



Hennepin County Model Drug Court Evaluation

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Executive Summary

Minnesota's Fourth Judicial District drug court, which shares the same jurisdictional geography as Hennepin County, originated in 1997. Ten years after inception, the program was renamed Model Drug Court (MDC) and underwent significant changes to better align with emerging best practices. Key changes included a transition from a mandatory program for felony drug-offenders to a voluntary one, and one which accepted both felony drug and property offenders.¹ In addition, only defendants who are high-risk to reoffend and chemically dependent based on objective tools and assessments are accepted into the program.

This evaluation explores outcomes for 317 individuals who completed MDC for the first time between January 1, 2011 and December 31, 2013. The primary objective is to evaluate whether the MDC program is effective in meeting its stated goals which include reducing participant recidivism; reducing the use of illegal substances; and increasing community functioning in the areas of housing, education and employment. The report compares two populations: those who graduated MDC versus those who terminated,² and those who participated in MDC versus a group of felony drug or property offenders who received a "justice as usual" response to their offenses.³ To measure recidivism, MDC participants and a matched sample of probationers were evaluated for new convictions during a period of two years beyond their disposition date or the end of the MDC program.

The following key findings emerge from this evaluation:

MDC Program and Population Profile

- Model Drug Court acts in accordance with national standards through a participant phase-structure; the requirement that all participants receive chemical dependency treatment; the use of graduated sanctions and incentives; the presence of a multi-disciplinary Drug Court Team; and a dedicated judge.
- During the evaluation period, drug court participants were 66.2% male, 67.2% drug offenders, and 42.6% White, non-Hispanic. Over 90% of participants had at least one prior conviction at the time they began the program—56.8% of participants had at least one prior felony.

MDC Graduates versus Terminates

- During the evaluation period, MDC participants were more likely to terminate the program than to graduate. Fifty-eight percent of participants did not complete the program successfully compared to 42.3% who were successful.

¹ Property offenders are permitted to participate in drug court provided the offense was determined to be in support of a drug habit.

² Terminated participants include those who are discharged by the program for violations as well as those who voluntarily request their sentence be executed.

³ The comparison group population was provided by the Hennepin County Department of Community Corrections and Rehabilitation. Propensity Score Matching resulted in 299 matches of the MDC participant cohort and the probation population based on age, gender, offense type, race/ethnicity and prior criminal history.

- Those who entered MDC on a felony drug charge or on a felony property charge were equally likely to complete or fail MDC—the category of instant offense alone did not relate to program success or failure. Similarly, there is no statistically significant difference between males and females in terms of graduation or termination rate.
- Among program terminations, the largest percentage was for *program non-compliance* (57.9%), followed by *voluntary withdrawal* (24.6%). *New charges* was documented as the termination reason for 13.7% of terminated individuals.

MDC Goal 1: Increase Community Functioning

- About two-in-10 participants (22.1%) had an *upward change* in their education level while in the program, while about six-in-10 had *no change* (58.1%). Those who did not complete the program were most likely to have *no change* in their education level (65.1%).
- Over 80% of MDC participants entered the program unemployed. Change in employment status had a strong statistical relationship with program success. Among graduates, 55.8% had an increase from unemployed to part- or full-time employment during the program, compared to just an 8.0% increase among those who terminated.
- Those who owned or rented housing at the time of program intake were mostly likely to graduate the MDC program. In addition, those who rented or owned a home at program exit were statistically more likely to graduate.

MDC Goal 2: Reduce Illegal Drug Use

- The most widely used substances reported by MDC participants were alcohol (71.0%), marijuana (63.7%), and crack/cocaine (57.4%). On average, MDC participants submitted 50 drug screens as a part of programming. Those who submitted no positive tests or those who had positive tests in less than 25% of assessments were more likely to be graduates. Those who terminated were more likely to have in excess of 25% of drug tests come back positive.
- Graduates of MDC were statistically more likely than those terminated to have spent a longer period of time in both inpatient treatment and outpatient treatment. Limitations in data collection during the evaluation period prevent deeper exploration into treatment experiences or participants' sobriety beyond their time in MDC.

MDC Goal 3: Reduce Recidivism

- Of all MDC participants, two-thirds had no new offenses during the program that resulted in a new conviction (66.2%). MDC graduates were least likely to have a new offense while in MDC (84.3%) compared to those who did not successfully complete (53.0%).
- There was no statistically significant difference between the MDC cohort and the comparison group regarding whether they reoffended during the two-year recidivism window. Approximately six-in-10 of the MDC cohort (58.9%) and of the comparison group (52.8%) did not recidivate.

- T-tests illustrate no differences in the mean number of offenses committed by the MDC cohort and the comparison group by felony, gross misdemeanor, misdemeanors or total number of offenses. Neither group had statistically more offenses or more severe offenses than the other group.
- The MDC cohort was statistically less likely to have a warrant issued during the recidivism window than the comparison group. Over half of MDC participants (56.9%) had no warrants issued compared to 37.1% of the comparison group.
- Those who received a “justice as usual” response served more incarceration time in jail or prison during the two-year recidivism window than those who participated in MDC. The comparison group was more likely to spend up to 120 days incarcerated, and more likely to be incarcerated for over a year.
- *Graduates* of the MDC program had, on average, fewer new convictions than a matched sample of their peers during the two-year recidivism window. This was true across offense categories.

Predictors of Program Success

Given less than half of the cohort of MDC participants graduated, and that graduates have fewer convictions than those who terminated, the evaluation includes exploration into what factors make program success or failure more likely. Logistic regression allows for the inclusion of many variables to see which ones affect program success while holding the remaining variables constant; that is, it can isolate the individual effect of each variable on program success independently of one another. The model suggest the following:

- Lack of employment and lack of independent housing at the end of the MDC program are strong predictors of program failure. Assisting participants with employment skills and opportunities, and support moving into permanent housing may help to increase graduation success rates.
- MDC participants who receive new warrants while active in the program or those who have new convictions stemming from offenses while in the program are at greater odds to fail MDC. Chemical relapse alone, in the form of one or more positive drug tests, is not statistically associated with program failure.
- The offenses for which participants joined MDC (drug or property) are not predictive of success or failure, nor are participants’ criminal history scores.
- Without controlling for other variables, older participants appeared to fare better in MDC, as did White, non-Hispanic participants. Analysis which holds other variables constant, however, supports that gender, race and age at the beginning of MDC are not predictive of program success. Demographic attributes of participants are not predictive of who will do well in MDC.

Recommendations

Based on the findings of this evaluation, the following are selected recommendations to improve program outcomes and data collection.

- Housing and employment are two key elements associated with graduation. Housing resources are often limited to those meeting specific income criteria and definitions of homelessness. A dedicated housing specialist on the MDC team could assist clients in securing housing, contingency planning for those at greatest risk of losing stable housing, aiding those transitioning from facilities, and navigating housing systems.
- A more consistent and reliable method for collecting treatment related data would be greatly advantageous to the evaluation of MDC. This could result from release of information agreements with treatment providers to report directly to the MDC team regarding the number of treatment units received, the types of service received, and the degree to which a participant was compliant or successful with treatment. In subsequent evaluations, request chemical dependency treatment records for both the MDC population and the comparison group from Minnesota's *Drug and Alcohol Normative Evaluation System (DAANES)* database. This will allow for comparison of treatment use and outcomes both during the program and during the recidivism windows.
- Increasing the graduation rate of program participants is not only a good use of justice system and community resources, it also potentially results in fewer victims and less reliance on justice system interventions in the future. While statistically those with more extensive criminal histories are not at greater risk to fail the program from the outset, they may benefit from targeted services and interventions consistent with Risk-Need-Responsivity research.
- Probation violations and warrants should be used judiciously after all other efforts to hold the participant accountable have been exhausted. Track the use of incentives and sanctions consistently with the type, reason and date. These may inform which are most effective in motivating positive change. It may also help to ensure informal sanctions are fully implemented prior to the use of formal, legal sanctions when public safety allows.
- The MDC program should investigate and track the reasons why participants self-select out of the program after they have begun. This could be accomplished through an exit survey or interview. Understanding the reasons why participants choose to execute their sentence may inform needed changes to the program and could increase graduation rates.

Introduction

Since the inception of Drug Courts in the early 1990s, specialized treatment courts focusing on providing treatment and a heightened level of judicial review for program participants have expanded in number and scope (National Association of Drug Court Professionals, 2016a). Beginning with a single adult Drug Court in Miami-Dade County in 1989, by 2015 there were over 3,050 problem solving court programs operating in the United States serving the needs of adults, juveniles, families, DWI offenders, Veterans and those with co-occurring disorders (National Drug Court Resource Center, 2016).

Drug courts began in response to increasing numbers of drug-related court cases cycling through the criminal justice system. Drug courts are a specialized docket designed to treat non-violent, drug-addicted defendants (Cheesman & Kunkel, 2012). According to the U.S. Department of Justice, Drug Court Standards Committee (2004), the purpose of drug courts is to stop the abuse of alcohol and other drugs and related criminal activity in lieu of traditional justice system processing. Rehabilitation of the underlying issues of defendants became a court focus under the theory of *therapeutic jurisprudence*, which allows for a non-traditional judicial role and non-traditional sentencing that does not reflect a “just deserts” philosophy (Rempel, 2014). By investing in chemical dependency treatment, addressing other risk factors likely to perpetuate continued involvement in the justice system, and building on proximal and distal goals, drug courts aspire to help participants make lasting change toward sobriety and pro-social behavior (Marlowe, 2012).

The *National Association of Drug Court Professionals* (NADCP, 2016b) heralds drug courts as an effective intervention for the drug-driven offender population and one that can reduce recidivism, save public money, enhance participant compliance with treatment and recovery, and promote family reunification. According to meta-analyses, drug courts are more effective than jail or prison; more effective than probation and treatment alone; and reduce crime by as much as 45% over other sentencing options (NADCP, 2016c). Opponents of drug court do not feel that management of a public health issue such as addiction with a criminal justice response is appropriate and that treatment through a drug court structure is no more effective than non-justice system oriented treatment interventions (Justice Policy Institute, 2011).

Hennepin County Model Drug Court

Minnesota's Fourth Judicial District drug court, which shares the same jurisdictional geography as Hennepin County, originated in 1997. Hennepin County includes the City of Minneapolis as well as 45 other municipalities (Hennepin County, 2016). It is the most populous county in the state with over 1.2 million residents, 28% of whom represent communities of color (Hennepin County Research, Planning, & Development, 2011a & 2011b).

Ten years after inception, Minnesota's flagship drug court underwent significant changes to better align with emerging best-practices (Johnson, 1997).⁴ The Hennepin County Chemical Dependency Task Force (2006) recommended key changes which included a transition from a mandatory program for felony drug-offenders to a voluntary one, which accepted both felony drug and property offenders.⁵ In addition, defendants who are high-risk to reoffend and chemically dependent based on objective tools and assessments are the only defendants accepted into the program. Conducting an outcome evaluation that explores recidivism, sobriety and community functioning was the final recommendation for the revised program (Hennepin County Chemical Dependency Task Force, 2006). In 2007 the program was renamed *Model Drug Court (MDC)* to reflect the aforementioned changes towards alignment with national standards.

Report Purpose

In 2013 and 2015, the NADCP published two volumes of *Adult Drug Court Best Practice Standards*, which include 10 tenants of best practices in implementing and monitoring a Drug Court Program. The list culminates in the importance of regular evaluation of both in-program outcomes and post-program recidivism (NADCP, 2015).

The last assessment of Hennepin County MDC completed in 2011 explored participants who began the program between 2007 and 2010. The sample consisted of 168 drug court participants who had at least one year of post-program street time by March 2011. The evaluation used as a comparison group a matched sample of drug and property felons who scored high-risk, high need on the *Risk Needs Triage Assessment Tool (RANT)* but who did not participate in MDC. The purpose of the comparison group was to assess the program's impact on recidivism by comparing two groups who were similar in as many ways as possible. Generally, the 2011 study found that those who participated in MDC had a somewhat lower one-year conviction rate than non-participants with similar demographics and criminal histories (19% versus 23%), but the difference was not statistically significant (Caron & Podkopczyk, 2011).

This evaluation will explore outcomes for MDC participants who completed the program (successfully or unsuccessfully) between 2011 and 2013. The purpose of this report is to evaluate whether Hennepin County Model Drug Court is meeting its stated program goals, and whether those who participate in MDC program have

⁴ As of 2015, Minnesota is home to 61 problem solving court programs.

⁵ Property offenses are permitted to drug court provided the offense was determined to be in support of a drug habit.

lower rates of recidivism two-years after programming than similarly situated offenders who do not participate in the program. Stated goals of the of the MDC program include reducing participant recidivism; reducing the use of illegal substances; and increasing community functioning in the areas of housing, education and employment. The evaluation will further explore whether factors such as age, race, gender, education level, employment or housing status affect success or failure in MDC as well.

The recidivism aspect of the study will compare the cohort of MDC participants to a group of individuals supervised by Hennepin County probation but who did not have any referral to or engagement with MDC or any treatment courts active in the Fourth Judicial District.⁶ The comparison group matches demographics of the MDC treatment group including a similar criminal history. This aspect of the evaluation explores offending behavior between the two populations at two years after program completion to see if the program has a positive, lasting impact on recidivism compared to a traditional justice system response in Hennepin County. When appropriate, this report makes policy and practice recommendations intended to improve graduation rates or reduce recidivism among MDC participants.

⁶ The Fourth Judicial District also operates a Mental Health Court, Veterans Court and DWI Court.

Section 1: Model Drug Court Overview

While best practices are now abundant for drug court programs, it has been the culmination of twenty-years of research that has led to consensus on effective and ineffective methods for serving a drug-addicted criminal justice population. Even with best practices information widely available; drug courts around the country have great autonomy to set their own goals, policies and practices. The following section describes the main programmatic elements, which were in place for Hennepin County MDC for those who participated in the program between 2011 and 2013.

Mission and Goals

Since its inception in 1997, the Hennepin County Drug Court has undergone numerous changes to policy and practice. Despite this, the mission and goals of the drug court program have largely remained unchanged. The content below, excerpted from the *2015 MDC Policy and Procedure Manual*, was in effect for those who participated during the 2011 to 2013 evaluation period (Hennepin County Drug Court, Executive Steering Committee, 2015).

Mission:

The mission of the Hennepin County Drug Court is to increase public safety, improve chemical health, and reduce crime by targeting the population of chemically dependent felony property and drug offenders who are at high risk to re-offend. A coordinated and comprehensive approach will be used to facilitate short and long term behavioral change.

Goals:

- Reduce criminal recidivism among participants who are chemically dependent, and who are at high risk to re-offend
- Reduce illegal drug usage
- Improve community functioning in the areas of employment, education/training, and housing.

Support to defendants for progress toward a sober, crime-free life is the overall goal of MDC. Components of MDC for all participants include intensive probation supervision, frequent review appearances before a single MDC judge, mandatory chemical dependency treatment, and random drug and alcohol tests. In addition, the expectation of participants is to make progress towards education or employment, access community recovery resources such as *Alcoholics Anonymous* or *Narcotics Anonymous*, and develop treatment and relapse prevention plans. Following successful graduation from MDC, participants remain on administrative probation until their probationary period expires.

Program Eligibility and Ineligibility Criteria

Model Drug Court is an adult, post-disposition program of Hennepin County. As such, the three main eligibility criteria include that the participant is over 18 years of age, that they reside in Hennepin County, and that they plead guilty to a felony-level drug or property offense. Referrals to MDC come from the traditional felony property and drug calendars (referred to as PDC at this time) to determine potential eligibility of all program requirements.

One such additional requirement is that potential participants are “high risk” to reoffend and in “high-need” of services. Probation agents administer the *Risk and Need Assessment Tool (RANT)* as a standard way to assess risk and need among those referred to MDC. Participants must also be drug or alcohol dependent in order to qualify for MDC. All referrals to MDC receive a *Rule 25 Chemical Dependency Assessment* performed by the county or they may have a chemical assessment completed by a private practitioner. Although diagnostic criteria change periodically, most MDC participants are classified as “dependent” or “severe” in their chemical use according to DSM-V criteria.^{7,8} The MDC program meets the best practice standard that participants selected be high-risk in terms of their addiction to illicit drugs or alcohol and are “at a substantial risk for reoffending or failing to complete a less intensive disposition such as standard probation or pretrial supervision” (NADCP, 2013).

Prior criminal history is the most likely ineligibility criteria for MDC defendants. The majority of felony-level person offenses disqualify defendants from MDC unless a significant amount of time has passed since the offense occurred or from release from prison. These disqualifying offenses include homicide, robbery, aggravated assault, kidnapping, sex offenses and felony domestic assault and stalking. Preclusion from MDC participation of First and Second Degree Controlled Substance offenders connected to manufacture and distribution is because these offenses carry presumptive prison sentences according to *Minnesota Sentencing Guidelines* (Minnesota Sentencing Guidelines Commission, 2016). Final determinates of whether a defendant can participate in MDC include whether a gun was used in their present offense; whether they are currently on parole through the state Department of Corrections; and if they possess the mental capacity to successfully participate in the court program and treatment. Ineligible participants return to the PDC calendar for traditional sentencing.

According to NADCP, when drug courts serve the highest-level drug and property offenders, the greatest benefits and cost savings occur. However, there are no studies that expressly denounce drug court for dealers nor is there research that precludes those with a violent history, presuming they are addicted and that the court has sufficient resources to supervise the offenders adequately (NADCP, 2013). In the end, these decisions become local policy decisions.

⁷ *The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (American Psychiatric Association).

⁸ In 2014, the MDC program began accepting participants diagnosed with a “moderate” chemical dependency disorder. This policy was not in effect during the report evaluation period.

Drug Court Judge

Having a single judge dedicated to the drug court program is a best practice. Typical tenure for a MDC judge is three-years in Hennepin MDC, at which time they rotate to a new assignment. Any judge in the county is eligible to handle a Hennepin County problem solving court. Between 2007, when MDC began, and June of 2016, four judges have overseen drug court. The fifth MDC judge began in July of 2016. This evaluation period largely reflects the tenure of one judge who was on the bench for MDC from 2010 through the first half of 2013.

Drug Court Team and Steering Committee

Consistent with best practices, MDC has a Drug Court team that is responsible for the ongoing supervision and treatment of participants. Studies suggest that both the presence of a multidisciplinary team responsible for the day-to-day operations of drug courts can influence key outcomes for clients including recidivism and cost-effectiveness (NADCP, 2015). Hennepin County MDC team membership meets best practices criteria and includes the presiding MDC Judge and law clerk, the MDC program coordinator, the probation agents assigned to supervision of MDC clients, the specific prosecutors and public defenders assigned to MDC, the program's chemical health assessor, and a variety of direct treatment providers.

The Drug Court team meets each day that MDC is in session to discuss or "staff" the progress and needs of each participant who will appear in court that day. Decisions occur collectively, surrounding the need for additional services or accountability measures, as well as the formal use of incentives and sanctions.

In addition to the Drug Court Team, Hennepin County MDC has a multi-disciplinary Steering Committee that sets the policies and program priorities. The group meets monthly and membership includes the presiding MDC judge, the MDC program coordinator, a Hennepin County corrections supervisor, a law enforcement representative, a Hennepin County chemical health supervisor, and leadership from the Hennepin County Attorney's Office and Public Defender's Office. The purpose of the Steering Committee is to ensure that policies and procedures are in line with best practices and to authorize high-level changes to the program. The Drug Court team can bring issues or proposed changes to the Steering Committee for discussion and resolution. National research has not evaluated the presence or absence of a governing body such as a Steering Committee (NADCP, 2015).

