 2020).

Six of every ten (61%) referred and eligible MARI participants successfully contacted the Assessment Hub, completed clinical assessment for SUD, were assigned a Recovery Coach and initiated a treatment plan.

We believe this is a tremendous accomplishment for the Madison Police Department and the MARI program. In addition, the MARI's outcome evaluation has shown strong promise for programs like MARI to reduce crime-related arrests and incarceration among those who complete the program. MARI has therefore demonstrated how pre-arrest diversion can be the perfect catalyst or first step toward ***"improving outcomes for opioid misuse"*** and linking individuals with treatment. The MPD not only has in place a transition and sustainability plan for MARI's successor, as described here, they have actually already implemented it.

Summary and Conclusions

In our MARI SPI Final Report, we have described a protocol for an innovative, law enforcement-led, city-wide pre-arrest diversion-to-treatment program, which aims to reduce crime and criminal justice involvement, and improve treatment engagement and outcomes among adults with addiction who committed an "eligible," minor, drug-use related crime. Those who entered the program had their charges held in abeyance; after they successfully completed the six-month MARI program by complying with its requirements (staying engaged in addiction treatment and not re-offending), their initial criminal charges were voided (i.e., not present in any criminal justice databases).

Since the MARI initiation, MPD has incorporated the MARI-based diversion protocol city-wide into its standard operating procedures, making it a permanent part of its MPD services, and absorbing the cost to do so. MPD has engaged throughout the project "key players" and diverse stakeholders who are routinely involved in the prosecution, treatment and social services for adults with addiction involved in a criminal justice system. This has been a deliberate step viewed by the project team as essential for the program's success and long-term sustainability.

Yet the question, which must be answered, remains… ***"Does MARI work?"*** Upfront, six out of every ten referred MARI participants over the three year referral period successfully engaged with the Assessment Hub, and were linked to addiction treatment services. This by itself is noteworthy. However, we believe there is other strong evidence to support that MARI works for many, but may not work for all. We summarize that evidence below:

1. The Historical Comparison and MARI Non-Engaged groups showed increases in arrest and incarceration metrics, while MARI Non-Completers trended toward worsened incarceration outcomes during the six-month follow-up, compared to the six-month period preceding their 'index crime' (as shown in *Table 11*). At the same time, the rate of arrest and incarceration among MARI Completers did not change, and their mean days spent incarcerated decreased.
2. The Historical Comparison, MARI Non-Engaged, and MARI Non-Completer groups, but not the Completers, showed increases in the incarceration-related outcomes (rate, days-incarcerated) during the 12-month follow-up, compared to the 12-month period preceding their 'index crime' (as shown in *Table 13*). Increases in incarceration could have contributed to the findings of a lack of statistically significant increase in their arrest rate (i.e., people do not commit a crime, which can lead to an arrest, while incarcerated).
3. The Historical Comparison group (9.6%), followed by the MARI Non-Engaged group (6.8%), had the highest rate of fatal overdoses. Completers had the lowest rate (3%), with all three overdoses taking place after the initial six months of MARI's active "management" and follow-up period.
4. Among those who completed the initial clinical assessment, i.e., MARI Non-Completer and Completer groups, the future-Completer group had a better profile of so-called

protective factors, which reduce the risk of relapse, and help support addiction recovery. Completers showed marked improvements in their psychological health (i.e., reductions in the anxiety and depression scores) and reduced relapse risk (i.e., decreased drug use and relapse risk scores, and increase in protective factors scores).

5. The Vast majority (145 people, 89%) of 163 individuals who did not complete the MARI program (Non-Engaged and Non-Completers) had the charges related to their 'index crime' referred for prosecution. Of the 145 referred charges, 34 (23.4%) were documented as 'resulting in no charges'.
6. Individuals with alcohol/drug addiction heavily utilize law enforcement and other first responder resources, and constitute a large proportion incarcerated individuals, with enormous individual, community and broader societal impacts. **Effective treatment of these individuals, especially before their arrest and incarceration when facilitated by police officers, such as in the MARI program, could help substantially reduce the staggering cost of crime and criminal justice system involvement, and improve population health**.

