Evaluation of the Wayne County Mental Health Court

2013

Year 5:
Long-term Outcomes and Cost Savings

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Wayne County, Michigan

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Flinn Foundation

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Executive Summary

A Wayne County MHC was initially funded in December 2008 as a pilot program in a joint collaboration between the State Court Administrative Office (SCAO), Michigan Department of Community Health, and Detroit Wayne Mental Health Authority (DWMHA). Evaluations conducted during the first three years of operation (2009 – 2011) focused on development, implementation, processes, and assessment of preliminary outcomes, as well as an initial cost analysis of the program. The fourth year of operation (2012) corresponded to the end of the pilot phase and assessment of the eight pilot MHCs as part of a statewide outcome evaluation. The fifth year of operation (2013) provided the opportunity to assess the long-term outcomes and cost savings of the program as individuals involved with the program in 2009 – 2011 have been discharged or rejected from the program for one year or more.

Between the inception of the MHC in April of 2009 and September 2013, nearly 300 individuals were screened for participation in the program. Of those screened, 199 individuals were admitted to and 91 were rejected from the MHC. At the time of this report, 50 individuals were actively engaged in the program and 149 were discharged. Of those discharged, 105 were discharged for more than one year, 40 successfully and 65 unsuccessfully. Those rejected from the MHC present an opportunity to compare outcomes and costs of MHC participants (Treatment Group) to similar individuals who did not participate in the MHC (Comparison Group). Of the 91 individuals rejected from MHC, 33 were excluded from analysis because the reason for rejection suggested they were dissimilar from the Treatment Group. Of the remaining 58, 45 individuals were rejected from MHC for more than one year. As a result, three groups were used to illustrate the long-term outcomes and cost analysis: Successful (N=40), Unsuccessful (N=65), and Rejected (N=45).

All three groups had similar characteristics at admission to/rejection from the MHC. The average age across all three groups was 37 years old and 50% - 54% of each group was of minority status. There were no significant differences by mental health diagnosis, though co-occurring substance use disorders were more common for the Treatment Group (86% - 88%) than the Comparison Group (74%). The proportion of females was higher in the Treatment Groups (31% - 33%) compared to the Comparison Group (16%). There were differences in terms of the assessed risk: the proportion of those in the Successful Group assessed as “high risk” overall and for violence was significantly lower than others.

Despite similarities across the groups at admission/rejection, the Successful Group had better long-term criminal justice and treatment outcomes. In terms of recidivism, only 18% of the Successful Group experienced any incarceration in the post-MHC period compared to 69% (Unsuccessful) and 88% (Rejected), incurring just 10 days of incarceration compared to 153 (Unsuccessful) and 98 days (Rejected). Similarly, the Successful Group demonstrated optimal response in terms of mental health treatment: the average number of low-level services (e.g. group/individual sessions, med reviews) increased post-MHC, indicating sustained engagement, while high-level services (e.g. hospitalization, crisis residential) decreased.

Reduced criminal justice involvement and high-level treatment need, translated to cost savings for members of the Treatment Group. Applying unit costs to standard transactions incurred by members of the Treatment and Comparison Groups in the post-MHC period, a cost savings of $22,865 per successful participant and $7,741 per unsuccessful participant as compared to those rejected by the MHC. The driving factor in the cost savings between the groups are victimization costs. Extrapolating these costs across all participants of the MHC, yields a total savings of $1,417,740 for those discharged or rejected from the MHC for more than one year to date.

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List of Acronyms

ACT	Assertive Community Treatment
CJ	Criminal Justice
CMH	Community Mental Health
COD	Co-occurring Disorder
COMPAS	Correctional Offender Management Profiling for Alternative Sanction
DBSA	Detroit Bureau of Substance Abuse
DCC	Detroit Central City
DCCM	Drug Court Case Management
D-WCCMHA	Detroit-Wayne County Mental Health Agency
DWMHA	Detroit Wayne Mental Health Authority
MDCH	Michigan Department of Community Health
MDOC	Michigan Department of Corrections
MH	Mental Health
MHC	Mental Health Court
NPC	Northwest Professional Consortium
OTIS	Offender Tracking Information System
SA	Substance Abuse
SAMHSA	Substance Abuse and Mental Health Services Administration
SCAO	State Court Administrative Office
SEMCA	Southeast Michigan Coordinating Agency
SMI	Serious Mental Illness
TICA	Transactional and Institutional Cost Analysis
TX	Treatment
WCCFS	Wayne County Children and Family Services
WCJ	Wayne County Jail

Wayne County Mental Health Court Committee

Judge Timothy Kenny	*Third Circuit Court*
Tamela Aikens	*Wayne County Children and Family Services*
Dr. Kanzoni Asabigi	*Detroit Health Department - Bureau of Substance Abuse*
Julie Black	*Detroit-Wayne Mental Health Authority*
Jasmine Bowlson	*Third Circuit Court, Mental Health Court*
Darnell Boynton	*Wayne County Corporation Counsel*
Maurice Bunting	*Operation Get Down*
Larry Cameron	*Detroit Central City*
Lisa Chapman	*Corporation for Supportive Housing*
Risa Coleman	*Detroit-Wayne Mental Health Authority*
Nanette Colling	*Veterans Justice Outreach*
Vanessa Cooper	*Christian Guidance Center*
Kenyatta David	*Michigan Department of Corrections*
Jacqueline Donaldson	*Detroit-Wayne Mental Health Authority*
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Dr. Glynettie Durrah	*Lincoln Behavioral Services*
Dorothy Flowers	*Wayne County Department of Human Services*
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Shirley Hirsch	*CareLink*
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Dr. H. Hueble	*National Alliance for the Mentally Ill*
Don Johnson	*Legal Aid and Defender Association*
Thomas Marsh, Sr.	*Detroit Central City*
Candace Meeks	*Lincoln Behavioral Services*
Steven Matthews	*Michigan Department of Corrections*
Kelly McGhee	*CareLink*
Brianne McGill	*Michigan Department of Corrections*
Elizabeth Meter	*Detroit Central City*
Kelli Moore	*Third Circuit Court*
Gregory Plummer	*Michigan State University*
Deborah Price	*Third Circuit Court, Mental Health Court*
Paul Propson	*Covenant Community Care*
Dr. John Restum	*Wayne County Jail, Behavioral Health Unit*
Alisa Shannon	*Third Circuit Court*
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Michael Sutherland	*Janssen Pharmaceuticals*
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I. Overview

Wayne County Mental Health Court (MHC) was piloted in 2009 with funding from the Michigan State Court Administrators (SCAO), Michigan Department of Community Health (MDCH), and the Detroit-Wayne County Community Mental Health Agency (D-WCCMHA), now Detroit Wayne Mental Health Authority (DWMHA). The first three years of the project (2009 – 2011) and corresponding evaluations focused on the process of the development and implementation of the MHC, perfecting processes and assessment of preliminary outcomes, followed by assessment of longer term outcomes for those completing the program and an initial cost-benefit analysis of the program. The fourth year of operation (2012) corresponded to the end of the initial three-year pilot phase. Eight courts included in the pilot, including Wayne County MHC, were assessed in a statewide MHC evaluation (Kubiak et al, 2012).

With funding from the Flinn Foundation, the fifth year of operation (2013) provides the opportunity to assess the long-term outcomes of the Wayne County MHC. Individuals admitted to the MHC in 2009 – 2011 and engaged in programming from 2009 – 2012 have now been discharged from the program for one year or more, allowing the assessment of long-term outcomes for this "treatment group". Similarly, individuals rejected from the MHC in 2009 – 2012 have now been rejected from the program for one year or more, allowing this group to serve as a "comparison group".

As such, this report assesses the long-term outcomes of the Treatment and Comparison Groups, those discharged or rejected from the MHC for more than one year. For purposes of this report, this post-MHC period is defined as the one year period encompassing the 12 months after discharge or rejection. In addition, this report analyzes the costs associated with the long-term outcomes attained by the Treatment and Comparison Groups in the post-MHC period. The report concludes with a summary of key findings related to the long-term outcomes and costs.

II. Structure of Long-term Analysis

Between the inception of the court in April of 2009 and September 2013 there were nearly 300 individuals screened for the Wayne County Third Circuit Mental Health Court (MHC). As illustrated in Figure 1, below, of the 293 screenings, there were 211 admissions to the MHC through 09/30/13. Of those admitted, there were 12 multiple admissions that have been excluded from the analysis in this report, leaving a total of 199 unique individuals admitted to the MHC. At the time of data collection on 09/30/13, 50 individuals were actively engaged in the MHC program, and 149 had been discharged. Of those discharged, 105 had been discharged for more than one year: 40 successfully discharged and 65 unsuccessfully discharged[1].