Key Program Elements

Program Capacity

The current capacity of Hennepin County's MDC is 135, under the supervision of four probation officers. This equates to a caseload of approximately 34 active participants per officer when operating at capacity. In addition, probation officers may have clients who are in the MDC program but who have absconded and have warrants

out for their detention. At the time of the evaluation, the policy manuals indicated probation officers would carry a caseload of approximately 50 MDC participants (Hennepin County Drug Court Executive Steering Committee, 2011). The NADCP best practices standards support examination of the courts ability to meet service needs anytime the program exceeds 125 participants and caseloads exceed 30, and that probation agents should not supervise in excess of 50 MDC clients (NADCP, 2015).

Phase Structure

During the 2011 to 2013 evaluation period, MDC operated using a three-part phase structure. A point system was in place to progress through the three program phases. Phase one was designed to be the longest and most intensive with a focus on stabilization and substance abuse treatment. The design of the MDC program was to last no less than 12 months. Presently, MDC uses four phases and discontinued the use of the point system for phase advancement.

During the 2011 to 2013 evaluation period, all phases of the MDC program required that participants remain crime free, attend regularly scheduled court reviews, submit to random drug screens, report as required to their probation officer, and petition the court to advance to the next phase. Each phase also consisted of its own, unique requirements that targeted participants' needs at different times in the program. Below are the additional expectations that corresponded with each MDC phase:

Phase 1:

- Complete orientation
- Attend court reviews every other week
- Attend two 12-step meetings per week and obtain a sponsor
- Find safe/sober housing
- Secure employment or attend school
- Attend treatment and aftercare sessions
- Complete *Study in Action*

Additional elements added at Phase 2:

- Attend court reviews every third week
- Participate in continuing care, as required
- Begin *Restorative Justice Program*
- Maintain employment or schooling, or be involved in regular community service work
- Participate in required intervention i.e. cognitive-behavioral group or relapse prevention

Additional elements added at Phase 3:

- Attend court review once a month
- Complete all aspects of *Restorative Justice Program*, including community service.
- Attend a *Drug Court Alumni Group Meeting*.
- Petition for graduation.

Best practices support the use of a phase structure. NADCP states that the early phases of drug courts should address issues of insufficient housing, mental health issues, and issues connected to chemical use, cravings and withdrawal. The intent of the interim stages is to address criminogenic needs while the latter stages should “maintain treatment gains by enhancing their long-term adaptive functioning, such as vocational or educational counseling” (NADCP, 2015). Drug Courts have significantly better outcomes when they have a clearly defined phase structure and concrete behavioral requirements for advancement through the phases (NADCP, 2013). During the evaluation period, and currently, Hennepin MDC phases are consistent with the overarching recommendations of best practices in the field.

Chemical Dependency Treatment

Chemical dependency treatment and services are a cornerstone of MDC and are expected of all participants for the entirety of their time in the program. The intensity of treatment depends on the unique needs of individuals and their progress therein. The expectation of the participants is to attend residential inpatient treatment, outpatient treatment and aftercare from an approved MDC treatment provider. They are also required to access community-based groups such as *Alcoholics Anonymous* or *Narcotics Anonymous*. Failure to comply with treatment can be grounds for termination from the MDC program (Hennepin County Drug Court Executive Steering Committee, 2011).

Best practices promotes that drug courts be able to offer a continuum of care ranging from detoxification and sober living to inpatient, outpatient and day treatment services. In addition, these treatment services should meet the cultural and gender-specific needs of clients. Model Drug Court ties any adjustment in the level of care to participant’s progress in treatment, not to phase advancement or as a punitive sanction. Generally, NADCP recommends approximately 200 hours of counseling over the period of nine to 12 months (NADCP, 2013).

Incentives and Sanctions

Both incentives and graduated sanctions are important and effective ways to increase participant compliance in drug court programming. According to the *Drug Court Institute*, “the success of any Drug Court will depend largely on its ability to craft a creative range of intermediate-magnitude incentives and sanctions that can be ratcheted upward or downward in response to participants’ behaviors” (Marlowe, 2012).

As participants successfully progress through the MDC program, built in incentives include less frequent contact with their probation officer, fewer reviews before the MDC Judge, and fewer drug screens. The MDC program uses individual incentives when appropriate including verbal recognition, awards, medallions, reductions in fines, and trips to the “fish bowl” where participants can draw gift cards and low-cost incentives. For those who are not making adequate progress, a range of sanctions exists. Depending on the nature of the problem or infraction, participants may have treatment time extended; may have more court reviews or probation meetings; may have to perform more drug screens or additional community service; or may be subjected to brief incarceration. The MDC team collaboratively decides upon the use of both incentives and sanctions in advance of implementation.

Program Completion

Participants graduate from the MDC program when they successfully complete all three phases and earn sufficient points to graduate. Participants petition for graduation through a written document, which explores their sobriety and sponsorship, employment and education, personal relationships and future goals. Participants are also required to have paid all program fees and criminal fines, have no new pending charges, and have at least 120 continuous clean and sober days. Upon graduation, participants transition from supervised to administrative (unsupervised) probation.

Unsuccessful termination from MDC generally occurs only after imposition of other graduated sanctions have failed and the participant continues to disregard program or supervision rules. Unsuccessful completion of MDC can also occur when the participant absconds from the program, fails to attend treatment or court sessions, or engages in offenses that would have precluded them from initial participation. Upon unsuccessful completion, the participant comes back before the court as a formal probation violation. A proven violation can result in revocation of stayed local incarceration time or execution of the stayed prison sentence.

Summary: Model Drug Court Overview

- Hennepin County created the first Minnesota Drug Court in 1997. Program revisions in 2007 include a better alignment with national best practices and the court became known as Model Drug Court. The current maximum capacity of MDC is 135 active participants under the supervision of four probation officers.
- MDC has both a Drug Court Team overseeing day-to-day operations and case management responsibilities of the program, as well as a Steering Committee responsible for high-end decisions about program policy and adherence to best practices. Consistent with best practices these are interdisciplinary teams that consisting of a single judge, a program coordinator, dedicated probation officers, prosecutors and defense counsel, and additional members knowledgeable about chemical dependency and mental health.
- During the 2011 to 2013 report evaluation period, MDC had three-phase structure. Participants completed tasks unique to each phase and accumulated points in order to advance in the program. The phase structure has since changed to four phases and the court discontinued the point system.
- MDC uses incentives and graduated sanctions to acknowledge successes and promote program accountability. The MDC team collaboratively decides upon the use of both incentives and sanctions in advance of implementation.
- Graduates complete the program when they have met the requirements of all phases, have paid all fines and fees, have no new criminal charges, and have at least 120 days of sobriety. During the evaluation period, the minimum MDC program length was one year.
- Termination from the MDC program can be for lack of progress in treatment or program requirements; absconding from the program; new criminal behavior or on-going chemical use.

Section 2: Research Design

The remainder of this evaluation assesses the impact and effectiveness of the MDC program on participants who completed their tenure in the program between 2011 and 2013. Comparison of both MDC participants who did and did not successfully complete the program determine if the MDC program is meeting its stated goals of reducing recidivism, reducing use of illegal substances, and improving stability in the community. In addition, a cohort of probationers under the authority of the Hennepin County Department of Community Corrections and Rehabilitation (DOCCR) who did *not* participate in the program compare to all participants in the MDC program regardless of program outcome. This exploration will determine if MDC reduces future offending (recidivism) when compared to those who underwent traditional justice system processing.

MDC Evaluation Sample

Between January 1, 2011 and December 31, 2013, 334 individuals were either graduated or terminated from the MDC program.⁹ These participants served as the base population from which to select the MDC evaluation population. Selection of this date range for this evaluation was dependent upon it following a previous evaluation period and it largely overlaps the tenure of one judge in MDC, which may shed light on the impact of a particular judicial officer upon participant outcomes.¹⁰ In addition, these dates allow for the ample exploration of recidivism two years post-program involvement.

Screening of those selected for inclusion in this study was to ensure they did not have a prior engagement in MDC or any other Fourth Judicial District problem solving court prior to the evaluation period.¹¹ This was to control for the effect of any prior treatment court intervention. Exclusion of five MDC participants who deceased during their MDC program allowed a more accurate exploration of criminal behavior post-programming, from the evaluation cohort. All participants in the evaluation group are residents of Hennepin County, as is a requirement of the program, and all had a felony level drug or property offense which led to their involvement in MDC.

Finally, it is not uncommon for MDC participants (both those who have successfully and unsuccessfully completed the program) to have multiple engagements with MDC over time. Nine individuals in the pool of MDC participants had more than one engagement with MDC *during* the 2011 to 2013 evaluation period. These individuals are in the study sample, but only as their earliest MDC intake to reflect best the experience of a first time MDC participant.

⁹ Terminated participants include those who are discharged by the program for violations as well as those who voluntarily request their sentence be executed.

¹⁰ Dates in which participants began MDC involvement ranged from August 2007 to September 2013.

¹¹ The Fourth Judicial District also operates a Mental Health Court, a Veterans Court and a DWI Court.

The MDC evaluation sample consisted of a final 317 individuals who completed a first-time MDC engagement, either successfully or unsuccessfully, between January 1, 2011 and December 31, 2013.¹² As is required by the admission standards of the program, all individuals in the MDC group were assessed as high-risk to reoffend based on the *Risk and Needs Triage Tool (RANT)* administered by Hennepin County DOCCR, and all were diagnosed as chemically dependent by a Rule 25 or comparable private chemical dependency assessment.¹³

Comparison Population

Hennepin County DOCCR provided data on 9,759 adult probationers who began supervision between 2008 and 2013—the time that most closely overlaps the period when MDC participants would be engaging in programming. This total probation population was then pared back to create a potential comparison group based on MDC eligibility criteria.

Probationers were only included in the potential comparison group if they scored *High* on the *Level of Service Case Management Inventory (LS-CMI)* tool that is an indicator of criminal risk, and if they scored *High* or *Very High* on the alcohol and drug subscale of the *LS-CMI*. They also had to score *High* or *Very High* on the alcohol and drug subscale of the *LS-CMI*. In addition, cases were limited to those that originated in Hennepin County; where the type of probation was *Post-Disposition*; and the level of probation service was *Supervised Probation* or *Administrative Probation*.

People in the potential comparison group did not have any prior experience with Model Drug Court or any other problem-solving court operated by the Fourth Judicial District in order to control for the effect of any prior intervention. Finally, only probationers on supervision related to a felony-level drug or property offense were selected, consistent with the requirements of MDC. A small number of probationers meeting all of the above criteria were excluded due to homicide convictions in their criminal history, which would have made them ineligible for MDC. Ultimately, this method identified 620 probationers as potential matches for the MDC cohort.

Creating the Comparison Group: Propensity Score Matching

In a truly randomized design, participants eligible for MDC would be randomly assigned either to the MDC program or to receive the traditional sentence for their offense (typically jail or prison time plus probation). Because MDC is a voluntary program, this type of design is neither possible nor ethical. Instead, creation of an appropriate comparison group for the MDC population used a quasi-experimental statistical matching process called Propensity Score Matching (PSM). This technique matches a treatment group to a comparison group who

¹² Excluded are five participants who terminated between 2011 and 2013 because their termination reason was “deceased.”

¹³ When a person seeks chemical dependency treatment and needs public funding to pay for the treatment DOCCR conducts a Rule 25. Rule 25, Minnesota Rules parts 9530.6600 through 9530.6655 govern the assessment process and decision criteria. It determines needed treatment and type of treatment.

did not receive the intervention by making the groups as similar as possible based on the estimated likelihood of being in the treatment group (Cheesman & Kunkle, 2012). A goal of PSM is to find individuals “who are similar to the participants in all relevant pre-treatment characteristics” from a large group of non-participants (Caliendo & Kopeining, 2005). Propensity score matching reduces potential observation bias between the sample of MDC participants and the comparison group.

The second step of the ‘matching’ criteria was utilizing PSM to identify the best matches of the 620 probationers to the pool of 317 MDC participants. The following PSM model characteristics are gender, race/ethnicity, age, type of instant offense and criminal history. The PSM runs a logistic regression on the selected variables and assigns a propensity score. This score is highest when the individuals in the probationer pool most closely resemble the MDC pool.

One selection method within PSM is *without-replacement* matching that allows for each MDC participant to match one comparable probationer. This selection method will only select a probationer once for a match with a MDC participant.¹⁴ Ultimately, between the two cohorts, 598 individuals consisting of 299 from the MDC cohort and 299 from the DOCCR probationer cohort compose the sample for this portion of the evaluation.

Matching Variables	Total File (Unmatched)		Propensity Score Matched File	
	MDC N=317	Comparison N=620	MDC N=299	Comparison N=299
Females	33.8% *	12.7%	30.4%	25.1%
Persons of Color	57.1% *	68.4%	58.2%	59.5%
Under Age 25	18.6% *	25.5%	18.7%	16.7%
Age 41 or Older	35.3% *	23.5%	35.8%	34.1%
Instant Offense: Drug	67.2%	68.4%	67.8%	66.6%
No Prior Convictions	9.8%	14.0%	10.0%	15.1%
*MDC cohort is statistically different from comparison group at $p \leq .001$				

Table 1 illustrates how the PSM process helps to make the two populations more similar to control for the effect of variables other than the MDC program. For example, prior to matching, the MDC group was 33.8% female compared to the comparison group which was just 12.7% female. The matching process selected more females from the comparison group to account for this difference (30.4% versus 25.1%). Similar adjustments create a more balanced set of samples related to race and age distributions. The prior criminal conviction variable and

¹⁴ The PSM matching caliper was set at 0.05

the instant offenses type variables were not statistically different between groups prior to the use of the PSM process. The result is two populations that are not statistically different from one another on any of the selected matching variables.

Data Limitations

While Propensity Score Matching is a respected technique for creating comparison groups and reducing bias between the groups, it is not as robust a methodology as truly random assignment to a treatment or control group, considered the gold standard of research methodology. Due to the decision to use *without-replacement*, 18 MDC participants did not match to a probationer within the PSM. It would have been possible to match all participants if there was an increase in the matching caliper, but that diminishes the quality of the matches. Therefore, the entire pool of MDC participants is not included in the post-program evaluation.

In addition, there may be differences in risk-level between the MDC and comparison population. Classification of both cohorts are high risk and high need but this classification uses different tools. The MDC population received the *RANT* screening while the comparison group received the *LS-CMI*. Both tools explore similar risk factors and DOCCR administer them but the *LS-CMI* is more comprehensive.

As it relates to the chemical assessment, MDC participants receive a full chemical dependency assessment by a licensed professional. MDC participants must receive a diagnosis of a severe chemical use disorder in order to be eligible for the program. Conversely, the comparison group was documented as 'high-risk' related to drug or alcohol use, but this is based off a chemical health subscale of the *LS-CMI*. In these ways, the MDC and probation groups may be slightly different with regard to risk assessment since these groups utilized different tools.

Finally, as occurs with any retrospective study, there is the potential for missing data that is hard to obtain after the fact. Personal information about MDC participants, including their employment or housing status at the beginning or end of the program is difficult to obtain after the fact. Finding missing data was a priority, however, some data remains missing. Some analysis only include participants where the data was known, or was known at the time of both program intake and discharge.

Data Sources

To accomplish the aforementioned report objectives, this evaluation uses data from the following sources:

Minnesota Court Information System (MNCIS)

This database, owned by the Minnesota Judicial Branch, provides data on defendant demographics and criminal case information. Data in this system was the basis for criminal history and recidivism, as well as court-related

compliance such as failure to appear at hearings, probation violation hearings and warrants issued. MNCIS also captures length of stay in the MDC program and sentencing information such as jail or prison days ordered.

Court Services Tracking System (CSTS)

The Hennepin County Department of Community Corrections and Rehabilitation (DOCCR) uses the statewide CSTS system as their offender case-management package. Probation officers track specific conditions and contacts in this database, which are often helpful to corroborating or supplementing missing data elements. The Fourth Judicial District Research Division primarily relies on the CSTS database to track the number and outcome of drug and alcohol tests performed by correction's agents on MDC participants.

Hennepin County Problem Solving Court Database

The Fourth Judicial District Research Division maintains an internal database to measure outcomes specific to the various problem-solving courts. Members of the MDC staff team, including the program coordinator and probation officers, provide intake and exit data related to client education, housing, employment, and social engagement. In addition, this database documents dates of chemical dependency evaluations, risk assessments and mental health evaluations, along with their respective scores. This database also tracks the number of chemical dependency treatment days and jail days used during the program.

Summary: Research Study

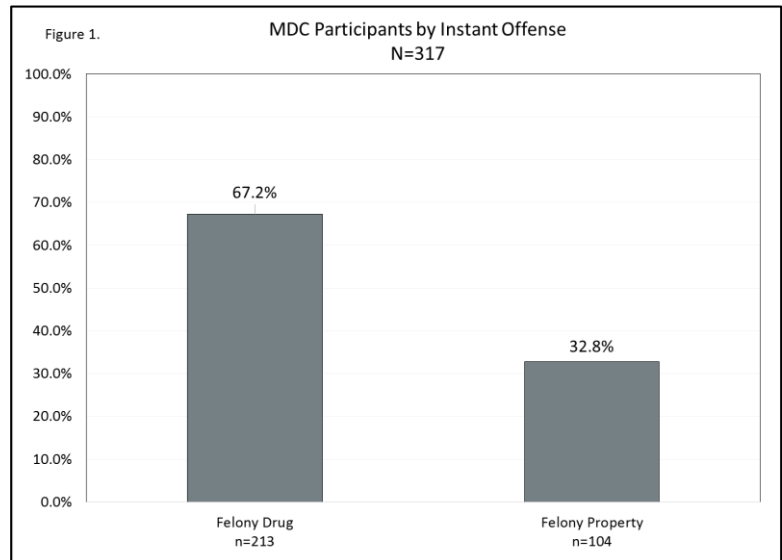
- This evaluation explores outcomes for 317 participants who completed the MDC program in calendar years 2011 through 2013. A primary purpose of the study is to determine if MDC is meeting its stated program goals of reducing recidivism, reducing illegal chemical use, and improving community functioning.
- In order to participate in MDC, defendants must have committed a felony-level drug or property offense. During this evaluation period, MDC participants must also have been chemically dependent according to a formal chemical dependency assessment and they must have scored high-risk and high-need on the *Risk and Needs Triage* screening tool administered by probation officers.
- The study will also compare MDC participants to a comparison group of probationers who did not participate in MDC or any other problem solving court. The comparison group are individuals who are on probation for a felony level drug or property offense, and have scored 'high' or 'very high' on the *Level of Service Case Management Inventory (LS-CMI)* screening tool, which includes a chemical health component.
- Design of the comparison group utilized propensity score matching to ensure that the MDC cohort and the probationer population had similar characteristics and a similar likelihood that they would have qualified for MDC selection. Matching of the MDC participants to a comparison group of probationers allows for an exploration of recidivism rates two-years later.
- Limitations of the study include that the MDC and probationer population were not classified as high risk or chemically dependent using the same screening tools, and that some data related to pre-and post-program are missing due to the retroactive nature of the study.

Section 3: MDC Population Profile

Prior to comparative analysis, it is helpful to understand the characteristics and demographics of the full 317 MDC participants at the time they began the program. It is also helpful to know how the MDC population is similar to or different from the population of similar offenders in the court system as a whole.

Instant Offense

As a post-disposition program, participants in MDC must plead guilty to a felony-level drug or property offense. The offense that results in their referral to the MDC program is termed the “instant offense.” Of the 317 MDC participants who completed between 2011 and 2013, two-thirds (67%) had a drug crime as their instant offense and one-third (33%) had a property offense as the instant offense connected to their MDC participation (Figure 1).