We believe the MARI program model could be expanded beyond the city limits, and extended to other individuals who are currently not eligible for MARI but whose untreated addiction might be fueling their criminal activity. For example, MARI focuses on individuals with drug addiction, especially when it involves opioids, which have driven the overdose epidemic. As such, those who committed an alcohol (but not other drug) related crimes were not eligible for MARI. Similarly, those on probation or parole were not eligible to enter the MARI program; this may have unintentionally negatively impacted individuals of color and other underrepresented minority groups, which have been disproportionately involved with criminal justice.[64]

Traditional law enforcement, criminal justice-based approaches have been largely ineffective in dealing with criminal offenses committed by individuals who suffer from the disease of addiction.[65] While most law enforcement agencies have basic training in the area of mental health, few law enforcement agencies in the United States have received training specific to addiction, or created and implemented protocols to directly facilitate and connect individuals suffering from mental health disorders and/or addiction to clinical assessment and treatment. Protocols like MARI can help advance a greater understanding and appreciation around the disease of addiction. Although the MARI program's educational content for police officers did not focus on the 'science of addiction,' it strived to humanize addiction and its treatment, stressed addiction as a chronic brain disease, for which effective, evidence-based treatments are available, and addressed the deleterious impact on treatment engagement of addiction-related stigma. To that extent, the in-service training for all police officers included both some didactic material, focused on the above themes, as well as testimonies by, and interaction with, individuals in recovery who volunteered for this task. According to the Bureau of Justice

[64] Williams, J., Schiraldi, V. N., & Bradner, K. (2019). The Wisconsin community corrections story. Columbia University Justice Lab.

[65] Chandler, R. K., Fletcher, B. W., & Volkow, N. D. (2009). Treating drug abuse and addiction in the criminal justice system: Improving public health and safety. JAMA, 301(2), 183–190.

Assistance, as of March 2018, 41 states had implemented training for officers in how to respond to an overdose incident and ***save a life*** by administering naloxone.[66] The MARI SPI approach can offer law enforcement officers the opportunity to ***change a life*** by creating a pre-arrest diversion pathway to assessment and treatment *in lieu* of arrest and criminal charges. Pre-arrest diversion protocols like MARI can potentially divert countless arrests and referrals for prosecution in the courts for minor offenses, thereby allowing the criminal justice resources to be better focused, and more efficient and timely in regards to individuals who commit higher-risk offenses. Our findings support this hypothesis – it appears that MARI helped many individuals enter treatment, and start their recovery journey and healing, and, overall, likely contributed to reductions in crimes leading to arrest and incarceration, which exert heavy toll on both individual and societal basis.

In addition, moving away from criminal justice-centered approach, which emphasizes punitive charges, toward community policing approach, which is rooted in scientific evidence (i.e., addiction treatment saves lives and improves health), can benefit the communities and their trust in, and relationship with, law enforcement officers. The exit surveys of the MARI program completers, and the surveys of the clinical staff from the Assessment Hub and the MPD officers suggest overall positive attitudes toward the MARI approach, and positive change in how law enforcement is viewed. These are critical considerations if we are to continue building constructive, trusting relationship between law enforcement and the communities they serve.