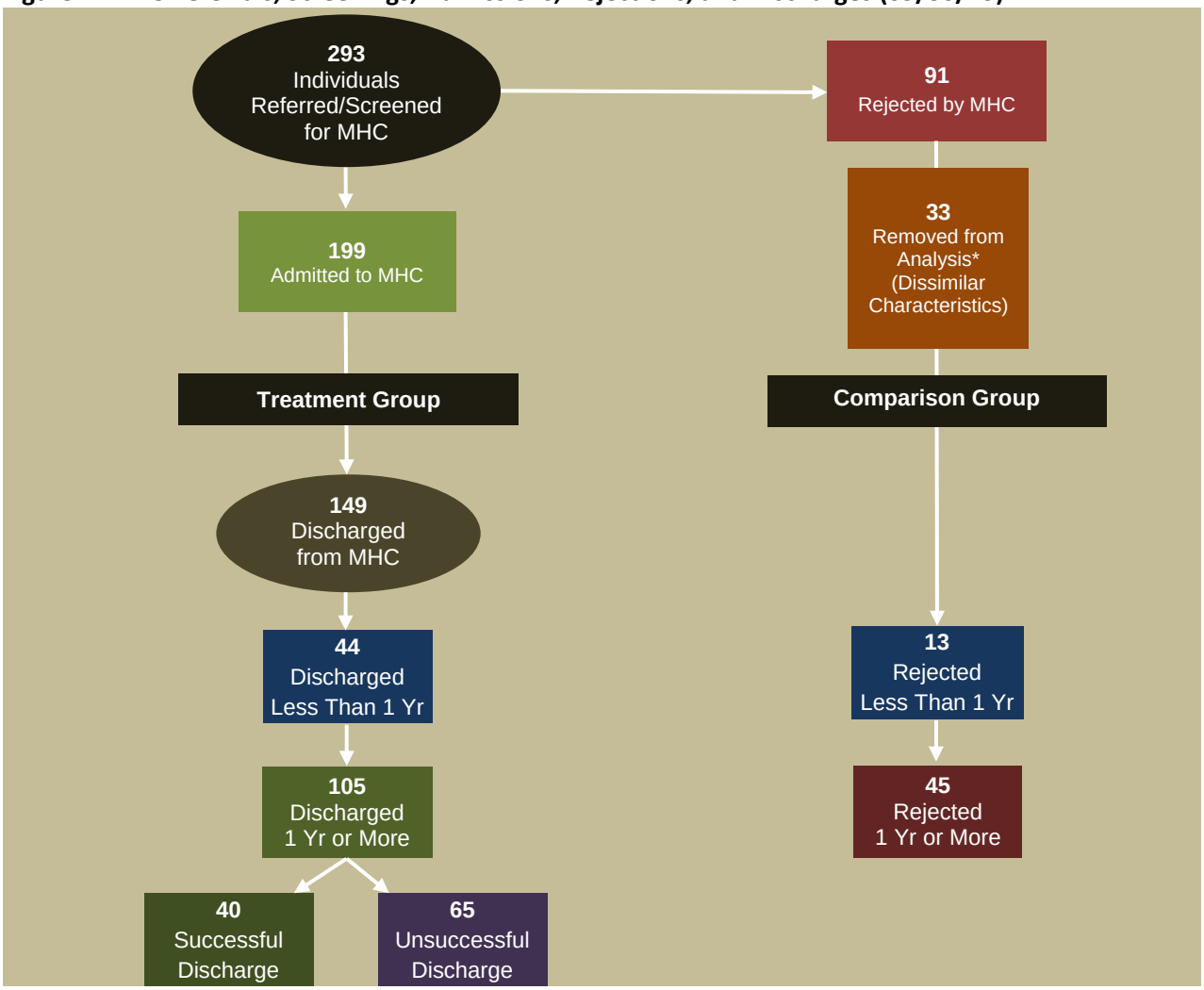
Individuals screened for and later rejected from MHC admission (n=91) create an appropriate group for comparison. However, of the 91 individuals rejected from the MHC, 33 individuals were excluded from this analysis because the reason for rejection signaled they differed from those admitted to the MHC (i.e. 'does not meet criteria'). Of the 58 deemed to be similar to those admitted, 45 were rejected from the MHC more than one year earlier.

In an effort to assess long-term outcomes of MHC participation, individuals discharged or rejected from the MHC for at least one year are the focus of this analysis including: 40 successfully discharged

[1] *For details on data sources and methodology, please see Appendix A.*

(Successful Group), 65 unsuccessfully discharged (Unsuccessful Group) comprising the Treatment Group; and 45 rejected from MHC (Rejected Group) comprising the Comparison Group.

Figure 1: MHC Referrals, Screenings, Admissions, Rejections, and Discharges (09/30/13)



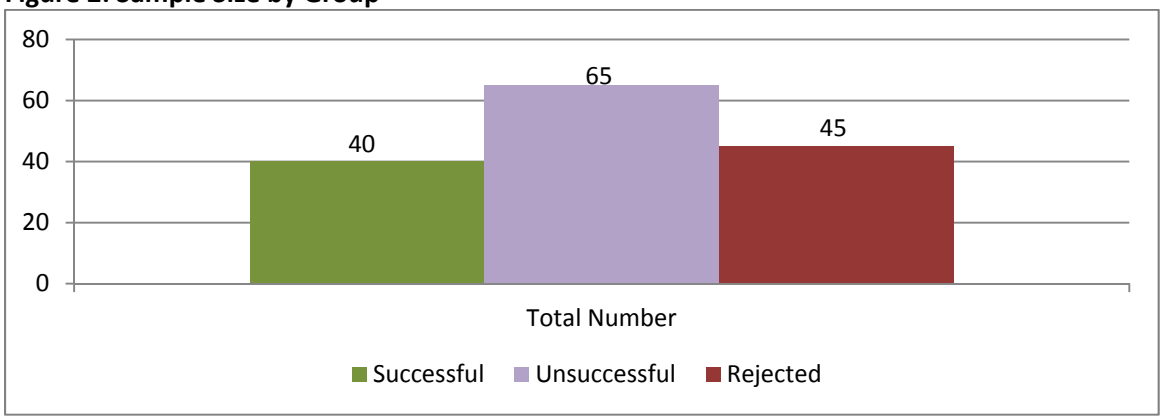
Source: DCCM

Primary outcomes for this long-term analysis, and the organizational framing of this section, focus on the following research questions:

1) What are the characteristics of those screened for and participating in MHC?
2) Did MHC-involved individuals have less criminal behavior and confinement in the year after MHC as compared with the year prior to admission?
3) Did MHC-involved individuals maintain their involvement, and level of involvement, in mental health and substance abuse treatment after MHC?
4) How do outcomes differ by group (Successful, Unsuccessful and Rejected)?

To examine long-term outcomes, three groups are compared: 1) Successful, 2) Unsuccessful; and 3) Rejected[2]. Those rejected from admission into the MHC serve as an equivalent comparison group since they met screening eligibility for offense and mental health, but were not admitted due to a variety of issues[3]. Figure 2, below, illustrates the number of individuals per group.

Figure 2: Sample Size by Group



Source: DCCM

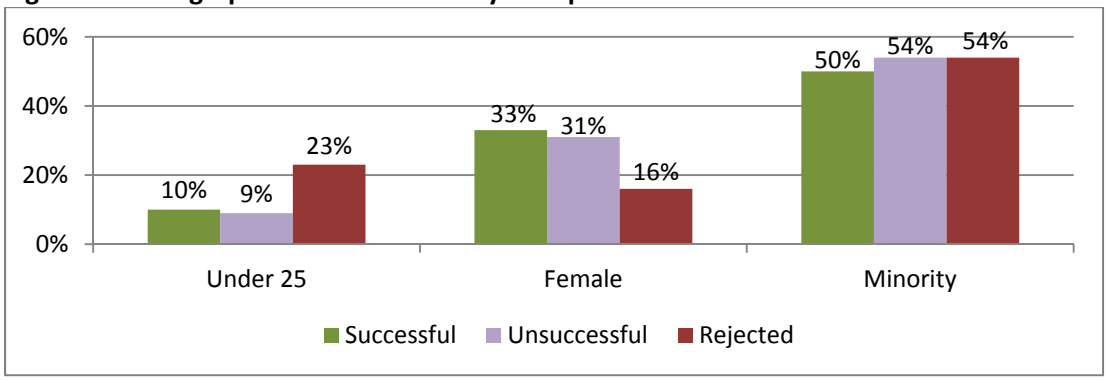
Characteristics of Groups

Comparison of demographic, legal, and mental health characteristics assist in understanding if there were differences between groups during the MHC screening process and how differences may contribute to outcomes.

Demographic Characteristics

There is no difference in the average age of participants across groups (37 years), but those in the Rejected Group were more likely to be under the age of 25 (23% compared to 10% of Successful Group and 9% of Unsuccessful Group) (See Figure 3). The proportion of females was similar among the Treatment Groups (33% and 31%), but lowest in the Comparison Group (16%). All three groups have a similar racial/ethnic composition with between 50% - 54% of a minority status.

Figure 3: Demographic Characteristics by Group



Source: DCCM

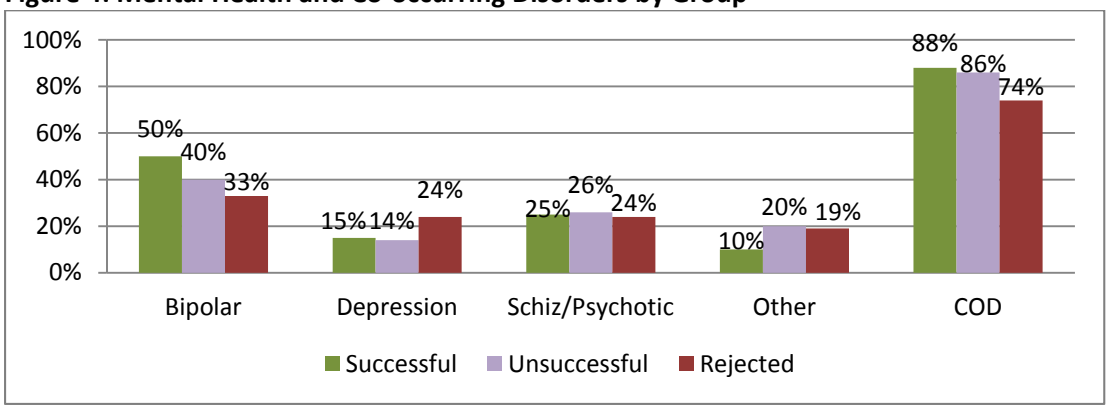
[2] *This three group comparison method allows for a direct comparison to the Michigan Mental Health Courts evaluation conducted by SCAO (2012) that used successful participants to assess outcomes.*

[3] *Although DCCM data reveals 91 individuals rejected since 2009; 58 were selected for comparison were most closely matched to characteristics of those admitted. Of the 58 individuals, only 45 were one year past the date of rejection.*

Mental Health Characteristics

Although there was some variation in the proportions across disorders, there were no significant differences between groups on presenting diagnosis (See Figure 4). Those in the Successful Group were more likely to have a diagnosis of bipolar disorder and those in the Rejected Group were less likely to have a co-occurring substance abuse problem (COD) (88% Successful and 86% Unsuccessful versus 74% Rejected).