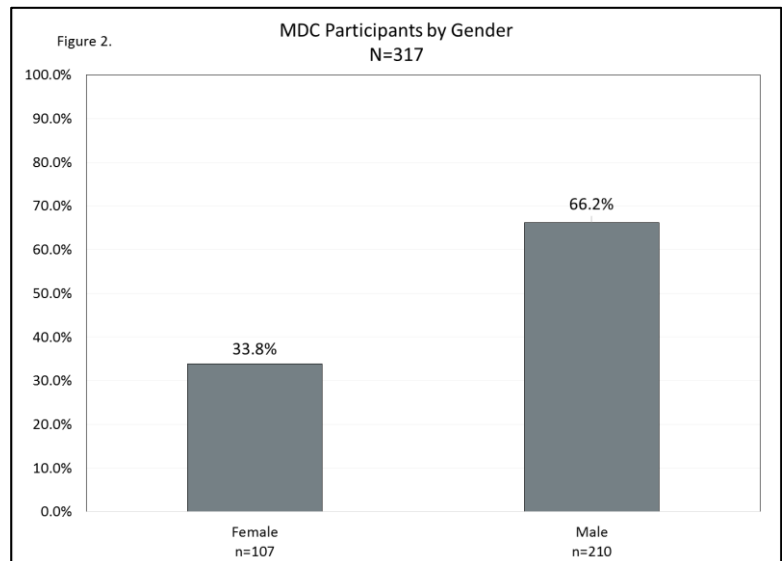


2012 data for Hennepin County indicate that convictions for drug felonies and for property felonies are approximately equal at 50%. Therefore, MDC serves a higher proportion of drug offenders than are in the traditional court calendar. This is not surprising since the only property felons sent to MDC are those whose crimes were committed in order to sustain their drug habit.

Gender

Drug court policy indicates that gender is not considered as a criteria for inclusion or exclusion from Model Drug Court. Figure 2 illustrates that those who completed MDC during the evaluation period were two-thirds male (66.2%) and one-third female (33.8%).

Court data from 2012 for drug and property felony cases in Hennepin County show males are approximately 75% of convictions and females are 25%. The MDC program serves a

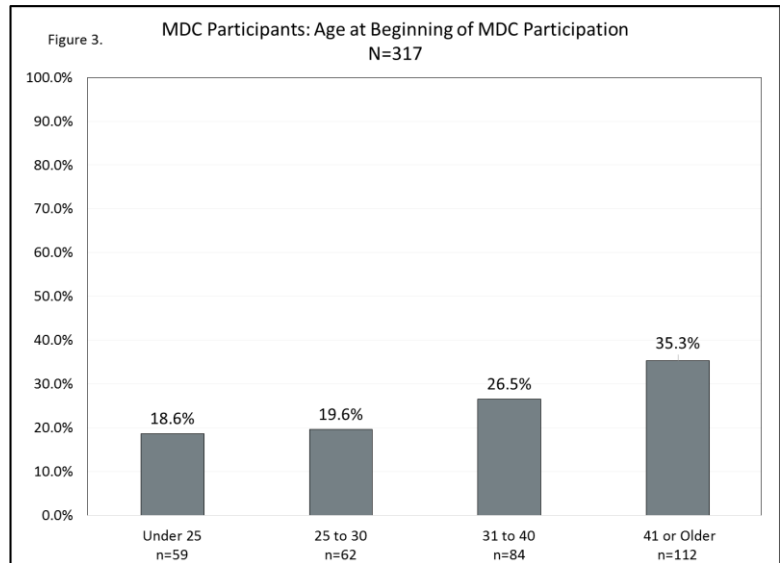


higher proportion of females for these offenses than the court system as a whole. Because the MDC program is voluntary, females may also self-select into the program at a higher rate than males.

Age

At the time participants began the MDC program, just under two-in-10 were under the age of 25 (18.6%), and just under two-in-10 were between ages 26 and 31 (19.6%). Figure 3 depicts the largest age group as 41 or older (35.3%).

The youngest participant to begin MDC was age 18 and those oldest was 63. The average age of all MDC participants was 35.6 and the median age was 35.0. This indicates that half of participants were under age 35 when starting MDC and half were older. Court data from 2012 also show an age range between 18 and 76 for felony drug and property offenders, with a mean age of 34.3. MDC appears to serve a comparable age group as the county as a whole.



Race and Ethnicity

As with gender, MDC has no inclusionary or exclusionary criteria related to race or ethnicity. In the evaluation group, 42.6% of participants were White, non-Hispanic whereas 56.8% of participants represented communities of color. In Hennepin County as a whole, 55.2% of persons convicted of a felony drug or property charge in 2012 were from communities of color. This is comparable to the race and ethnicity distribution in MDC.

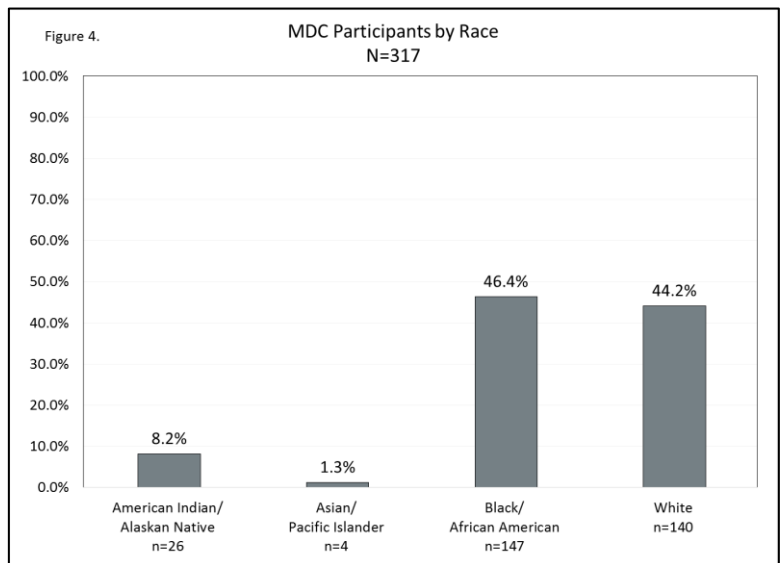


Figure 4 illustrates that White and Black/African American participants represented the largest racial groups in MDC at 44.2% and 46.4%, respectively. American Indians accounted for 8.2% of participants. Hispanics

represented a small percentage of participants (2.5%), however Hispanic ethnicity was unknown for 16.7% of the population.¹⁵ Asian participants were the smallest group at 1.3%.

Hennepin County drug and property convictions in 2012 were comparable to the MDC values for Black/African Americans at 44.2%. American Indians, however, represent 4.3% of convictions countywide but are 8.2% of MDC participants.

Prior Convictions

On average, MDC participants entered the program with 6.5 total prior convictions. Some participants (9.8%) did not have any convictions prior to entering the MDC program. Participants were most likely to enter the program with one or more prior misdemeanors (75.4%) with an average number of 3.5 misdemeanors per person (Table 2).

Table 2. Convictions Prior to MDC Program Participation					
N=317					
	% No Priors	Minimum	Maximum	Average	Std. Deviation
Total Prior Convictions	9.8%	0	34	6.5	6.78713
Prior Misdemeanors	24.6%	0	33	3.5	4.47039
Prior Gross Misdemeanors	53.0%	0	9	1.1	1.66126
Prior Felonies	43.2%	0	15	1.8	2.87844

MDC participants were least likely to enter the program with a prior gross misdemeanor or felony conviction. Over four-in-10 entered the MDC program with no prior felony convictions (43.2%) and over half of participants had no prior gross misdemeanors (53.0%). The average number of prior felonies and gross misdemeanors was 1.8 and 1.1, respectively.

Though the number of past convictions is not an eligibility requirement for MDC, the type of prior offense can be exclusionary. Not surprisingly, prior drug and property related felonies were common with 54.9% of participants having one or more prior convictions in their criminal history. Person and weapon related felonies were less common but existent. Just over one-tenth (11.0%) had a felony person or weapon conviction in their past. MDC policies do allow for these offenses under certain conditions, such as, if a term of ten years has lapsed since the offense or if they are no longer on probation or parole related to the conviction.

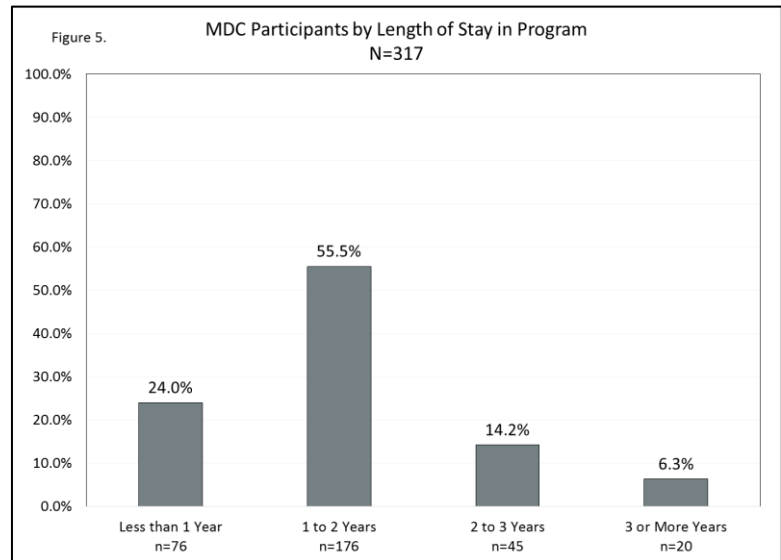
¹⁵ In the event Hispanic ethnicity was missing, participants are categorized as 'non-Hispanic.'

Length of Program Participation

During the evaluation period, design of the MDC program was to last a minimum of 12 months. Collectively, 55.5% of MDC participants engaged in the program for between one and two years (Figure 5). Just under one-quarter of participants (24.0%) involved in the program stayed for less than one year. Of these 76 individuals, 73 terminated the program. Finally, two-in-10 were in the MDC program for over two years (20.5%).

Calculation of length of stay is from

defendants' start and end dates, but it may include time when a participant is not "active" in the program. For instance, during the evaluation period, MDC had a policy where a participant could abscond for up to 60 days before termination from the program. This time is likely included in overall length of stay. Similarly, if a defendant receives a new offense and serves 30 days in jail but returns to the MDC program afterwards, that is time in the MDC program the way length of stay is currently collected.



Summary: MDC Population Profile

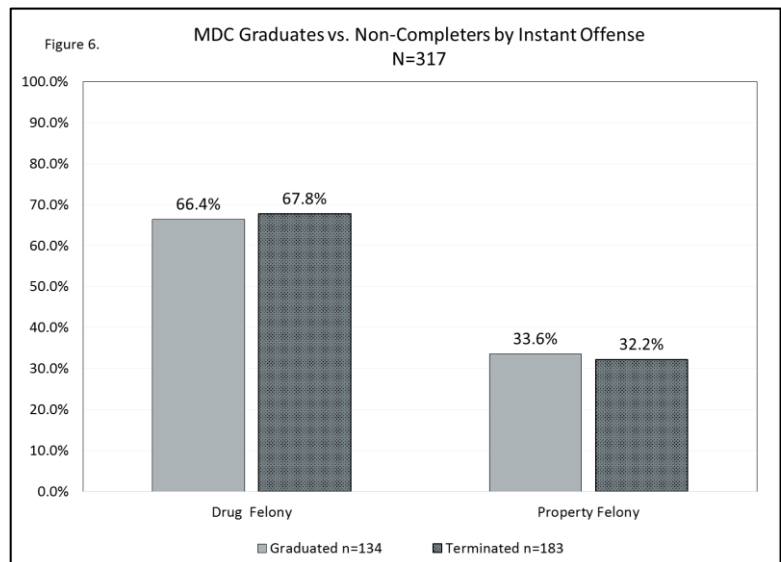
- Two-thirds of participants entered MDC on a drug-related felony (67.2%) and one-third on a property-related felony (32.8%).
- During the evaluation period, the MDC population was two-thirds male (66.2%) and one-third female (33.8%). The average age of MDC participants was 35.6.
- At the time participants began the MDC program, the largest single age group consisted of those 41 or older (35.3%). The smallest age group were those under age 25 (18.3%).
- The majority of MDC participants (56.8%) reflect communities of color while White, non-Hispanic participants are 42.6% of participants. Missing ethnicity data in 16% of cases may mean an underrepresented Hispanic involvement. The largest single racial group in MDC is Black or African American at 46.4%.
- The vast majority of MDC defendants (90.2%) had at least one criminal conviction prior to their involvement in the program. It was most common to have had a misdemeanor (75.4%) followed by at least one felony (56.8%). While a history of violent or weapon offenses are typically exclusionary criteria for MDC, 11.0% had one or more prior person or weapon felonies in their criminal history.
- The design of the MDC program was to last a minimum of one year. Over half of MDC participants did remain in the program for between one- and two-years (55.5%). Approximately one-quarter of participants ended the program before a year, which is highly indicative of program termination.
- Length of stay calculations include time that a participant has “absconded” from the program. This can over-represent program dosage, especially among those who terminate for noncompliance.

Section 4: MDC Graduates vs. Non-Completers

The following section explores the demographics and characteristics of those who completed the MDC program as compared to those who did not. During the evaluation period, MDC participants were more likely to terminate the program than to graduate. Fifty-eight percent of participants did not complete the program successfully compared to 42.3% who were successful. Nationally, the drug court graduation rate is estimated to range between 50% and 57% (Rempel, 2006; Marlowe & Huddleston, 2011).

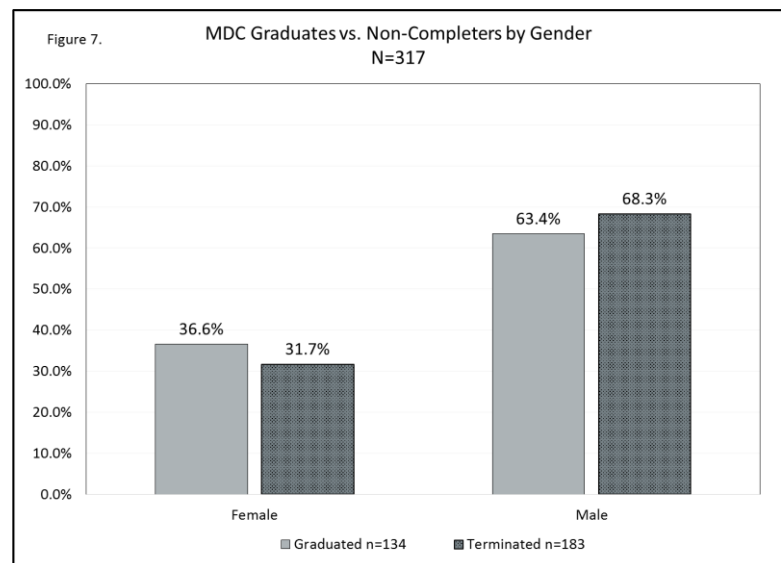
Instant Offense

Whether participants were involved in MDC primarily due to a drug felony or a property felony was not indicative of success or failure in the MDC program ($p=.802$). Figure 6 illustrates that two-thirds of those who successfully graduated were in the program for a drug felony (66.4%), as were two-thirds of those who failed to complete successfully (67.8%). Similarly, both graduates and terminated participants were comprised of approximately one-third felony property offenders at 33.6% and 32.2%, respectively.



Gender

Figure 7 illustrates that gender alone did not have a statistically significant impact on whether participants graduated or terminated MDC ($p=.365$). Females accounted for one-third of graduates (36.6%) as well as approximately one-third of those terminated (31.7%).



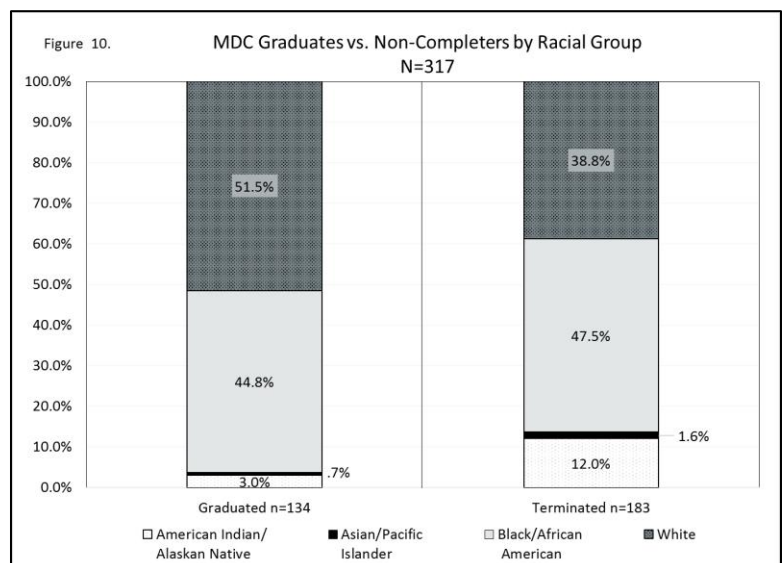
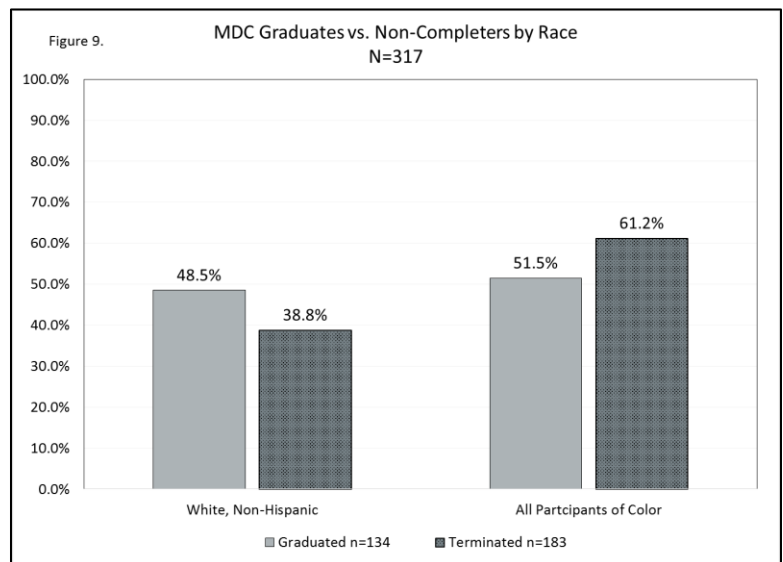
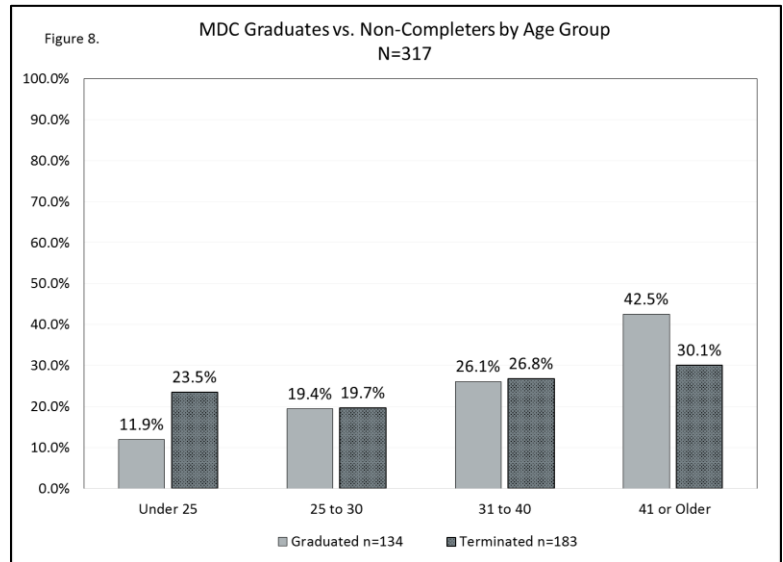
Age

Age of the participant when they begin MDC is statistically significant in relationship to program success (Figure 8), especially at the two ends of the age spectrum ($p=.030$). Those under age 25 were more likely to be among those terminated from MDC (23.5%) than among those who graduated (11.9%). Those ages 41 and over were more likely to be among those who graduated (42.5%) than among those who terminated (30.1%). Of graduates, 45.5% fell between the ages of 25 and 40 which closely mirrors the number who terminated in the same age range (46.5%). This speaks to potentially different developmental needs of participants depending on the age at which they enter the program.