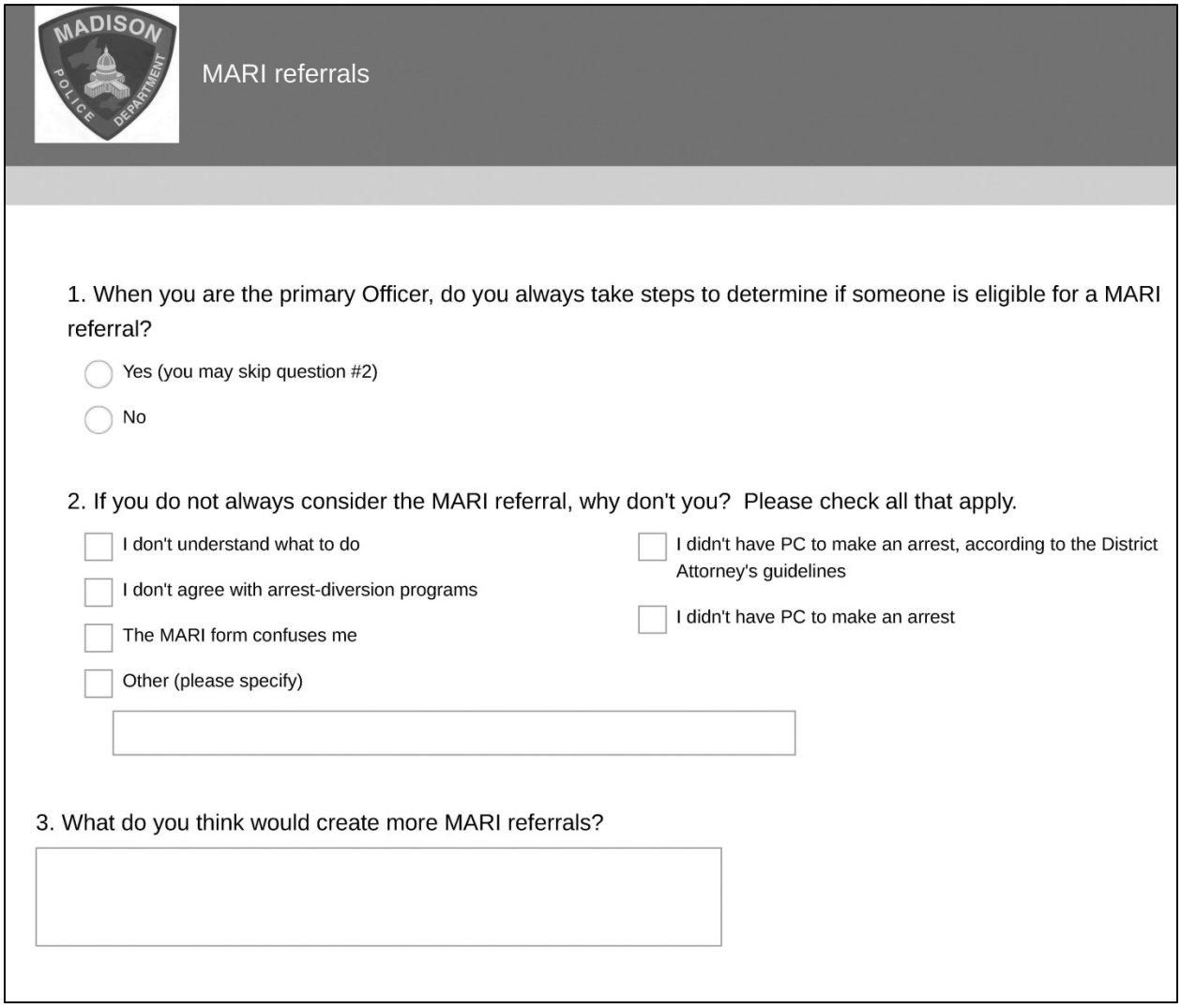
In the future, pre-arrest diversion strategies, such as MARI, may consider to better identify individuals who might benefit from MARI most. Our findings suggest that those with more severe psychopathology and higher relapse risk may be candidates for programs offering more intensive supervision and case management than MARI could provide. Prioritizing individuals who are more likely to complete the program, and efforts that promote MARI program retention and completion, may be most cost-effective. In addition, paying close attention to and prioritizing efforts to increase diversity, equity and inclusivity of the program is critical at the program development stage, and then throughout the entire implementation phase.