Figure 4: Mental Health and Co-occurring Disorders by Group

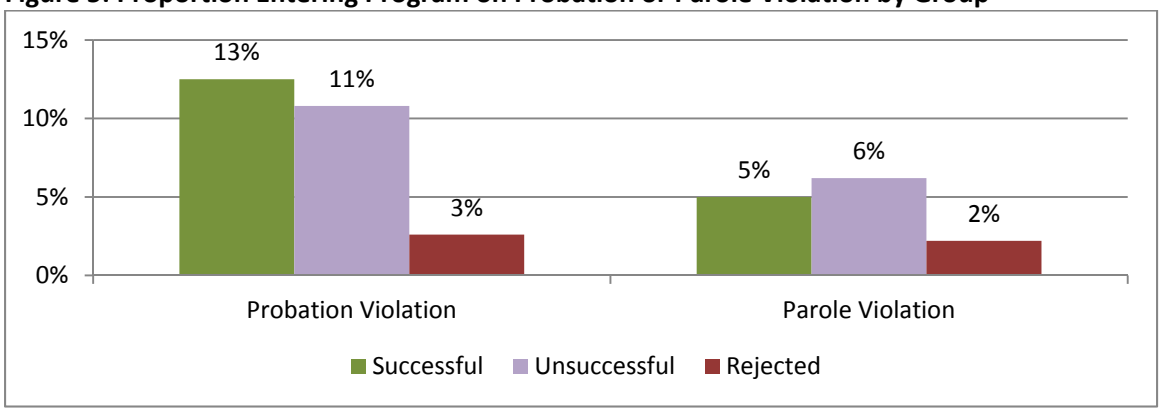


Source: DCCM

Criminal Risk

In a further attempt to determine similarities and differences between groups, several variables indicative of criminal risk were assessed including: previous parole/probation violations, number of felonies/misdemeanors, and Correctional Offender Management Profiling for Alternative Sanction (COMPAS) risk scores. Those successfully discharged from the MHC (Successful) were more likely to have a violation on parole or probation upon admission as compared to those unsuccessfully discharged (Unsuccessful) or rejected from (Rejected) the MHC (See Figure 5). Members of the Successful Group were more likely to be admitted to the MHC due to a probation violation (12.5% versus 10.8% for Unsuccessful and 2.6% for Rejected) and members of the Unsuccessful Group were more likely to be admitted to the MHC due to a parole violation (6.2% versus 5% for Successful and 2.2% for Rejected). It is important to note that none of these differences are statistically significant; in other words, the groups do not differ on these measures of criminal history.

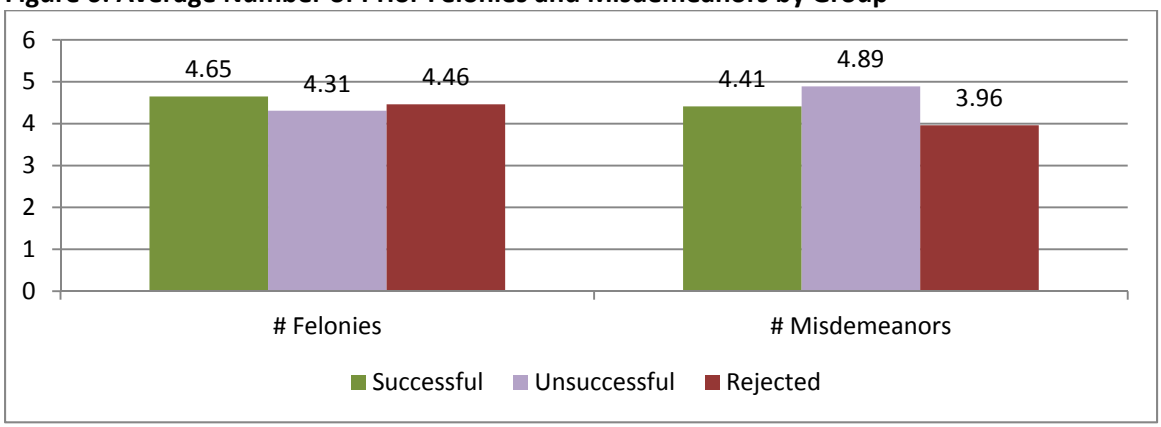
Figure 5: Proportion Entering Program on Probation or Parole Violation by Group



Source: DCCM

The average number of prior felonies and misdemeanors per person were similar across all three groups. As shown in Figure 6, below, members of the Successful Group had more felonies, with an average of 4.65 (*M* = 4.0) versus those in the Unsuccessful Group with an average of 4.31 felonies (*M* = 3.0) and the Rejected Group with an average of 4.46 (*M* = 3.5). Members of the Unsuccessful Group had more misdemeanors, with an average of 4.89 (*M* = 3.0) versus those in the Successful Group with an average of 4.41 (*M* = 2.0) and the Rejected Group with an average of 3.96 (*M* = 1.50). None of these differences are statistically significant.

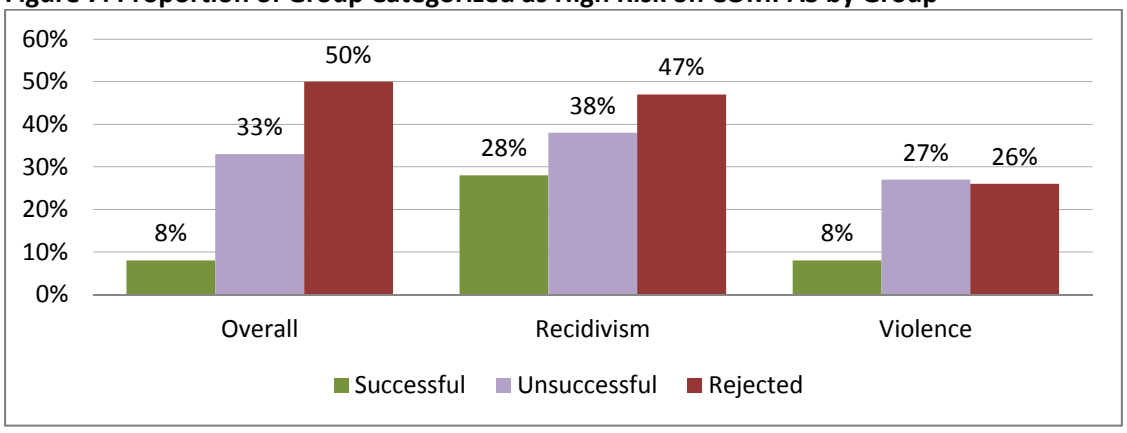
Figure 6: Average Number of Prior Felonies and Misdemeanors by Group



Source: DCCM

The COMPAS is used to assess programming needs and risks for all probationers in Wayne County. A number of risk scales are used to assess future risk are scored as low, medium, or high risk. Figure 7, below, depicts the proportion of each group scoring as high for Overall, Recidivism, and Violence Risk. On the Overall and Violence Risk scales, the Successful Group differs significantly from the Unsuccessful and Rejected Groups. Although risk of recidivism is not statistically significant between groups, those in the Successful Group have the lowest proportion of high risk scores.

Figure 7: Proportion of Group Categorized as High Risk on COMPAS by Group



Source: DCCM and MDOC

The variation between Successful and Unsuccessful Groups on high risk scores, particularly violence, has been found in a previous evaluation report[4]. Since participants in the MHC are not assessed for risk until after sentencing, COMPAS scores are not currently utilized by the MHC Treatment Team to determine MHC eligibility. The higher risk scores among those in the Rejected Group may be the result of the individual's overall criminal history which is considered by the MHC Treatment Team when assessing program eligibility.

III. Assessing Long-term Outcomes

Based upon the expressed goals of the MHC to reduce recidivism and enhance treatment engagement, analyses of outcomes by group were conducted on various measures of recidivism and treatment engagement. As stated previously, all group members have been discharged (Successful and Unsuccessful) or rejected (Rejected) from MHC for one year or more. Data is captured for year before (pre) and after (post) MHC. The post-MHC period is the one year period beginning 12 months after discharge or rejection from the MHC.

Criminal Justice Outcomes

Recidivism can be defined in a number of ways. For purposes of this report, we have considered recidivism in two ways: 1) evidence of a new arrest, unassociated with the target offense for the MHC program (e.g. probation violation in the post-MHC period; and 2) presence of jail or prison incarceration in the post-MHC period (which may or may not be a sanction for violation of court requirements associated with the original offense, such as failure to appear in court).