Race and Ethnicity

When White, non-Hispanic defendants are compared to those of all other races and ethnicities ethnicity combined, there is no statistically significant difference in success or failure rate ($p=0.84$). Participants from communities of color accounted for 51.5% of graduates and 61.2% of those terminated (Figure 9).

Figure 10 demonstrates that when racial groups are analyzed separately, statistically significant differences in success or failure rates appear ($p=.011$). White, non-Hispanics are more likely to graduate than fail (51.5% versus 38.8%) while American Indian participants were more likely to terminate than they were graduate (12.0% versus



3.0%). The graduation level for Black or African American participants (44.8%) was slightly lower than the termination level (47.5%), but not markedly so. A large amount of missing Hispanic ethnicity data (16%) confounds an assessment of the success rates of Hispanic participants in the program.

Prior Convictions

Prior conviction history is another factor to consider related to program success. Those with more prior convictions could possess more criminal attitudes and behaviors than those with less criminal history. Tables 3 through 5 provide information about the number and type of prior convictions MDC participants possessed at program entry.

Of the 317 MDC participants, 31 (9.8%) had no convictions prior to the offense that brought them into MDC. Collectively, MDC participants began the program with an average of just under 6.5 total criminal convictions each (Table 3). The maximum number of prior convictions any defendant had was 34. Those who graduated from the program averaged fewer prior convictions (5.2) than those who did not graduate (7.4), but the finding was not statistically significant ($p=.149$).

Prior Convictions	N	Min.	Max.	Mean	Std. Deviation
Total	317	0.00	34.00	6.4543	6.78713
Graduates	134	0.00	20.00	5.1866	5.42504
Non-Completers	183	0.00	34.00	7.3825	7.51161

Further investigation into the number of prior convictions by offense type yielded no statistically significant differences between graduates and non-completers ($p=0.354$). Of graduates, 46.3% had no prior felonies, as did 41.0% of those terminated (Table 4). On the other end of the spectrum, 20.9% of those with ‘3 or More’ prior felony convictions completed MDC while 27.9% of those with ‘3 or More’ prior felonies terminated.

Felony	Graduates		Non-Completers	
	N	%	N	%
None	62	46.3%	75	41.0%
1 or 2	44	32.8%	57	31.1%
3 or More	28	20.9%	51	27.9%
Total	134	100.0%	183	100.0%

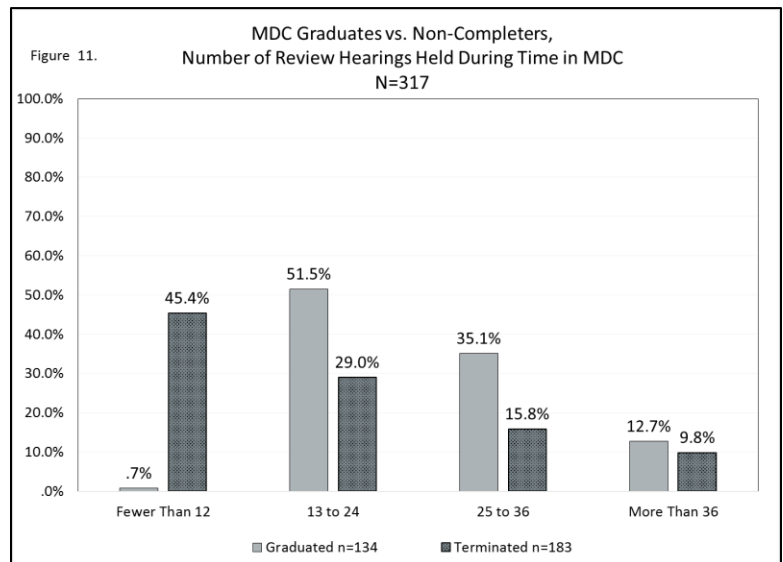
Prior history of misdemeanors and gross misdemeanors was the closest to statistical significance between graduates and non-completers though it did not quite meet the conventional threshold (Table 5, p=0.077). A larger percentage of those who did not complete had '6 or More' prior gross misdemeanor or misdemeanor convictions (31.7%) compared to those who graduated (18.6%).

Gross Misd. and Misd.	Graduates		Non-Completers	
	N	%	N	%
None	28	20.9%	33	18.0%
1 to 5	81	60.4%	92	50.3%
6 to 11	16	11.9%	38	20.8%
12 or More	9	6.7%	20	10.9%
Total	134	100.0%	183	100.0%

Review Hearings

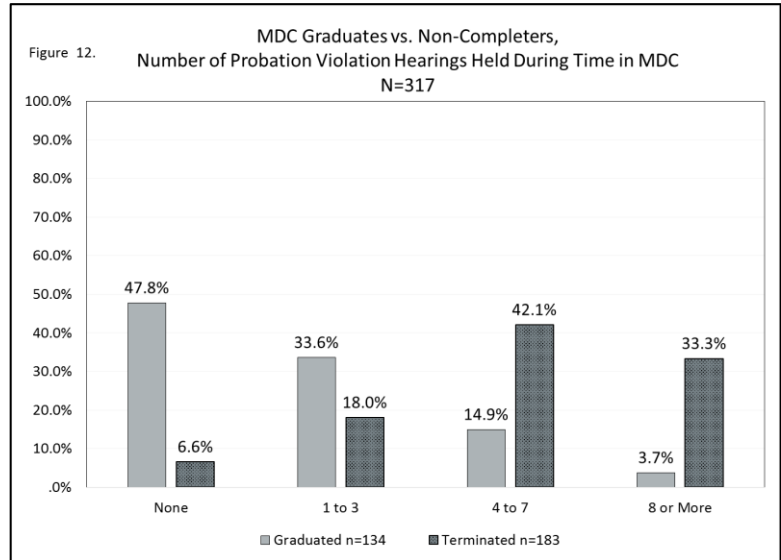
Regular progress reviews are a critical aspect of MDC. Not only do they provide support and accountability, they also develop rapport with the MDC judge and other members of the team. The 317 MDC participants included in this study had 6,765 review hearings related to their primary MDC case during their respective time in the program. This averages to just over 21 review hearings per defendant. The lowest number of review hearings recorded was zero; the greatest number was 75.

Not surprisingly, there is a statistically significant relationship between the number of review hearings conducted and program graduation or termination (Figure 11, p=.000). Graduates were most likely to have between 13 and 36 review hearings while in the program (86.6%). Terminated defendants were most likely to have fewer than 12 review hearings (45.4%). There is strong correlation between the number of review hearings held and length of time in the program (*Pearson r=.665*).



Probation Violations

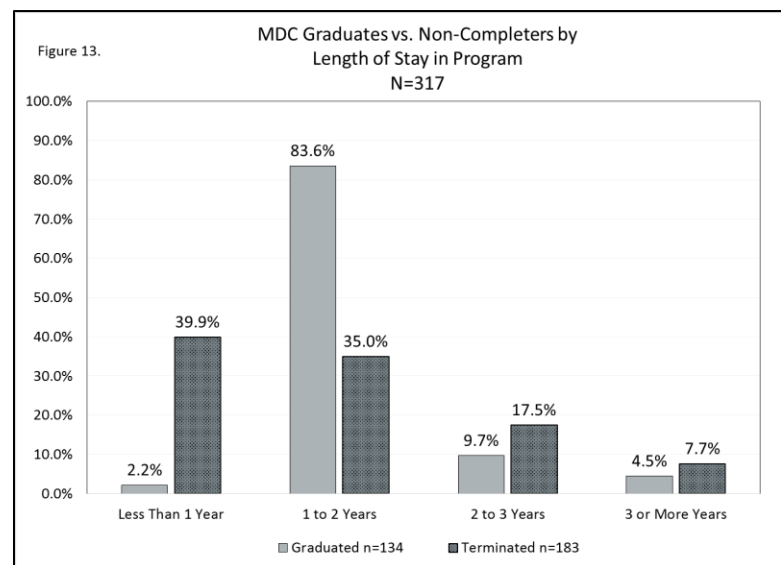
In addition to regularly scheduled reviews, participants may be required to appear in court on probation violations related to their MDC case. Violation hearings may or may not accompany the issuance of a warrant. Collectively, these defendants had 1,391 probation violation hearings. Probation hearings ranged from zero to a high of 19. On average, each participant accounts for 4.4 probation violation hearings during their time in MDC. An exploration of this relationship did not show a strong association between length of time in the program and number of probation violation hearings, as it did with number of review hearings (*Pearson r*=.293). That is, whether or not participants have probation violation hearings was not a reflection of how long they had been in the program.



Probation violation hearings are, however, significantly connected to program success or failure ($p=.000$). Figure 12 illustrates that the plurality of those who successfully completed MDC had no probation violation hearings in connection with their case (47.8%). Just over one-third of graduates had '1 to 3' probation violation hearings while in MDC. The pattern for those terminated from the MDC program is largely inversed. While over 75% of graduates had three or fewer violations, 75.4% of those terminated had '4 or More' probation violation hearings while in the program.

Length of Stay

The average length of stay of all MDC participants was 531 days or about 17.7 months. The shortest engagement was 28 days while the longest was nearly 4.4 years. Among graduates ($n=134$), the shortest engagement was 328 days or about 1 month less than a year. The mean stay in MDC for graduates was 568 days or 18.9 months. Conversely, those who did not graduate had a shorter mean engagement of 504 days or 16.8 months.



There is a statistically significant difference between those who succeed and those who do not based on length of stay in the program ($p=.000$). Over 80% of successful graduates completed MDC in between one- and two-years (83.6%). On the other hand, four-in-10 of those who did not graduate spent less than 1 year in the MDC program (39.9%).

Figure 13 illustrates that some of those who were in the program for the longest amount of time were among those to be terminated. This is likely because their total length of stay includes periods in correctional settings or periods of suspended participation. Total length of stay does not necessarily mean participants were in good standing or actively participating in program requirements.

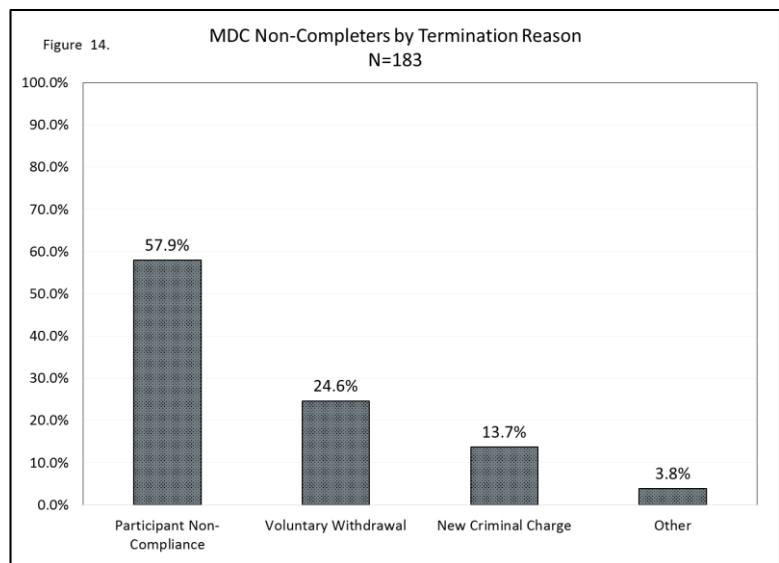
Reasons for Termination

The primary reason participants discontinued involvement in the MDC program (Figure 14) was due to non-compliance with program rules or expectations (57.9%). Non-compliance can span a variety of issues including failure to attend or make progress in treatment; failure to submit drug tests or continued chemical use; failure to remain law abiding; and absconding from the program in excess of 60 days.

The second most common reason participants did not complete was for a voluntary withdrawal. These participants requested execution of their original sentence and discontinued from the program. In these situations, defendants serve the stayed jail or prison sentence on their MDC offense.

MDC participants can also be discharged if they are charged or convicted of a new offense while in the program. Of those terminated, 13.7% had “new charge”

documented as the reason for exit. Finally, a small percentage of cases have an “other” reason for non-completion (legal factors such as expiration of the probation duration on the case; a reversal of a plea leading to new case processing and sentencing; and, in one case the participant was found to be on parole for another case that should have rendered the participant ineligible for MDC).



Summary: MDC Graduates vs. Non-Completers

- Those who entered MDC on a felony drug charge or on a felony property charge were equally likely to complete or fail MDC—the category of instant offense alone did not relate to program success or failure.
- There is no statistically significant difference between males and females in terms of graduation or termination rates. Females were approximately one-third of both the graduated and terminated population.
- Age at time of MDC program start does affect graduation and termination rates. Younger participants (under 25) were less likely to graduate (11.5%), while those over age 40 had the highest graduation rate (42.5%). Younger participant may need different support developmentally than older participants.
- When White, non-Hispanic participants are compared to other racial and ethnic groups, they are statistically more likely to succeed in the MDC program. Over half of program graduates were White, non-Hispanic (51.5%) and 44.8% were Black or African American. American Indian participants were four times more likely to fail than graduate (12.0% vs. 3.0%). A large amount of missing Hispanic ethnicity data (16%) confounds an assessment of the success rates of Hispanic participants alone in the program.
- Those who graduated from the MDC program averaged fewer prior convictions (5.2) than those who did not graduate (7.4), but the finding was not statistically significant.
- There is a significant association between the number of probation violation hearings and program success or failure. The majority of those who successfully completed MDC had no probation violation hearings in connection with their case (47.8%) compared to just 6.6% of those terminated.
- There is a statistically significant relationship between the number of review hearings and graduation or termination. Graduates were most likely to have between 13 and 36 review hearings while in the program. Those terminated were most likely to have fewer than 12 review hearings. There is a strong association between the number of review hearings and length of stay in the program.
- Over eight-in-10 graduates completed the program in between one and two years (83.6%). Those who terminated were most likely to do so in less than one year (39.9%).

Section 5. Program Goals

Major goals of the Hennepin County MDC program include improving community functioning among participants, reducing chemical use, and reducing recidivism. This section explores the extent to which MDC was successful in meeting these goals during the time participants were engaged in programming. Presentation of data from the MDC population as a whole, the comparison sample, as well as of graduates and terminated participants.

Goal 1: Improve Community Functioning

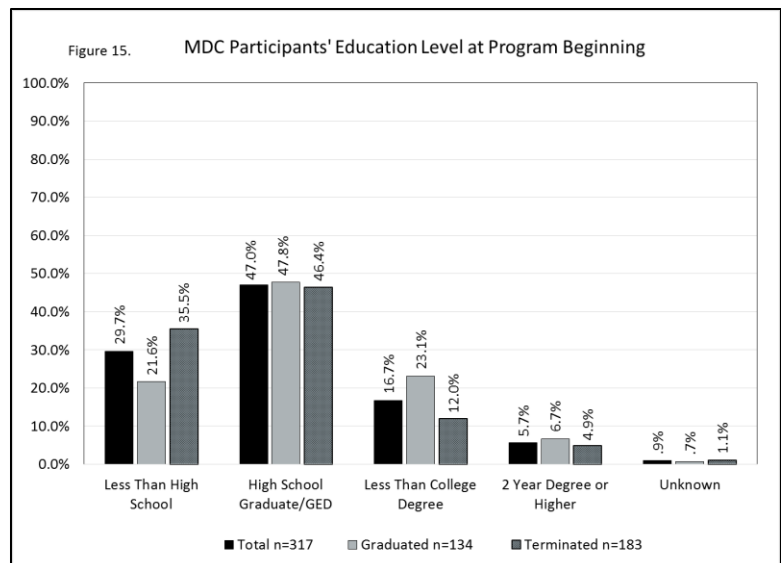
A stated goal of the MDC program is to improve community functioning in the areas of employment, education and training, and housing. This goal is consistent with the recommendations of *U.S. Department of Justice, Bureau of Justice Assistance* that promotes the idea that drug courts provide a continuum of services including addressing homelessness, basic education deficits, unemployment and poor job preparation (U.S. Department of Justice, Drug Court Standards Committee, 2004). MDC probation officers collect data on the employment, education level and housing status at the beginning and end of program participation. This pre-post methodology permits the exploration as to if participants exhibit increases in education, employment or housing stability which may be attributable to program involvement.

Education Level

Figure 15 shows that at the time participants began the MDC program, nearly three-in-10 had less than a high school education (29.7%) while nearly half had acquired a high-school diploma or GED (47.0%). It was least common for participants to have completed a two-year, four-year or advanced degree (5.7%).

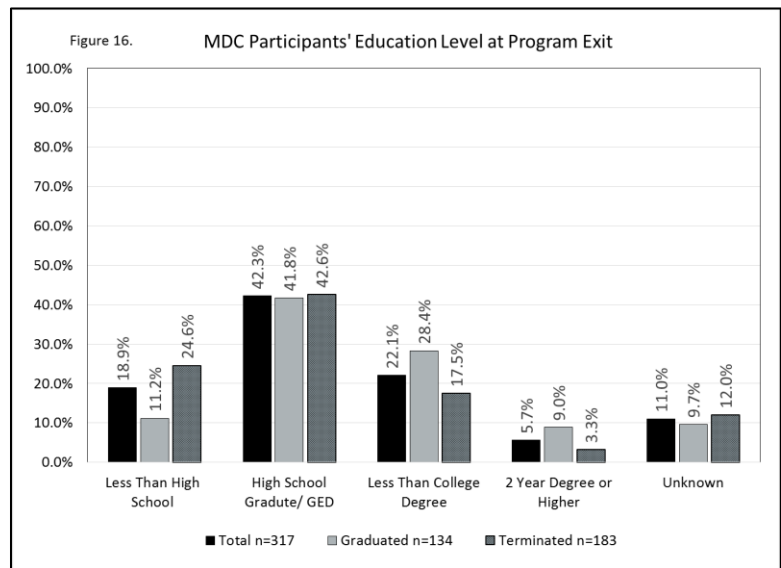
In comparing those who successfully completed the program to those who did not, there was a statistically significant difference in education level at the start of

the program ($p=.023$). Those who had less than a high school degree were more likely to terminate than to graduate the MDC program (35.5% vs. 21.6%). Those who had some college, even though they did not earn a degree, were more likely to graduate from the program than to terminate (23.1% vs. 12.0%). Finally, participants



who started the program with a high school degree were equally likely to graduate or terminate the program at 47.8% and 46.4%, respectively.

Exploration of those who graduated versus those who terminated (Figure 16) also reveals a statistically significant difference in education level at program exit ($p=.003$). Among those who had some college or a two-year degree or higher, graduation was more likely than termination. Conversely, those with less than a high-school diploma/GED at the end of MDC programming were more likely to terminate. Graduation and termination rates of those with a high school degree or GED at program exit were comparable at exit (41.7% and 42.6%, respectively). Those who exited the program with less than a high school degree were more likely to terminate than were graduates (24.6% vs. 11.2%).



In sum, those who started the program with an education level higher than high school were more likely to graduate, and those who had an education level higher than high school at the time they exited the program were more likely to be graduates. The opposite was true at both intake and exit for those with less than a high school degree. Those at the lowest education level were more likely to be among those terminated from the MDC program.

The following section explores the extent to which the MDC program contributed to an increase in education level among participants. Unfortunately, exclusion of some data was necessary between start and end due to incompleteness or incongruities (i.e. a higher education level recorded at intake than at exit). Pre- and post-education information was available for 267 MDC participants or about 84.2%.