Finally, we would like to acknowledge and thank our Subject Matter Experts (SMEs) for their assistance with the MARI program. In addition to regular remote meetings, our academic and practitioner SMEs made a very important site visit to Madison in April 2017 as we were working to develop the SPI Action Plan. While our monthly SME calls usually lasted 45-60 minutes and covered a lot of ground, hosting our SME team here, on site, expanded and grew our relationship, and their ultimate contribution to our efforts. Future SPI and the technical assistance programs might consider not only implementation of an in-person initial meeting, but then continuing such in-person site visits on a regular basis, for example annually; this is worth explicit consideration particularly now, when the COVID-19 pandemic has placed restrictions on in-person visits – which we view as of paramount importance toward relationship, and program, building. Ongoing in-person visit would require additional funds for the SME team to have more days physically on site.

[66] BJA National Training and Technical Assistance Center; LE Naloxone Took Kit.

Appendix A

May-June 2018 MPD MARI Officer Survey



MARI referrals

1. When you are the primary Officer, do you always take steps to determine if someone is eligible for a MARI referral?

- ◯ Yes (you may skip question #2)
- ◯ No

2. If you do not always consider the MARI referral, why don't you? Please check all that apply.

- ☐ I don't understand what to do
- ☐ I don't agree with arrest-diversion programs
- ☐ The MARI form confuses me
- ☐ Other (please specify)
- ☐ I didn't have PC to make an arrest, according to the District Attorney's guidelines
- ☐ I didn't have PC to make an arrest

3. What do you think would create more MARI referrals?

Appendix B
July-August 2020 MPD MARI Officer Survey

MPD - MARI Officer Survey (July 2020)

MARI (Madison Addiction Recovery Initiative) is a pre-arrest diversion program, funded by the US Department of Justice (DOJ) and led by the MPD in collaboration with multiple community partners. MARI enables police officers to refer offenders who commit a minor, drug related eligible crime to addiction assessment and treatment rather than face arrest or criminal charges. If referred offenders completes their six month MARI treatment plan and do not re-offend during treatment, their initial criminal charges are dropped.

Pursuant to our US DOJ grant requirements, a scientific evaluation of the MARI program impact is required and has been on going in partnership with the UW Madison Department of Family Medicine & Community Health and the Penn State Department of Family and Community Medicine. As part of the evaluation process, we are asking MPD officers to complete this brief anonymous survey regarding the MARI program. Officer thoughts and feedback are critical in order for us to improve and refine the MARI program and any future similar programs. ***Thank you in advance for taking the time to complete this 16-question survey!***

1. How familiar are you with the MPD's Madison Addiction Recovery Initiative (MARI) pre-arrest diversion program?

- ○ Very familiar
- ○ Somewhat familiar
- ○ Not at all familiar

1

2. When you are the primary officer on a call (or conducting follow up investigation), how often do you review, assess or consider if the offender (suspect) is suffering from addiction and may be possibly eligible for the MARI pre-arrest diversion program?

- ○ I most of the time review, assess and consider offender eligibility for MARI.
- ○ I sometimes review, assess and consider offender eligibility for MARI.
- ○ I rarely if ever review, assess or consider offender eligibility for MARI.

3. Since the MARI referral process was implemented on 09/01/2017, how many offenders suffering from the disease of addiction have you referred to MARI by completing a MARI referral form?

- ○ Four or more MARI referral forms completed (skip to Q5)
- ○ One to three MARI referral forms completed (skip to Q5)
- ○ Have made no referrals to MARI program to date (proceed to Q4)

4. Which of the statements below best describes the reason for why you have NOT made MARI referrals to date? (Please respond and move to Q6).

- ○ I don't understand how to refer someone to MARI.
- ○ I don't agree with pre-arrest diversion programs like MARI.
- ○ The MARI referral form is confusing to me.
- ○ I have not been the primary officer on calls or conducted any follow up involving MARI eligible offenders.
- ○ Other reason (please specify)

2

5. If you have made an offender referral to the MARI program, have you followed up with the MPD MARI Coordinator (currently Officer Bernie Albright; previously Detective Dan Swanson) on the status or progress of the referred offender in the MARI program?