New Arrests

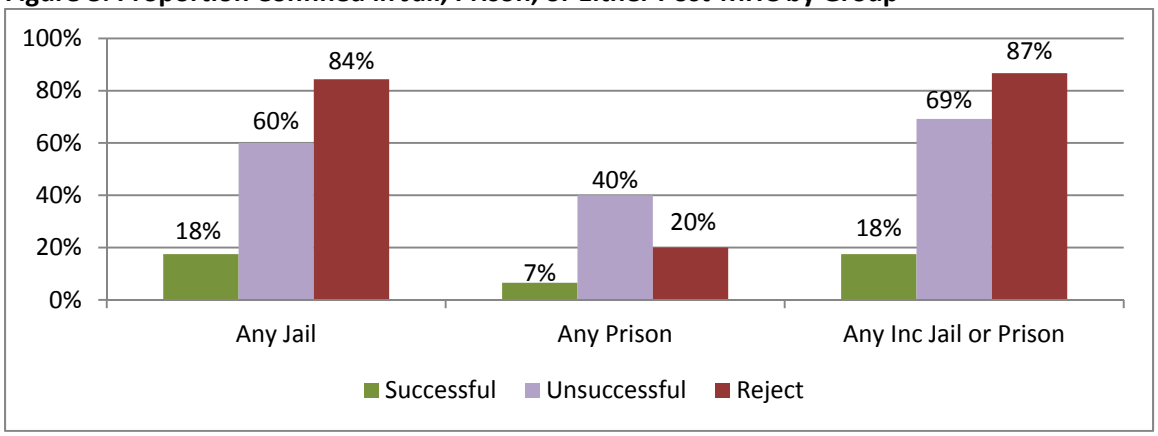
The first assessment of recidivism for purpose of this analysis is evidence of a new arrest in the post-MHC period. One third (32.4%) of those admitted into MHC had a new arrest in the post-MHC period (25% Successful vs. 37% Unsuccessful). Among those rejected from the MHC, 58% had a new arrest in the post-MHC period. This was calculated by a new jail booking that was not associated with their target offense (e.g. probation violation).

Jail or Prison Confinement

The second assessment of recidivism is the presence of jail or prison confinement in the post-MHC period. In this analysis, confinement is measured three ways: 1) average number of days confined in WCJ only, and 2) average number of days confined in a state prison only, and 3) average number of days confined combined (WCJ and prison). Using data that denotes either jail or prison admission in the post-MHC period (See Figure 8), there were significant differences between the Successful Group (17.5% confined) compared to 69.2% of the Unsuccessful and 86.7% of the Rejected Groups.

[4] *Changes in criminal justice risk assessment scores across program years was noted in the Year 3 evaluation conducted by Kubiak et al (2012). Participants admitted in Year 3 were less likely to be classified as 'high' overall risk or on subscales for recidivism and violence on the COMPAS than in Years 1 or 2.*

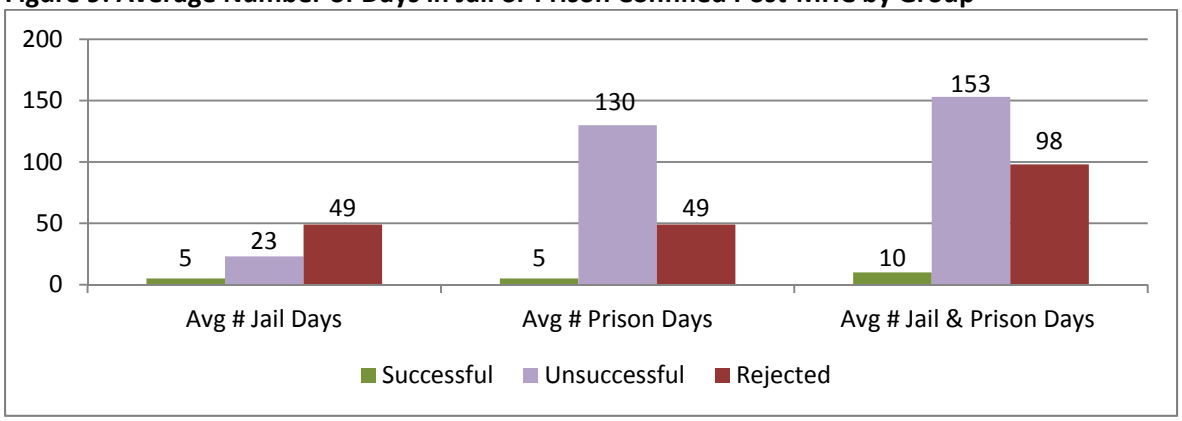
Figure 8: Proportion Confined in Jail, Prison, or Either Post-MHC by Group



Source: MDOC, WCJ

Previous evaluations of the MHC have included jail days, but did not assess the number of prison days. Figure 9, below, depicts the type of confinement experienced by members of each group post-MHC. There are significant differences in total days confined between those in the Successful Group compared to those in the other groups. The higher average number of days confined in both jail/prison for members of the Unsuccessful Group reflects the higher proportion of individuals from the Unsuccessful Group sent to prison post-MHC (40% versus 2.5% of Successful Group and 22.2% of Rejected Group). The high number of prison days incurred by the Unsuccessful Group is driven by eight individuals (13%) who incurred more than 200 days in the post-MHC period.

Figure 9: Average Number of Days in Jail or Prison Confined Post-MHC by Group

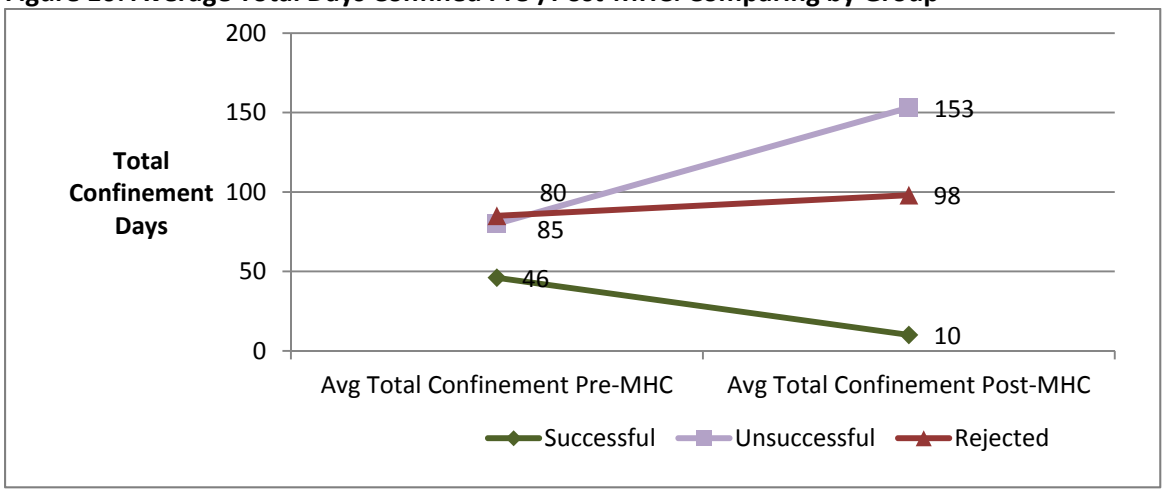


Source: MDOC, WCJ

Comparing Pre- and Post-MHC Confinement in Jail and Prison

As shown in Figure 10, below, for those in the Successful Group there was an average on 36 fewer days of confinement post-MHC compared to the pre-MHC period. For those in the Unsuccessful Group, there was an increase of 73 days confinement post-MHC compared to pre-MHC. For the Rejected Group, there was an increase of 13 days pre-MHC to post-MHC.

Figure 10: Average Total Days Confined Pre-/Post-MHC: Comparing by Group



Source: MDOC, WCJ

Mental Health Treatment Outcomes

Beyond reducing recidivism, the goal of the MHC is to increase functioning among those with serious mental illness (SMI) by fostering engagement in and compliance with treatment. Across groups, it is expected that individuals would be involved in treatment provided by a community mental health (CMH) provider, presumably within Wayne County, in the pre- and post-MHC periods. It should be noted that although the following discussion is based on the average number of treatment encounters, there were 11 individuals across all three groups who did not receive services from a Wayne County provider.[5]

As in previous evaluations, due to the wide array of mental health services provided to participants, services have been categorized by intensity levels (low, medium, high) as outlined in the box below to allow comparison of the types of services received across the time periods examined.