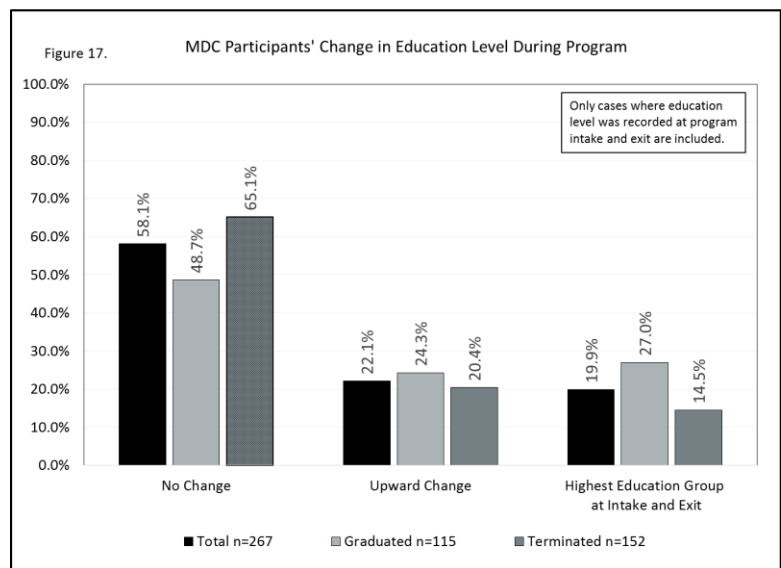


Figure 17 demonstrates that about two-in-ten participants (22.1%) had an upward change in their education level while in the program, while about six-in-ten had no change (58.1%). An additional two-in-ten participants (19.9%)

both started and ended the program in the highest education category created, which included *some college* as well as those with *technical, undergraduate or graduate degrees*. There is a statistically significant difference in change in education level among MDC graduates and those terminated ($p=.013$). Those who did not complete the program were more likely to have no change in their education level (65.1%) as compared to those who did complete the program (48.7%). Graduation was also more likely than termination among those who started and ended in the highest education category. As such, entering the program with a higher level of education potentially primes participants for success. Movement from less than a high school diploma to a GED, or from a GED to post-secondary courses works in the same manner. Nevertheless, the majority of participants did not see an increase in education, which can be a time consuming goal to accomplish while in the MDC program.

Employment Level

Another key goal of the MDC program is to increase employment and job training. NADCP cites that treatment gains are more likely to be sustained if MDC courts use positive reinforcement to increase positive activities, such as employment or recreation, which can compete against drug abuse and crime after graduation (NADCP, 2013). Implementation of vocational interventions related to finding and keeping a job should occur in the later phases of drug court once issues of housing and substance abuse has had substantial improvement (NADCP, 2013). Probation officers also capture employment status in MDC at the time a client begins and ends the program. Generally, the employment categories captured included unemployed, part-time employment and full-time employment. No specific information is collected about vocational skills or training.

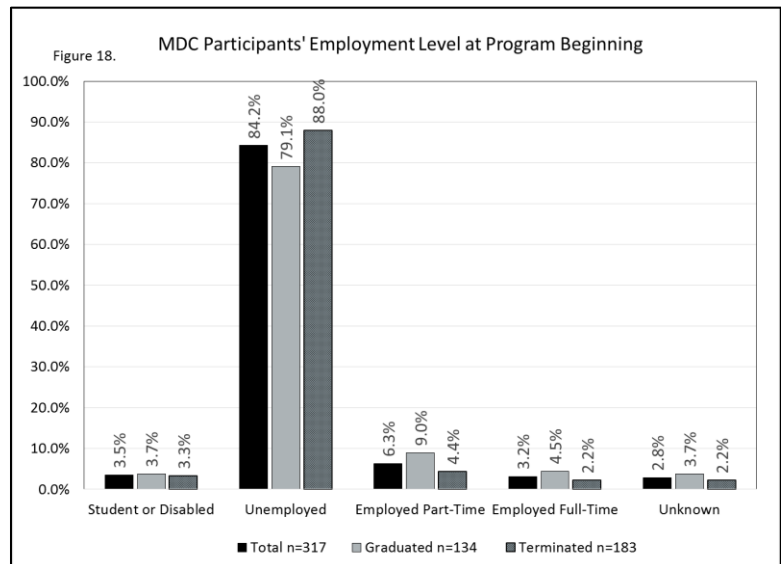
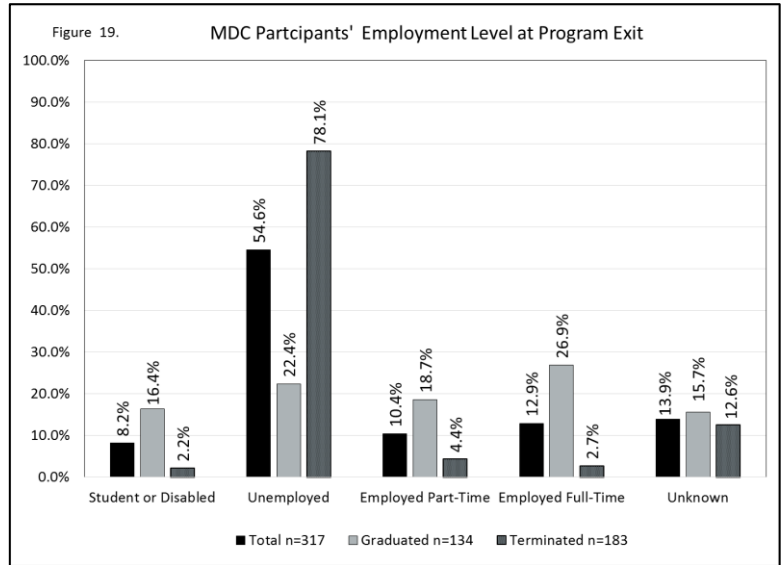


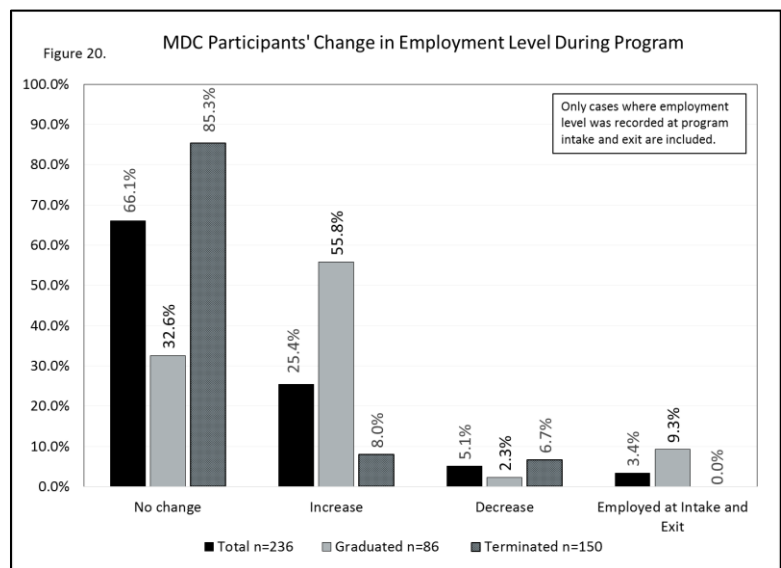
Figure 18 reflects the employment status of MDC participants at the outset of the program. The vast majority of participants in the MDC were unemployed at the time they began the program (84.2%) while just 9.5% were employed either part- or full-time. Those who successfully completed MDC were somewhat more likely to be employed at the start of the program than those who did not complete (13.5% vs. 6.6%), however the difference was not statistically significant ($p=.259$).



Employment status at exit was statistically relevant to graduation or termination from the program ($p=.000$). Figure 19 illustrates that 22.4% of graduates had no job at the time they completed the MDC program compared to 78.1% of terminates. Nearly half of graduates had some level of employment at graduation (45.6%) compared to just 7.1% of terminated participants.

To establish change in employment status during the program, instances where *unknown* employment status at intake or exit must be excluded. Similarly, the codes used for *disability* and *student* are excluded, as it is a value judgement whether moving towards one of these outcomes has positive or negative directionality for the client, depending on their individual needs and goals.

Change in employment status had a strong statistical relationship with program success based on the 236 participants for which there was complete data ($p=.000$). In total, 92.0% of those who did not graduate either had no upward change in their employment status during the program (85.3%), or experienced a decline in employment (6.7%) (Figure 20). Conversely, over half of MDC graduates had an increase in their employment level from unemployed to part- or full-time employment between intake and discharge (55.8%). In no case did a participant who had employment both at intake and at exit fail to complete the MDC program.



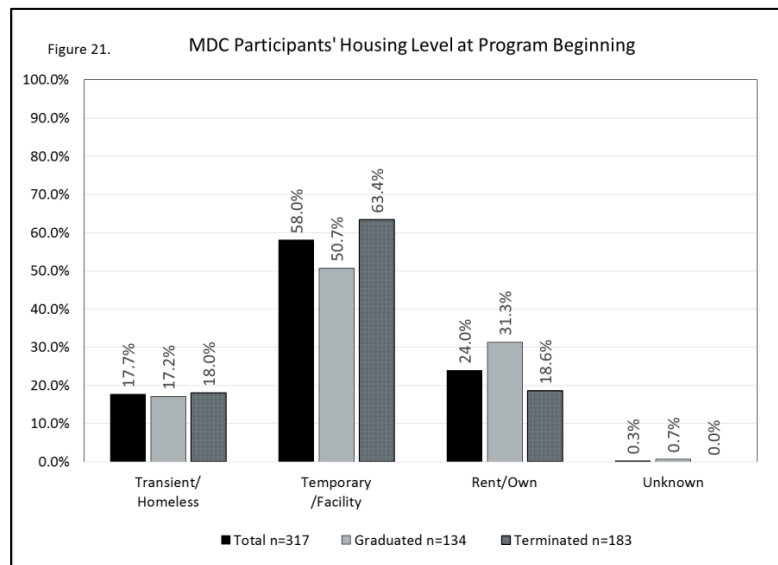
Finding and maintaining employment have a role in a successful program outcome. Nevertheless, two-thirds of all MDC participants did not see a change in unemployment status. An additional focus on assisting participants to find jobs and acquire job skills could have a positive effect on a greater number of participants.

Housing Stability

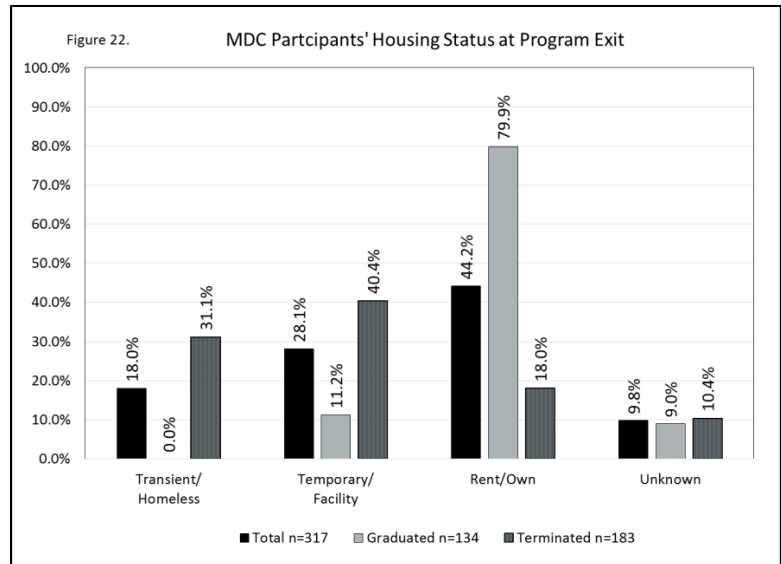
A final community-based goal of the MDC program is to increase participant housing stability. A meta-analysis of over 69 drug courts and 200 drug court practices by the *National Drug Court Institute* (2012) found that a sober housing environment as a requirement of graduation is a key practice that leads to a reduction in post-program recidivism and increased program cost savings. Also listed among the 10 key concepts of drug courts by the NADCP is housing assistance. Specifically, NADCP advises, “where indicated, participants receive assistance finding safe, affordable and drug-free housing beginning in the first phase of Drug Court and continuing as necessary throughout their enrollment in the program” (NADCP, 2015). Prioritization of stable housing is important since a lack thereof can interfere with a participant’s ability to participate successfully in substance abuse treatment and make progress in the court program (NADCP, 2015).

Of all MDC participants, 17.7% were homeless or transient at the time they began the program (Figure 21). In addition, over half were housed in a facility or temporary arrangement at the outset of programming (58.8%). This category includes jail settings as well as treatment facilities. Finally, just under one-quarter of participants beginning the MDC program owned or rented their housing (24.0%).

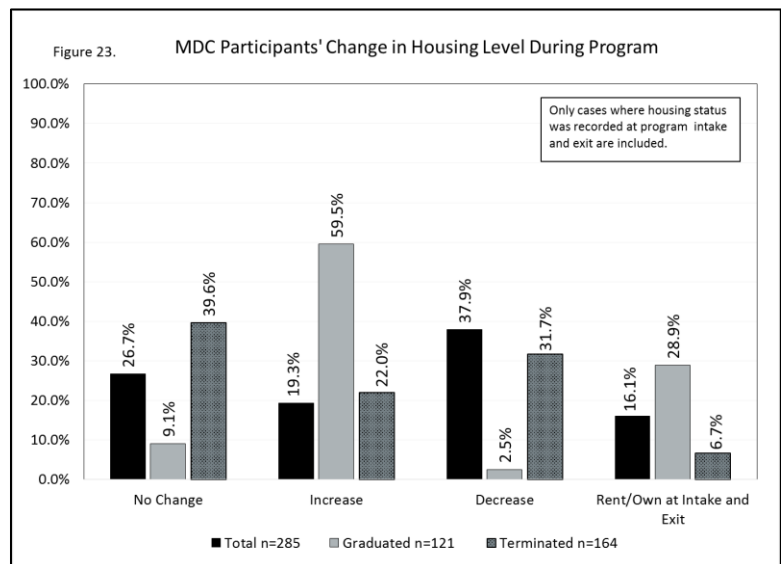
There was a statistically significant difference in housing status at program intake with regard to program graduates and non-completers ($p=.032$). Among graduates, just over three-in-10 owned or rented at the outset of the program (31.1%) compared to 18.6% of those terminated. Those who started in the program in a temporary or facility setting were more likely to terminate than to graduate (63.4% versus 50.7%). Interestingly, transient or homeless status at the program outset did not have a statistical effect on program success or failure.



There was also a statistically significant difference between those who graduated versus those terminated related to their housing status at exit ($p=.000$). Most notably, the percentage of graduates residing in a rented or owned setting increased dramatically from 31.3% at intake to 79.9% at exit (Figure 22). This is most likely because these individuals returned to a former housing arrangement after discharge from a correctional or treatment setting. Indeed the percentage of graduates who lived in a temporary or facility setting declined from 50.7% to 11.2% at exit. Conversely, those who terminated the program were more likely to be homeless or transient than those who graduated. No graduates were homeless or transient at exit compared to 31.1% of those terminated. Terminated clients were also much more likely to be residing in a correctional, treatment or temporary housing setting at the time of termination than were graduates (40.4% vs. 11.2%).



Change in housing status during the program (Figure 23) was statistically significant in relationship to program success ($p=.000$). Among graduates, 88.4% either had an increase in housing stability (59.5%), or maintained a renting/owning arrangement throughout the program (28.9%). Comparatively, just three-in-ten terminated participants increased their housing arrangement or maintained a rental/ownership arrangement throughout the duration of the program (28.7%).



Those who started MDC as transient or homeless did see improvement during their time in the program. Of the 50 people who were homeless at the outset of the program, 46% were in rented or owned housing by the end of the programming. Approximately one-quarter (24%) of those who began the MDC program homeless remained that way at program discharge—all ended up terminated. Those who started out owning or renting were quite likely to maintain at that housing level by program's end (71.9%).

The most mercurial population related to housing were those who begin MDC residing in temporary housing or facilities, which accounted for 58.0% of MDC participants. Of these 171 people, just under 40% were still in a temporary/facility setting at program exit (36.8%) and an additional 40% returned to rental or ownership arrangements (40.9%). Nevertheless, two-in-10 who started in a temporary setting exited the MDC program as homeless or transient (22.2%).

Summary Goal 1: Improve Community Functioning

Education

- Those who started the program with an education level higher than high school were more likely to graduate, and those who finished the program with an education level higher than high school were more likely to graduate. The opposite was true at both intake and exit for those with less than a high school degree.
- About two-in-10 participants (22.1%) had an *upward change* in their education level while in the program, while about six-in-10 had *no change* (58.1%). Those who did not complete the program were more likely to have *no change* in their education level (65.1%) as compared to those who did complete the program (48.7%).

Employment

- Over 80% of MDC participants entered the program unemployed. Nearly half of graduates had some level of employment at graduation (45.6%) compared to just 7.1% participants who were terminated.
- Change in employment status had a strong statistical relationship with program success. Among graduates, 55.8% had an increase from unemployed to part- or full-time employment during the program, compared to an 8.0% increase among those who terminated.

Housing

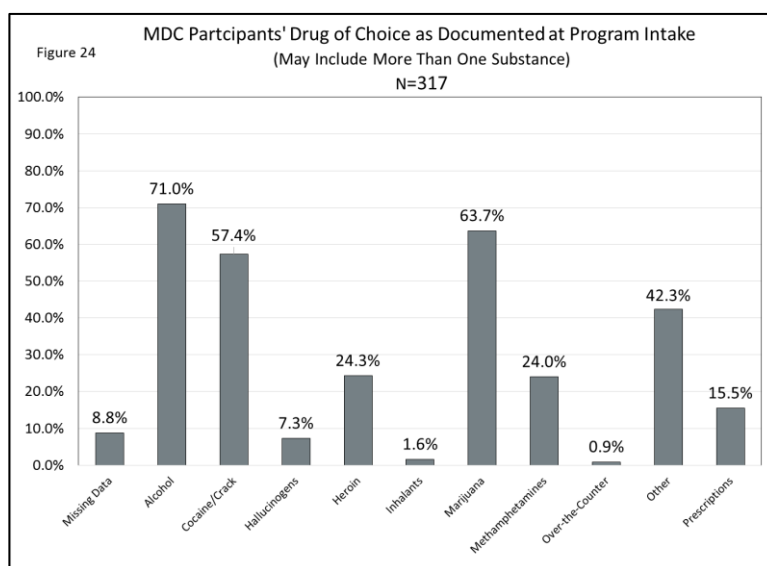
- Of all MDC participants, 17.7% were homeless or transient at the time they began the program. Of those who unsuccessfully ended the program, 31.1% were homeless at the time of discharge.
- Those who owned or rented housing at the time of program intake were mostly likely to graduate the MDC program. In addition, those who rented or owned a home at program exit were statistically more likely to graduate.
- Graduates saw an increase in housing stability during the program, namely moving from a facility or temporary arrangement into a rental or ownership arrangement. These likely represent transitions from correctional or treatment facilities back into prior living arrangements.
- Among those terminated, 31.7% had a decline in housing stability recorded during the program.

Goal 2: Reduce Illegal Drug Usage

A top priority of drug courts is to intervene in behaviors and attitudes pervasive among addicted offenders. The MDC program expects all participants to make meaningful progress towards a sober life-style and agree to this as a condition of the voluntary program. Mandatory components of MDC include inpatient and/or outpatient chemical dependency treatment, aftercare, community-based support such as AA or NA, sponsorship, and frequent random drug screens. These requirements are most rigorous early in the program in order to stabilize the participant's chemical use but continue throughout to promote ongoing sobriety.