- ○ Yes
- ○ No

6. How would you describe the current MARI referral process?

- ○ The current MARI referral process is clear and well understood by officers and department personnel.
- ○ The current MARI referral process is confusing at times and in need of some improvement and re-training.
- ○ The current MARI referral process is not clear or understood and in need of substantial improvement and re-training.

7. What changes or recommendations for change would suggest to the current MARI referral process?

8. Which of the statements below best describes your opinion of the MPD's MARI program?

- ○ I believe MARI has been very helpful to individuals with addiction.
- ○ I believe MARI has been somewhat helpful to individuals with addiction.
- ○ I believe MARI has been of little to no help to individuals with addiction.
- ○ I believe MARI has been harmful to individuals with addiction (please explain why below).

I believe MARI has been harmful because...

3

9. Which of the statements below best describes your general view of law enforcement pre-arrest diversion programs like MARI?

- ○ I believe law enforcement pre-arrest diversion programs are a very important and very valuable tool for police officers to have access to.
- ○ I believe law enforcement pre-arrest diversion programs are somewhat important and somewhat valuable for police officers to have access to.
- ○ I believe law enforcement pre-arrest diversion programs are not important or valuable for police officers to have access to..

10. Which of the statements below best describes your opinion of the MARI program impact on the MPD's relationship with the community?

- ○ I believe the MARI program has had a significant positive impact on MPD's relationship with the community.
- ○ I believe the MARI program has had some positive impact on MPD's relationship with the community.
- ○ I believe the MARI program has had little to no positive impact on MPD's relationship with the community.
- ○ I believe the MARI program has had a negative impact on MPD's relationship with the community.

11. Please share with us examples or your thoughts as to how the MARI program has impacted the community.

4

12. Please mark the response that best describes your "regular" assignment before the COVID-19 pandemic?

- ○ Pre-service training academy (e.g. training officer or recruit)
- ○ District patrol operations
- ○ Investigative services, specialized unit or other assignment (e.g. Detectives, CPT, TEST, CORE, SRO, CIU, CIS, VCU, BCU, etc.)
- ○ Supervisory or Command assignment (Sgt, Lt, Capt, etc.).

13. Please mark the response that best describes your "regular" work location before the COVID-19 pandemic?

- ○ West Police District
- ○ Midtown Police District
- ○ South Police District
- ○ Central Police District
- ○ North Police District
- ○ East Police District
- ○ City-County Building
- ○ Training Center (Femrite Road)

14. What is your gender?

- ○ Male
- ○ Female
- ○ Other
- ○ Prefer not to answer

15. What is your age?

- ○ 18-25 years old
- ○ 26-35 years old
- ○ 36-45 years old
- ○ 46-55 years old
- ○ 56 years old or older

5

16. In September 2020, the MARI program will reach its three-year anniversary. Do you have any final thoughts or comments you would like to make for our consideration as we complete the MARI evaluation and plan for future pre-arrest diversion programs?

6

Appendix C
MARI Participant "Completer" Survey

CONNECTIONS COUNSELING LLC
together we recover

MARI COMPLETER SURVEY (2017 - 2020)

* 1. Will you continue with addiction treatment after completing the MARI program?

- ◯ Yes
- ◯ No

* 2. Please select one response that best describes your experience during the MARI program with:

	Excellent	Very Good	Good	Fair	Poor	N/A
Law enforcement	◯	◯	◯	◯	◯	◯
Assessment at Connections Counseling	◯	◯	◯	◯	◯	◯
Addiction treatment	◯	◯	◯	◯	◯	◯
Recovery coach (select N/A if you did not have experience with a recovery coach)	◯	◯	◯	◯	◯	◯
MARI program overall	◯	◯	◯	◯	◯	◯

* 3. Did the MARI program impact your perspective on law enforcement? (select one)

- ◯ The MARI program has positively impacted (improved) my perspective on law enforcement.
- ◯ The MARI program has not impacted my perspective on law enforcement.
- ◯ The MARI program has negatively impacted (worsened) my perspective on law enforcement.