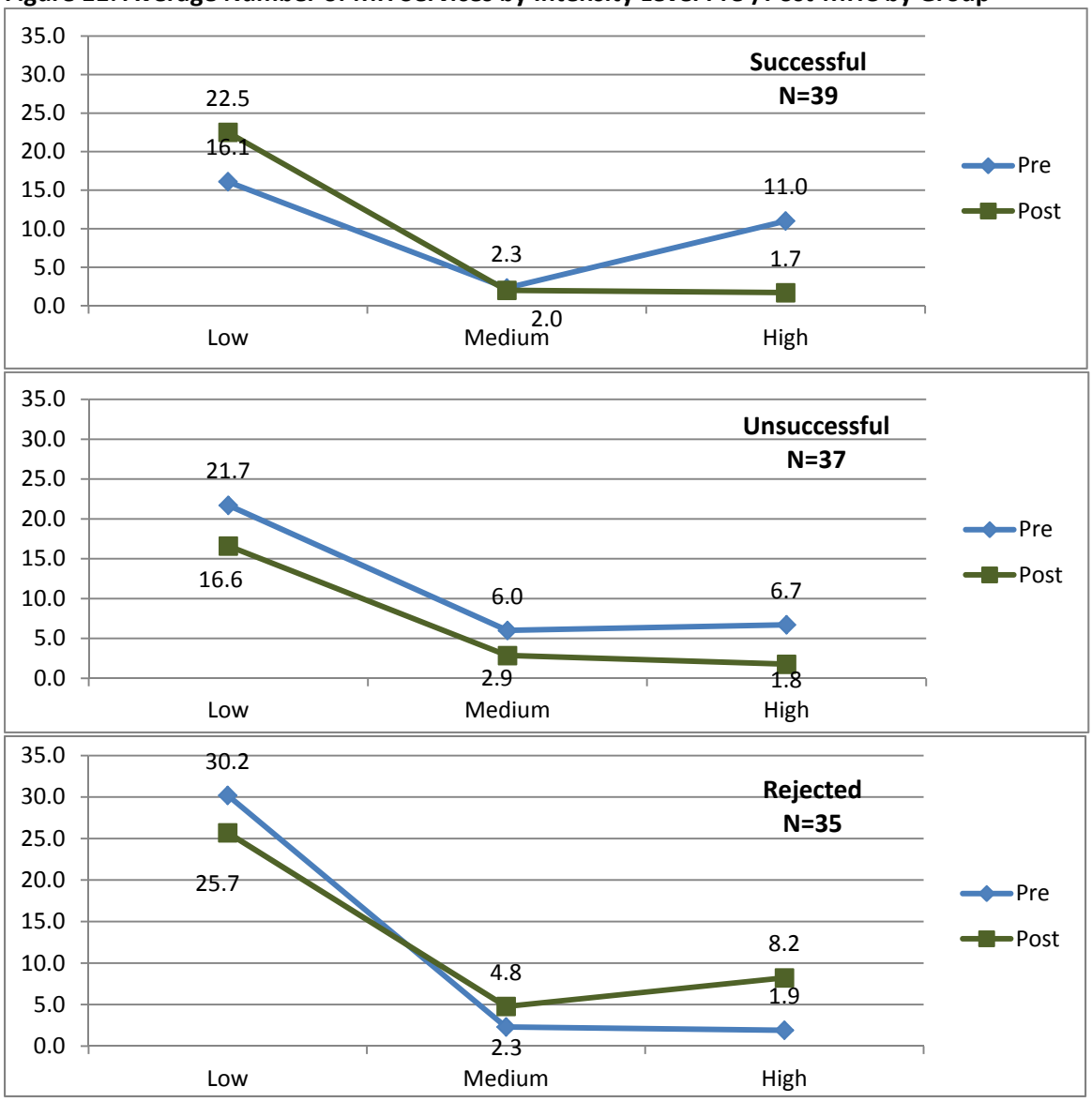
Mental Health Treatment Intensity Levels
Low level services = case management, medication reviews, individual/group therapy
Medium level services = ACT case management, intensive outpatient, residential
High level services = psychiatric hospitalization, crisis residential, crisis center

The high level of prison confinement experienced by the Unsuccessful Group (See Figure 11), rendered many members of the group unable to access mental health treatment in the Wayne County CMH system; data related to mental health treatment received in state prisons was not available for this analysis. To accommodate this lack of access to the Wayne County CMH system, members of all three groups who went to prison in the post-MHC period were excluded from this analysis[6]. Assessing treatment encounters from the pre- to post-MHC periods for those who remained within the community and able to access Wayne County CMH services, variation is found among the three groups in the utilization of low, medium, and high level mental health services.

[5] *It should be noted that mental health treatment records were not available for all. These numbers are based on 36 members of the Successful Group; 62 in Unsuccessful; and 41 in the Rejected Group.*

[6] *Removing those who entered prison in the post-MHC period resulted in the removal of 34 participants from the analysis: one from the Successful Group, 23 from the Unsuccessful Group, and ten from the Rejected Group.*

Figure 11: Average Number of MH Services by Intensity Level Pre-/Post-MHC by Group



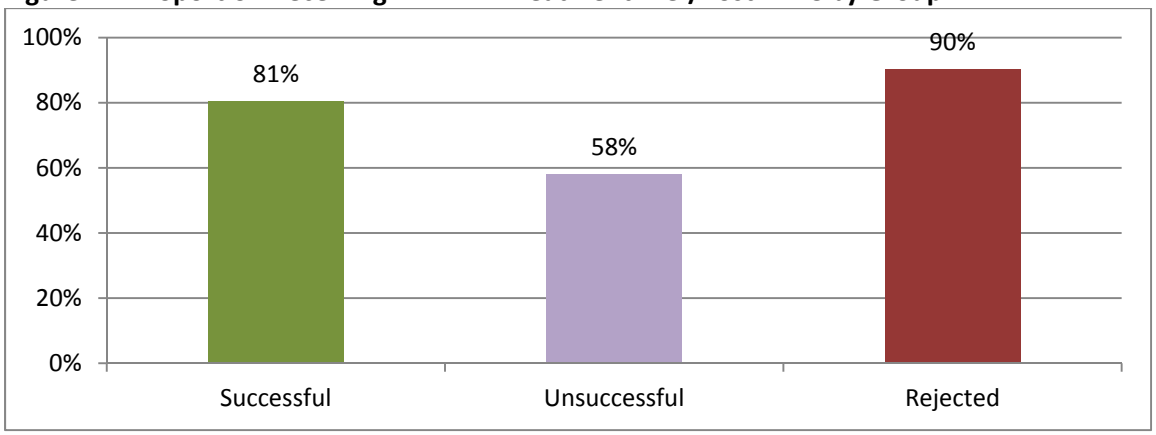
Source: DWMHA

Those in the Successful Group demonstrate the optimal response; the average number of low level services (e.g. group/individual sessions, med reviews) increased post-MHC and the high level services (e.g. hospitalization, crisis residential) decreased. For the Unsuccessful Group, all levels of service (low, medium, and high) declined from the pre- to post-MHC period. Individuals in the Rejected Group experienced an average decrease in low level services, and an increase in both medium and high level treatment, illustrating the opposite effect of those in the Successful Group.

Figure 12, below, illustrates the proportion of the Successful, Unsuccessful, and Rejected Groups who received mental health treatment services in the post-MHC period. Members of the Rejected Group were more likely to receive mental health treatment services in the post-MHC period than those in the other groups (90% versus 81 % of Successful and 58% of Unsuccessful). The lower proportion of those receiving treatment in the Unsuccessful Group post-MHC is attributable to the higher rate of

incarceration experienced by the group. Optimally, a larger proportion of the Successful Group would continue to receive low level services (e.g. case management, medication reviews, individual/group therapy) to sustain improvements achieved during the MHC program.

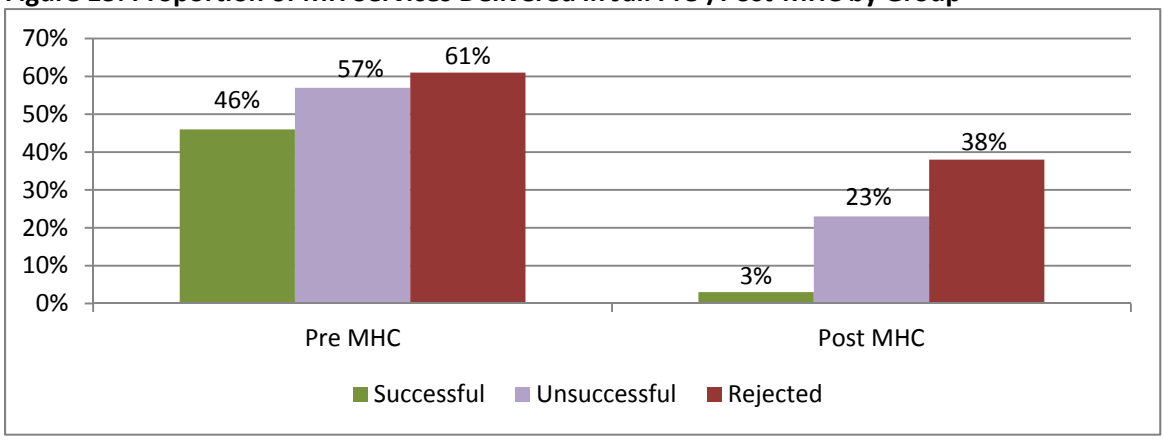
Figure 12: Proportion Receiving ANY MH Treatment Pre-/Post-MHC by Group



Source: DWMHA

Although mental health treatment is received, there is a possibility that the treatment is received in WCJ. Since the jail mental health providers are connected to the county CMH system, all encounters within the jail are housed in the county CMH database. Although receipt of treatment is encouraging versus no treatment, it is important to assess if the treatment received was in the community or the jail, and how this may have changed over time. To assess the proportion of mental health services that an individual received in jail, CMH encounter data was assessed for any provider codes listed for WCJ. Figure 13, below, demonstrates that for the Successful Group, 46% of all of mental health treatment was received in WCJ in the pre-MHC period, compared with only 3% post-MHC. While proportion of treatment in WCJ decreased for the Unsuccessful Group also (57% pre and 23% post), 43% of group members spent time in state prison (averaging 130 days), and mental health services within the prison are not part of the CMH system. For members of the Rejected Group, there was also a decrease in jail-based mental health services (61% pre- and 38% post-MHC); it is unclear why this may have decreased since the average time confined pre-MHC did not statistically differ from the post-MHC period.