Drug of Choice

Records at the beginning of a defendant's time in MDC indicate their drug of choice with many of them preferring more than one substance. Figure 24 illustrates the distribution of preferences across the MDC population. The most preferred drug among participants was alcohol (71.0%), followed by marijuana (63.7%). Crack or cocaine was a preferred drug by over half of participants (57.4%). Finally, nearly one-quarter of participants indicated heroin use (24.3%) or methamphetamine use (24.0%).



Nearly four-in-10 participants had an "other" drug of choice listed. Nicotine was the most common of these other drugs recorded (63.4%), followed by opiates at 20.9%. Nearly one-in-10 reported using Ecstasy (9.0%). Two percent or less of MDC participants reported using benzodiazepines, amphetamines, barbiturates or synthetics as a drug of choice.

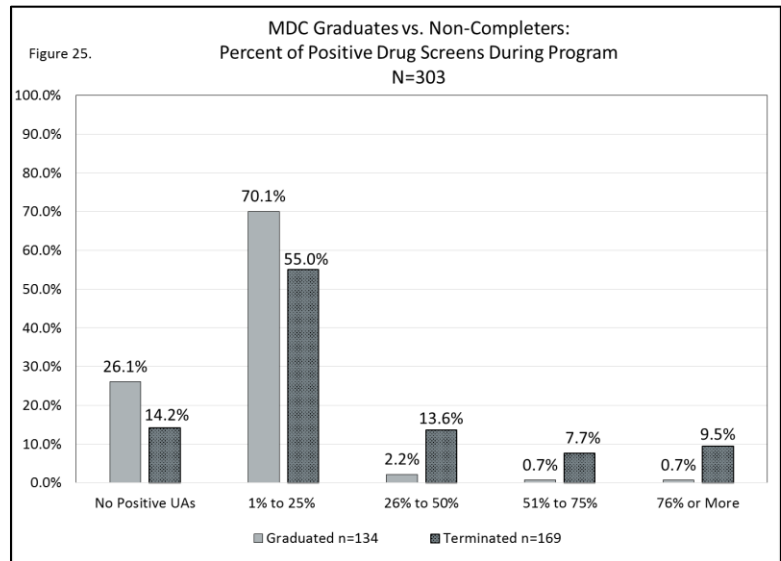
Chemical Screening

One of the most common methods of chemical use abstinence monitoring is random urinalysis conducted by DOCCR. Each MDC client gets a "color" and in the evening must call a probation phone line that indicates which color must report to the probation office the next day to provide a urine sample. Different colors are associated with different frequencies of monitoring. Failure to report for testing is considered a positive test. The random testing may be done in addition to regularly scheduled test days both at the probation department and their chemical dependency program.

The number of UAs given to MDC participants ranged from a minimum of zero to a maximum of 255. There were no records of drug tests for 14 clients. It is likely that testing was occurring at an in- or outpatient treatment provider or there may be missing data. On average, the 303 participants who were tested provided 50.6 urine analysis screens (UAs) during their program involvement.

Among the 303 individuals who did have UAs completed by the DOCCR department during their tenure in MDC, there is a statistically significant difference in the number of positive UAs provided by graduates and by non-completers (Figure 25, $p=.000$). Among graduates, over one-quarter provided no positive UAs (26.1%) compared to 14.2% of those terminated.

Having a positive UA is not necessarily grounds for termination. Relapse is a built-in expectation of the program for which participants are both held accountable and supported. Seven-in-10 graduates (70.1%) had between one percent and 25% of positive UAs for drugs or alcohol.



The difference between graduates and those terminated emerges when looking at those who had over one-quarter of their UAs return positive. While just 3.6% of graduates had over one-quarter of tests yield positive results ($n=5$), this was the case for 30.8% of those terminated ($n=52$). Terminated clients were more likely to have over half of their drug tests come back positive (7.7%) as well as for over 75% of their tests to come back positive (9.5%). This suggests either a greater difficulty remaining sober or an unwillingness to make progress towards the sobriety expectation of the program.

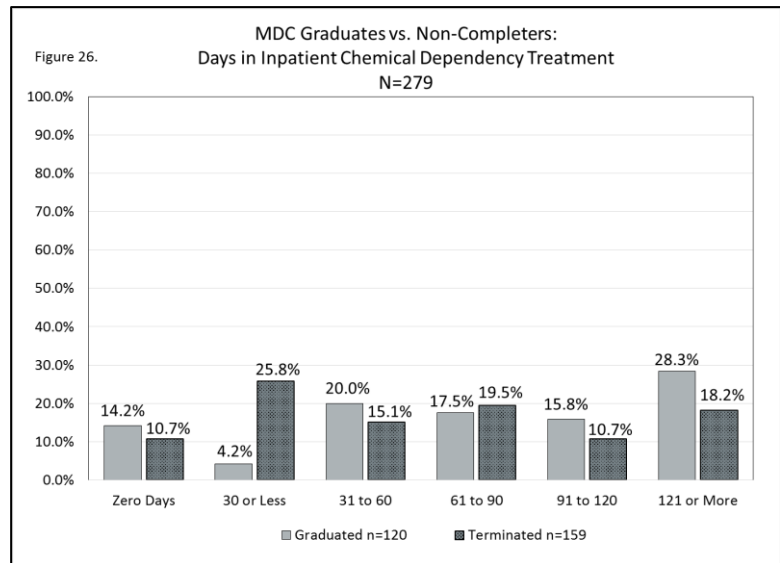
Chemical Dependency Treatment

It is an expectation of all MDC participants that they participate in and complete chemical dependency treatment. This typically begins with inpatient treatment where a participant resides at a treatment facility, followed by outpatient where they may spend the day or return regularly for continuing groups and sessions. Finally, programs have a portion of aftercare to continue to provide support in the community. This “step-down” process is a best practice in supporting recovery. Adult drug court best practice standards promote a minimum of 200 hours of counseling over nine to twelve months to ensure participants receive “sufficient dosage and duration of substance abuse treatment to achieve long-term sobriety and recovery from addiction” (NADCP, 2013).

As it relates to MDC data, probation officers provide documentation of days in treatment. Unfortunately, they must often work from case-notes or memory as there is no accessible database to validate the number of treatment days completed, or whether a participant was successful in a program.

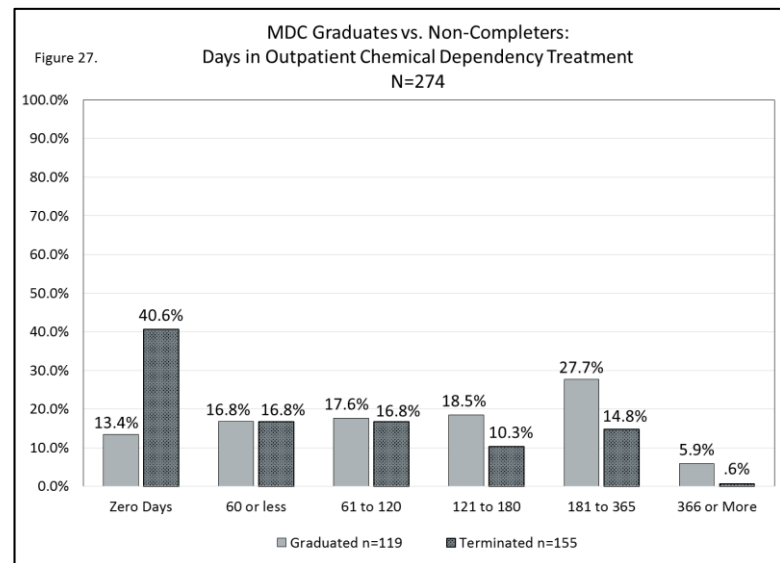
Inpatient Treatment

Based off reports submitted by probation officers, inpatient treatment data are available for 279 participants. Among this population, graduates were statistically more likely to have spent longer in treatment than those who terminated ($p=.000$). Of those who participated in inpatient treatment, 25.8% of those terminated MDC participated in treatment services for fewer than 30 days (Figure 26). Conversely, 44.1% of MDC graduates completed 90 days or more of inpatient chemical dependency treatment.



Outpatient Treatment

Of the 274 participants for whom outpatient treatment data are available (Figure 27), graduates were again statistically more likely to have spent longer in treatment than those who terminated ($p=.000$). Nearly four-in-10 participants who terminated MDC did not participate in any outpatient treatment or did not progress through inpatient to a point where they would switch to an outpatient setting (40.6%).



Conversely, MDC graduates tended to have extended exposure to outpatient chemical dependency treatment. Over half of MDC graduates (52.1%) were reported as having in excess of 120 days of outpatient treatment prior to graduation.

Treatment Compliance

Compliance with treatment is documented by a participant's probation officer. Not surprisingly, more MDC graduates were reported as "treatment compliant" at the end of their program than those participants who were terminated. One-hundred percent of MDC graduates were deemed treatment compliant compared to just 9.8% of those terminated. The remaining 90.2% of terminated participants were considered to be treatment non-compliant.¹⁶

Sobriety During and After MDC Program

MDC collects sobriety data at the end of the program based on "days since last known substance use." Days sober are calculated using the last date of a positive drug screen, the last date a chemical dependency program reported client use, or the last date a participant self-reported chemical use. During the timeframe covered by this evaluation, days of sobriety were not routinely collected, especially for participants who terminated from the program. For the 317 MDC participants, total days of sobriety are missing for 97 individuals, 83.5% of whom were terminated. This illustrates that the missing data are not equally distributed among graduates and terminates.

A different problem exists when trying to track sobriety for participants after the program. Those who successfully complete MDC are moved to an administrative probation status that has no active supervision or drug screen component. The primary requirement of administrative probation is to notify DOCCR of any change in address. Only if an MDC participant commits a new crime or there is clear and convincing evidence that they violated administrative probation conditions would they be reactivated to a supervised status. Similarly, those who fail the MDC program typically have a stayed prison sentence executed. Upon release, most MDC participants are no longer on probation supervision. Without regular drug screens after MDC or prison, it is not possible to determine if participants are able to maintain any gains in sobriety made during MDC.

Treatment Data Needs

The methodology used to document participation in chemical dependency treatment has improved since this evaluation period. Since 2015, probation officers submit quarterly tracking forms to Court Research that capture the dates clients participate in treatment, the names of providers, the modality of treatment (inpatient or outpatient), and whether their client successfully completes. While this effort will likely result in improved evaluation of treatment variables in the future, it still only captures data on MDC participants and only during their time in the MDC program. Treatment information on the comparison group is not available confounding a matched evaluation process.

¹⁶ Treatment compliance variable n=284. Data are missing for 33 participants. Missing data are equally distributed among graduates and non-completers.

This evaluation did endeavor to access treatment data from alternative sources, namely Minnesota's *Consolidated Chemical Dependency Treatment Fund (CCDTF)*. This database captures the use of chemical dependency treatment primarily by low-income Minnesotans, but does not necessarily include treatment covered through private insurance or other public insurance streams such as Minnesota Care. Upon examination, service dates and durations in the CCDTF database and those provided by probation officers were incongruent. It was not possible to discern which source was the more accurate account of treatment.

The best way to address this issue in subsequent evaluations is to request data from Minnesota's *Drug and Alcohol Abuse Normative Evaluation System (DAANES)*. This database is maintained by the Minnesota Department of Health and Human Services and contains information on all individuals admitted to licensed chemical dependency treatment in the state. All treatment funding streams submit data to DAANES including the CCDTF, those programs that accept Medical Assistance and Minnesota Care, and programs that accept private insurance or self-pay (Minnesota Department of Human Services, 2016).

While the data are highly protected due to their medical nature, they may be requested for research purposes. Treatment data from the same data source, which flows directly from a treatment provider to the database, can potentially provide an accurate and comprehensive picture of the nature of chemical dependency treatment for MDC participants and probationers alike. This can help to answer whether the frequency, intensity and duration of treatment is different between the two populations, and whether it has any bearing on program success or future recidivism.

Summary Goal 2: Reduce Illegal Drug Usage

- The most widely used substances reported by MDC participants were alcohol (71.0%), marijuana (63.7%), and crack/cocaine (57.4%). Approximately two-in-10 participants also reported methamphetamine, heroin and opioids.
- On average, MDC participants submitted 50 drug screens as a part of programming. Those submitting no positive tests or those who had positive tests in less than 25% of those assessed were graduates. Those who terminated were more likely to have in excess of 25% of tests come back positive.
- Graduates of MDC were statistically more likely than those terminated to have spent a longer period of time in both inpatient treatment and outpatient treatment.
- Data collection issues make it difficult to ascertain how long MDC participants are able to maintain sobriety both during and after their involvement in the program.
- In subsequent evaluations, request chemical dependency treatment records for both the MDC population and the comparison group from the *Drug and Alcohol Normative Evaluation System (DAANES)* database. This will allow for comparison of treatment use and outcomes both during the program and during the recidivism windows.

Goal 3: Reduce Recidivism

The ultimate goal of any problem solving court is to reduce current and future offending. A reduction in crime is of benefit to the program participant but also to victims and communities. A return to criminal activity, also known as recidivism, is both harmful and costly to victims and communities. Evaluations often focus on the effectiveness of drug courts in reducing subsequent crime. Additionally, evaluations often assess the return on investment of these courts. The following section explores the offending behavior of MDC participants while in the MDC program, as well as at two-years after program completion.

Recidivism Definition

Criminal justice related studies often focus on recidivism and can vary in the stage of the system at which recidivism is measured. The *National Institute of Justice*, for instance, recommends that the measurement of recidivism be rearrests, reconvictions and return to prison with or without a new sentence (2016). The most common stages include new arrests, new charges, new convictions and new incarceration. Research finds no one measure as superior to another, as each has strengths and limitations, and methods vary from study to study. A statewide 2012 evaluation of drug courts in Minnesota, for example, used both charge and conviction as measures of recidivism, but limited offense types to felonies, gross misdemeanors, and seven ‘targeted misdemeanor’ crimes (Minnesota Judicial Branch, State Court Administrator’s Office, 2012).

For the purpose of this evaluation, the definition of recidivism is a *conviction* for a new criminal offense. This jurisdiction selects conviction because of the strength of a case needed to procure a conviction. Issues of racial disparities, particularly at the point of arrest, make arrest a questionable indicator of program success or failure. A study conducted by the ACLU found that arrests of African Americans and American Indians in the city of Minneapolis for low-level offenses was at rates over 8 times that of their White peers (American Civil Liberties Union, 2014). In addition, persons from communities of color are more likely to have their cases dismissed in Hennepin County such that criminal charges is also a questionable indicator for recidivism (Johnson, 2015). A conviction means that an individual has had their full due process on the case and has admitted guilt or been found guilty of the charges beyond a reasonable doubt.

This evaluation also limits the definition of recidivism to misdemeanor, gross misdemeanor and felony level convictions. As it relates to misdemeanors, the exclusion of traffic and vehicle related offenses (with the exception of DWIs) means that only offenses for which incarceration is a possibility remain. As such, criminal recidivism excludes offenses such as driving without insurance, driving after cancellation, and careless driving. This definition of recidivism is identical when computing defendant’s criminal histories.

Offense Timing

There are different points in time for which an evaluation can explore offending behavior for defendants in MDC. Offenses and convictions prior to a program are part of one's criminal history. If a new charge occurs during one's time in the program but the conviction does not occur until after they exit the program, it is in-program offending. This evaluation only considers an offense to be recidivism if both the offense date and the conviction date happened after the treatment period had ended.

The question of how long to track a participant after the treatment period is also relevant. The NADCP recommends following drug court participants for reoffending behavior for three to five years after program completion. Research has demonstrated that after three years, statistically significant differences in recidivism between treatment and control groups are likely to remain significant going forward. In addition, after five years recidivism rates tend to plateau. If an offender has not recidivated by that time, they are unlikely to do so (NADCP, 2015).

While exploring recidivism during and shortly after program discharge is certainly of interest, it does not reflect the long-term impact of a drug court program. This evaluation tracks MDC program participants and a comparison group for two years after their completion of the MDC program, and for two years after beginning probation for the comparison group. All MDC participants in the matched cohort are included, not just graduated or terminated participants.

It is important when comparing the two populations that all individuals have the same amount of time at risk to reoffend. This evaluation period is often called "street time" because if an individual is incarcerated for any amount of time (i.e., two months), an additional two months is added on to the end of the two year window. This addresses the "incapacitation effect" whereby people in study groups literally may not be able to reoffend because they are incarcerated.

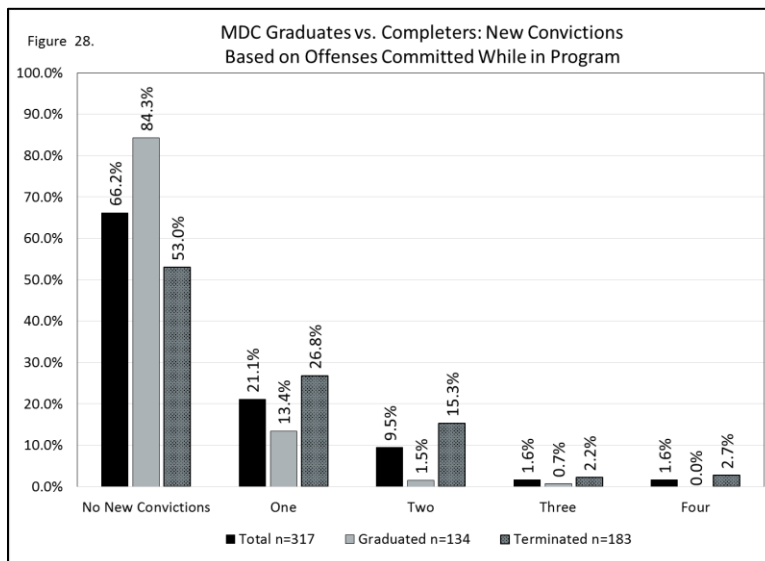
New Convictions during the MDC Program

A stated goal of the MDC program is to reduce offending behavior, which includes illegal behavior while enrolled in the program. Of the 317 MDC participants, two-thirds had no new offenses that led to subsequent convictions during their time in the program (66.2%). In total, 107 participants had a least one new conviction stemming from charges incurred while in MDC.

There is a statistically significant difference between graduates and those terminated with regard to criminal behavior during the MDC program ($p=.000$). While 84.3% of graduates did not have a new offense during the

program leading to conviction (Figure 28), this was true for just over half of those terminated (53.0%).¹⁷ Those terminated were also more likely to have between ‘Two and Four’ new offenses than graduates at 20.2% and 2.2%, respectively.

Among graduates, 97.0% had no new felonies, 97.0% had no new gross misdemeanors, and 89.6% had no new misdemeanors. Conversely, 23.0% of unsuccessful participants had at least one new felony, 6.6% had at least one new gross misdemeanor and 27.9% had at least one new misdemeanor. Of the 46 individuals with new felonies, 21 (45.6%) had a new felony for a drug-related offense.



Incarceration during Program

MDC has at its disposal the use of jail days as a sanction in response to violations of program expectations or new offenses. Literature suggests that programs that cap the use of jail at six days or less in response to program violations have decreased recidivism and costs compared to those that allow for more (Carey, Mackin & Finnigan, 2012).

In MDC, total jail days ordered during the program are reported by probation officers and are queried from Minnesota’s *Statewide Supervision System (S³)*. A “tipping point” in the data appears to occur at approximately 45 days.¹⁸ Among those who were incarcerated for a total of less than 45 days during the program, just over 80% graduated (81.5%). Conversely, among those who were incarcerated for a total of 45 days or more, 79.8% ultimately terminated (p=.000). A greater number of total days incarcerated during the MDC program is moderately correlated with program failure (*Pearson r* = -.540).

¹⁷ A new conviction during MDC means that the offense date occurred while in the program, even if the conviction date happened after their involvement in MDC was over.