* 4. Prior to being offered MARI participation by the police officer, were you aware of the MARI program?

- ◯ Yes
- ◯ No

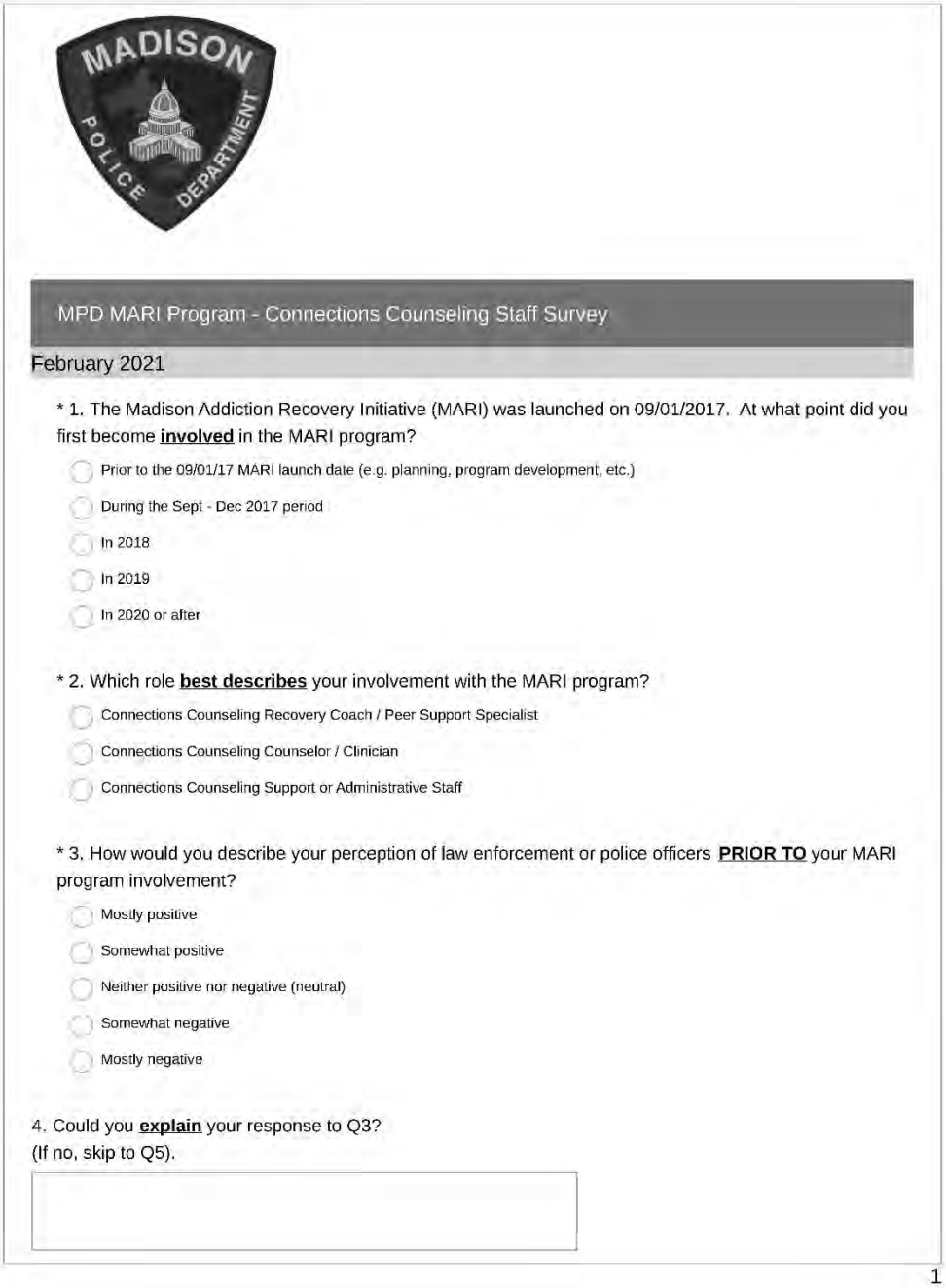
* 5. The following questions are specifically about your experience with the police officer who offered you MARI participation.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The police officer clearly explained the expectation that I need to call Connections Counseling to enroll in the MARI program.	○	○	○	○	○
The police officer clearly explained that the completion of the MARI program would help me erase my charge and avoid possible jail sentence.	○	○	○	○	○

* 6. What changes would you recommend so that the MARI program is more useful for others?