Figure 13: Proportion of MH Services Delivered in Jail Pre-/Post-MHC by Group



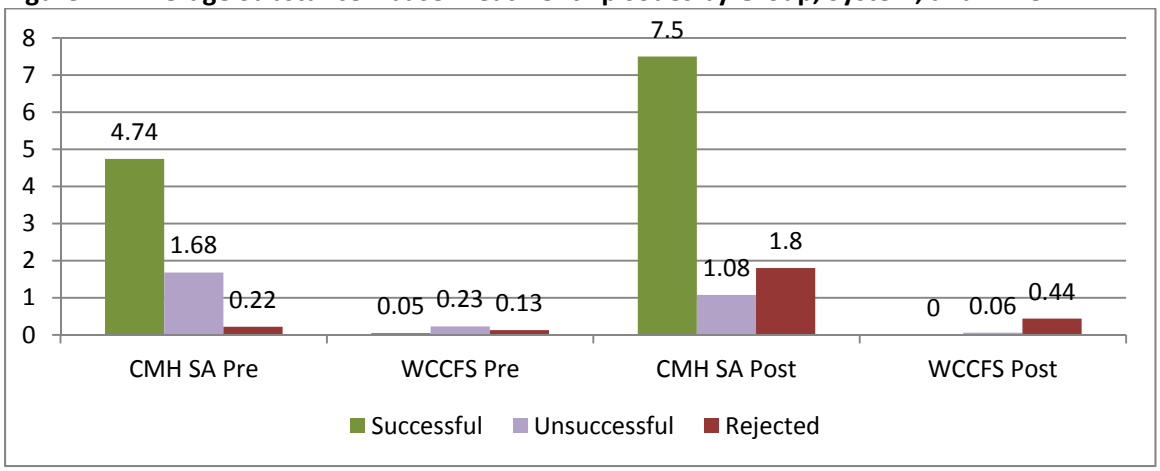
Source: DWMHA

Substance Abuse Treatment Outcomes

Nearly 80% of individuals screened for admission to the MHC were assessed as having a co-occurring substance use disorder. Best practices for treatment of COD, particularly for those with SMI, is an integrated approach where both mental health and substance abuse treatment services are comingled by the same provider. As indicated in Figure 13, below, most of the substance abuse treatment received in the pre- and post-MHC periods is being delivered by CMH providers suggesting an integrated approach to treatment. In the previous report on MHC outcomes conducted in Wayne County as part of the Statewide MHC Evaluation in 2012, 21% of those admitted to MHC in Wayne County received substance abuse treatment services in the pre-MHC period through the substance abuse treatment system (e.g. Detroit Bureau of Substance Abuse Services, SEMCA) (Kubiak et al, 2012). However, in the post-MHC period, only 6% received substance abuse treatment from this system.

This low engagement in the substance abuse treatment system during the post-MHC phase resulted in exploration of other options for substance abuse treatment: 1) CMH, and 2) WCCFS. As the state moves toward more integration between mental health and substance abuse treatment organizationally, we were interested in determining the proportion of services provided within the CMH system – suggesting an integration of direct practice. However, community corrections operated by WCCFS has direct substance abuse treatment vendors that guarantee quick access to substance abuse treatment for those involved in the criminal/legal system. In an effort to ascertain where and how substance abuse treatment services were delivered, and how treatment changes in the year prior to MHC involvement as compared to the year after, were associated with group membership, we obtained data from these two sources.

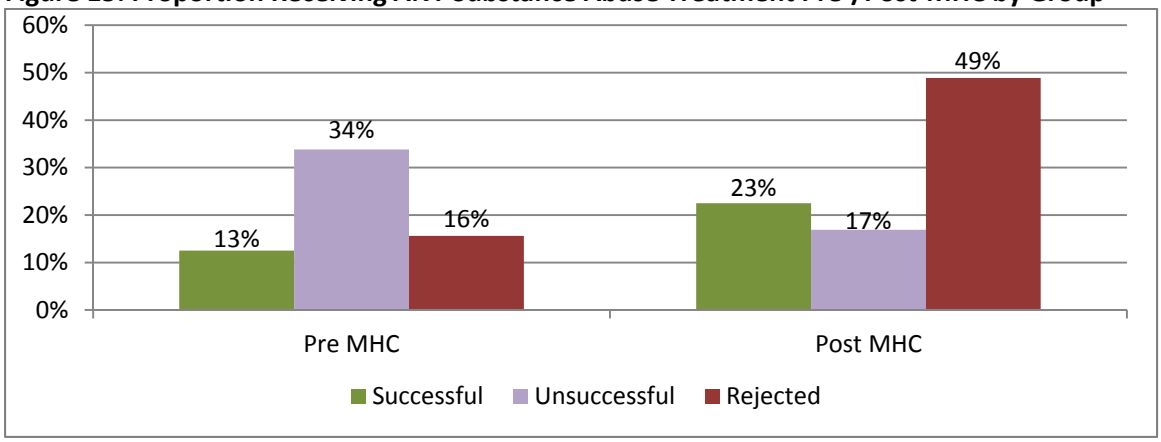
Figure 14: Average Substance Abuse Treatment Episodes by Group, System, and Time



Source: DWMHA, WCCFS

Figure 14, above, indicates an increase in receipt of substance abuse treatment services in the CMH system for the Successful Group from pre- to post-MHC.

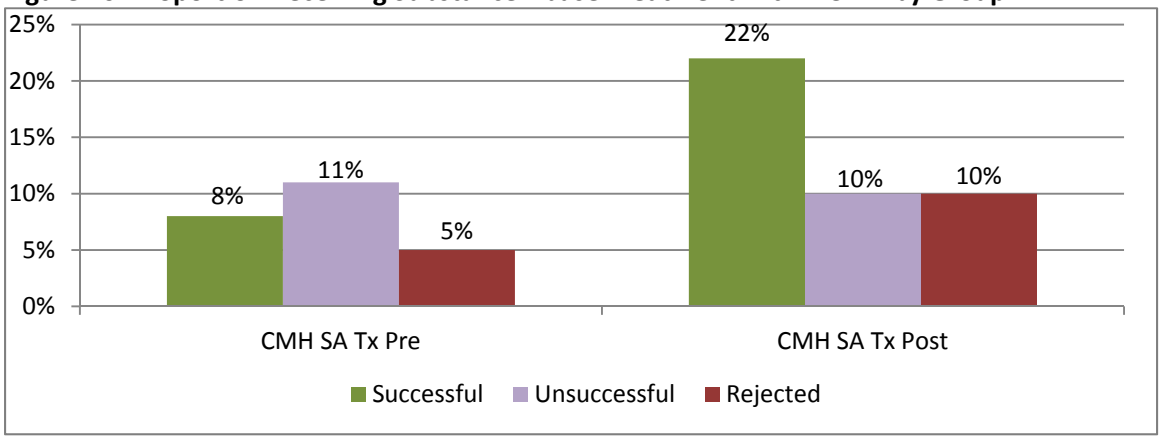
Figure 15: Proportion Receiving ANY Substance Abuse Treatment Pre-/Post-MHC by Group



Source: DWMHA, WCCFS

As shown in Figure 15, above, members of the Unsuccessful Group were more likely to be in substance abuse treatment pre-MHC (34% versus 13% of Successful and 16% of Rejected) and may be indicative of a more severe substance use disorder. The higher proportion receiving services in the Rejected Group post-MHC (33% increase) may be indicative of court-mandated treatment in the post-MHC period.

Figure 16: Proportion Receiving Substance Abuse Treatment within CMH by Group



Source: DWMHA

One element that may be contributing to better long-term outcomes among the Successful Group is the higher proportion involved in integrated substance abuse and mental health treatment within CMH post-MHC as shown in Figure 16, above (22% versus 10% for Unsuccessful and Rejected).

IV. Outcome Cost Analysis

The final section of this analysis attempts to draw out the economic effects of the MHC. Specifically, this analysis considers the post-MHC period, or the outcome period, for the Treatment and Comparison Groups. As previously noted, the post-MHC period is the one year period beginning 12 months after discharge or rejection from the MHC. Specific outcome transactions examined in this analysis include the standard costs incurred by members of the Comparison and Treatment Groups in the post-MHC

period including: mental health treatment, substance abuse treatment, criminal justice processing costs, confinement, and victimization costs.

Purpose of Cost Analysis

The costs of MHC can be analyzed using several different approaches. The cost of the entire program is of interest for perspective, scope, and history. Cost figures reported in this report can be used by MHC professionals for comparison to other MHC or specialty court and diversion programs (cost effectiveness analysis) or the costs of offering no specialty or diversion programs. Total cost figures can be used by policy advocates to compare the scope of the MHC system to other social policy and social service programs such as education, job training, homeland security, and infrastructure building (cost utility analysis). Lastly, cost figures can be used to gauge the direction of the MHC program: is it growing, shrinking, stagnant? However, the goal of this cost analysis is broader in its purpose. The purpose of the following analysis is to determine if investment in the Wayne County MHC allows the county's government and citizens to avoid even greater expenditures in the future. In other words, are there costs *not* incurred or avoided in the future due to the expenditures of the Wayne County MHC *today* (cost avoidance/benefit analysis)?

Previous Study

In a previous report and analysis from fiscal year 2010-2011, interaction with the Wayne County MHC revealed significant cost reduction in mental health services with the 29 participants that were available for measure one year after discharge from the MHC. The analysis found a reduction of over $105,000 (75%) in the cost of mental health services from the pre-MHC to post-MHC period.

The previous study acknowledged limitations. For instance, some of the decline in mental health services was due to fewer individuals seeking such services in the post-MHC period. It was anticipated that if participants begin to seek high-level treatment services (i.e. hospitalization) in subsequent years due to exacerbated illness associated with lack of consistent treatment engagement, the cost savings may be temporary. The potential of sustained costs savings was questioned as reversion to the mean is a reasonable threat to these savings.

Other Influential Studies

The evaluation team reviewed a number of studies and reports in order to assemble the most useful methodology and presentation of the outcome costs associated with the Wayne County MHC. Both drug and mental health court studies were influential. In particular, a study reviewing MHCs in the Bronx and Brooklyn (Rossman, Willison, Mallik-Kane, Kim, Debus-Sherrill, Downey, 2012), a cost-benefit study reviewing Texas' Travis County MHC (Mills & Calkins, 2012), and a study evaluating the Kalamazoo Drug Treatment Court (Marchand, Waller & Carey, 2006) proved valuable. Perhaps the most influential reference in the construction of this analysis was the Kalamazoo County Drug Court report (Marchand, Waller & Carey, 2006). The transactions reported in this study take into account the particulars of how Michigan's court systems gather costs (both drug and MHC). In addition, the outcome costs that focus on transactions (or encounters) is readily calculable for Wayne County. Lastly, the approach used by Northwest Professional Consortium Research (NPC) reports is familiar and proven in Michigan as the Michigan State Court Administrative Office (SCAO) funded the Kalamazoo County report in 2006. Using a format similar to that used by NPC may promote understanding and continuity by presenting familiar formats and terms.