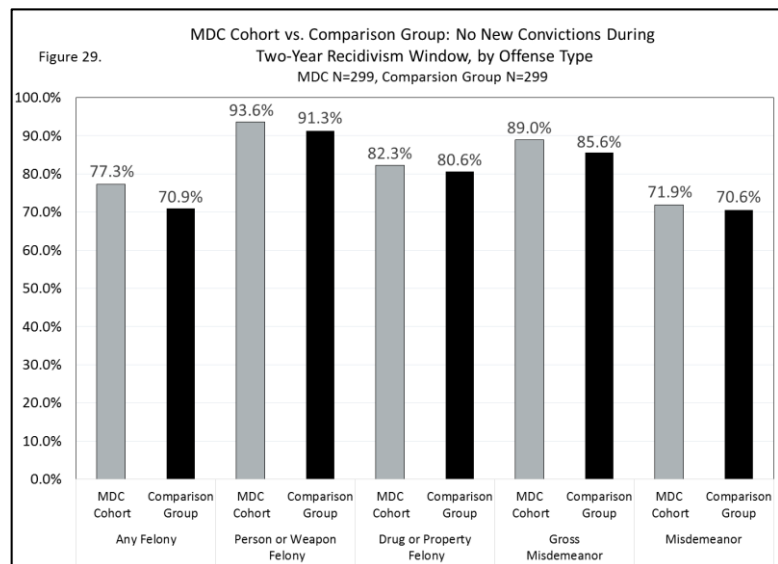
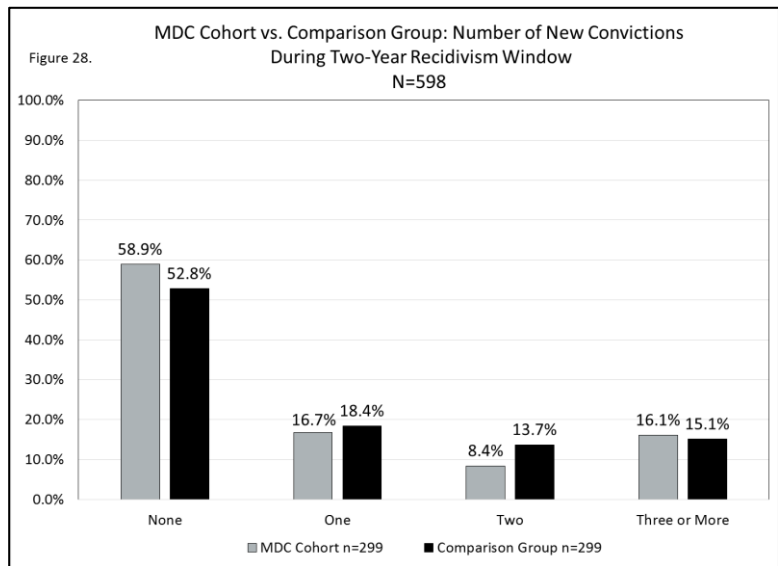
¹⁸ Jail Days data are missing for 35 participants.

Recidivism Analysis

This section explores the impact of the MDC program on recidivism for all participants, as opposed to just graduates or those terminated. By examining outcomes for the entire MDC cohort compared to the “justice system as usual” response, it can be determined if MDC participation is more effective in lowering recidivism. As is described in Section 2, *Research Design*, selection of the comparison population from among traditional probationers using a statistical matching process generated a group with comparable demographic attributes, risk levels and offense histories. Using Propensity Score Matching, 299 MDC participants were matched to 299 probationers who likely could have been potential participants in the MDC program.

A basic comparison between the two populations in the number of new convictions two years after MDC participation yield no statistically significant differences ($p=.159$). Between 50% and 60% from each population had no new convictions during the recidivism window (Figure 28). In addition, comparable numbers had *One* new conviction and *Three or More* new convictions.

A comparison of new convictions by offense type also yielded no statistically significant differences between MDC participants and the comparison population (Figure 29). Approximately seven-in-ten had no new felony convictions of any kind ($p=.076$); 91% or more had no new felony person or weapon convictions ($p=.278$); 80% or more had no new felony new drug or property convictions ($p=.599$) or gross misdemeanor convictions (.220); and 70% or more had no new misdemeanor convictions ($p=.718$). While MDC participants were slightly less likely to reoffend across all different offense types, none were to a level statistically different from the comparison group who received traditional probation.



Recidivism T-Tests

A statistical technique known as an independent t-test can provide additional information as to whether there are different mean levels of offending between the MDC population and the comparison group during the two-year recidivism window. Table 6 explores the number of new offenses committed by each group by offense type.

On average, participants in the MDC group had new convictions of 0.3 felonies after their time in the MDC program. Conversely, the comparison group had an average of 0.5 new felony convictions. While the comparison group has a higher level of felony reconviction, it does not reach conventional levels of statistical significance $p=.057$.

Table 6. MDC Cohort vs. Comparison Group: T-test Recidivism Analysis N=598				
Subsequent Felony Convictions				
p=.057	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	0.3	0	4	0.04
Comparison Group	0.5	0	8	0.06
Subsequent Gross Misdemeanor Convictions				
p=.215	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	0.1	0	2	0.02
Comparison Group	0.2	0	4	0.03
Subsequent Misdemeanor Convictions				
p=.583	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	0.7	0	16	0.10
Comparison Group	0.6	0	11	0.08
All Subsequent Convictions (Total Number)				
p=.532	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	1.2	0	17	0.13
Comparison Group	1.3	0	14	0.12
Any Subsequent Conviction (Yes or No)				
p=.139	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	0.4	0	1	0.49
Comparison Group	0.5	0	1	0.50
Total Recidivism Points				
p=.183	Mean	Minimum	Maximum	Std. Deviation
MDC Cohort	2.0	0	17	0.20
Comparison Group	2.4	0	26	0.23

Additional means testing shows that the MDC cohort and the matched comparison group reconvicted at very similar rates. There was no statistically significant difference in the number of new gross misdemeanor or misdemeanor convictions, and when taking into account all new offenses collectively, the MDC cohort averaged 1.2 and the comparison group 1.3.

An additional analysis of recidivism creates a weighted recidivism variable where both the number and the type of offense are taken into consideration. In this analysis, assignment of a different numerical weight relates to the severity of different offense types. The weighting used for this analysis gives a person with no recidivism a score of zero while a felony-level *person offense* receives the highest score of four.¹⁹ The number of convictions an individual received in each category during the recidivism window then multiplies by each offense weight. For example, the highest recidivism score recorded was a 26, which represented an individual who had six new non-person felony convictions during the recidivism window (18 points) and eight new non-person gross misdemeanor or misdemeanor levels offenses (an additional 8 points).

Means testing on the weighted recidivism score variable did not result in a statistically significant difference between the MDC cohort and the comparison group. On average, MDC participants had a recidivism score of two points. This is the equivalent of one gross misdemeanor or misdemeanor person offense, or two non-person gross misdemeanor or misdemeanors during the two-year recidivism window. The comparison group had a slightly higher mean recidivism score (2.4) but it nevertheless equates to the addition of less than one more non-person gross misdemeanor or misdemeanor level offense. Based on numerous analyses of recidivism, MDC participation does not appear to reduce criminal convictions in the two-year period after discontinuing the program when compared to “business as usual.”

Warrants

While warrants are not necessarily indicative of new criminal behavior, another factor to consider is whether program participants and those in the comparison group abided by the terms of the court while on probation. One way to explore this is to examine the number and type of warrants issued during the two-year recidivism window. Not only does this reflect compliance with supervision, it also has an impact on the use of law enforcement, jail and court resources. This section explores warrants issued on the 299 MDC participants and the 299 probationers in the comparison group for statistically significant differences between them. The types of warrants included in the analysis are for failure to appear in court, probation violations, and bench warrants for reasons other than failure to appear.

¹⁹ Recidivism variable weighting: person felony is a weight of 4 points, non-person felony is a weight of 3 points, and gross misdemeanor or misdemeanor person offenses are a weight of 2 points, non-person gross misdemeanor or misdemeanor weights at 1 point, and no offenses receives zero points.

Number of Warrants Issued

Among the MDC population, nearly six-in-10 participants (59.9%) had no warrants issued within the two-year recidivism window.²⁰ Of the 120 participants who did have warrants, the total number issued was 452. On average, the MDC cohort population had 1.5 warrants per person after program completion. The highest number of warrants issued for an individual was 20.

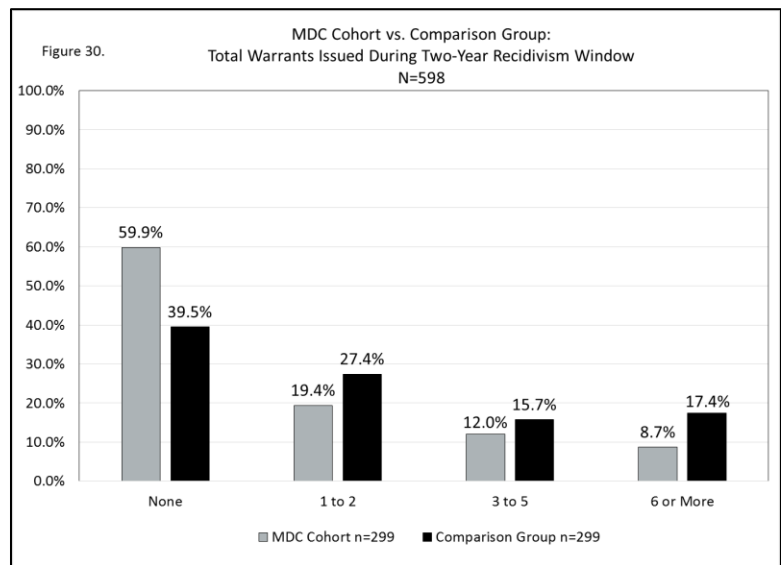
Among the comparison population, 39.5% of individuals had no warrants issued during the two-year recidivism window (Figure 30). Of

the 181 individuals who did have warrants, the total number issued was 780. On average, there were 2.6 warrants per person during the evaluation window. The highest number of warrants issued for an individual was 38.

There is a statistically significant difference between the two populations in the total number of warrants issued during the two year evaluation period ($p=.000$). MDC participants were more likely to have no warrants issued whereas the comparison group was more likely than the MDC group to have warrants issued in all other groupings: '1 to 2, 3 to 5, and 6 or More'.

Type of Warrant Issued

Further investigation into the type of warrant issued during the two-year recidivism period reveals instances of both similarities and differences between the populations. There is no statistically significant difference in the number of warrants issued for *Failure to Appear* ($p=.693$). Between both the MDC cohort and the comparison group, approximately seven-in-10 had no *Failure to Appear* warrants issued (Figure 31). Similarly, the two groups have comparable proportion of them with one or two *Failure to Appear* warrants issued (16.7% to 20.4%).

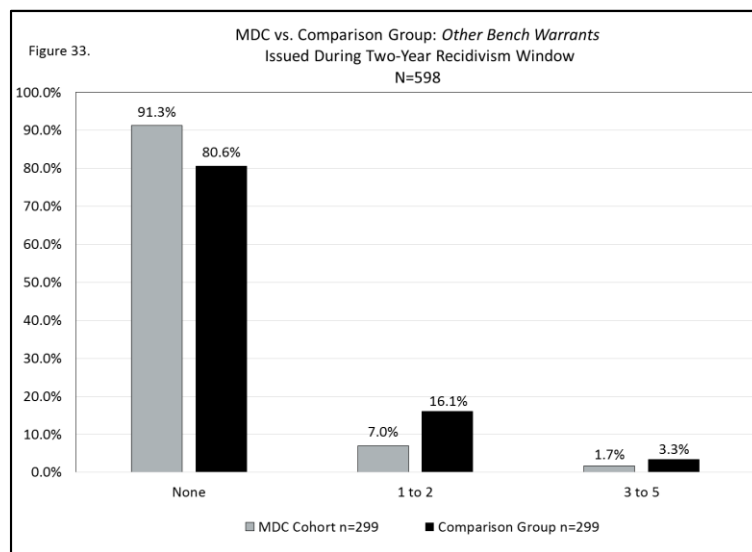
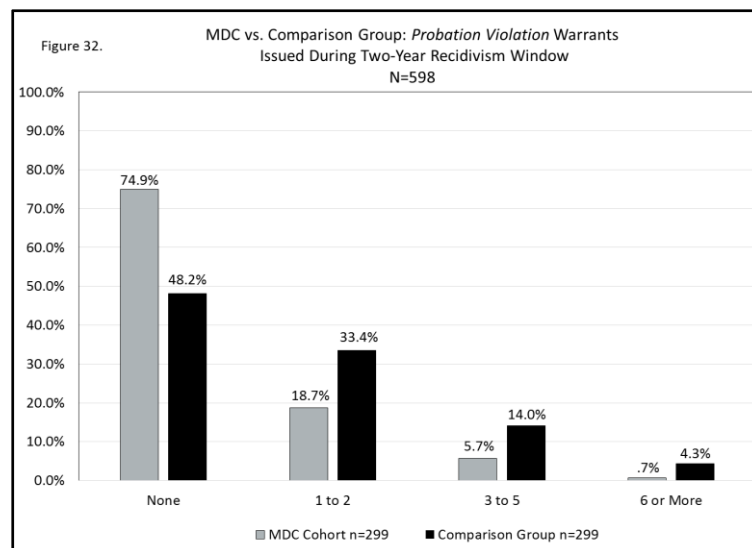
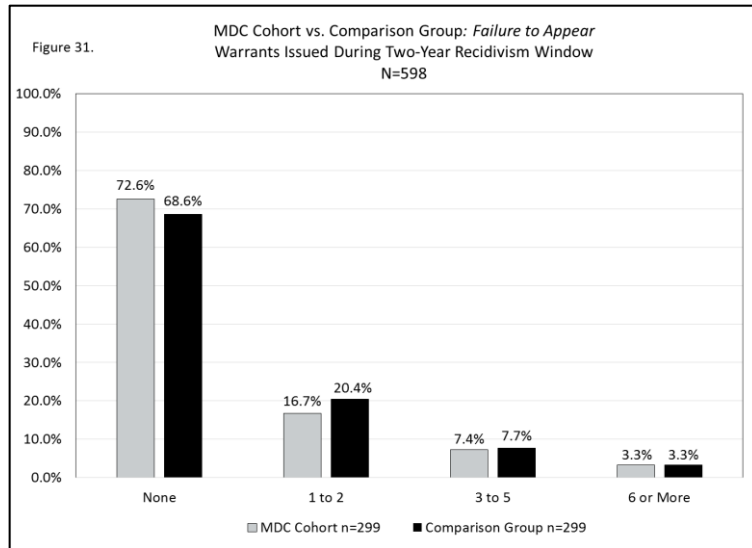


²⁰ Includes warrants for Failure to Appear, Probation Violations and Bench Warrants for reasons other than Failure to Appear.

There is a statistically significant difference between the two populations with regard to the issuance of *Probation Violation* warrants ($p=.000$). The comparison group was much more likely to have a warrant issued for a probation violation than is the MDC cohort (Figure 32). Nearly three-quarters of MDC participants had no probation violation warrants issued (74.9%) compared to less than half of the comparison group (48.2%). One driving reason for this difference is likely that while the comparison group is typically on active probation supervision during the recidivism window, those who successfully completed MDC are typically on administrative probation where they are not supervised or having to comply with specific conditions. However, an MDC participant can have their probation supervision reactivated and those who fail MDC likely remain on supervised probation as a part of their executed sentence.

Finally, there is a statistically significant difference between the MDC population and the comparison group in the number of *Bench Warrants* issued during the two-year recidivism window for reasons other than failure to appear ($p=.001$).

Less than 10% of MDC participants had a bench warrant issued compared to 19.4% of the comparison group (Figure 33). Bench warrants for issues other than a failure to appear typically are in response to failure of conditional release terms. These may include failure to appear at (or return to) the Hennepin County workhouse when court-



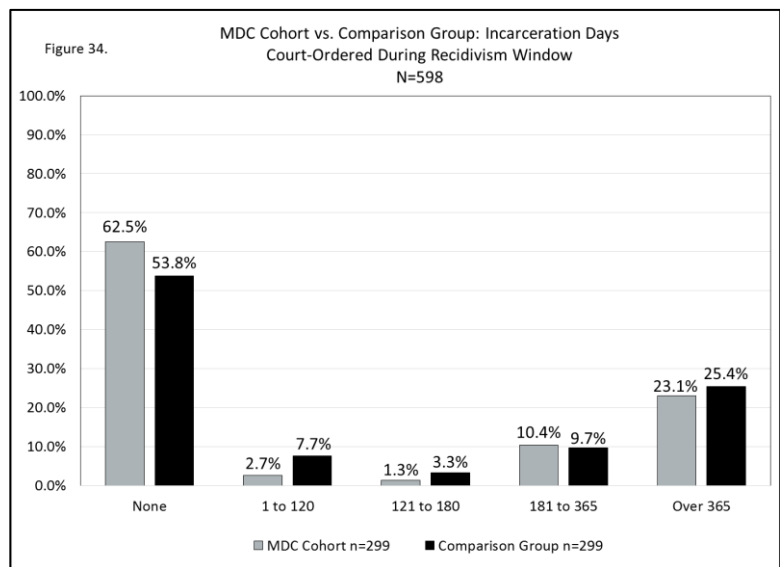
ordered to do so; revocation of one’s conditional release from a prison facility; and a variety of other issues such as failure to report to submit drugs screens.

Use of Incarceration during Recidivism Window

Another factor important to individuals, communities, drug court programs and justice system resources is the use of incarceration. The following section explores if the MDC cohort or the comparison group were court-ordered to more incarceration days during the two-year recidivism window.

This variable is calculated using court disposition data. Included are actual (not stayed) court-ordered jail or prison days. If the location of the incarceration ordered was prison, the days calculated are two-thirds to reflect Minnesota Sentencing Guidelines, which typically calls for service of two-thirds of a sentence in a facility and one-third in the community. The *Incarceration Days* measurement totals all incarceration ordered for each individual on any new conviction or on their instant offense that occurred during the recidivism window. The incarceration time did not include concurrent incarceration time across cases. It is also important to note that individual could have spent days incarcerated in local facilities incidental to an arrest or warrant. Since these are cases that might not be charged, and therefore are not in the court database, they are not included in the total.

In examining the binary outcome of whether the two cohorts served any incarceration days during the recidivism window (yes or no), there was a statistically significant difference in the populations ($p=.025$). Those in the MDC program were more likely to have served no days in jail or prison (62.5%) than were traditional probationers (53.8%). In looking at the number of days court-ordered by each population, there is also a statistically significant difference (Figure 34, $p=.016$). Probationers in the comparison group were more likely to have been ordered to between 1 and 120 days (7.7%) and to between 121 and 180 days (3.3%) than were the MDC cohort. Those who spent 181 to 365 days and 365 days or more in a correctional facility were similar across both the MDC group and the probation population. Nevertheless, MDC participants overall were less likely to have been ordered to jail or prison resources than the comparison group.



The finding that the comparison group has incurred more incarceration days than the MDC cohort is not surprising. One of the key benefits of participating in MDC is the stayed jail or prison time, provided one

successfully completes the program. The only time there is activation of the incarceration time is if a MDC participant fails the program or withdraws. Conversely, most who receive a traditional sanction will receive a jail or prison sentence followed by a period of supervision.

Recidivism of Program Graduates

In order to judge the success of the MDC program compared to a typical justice system response, it is necessary to look at recidivism outcomes for all participants—those who graduate and terminate alike. It is also useful, however, to look at those who were successful in the program to see if they had better outcomes than their peers who did not participate. This section explores the reoffending behavior of those who graduated the MDC program (n=126) compared to that of the individuals to whom they were matched in the comparison group.