* 7. Please let us know if you have any additional comments or thoughts related to the MARI program that you would like to share:

Appendix D
MARI Assessment Hub Staff Survey



MPD MARI Program - Connections Counseling Staff Survey

February 2021

* 1. The Madison Addiction Recovery Initiative (MARI) was launched on 09/01/2017. At what point did you first become **involved** in the MARI program?

- Prior to the 09/01/17 MARI launch date (e.g. planning, program development, etc.)
- During the Sept - Dec 2017 period
- In 2018
- In 2019
- In 2020 or after

* 2. Which role **best describes** your involvement with the MARI program?

- Connections Counseling Recovery Coach / Peer Support Specialist
- Connections Counseling Counselor / Clinician
- Connections Counseling Support or Administrative Staff

* 3. How would you describe your perception of law enforcement or police officers **PRIOR TO** your MARI program involvement?

- Mostly positive
- Somewhat positive
- Neither positive nor negative (neutral)
- Somewhat negative
- Mostly negative

4. Could you **explain** your response to Q3?
(If no, skip to Q5).

1

* 5. Has your involvement with the MARI program **changed** your perception of law enforcement or police officers?

- The MARI program has **positively** impacted (improved) my perception of law enforcement / police officers.
- The MARI program has **not changed** my perception of law enforcement / police officers.
- The MARI program has **negatively** impacted (worsened) my perception of law enforcement / police officers.

6. Could you **explain** your response to Q5?
(If no, skip to Q7).

* 7. Based on your work with MARI program participants, what is your perception about how most of these individuals would describe their experience with the **police officer who referred them to MARI** and their understanding of the MARI program?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Not Sure / Unable to Answer
The referring police officer clearly explained the MARI program expectation and the need to contact Connections Counseling to enroll in MARI.						
The referring police officer clearly explained the MARI requirements which need to be satisfied in order to void the criminal charges which brought the individual to MARI.						
Most individuals understood why they were referred to the MARI program.						
Their overall experience with the referring police officer was positive.						

2

* 8. Based on your work with MARI program participants, which aspects of the MARI program do you believe had the **greatest, most positive impact?**

	Significant positive impact	Some positive impact	Little to no positive impact
Having the opportunity to complete a clinical assessment and be referred for addiction treatment.			
Having the option for their arrest and charges to be voided by law enforcement.			
Having the opportunity to access a Recovery Coach / Peer Support Specialist for on-going support.			
Having their overall treatment progress monitored by Connections Counseling staff.			
Having access to Connection Counseling support groups and other recovery support services.			
Receiving a ***"Letter of Congratulation"*** from the Chief or Police (or the Sheriff) upon their MARI completion congratulating them on their progress and confirming that their arrest and associated charges were voided.			

* 9. Which aspects of the MARI program, from your perspective, have been **most important** to supporting MARI participant recovery?

3

* 10. As the MPD and Public Health Madison-Dane County look to build upon the MARI program, which aspects of the MARI program **could be improved?** Please provide specific ideas or suggestions for improvement where possible.

11. Based on your experience and perspective, please rate the **overall success** of the MARI program assisting individuals with addiction who committed a crime and supporting their recovery?

- Very successful
- Somewhat successful
- Neither successful or unsuccessful
- Somewhat unsuccessful
- Very unsuccessful

12. Do you have **any other comments** or ideas you would like to share with us about your involvement with or in general about the MARI program?

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