Transaction Orientation

Costs can be gathered in a variety of formats; however, the evaluation team found that the most intuitive manner to assess service consumption was the transaction oriented approach, often called a transaction and institutional cost analysis (TICA). The approach focuses on the participant as the unit of analysis, as opposed to an institution, agency, or program. Each participant encounters several agencies in the post-MHC period: mental health and substance abuse treatment providers, criminal justice agencies including the Detroit Police Department, Wayne County Jail, and Third Circuit Court, and state prison. These transactions are multi-layered, often affecting multiple agencies, so teasing out specific costs associated with the Treatment and Comparison Groups can be tricky. Most of the services accessed by group participants are funded through taxation. The TICA approach is used in other reports procured by SCAO allowing for comparison with the figures presented in this report.

Outcome Transactions: Treatment and Comparison Groups

Table 1, below, presents the average number of outcome transactions incurred by participants in the all three groups (Successful, Unsuccessful, and Rejected). Transactions considered for outcomes include criminal justice transactions (i.e. arrests, jail bookings, court cases), mental health treatment, substance abuse treatment, confinement (i.e. jail and prison days), and victimizations.

Table 1: Average Number of Outcome Transactions Post-MHC by Group

	Treatment Group		Comparison Group
	Avg Trans Successful	Avg Trans Unsuccessful	Avg Trans Rejected
MH Tx Low Level	22.50	14.50	22.00
MH Tx Med Level	2.00	1.90	4.20
MH Tx High Level	1.70	1.10	6.40
SA Residential Treatment	0.00	1.57	21.47
SA Outpatient Treatment	0.00	0.00	0.00
Arrest	0.48	0.52	0.87
Jail Booking	0.48	0.52	0.87
Court Case	0.48	0.52	0.87
Jail	4.73	23.20	49.27
Prison	5.38	130.00	48.70
Victimization	0.48	0.52	0.87

Source: DWMHA, MDOC, WCCFS, WCJ

As shown in Table 1, above, members of the Successful Group had the lowest criminal justice involvement, including arrests, jail bookings, and court cases, and, as a result, also incurred the lowest number of victimizations and confinement (jail or prison days). The Unsuccessful Group incurred the greatest number of days in confinement with members accumulating an average of 153.20 days in either prison or jail (157.8 SD, 0-373 range). In terms of mental health treatment, all three groups engaged in low level mental health treatment, with the Successful and Rejected Groups engaging in more of these services. While all three groups had some level of high level mental health treatment (i.e. psychiatric hospitalization, crisis residential, crisis center), the Rejected Group experienced more crisis treatment (6.40 episodes v. 1.70 episodes Successful and 1.10 episodes Unsuccessful). The Rejected Group also experienced considerably more substance abuse residential treatment than the Treatment

Groups (21.47 days v. 0 days Successful and 1.57 days Unsuccessful). None of the groups engaged in outpatient substance abuse treatment.

Outcome Costs: Treatment and Comparison Groups

Table 2, below, presents the costs incurred during the outcome period (post-MHC) for the Treatment (Successful and Unsuccessful) and Comparison (Rejected) Groups.

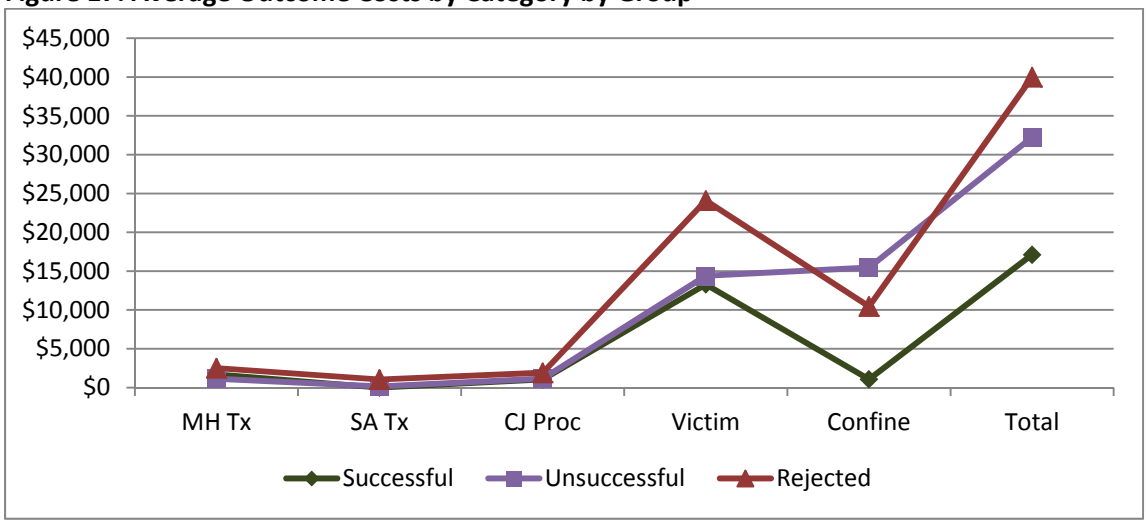
Table 2: Average Outcome Costs Per Participant Post-MHC

	Unit Cost	Avg Cost Successful	Avg Cost Unsuccessful	Avg Cost Rejected
Outcome Costs				
MH Tx Low Level	60.02	$1,350	$870	$1,320
MH Tx Med Level	44.68	$89	$85	$188
MH Tx High Level	155.08	$264	$171	$993
SA Residential Treatment	48.50	$0	$141	$1,041
SA Outpatient Treatment	22.50	$0	$0	$0
Arrest	219.00	$105	$114	$191
Jail Booking	355.00	$170	$185	$309
Court Case	1,610.00	$773	$837	$1,401
Jail	115.00	$544	$2,668	$5,666
Prison	98.23	$528	$12,770	$4,784
Victimization Costs	27,685.00	$13,289	$14,396	$24,086
Total Outcome Costs		***$17,113***	***$32,237***	***$39,978***

Source: DWMHA; MDOC; WCCFS; WCJ; See Table 6, Appendix B

As shown in Table 2, outcome costs for the Successful Group were about half of the costs associated with the Unsuccessful Group ($17,113 v. $32,237), and just 43% of the costs incurred by the Rejected Group ($17,113 v. $39,978).

Figure 17: Average Outcome Costs by Category by Group



Source: DWMHA, MDOC, WCCFS, WCJ

As illustrated in Figure 17, above, victimization costs accounted for a significant portion of total outcome costs for all three groups. However, the costs of victimization were exceeded by the costs for confinement (i.e. days in jail or prison) for the Unsuccessful Group. Across all three groups, mental health and substance abuse treatment costs and criminal justice processing costs were lower than victimization and confinement costs based on the lower unit costs associated with these services.

Overall Outcome Cost Savings

The final section of this analysis presents the difference in costs between the Treatment and Comparison Groups for outcome transactions by comparing both Treatment Groups (Successful and Unsuccessful) to the Comparison Group (Rejected).

Table 3: MHC Outcome Cost Savings Post-MHC

	Avg Cost Successful	Avg Cost Rejected	Cost Savings	Avg Cost Unsuccessful	Avg Cost Rejected	Cost Savings
MH Tx Low Level	$1,350	$1,320	-$30	$870	$1,320	$450
MH Tx Med Level	$89	$188	$98	$85	$188	$103
MH Tx High Level	$264	$993	$729	$171	$993	$822
SA Residential Tx	$0	$1,041	$1,041	$141	$1,041	$900
SA Outpatient Tx	$0	$0	$0	$0	$0	$0
Arrest	$105	$191	$85	$114	$191	$77
Jail Booking	$170	$309	$138	$185	$309	$124
Court Case	$773	$1,401	$628	$837	$1,401	$564
Jail	$544	$5,666	$5,122	$2,668	$5,666	$2,998
Prison	$528	$4,784	$4,255	$12,770	$4,784	-$7,986
Victimization Costs	$13,289	$24,086	$10,797	$14,396	$24,086	$9,690
Total Per Participant	**$17,113**	**$39,978**	**$22,865**	**$32,237**	**$39,978**	**$7,741**
Total Cost Savings All Participants			**$914,586**			**$503,154**

Source: DWMHA; MDOC; WCCFS; WCJ; See Table 6, Appendix B

As shown in Table 3, above, cost savings were achieved for both the Successful and Unsuccessful Groups when compared to the Rejected Group in the post-MHC outcome period. Savings were found across all outcomes for the Successful Group when compared to the Rejection Group except for low level mental health treatment where costs for the Successful Group were just slightly higher than the Rejected Group. Similarly, costs savings were found across all outcomes for the Unsuccessful Group when compared to the Rejection Group except for prison days where costs for the Unsuccessful Group exceeded those incurred by the Rejection Group by nearly $8,000.

Table 4: Total Cost Savings for Treatment Group Post-MHC

	Total Cost Savings
Successful Group	$914,586
Unsuccessful Group	$503,154
	$1,417,740

The total average savings per Successful Group member in the one year post-MHC period is estimated to be $22,865; the total average savings per Unsuccessful Group member is $7,741. As shown in Table 4, above, these savings, multiplied by the number of participants in each group condition amounts to a total savings of $914,586 for all Successful Group participants (N=40) and $503,154 for Unsuccessful Group participants (N=45). **Summing the amount saved for the Successful and Unsuccessful Groups yields a combined savings of $1,417,740 in the post-MHC period.**

V. Recommendations and Summary

The Wayne County MHC has successfully operated since 2009. Strong judicial and mental health administrative leadership, a dedicated and professional Treatment Team, and a diverse and committed advisory board have provided the foundation for this success. Through 09/30/13, after over four years of operation, the program yielded 150 individuals who were discharged or rejected from the court for over one year: 40 successfully discharged, 65 unsuccessfully discharged, and 45 rejected from the MHC. This report presents the long-term outcomes and cost savings associated with the 150 participants discharged or rejected for one year or more. Following is a summary of key findings presented in this report.