Table 7. MDC Graduates vs. Comparison Group: T-test Recidivism Analysis N=232				
Subsequent Felony Convictions				
p=.000	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.1	0	3	.04
Comparison Group	0.4	0	4	.07
Subsequent Gross Misdemeanor Convictions				
p=.018	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.1	0	1	.02
Comparison Group	0.2	0	3	.04
Subsequent Misdemeanor Convictions				
p=.002	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.2	0	3	.05
Comparison Group	0.5	0	5	.09
All Subsequent Convictions (Total Number)				
p=.000	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.4	0	7	.08
Comparison Group	1.1	0	6	.14
Any Subsequent Conviction (Yes or No)				
p=.000	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.2	0	1	.04
Comparison Group	0.5	0	1	.04
Total Recidivism Points				
p=.000	Mean	Minimum	Maximum	Std. Deviation
MDC Graduates	0.6	0	13	.15
Comparison Group	2.0	0	16	.27

Additional t-tests (Table 7) illustrate that those who graduate from the MDC program recidivate less during the two-year window following their program participation. MDC graduates have, on average, fewer total new convictions than their comparison group (.04 vs. 1.1) and have a lower average recidivism score (0.6 vs. 2.0). The latter can be a reflection both of fewer new convictions and less serious new convictions.

Across all offense categories: felony, gross misdemeanor and misdemeanor, MDC graduates had a lower mean number of convictions during the recidivism window than their matched peers. All were statistically significant differences.

This analysis supports that those who successfully complete MDC are in some capacity different than those on a traditional system trajectory. Those in the MDC program may have developed skills and values that have reduced criminogenic risk, they may intrinsically have greater motivation to avoid prison or address their chemical health, or a combination thereof.

Summary Goal 3: Reduce Recidivism

Recidivism

- Of all MDC participants, two-thirds had no new offenses during the program that resulted in a new conviction (66.2%). MDC graduates were least likely to have a new offense while in MDC (84.3%) compared to those who did not successfully complete (53.0%).
- There was no statistically significant difference between the MDC cohort and the comparison group regarding whether they reoffended during the two-year recidivism window. Approximately six-in-10 of the MDC cohort (58.9%) and of the comparison group (52.8%) did not recidivate.
- T-tests illustrate no differences in the mean number of offenses committed by the MDC cohort and the comparison group by felony, gross misdemeanor, misdemeanors or total number of offenses. Neither group had statistically more offenses or more severe offenses than the other group.

Warrants

- The MDC cohort was statistically less likely to have a warrant issued during the recidivism window than the comparison group. Over half of MDC participants (56.9%) had no warrants issued compared to 37.1% of the comparison group. The comparison group was also more likely to have six or more warrants issued at 20.1% and 8.7%, respectively.
- With regard to the type of warrant issued, there was no statistically significant difference between the populations on one warrant type: ‘failure to appear’. The comparison group was more likely to receive warrants for ‘probation violations’ and ‘other bench warrants.’

Incarceration

- Those who received fewer than 45 jail days during their time in the program were statistically more likely to graduate than those who received 45 days or more.
- Those who received a “justice as usual” response served more incarceration time in jail or prison during the two-year recidivism window than those who participated in MDC. The comparison group was more likely to spend up to 120 days incarcerated, and more likely to be incarcerated for over a year.

Graduates

- Graduates of the MDC program had, on average, fewer new convictions than a matched sample of their peers during the two-year recidivism window. This was true across offense categories.

Section 6: Predictors of Program Success

Given less than half of this cohort of MDC participants graduated, and that graduates have fewer convictions than those who terminated, it is worthwhile to explore what factors make graduation from MDC more or less likely. This analysis explores the binary outcome of MDC graduation or termination in relationship to the attributes of program participants. Analyses such as these may provide key information as to how to better support participants to increase their likelihood of success. Similarly, some areas may be less predictive of success or failure in the program and may not require as much attention or resources.

The logistic regression illustrated in Table 8 takes into account numerous variables known about participants at the outset and end of the MDC program.²¹ Logistic regression allows for the inclusion of many variables to see which ones affect program success while holding the remaining variables constant; that is, it can isolate the individual effect of each variable on program success independently of one another. The equation includes demographic information about participants such as their gender, their age, and their race/ethnicity. Two additional factors considered “static” or unchanging are the offense for which they entered MDC (drug or property felony) and their criminal history score prior to beginning the MDC program.

Independent Variables	Coefficient	Standard Error	Significance (p-value)	Odds Ratio
Male Gender	-.111	.477	.816	.895
Person of Color	.290	.498	.561	1.336
Age at Start of MDC Program	-.105	.182	.564	.900
Age Squared	.002	.002	.419	1.002
Instant Offense, Property	-.154	.492	.754	.857
Weighted Criminal History Score	-.033	.022	.141	.968
Greater than High School/GED at Exit	.462	.479	.335	1.588
Unemployed at Exit	-2.418	.476	.000	.089
Rent or Own Housing at Exit	2.949	.511	.000	19.078
Positive Drug Screen(s) During MDC (Yes)	.775	.550	.159	2.170
New Warrant(s) During MDC (Yes)	-2.781	.582	.000	.062
New Offense(s) During MDC Leading to Conviction (Yes)	-1.075	.451	.017	.341
Constant	2.710	3.421	.428	15.026
Nagelkerke R Square= .755 n=268				

²¹ Only cases in which there was data for all the regression elements could be included in analysis. Of the 317 in the MDC cohort, the analysis includes data from 268 MDC participants.

Demographic and Static Variables

Of the demographic and static attributes, none were statistically predictive of program success. The lack of statistically significant findings suggests that when other factors are held constant, participants are equally likely to graduate from MDC without regard to gender, race, age and the instant offense (drug or property) for which they are referred. From an equality and justice perspective, it is desirable to have a program that provides all participants the opportunity for success without implicit bias in policies or practices towards any populations served. In addition, the extent of one's criminal history prior to participating in MDC did not have a predictive quality on whether or not they would succeed in the program.

All MDC participants are assessed as high-risk and high-need at the outset of program involvement, however this does not mean that they all have the same risks and needs or will respond to interventions in the same way. The Risk-Need-Responsivity model for offenders, formalized by Andrews, Bonta & Hoge (1990), emphasizes that responsivity maximizes the ability for an offender to respond positively to a rehabilitative intervention by tailoring the intervention to the offender. This happens first by targeting *general* responsivity such as the social learning styles of females, cultural groups, or certain types of offenders, followed by *specific* responsivity such as attention to learning styles, personality, personal motivations and strengths. In this regard, the MDC program can still place an emphasis on responsive rehabilitation given the diversity of ages, races, genders and offense histories served.

Community Functioning Goals

A second component of the analysis determining program success includes variables related to improving community functioning. These variables capture the education, employment and housing status of MDC participants at the time they graduated or terminated from the program. Exploration of these variables can identify which may be most important to focus upon while in the program to improve graduation outcomes.

While increasing education beyond high school level may be important to setting participants on a path towards personal goals or a positive career trajectory, completing the program with an education level above high school or a GED²² was not statistically predictive of program success.

The two variables that had a strong statistical effect on program success were related to housing and employment level at exit (both at $p=.000$). Those unemployed²³ at program exit were at lesser odds of graduating, while those who were independently housed²⁴ at program exit were at greater odds to complete MDC successfully. The odds of graduation for those unemployed at the end of MDC are 11.3 times less than for

²² Includes those classified at exit as having "some college, 2 year degree, 4 year degree or graduate degree."

²³ Excludes persons classified at exit as "students, retired or disabled."

²⁴ Includes those classified at exit as "renting" or "owning" housing.

those who are employed part- or full-time at the end of the program. Similarly, the odds of graduation for those who rent or own housing at the end of MDC are 19.1 times greater than for someone who is homeless or living in a temporary setting, facility setting, or with friends or relatives. Given the high percentage of participants who began the MDC program unemployed, as well as those who began the program homeless or in a transitional or facility setting, this statistical model suggests that moving participants toward jobs and housing will improve graduation outcomes.

Program Non-Compliance

Finally, this analysis explores whether the presence of certain legal sanctions are associated with a positive or negative MDC outcome. The model considers whether participants submitted any positive drug screens, had any new warrants during the program, or had any new criminal convictions stemming from offenses during MDC.

Providing one or more positive drug tests during the MDC program was not statistically predictive of program failure ($p=.159$). This is likely because the MDC model expects relapses. While repeated violations of the sobriety expectation can lead to program termination, whether a participant submitted any positive tests (yes or no) was not predictive of program success or failure.

Conversely, the regression model strongly suggests that MDC participants who received a new warrant while in the program are less likely to successfully graduate. The odds of failing MDC are 16.1 times greater for those with one or more warrants as compared to those with no warrants during MDC. This analysis included new warrants for failure to appear in court, probation violations and other bench warrants not related to new charges. Additionally, those convicted of a new crime based on an offense committed during drug court were at 2.9 times greater odds of failing MDC than those with no new convictions.²⁵

It is not surprising that use of warrants and convictions on new charges are strongly predictive of program failure. The issuance of a warrant suggests that a participant is not complying with aspects of their probation or perhaps has discontinued contact with the MDC program. A warrant is an effort to bring a participant in for review of their behavior, yet it does not automatically result in program failure. Similarly, new criminal convictions during MDC is a predictor of failure, as remaining crime free is a primary goal of MDC. Certainly, some low-level convictions can have their consequences rolled into supervision by the MDC program whereas offenses that are more serious are going to result in program termination. The MDC court needs to balance the public safety risks of the community with the therapeutic and accountability needs of participants.

²⁵ Warrants while in the program and new charges while in the program are not strongly correlated. *Corr.=.184*

Overall, these four and dynamic factors (housing, employment, warrants and new convictions) explain 76% of the overall program success, as the Nagelkerke R indicates. In other words, knowing these factors allows MDC to understand over three-quarters of the total explanation of what makes a defendant successful through the program.

Summary: Predictors of Program Success

- Regression analysis can inform if there is a connection between program success or failure to any attributes of MDC participants or their progress and behavior while in the program.
- Demographics variables including age at the beginning of the MDC program, gender, and race are not predictive of program success. The offenses for which participants joined MDC (drug or property) are not predictive of success or failure, nor are participants' criminal history scores.
- Lack of employment and lack of independent housing at the end of the MDC program are strong predictors of program failure. Assisting participants with employment skills and opportunities, and support moving into permanent housing may help to increase graduation success rates.
- MDC participants who receive new warrants while active in the program or those who have new convictions stemming from offenses while in the program are at greater odds to fail MDC. Chemical relapse alone, in the form of one or more positive drug tests, is not statistically associated with program failure.
- These four statistically significant factors (housing, employment, warrants and new convictions) account for over three-quarters of the total explained variance in MDC program success.

Section 7: Recommendations and Conclusion

The Fourth Judicial District’s *Model Drug Court* has been serving felony-level drug and property offenders in Hennepin County since 2007. During the past ten years, the MDC program has taken many steps to ensure the program’s policies and practices are consistent with best practices including articulated program goals, specific participant eligibility criteria, a dedicated drug court judge and drug court team, a participant phase structure, and the use of graduated sanctions and incentives.

The primary purpose of this evaluation is to determine if the MDC program is meeting its stated goals to reduce recidivism, reduce illegal drug usage, and improve participant community functioning. The following tables summarize key findings related to these goals, including data-driven recommendations to improve programming, graduation rates.

Key Findings	Recommendations
<ul style="list-style-type: none"> • Among MDC graduates, nearly one-quarter increased their education level and over half increased their employment and housing levels during the program. • Those who failed the MDC program were more likely to have <i>no change</i> in community metrics over the course of the program than graduates. In the instance of housing, nearly three-in-10 had a decline in stability. • Statistical regression models suggest that employment and independent housing at program exit are predictive of program success. Obtaining an education beyond a high school diploma or GED was not statistically predictive of program success. • Pre- and post-program data variables related to the community functioning goal were often incomplete. It was common to have to exclude from analysis a sizeable number of program participants because they lacked data at both the pre- and post- collection points. 	<ul style="list-style-type: none"> • Housing and employment are two key elements associated with graduation. MDC has brought in personnel and resources to assist participants to increase employment and housing through a federal grant (2016-2018). • Housing resources are often limited to those meeting specific income criteria and definitions of homelessness. A dedicated housing specialist on the MDC team could assist clients in securing housing, contingency planning for those at greatest risk of losing stable housing, aiding those transitioning from facilities, and navigating housing systems. • Educational goals should not be considered unimportant; however data suggest that if time or resources are scarce for an MDC participant, it is better to focus efforts on employment and housing stability over obtaining an education beyond a high school diploma or GED. • While missing data elements are often equally distributed among graduates and those terminated, more complete data would make the assessment of the community functioning goal more robust. A priority must be placed upon comprehensive data collection in this area.

Table 10.**Goal 2: Reduce Illegal Chemical Usage**

Key Findings	Recommendations
<ul style="list-style-type: none"> • The program clearly takes into account that participants will have drug and alcohol relapse while in the program, consistent with best practices. Those for whom less than 25% of drug screens were positive were statistically more likely to graduate than those for whom more than 25% of screens were positive. • Program graduates spend more days in inpatient treatment and outpatient treatment than those who terminate. This suggests a greater treatment dosage for those who are successful in the program. • Both the number of days in treatment and successful participation in treatment are captured by probation officers using quarterly reports and program exit reports. These methods rely on probation officer memory or notes, but are not based off of official treatment records. • Probation officers report the number of days since last known substance use at the time of program discharge. This may be based on drug test results or a participant’s self-reported use. <i>Days Since Last Substance Use</i> data are missing for 30.6% of participants. • It is presently not possible to reliably assess whether participants remain sober after the program. Those who successfully graduate do not have to submit UAs, unless they remain on probation for another offense, and those who fail are often placed in prison. Either way, drug tests are either not conducted or not available after program participation ends. Those drug tested after MDC in conjunction with a new offense are not representative of all MDC participants. 	<ul style="list-style-type: none"> • The MDC program only captures drug screens completed by DOCCR. Participants also test at chemical dependency treatment providers. Obtaining these additional test results would provide more information about the chemical use reduction goal and help to calculate days of sobriety. • A more consistent and reliable method for collecting treatment related data would be greatly advantageous to the evaluation of MDC. This could result from release of information agreements with treatment providers to report the number of treatment units, the type of services received, and the degree to which a participant was compliant or successful with treatment expectations directly to the MDC team. • Comprehensive treatment data are often lacking, especially among those who do not successfully complete MDC. In subsequent evaluations, request chemical dependency treatment records for both the MDC population and the comparison group from the <i>Drug and Alcohol Normative Evaluation System (DAANES)</i> database. This will allow for comparison of treatment use and outcomes both during the program and during the recidivism windows. • Data regarding the number of days of sobriety during the program are missing for a substantial percentage of participants. Given that a minimum of 120 days sober is a condition to graduation, it is important to capture if this expectation is met in the MDC dataset. • Measuring participants’ ability to remain sober after program involvement would be a helpful metric to evaluating the MDC program. Not only is it related to the program goal of decreasing chemical usage, but it could also have an effect on criminal recidivism.

Table 11.

Goal 3: Reduce Recidivism

Key Findings	Recommendations
<ul style="list-style-type: none"> • Based on data collected for those who exited in the MDC program between 2011 and 2013, there was no statistically significant difference in reoffending during the two-years of street time between the MDC group and the comparison group who received a “justice as usual” response to their offenses. • Those who successfully completed the MDC program, however, were less likely to have a new conviction after MDC than a matched comparison group. Unfortunately the graduation rate for this MDC cohort was just 42%. • Program success and post-program recidivism is not impacted by the type of offense for which participants entered the program. Both felony drug offenders and felony property offenders perform equally well. • Higher criminal history scores (indicative of more offenses and/or more serious offenses) at the outset of MDC program were not statistically associated with program failure. • Participant gender and race (White, Non-Hispanic vs. persons of color) are not statistically predictive of program success or failure when controlling for other factors. American Indians, however, are 3.0% of graduates and 12.0% of those terminated. 	<ul style="list-style-type: none"> • Because reducing recidivism is a primary goal of the MDC program, re-emphasis and re-exploration of elements in the drug court literature associated with risk of recidivism may be helpful to target known criminogenic risk factors. • Increasing the graduation rate of program participants is not only a good use of justice system and community resources, it also potentially results in fewer victims and less reliance on justice system interventions in the future. • The MDC policy of accepting both drug offenders and property offenders motivated by chemical addiction should continue as both populations can be successful in the program equally. • The Risk-Need-Responsivity model for offenders emphasizes that responsivity maximizes the ability for an offender to respond positively to a rehabilitative intervention by tailoring the intervention to the offender. This happens first by targeting <i>general</i> responsivity such as the social learning styles of females, cultural groups, or certain types of offenders, followed by <i>specific</i> responsivity such as attention to learning styles, personality, personal motivations and strengths. In this regard, the MDC program can still place an emphasis on responsive rehabilitation given the diversity of ages, races, genders and offense histories served. • While women and populations of color collectively do not appear to be at a disadvantage for MDC graduation, this is not to imply that gender-specific and culturally appropriate programming are not important. American Indian participants, specifically, may benefit from enhanced services.

A difficult question to answer is the appropriate balance of programmatic incentives and consequences that will afford accountability for choices but not interrupt the opportunity for positive change. Though not specifically related to stated program goals, the following table summarizes findings related to in-program activities derived from this report.

Key Findings	Recommendations
<ul style="list-style-type: none"> • Those who received one or more warrants while in the program are statistically less likely to graduate. The same is true for those who receive multiple probation violations. • Those who receive a new conviction while in the program are less likely to successfully complete the program. Still, nearly 16% of graduates had one or more new convictions during programming. • Participants who received a total number of jail days in excess of 30 while in the program were statistically less likely to graduate than those who received fewer than 30 days. • Nearly one-quarter of those who did not graduate from the MDC program elected to have their sentence executed. • There has been no consistent tracking of the use of incentives or low-level sanctions over time, making it difficult to know how they factor into program success or failure. 	<ul style="list-style-type: none"> • While probation violations and warrants likely follow program rule infractions, they should be used judiciously after all other efforts to hold the participant accountable have been exhausted. Close documentation of sanctions used can help ensure options for accountability are not overlooked and are catered to the responsivity of individuals. • The MDC program has clear guidelines for the type of offenses that <i>will</i> result in termination and guidance on the type that <i>may</i> result in termination. Periodic analysis of the types of offenses that do and don't actually result in program termination will be helpful to ensure discretion is applied consistently to MDC participants, and that there is a balance between public safety and therapeutic goals. • Consistent with best practices, the MDC program may wish to update the policy and procedure manual to reflect that use of jail as a program sanction will be limited to periods of less than one week. • The MDC program should investigate and track the reasons why participants self-select out of the program after they have begun. This could be accomplished through an exit survey or interview. Understanding the reasons why participants choose to execute their sentence may inform needed changes to the program and could increase graduation rates. • Track the use of incentives and sanctions consistently with the type, reason and date. These may inform which are most effective in motivating positive change. It may also help to ensure informal sanctions are exhausted before the use of formal, legal sanctions.

Drug courts are ever-evolving programs that change based on new research and the needs facing addicted individuals who engage in criminality. While this autonomy and fluidity allows for revisions in policies, program elements and leadership, it becomes all the more important to evaluate program outcomes to ensure changes are having the desired effect. The present study has illuminated numerous opportunities to improve program quality and data collection efforts to strengthen the findings of future evaluations.

The next cohort for evaluation in Hennepin County MDC will be those active in the program between 2014 and 2015. Not only are these participants subject to different program parameters than the 2011-2013 cohort, operation of the program was under a different lead judicial officer. Continued evaluation of graduates rates, recidivism, and program success factors will help MDC remain on a trajectory that benefits participants, the justice system, and the community alike.

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