It should be stated that the Wayne County MHC accepts only felony offenders – and among felony offenders, selects those who have experienced previous failures within the criminal justice or treatment systems. The high number of felony and misdemeanor offenses, as well as the presence of parole or probation failures, attests to the high-risk nature of Wayne County MHC participants. As discussed in previous evaluation reports, there are many benchmarks useful to determining successful outcomes for participants and the program in general. Successful program completion is one such outcome as it may involve individual, as well as program, characteristics. The fact that 38% of those admitted to the MHC successfully complete program requirements is an accomplishment; it is likely that without the MHC intervention, this group would have continued cycling in and out of the criminal justice system (as demonstrated by the Comparison Group). Those unsuccessfully discharged from the MHC may encounter other gains from MHC participation; subsequent incarceration experienced by this group may have resulted with or without MHC involvement.

Positive Outcomes for Successful Program Completers

Despite similarities across the groups at admission/rejection, the Successful Group had better long-term criminal justice and treatment outcomes. In terms of recidivism, only 18% of the Successful Group experienced any incarceration in the post-MHC period compared to 69% (Unsuccessful) and 88% (Rejected), incurring just 10 days of incarceration compared to 153 (Unsuccessful) and 98 days (Rejected). Similarly, the Successful Group demonstrated optimal response in terms of mental health treatment: the average number of low-level services (e.g. group/individual sessions, med reviews) increased post-MHC, indicated sustained engagement, while high-level services (e.g. hospitalization, crisis residential) decreased. Further investigation into individual differences and characteristics of those who successfully complete MHC, compared to those who do not, will be undertaken in future analyses.

Cost Savings Associated with MHC Participation

The positive outcomes produced by the Successful and Unsuccessful Groups translated to cost savings. Applying unit costs to standard transactions incurred by members of the Treatment and Comparison Groups in the post-MHC period, a cost savings of $22,865 per successful participant as compared to

rejected participants was achieved. Fewer days in confinement (jail or prison) and overall lower criminal justice involvement greatly contributed to these savings. Conversely, greater involvement in low-level mental health services by successful completers had minimal impact on overall costs incurred in the post-MHC period due to the lower unit costs associated with treatment versus higher criminal justice processing and confinement costs.

Savings were attributed to unsuccessful MHC participants as well. Despite an unsuccessful discharge from the MHC, members of the Unsuccessful Group still yielded lower criminal justice involvement and overall confinement costs than those in the Rejected Group. In other words, there is some positive 'treatment affect' associated with MHC, irrespective of completion status, but those completing the program have a far greater treatment effect. The per participant savings of $7,741 for unsuccessful participants, in addition to the $22,865 savings for successful participants, combine to achieve a total estimated savings of $1,417,740 in the post-MHC period.

Underutilization of Substance Abuse Treatment Services

An ongoing issue identified in this long-term analysis, as well as in previous evaluations of the Wayne County MHC, is the underutilization of substance abuse treatment services by participants of the program, despite the high proportion of individuals (80%) diagnosed with co-occurring mental health and substance use disorders. Most members of the Treatment Groups receive mandated residential treatment as the first step of the MHC program, just as members of the Comparison Group were mandated in the post-MHC period. However, the view of substance abuse treatment as a "continuum of care" endorsed by Substance Abuse Mental Health Services Administration (SAMHSA) (TIP Series No. 47, 2006) suggests that individuals should move between levels of care (e.g. early intervention, outpatient, intensive outpatient, residential/ inpatient, hospitalization) as needed throughout recovery. Participants in both groups received residential treatment, but did not progress to less intensive levels of treatment following the residential treatment stay. Defining the severity of the SUD at admission to MHC, and developing an individualized treatment plan accordingly, will identify those participants in need of higher levels of care and set forth an appropriate treatment plan for all MHC participants.

Based on the above, we would anticipate a greater proportion of all groups to engage in more substance abuse treatment in the pre- and post-MHC period. Expanding our analysis of substance abuse treatment data to include integrated services received in the CMH system, as well as treatment provided in the WCCFS system, the two systems most likely to fund treatment for the justice-involved population in Wayne County, still resulted in an underutilization of substance abuse treatment services. In the pre-MHC period, only 34% of the Unsuccessful Group received any substance abuse treatment, followed by just 16% of the Rejected and 13% of the Successful Group. In the post-MHC period, 49% of the Rejected Group received any substance abuse treatment, followed by 23% of the Successful Group and just 17% of the Unsuccessful Group. It is likely that the higher proportion of those receiving treatment in the Rejected Group is the result of court-mandated treatment as a condition of probation after rejection from the MHC.

Relationship Between Length of Stay and Outcomes

The data in the long-term cost analysis reflect a dose-response relationship. Those participants who receive MHC services and remain in the program long enough to be successfully discharged receive a "high-level dose" and yield the greatest level of improvement in outcomes (measured in terms of cost avoidance). Those participants unsuccessfully discharged from the MHC prior to completing the program receive the equivalent of a "medium-level dose" and yield lower outcome costs than those rejected

from the program, but higher outcome costs than those who successfully completed. Lastly, those rejected from the program and who did not receive a program “dose”, yielded the highest outcome costs across all three groups. Outcome measures that reflect dose-response relationships are often considered robust.

APPENDIX A

Long-term Outcomes Methodology

Randomly selecting participants into one intervention and comparing it to another intervention is the strongest research design. Since the goal of the pilot funding behind the implementation of the Wayne County MHC was feasibility, random selection was not appropriate or desired. However, a strong evaluation was desired, and every effort was made to assess if change over time was attributable to MHC. Therefore, data was collected for every participant on the same behaviors (treatment utilization and criminal involvement) in the year pre-MHC in an effort to compare to behaviors in the year post-MHC. Although this design cannot control for changes in environmental or system factors, it does hold constant all of the individual factors.

Multiple data sources were utilized for the long-term outcomes evaluation. Using multiple sources of data strengthens the reliability and validity of the data and, as such, the strength of the conclusions drawn. Some of the data sources are considered primary sources – sources where the data originates – and some are secondary sources – sources that collect information from other sources. In an effort to assure that the data are reliable, we use both primary and secondary sources to gather a more complete and accurate picture of members of the Treatment and Comparison Groups in the post-MHC period. Data sources for this report are listed below.

- Detroit Wayne Mental Health Authority Treatment (DWMHA) Encounter Data
- Drug Court Case Management (DCCM) Database
- Wayne County Jail (WCJ) Booking and Release Data
- Michigan Department of Corrections (MDOC) Offender Tracking and Information System (OTIS)
- Wayne County Children and Family Services (WCCFS) Substance Abuse Treatment Data

A more complete discussion and description of each of these databases is available in Table 5, below. In addition to information about the variables utilized from each data source, limitations of each data source are also presented. The triangulation of multiple data source provides a more complete picture across systems, but also provides multiple challenges in reconciling differences.

Table 5: Long-term Outcomes Data Sources

Source	Overview	Issues
DCCM Database	Demographic, mental health substance abuse diagnoses, and criminal justice risk indicators collected for members of the Treatment and Comparison Groups.	This interactive database records in 'real time' the activities occurring within the MHC. Although the database is capable of handling large amounts of court and treatment data, there are a select number of variables (n=67) that are required by SCAO. Most of these required variables are entered into the database during the screening process.
DWMHA Mental Health Encounter Treatment Data	Data collected included diagnosis (primary and secondary); all services in the post-MHC period for Treatment and Comparison Group members. Based on the medical billing procedure codes assigned for each service, we coded the service as low, medium or high, depending on the intensity of the service received. We calculated the number of each and then baseline over the course of months in the program.	Data received from DWMHA is based on 'encounter' data. This data is essentially collected for billing purposes. Like all administrative databases, we are limited in our analyses by the data entered into the system and the accuracy of that data. Therefore, if a service was not entered into the DWMHA database, we will not have that service to report upon. DWMHA data was received for 139 of 150 individuals considered in this analysis. In addition, DWMHA data included information about SA services delivered through CMH contracts with the Coordinating Agencies (DBSA and SEMCA). This data does not capture all SA services received by members of the Treatment and Comparison Groups; this data is supplemented with data from WCCFS described above to provide a more robust picture of substance abuse treatment services provided to these groups.
Wayne County Jail	Variables collected include: Jail bookings and releases in post-MHC period. Computed the number of interfaces and length of stay for each interface. Also, number of days to the first jail interface post-discharge or rejection.	Jail data was obtained for all 150 individuals considered for this analysis. Offense data has been used to determine if jail booking was based on a new charge or a charge related to the incident offense that was the precursor to MHC involvement.
WCCFS Substance Abuse Treatment Data	Outpatient and Residential Substance Abuse Treatment Pre-, During, and Post-MHC. Number of treatments and length of stay in residential treatment.	Eligibility for substance abuse treatment through resources funded through WCCFS Community Corrections is limited to those who are convicted of PA511 offenses – meaning felony offenses that meet criteria for community corrections. It is not meant to be a comprehensive portrayal of substance abuse services, but a likely source of treatment for those involved in the criminal justice system.
Probation Officer	COMPAS Scores	Both WCJ and MDOC utilize the COMPAS instrument to determine both risk and needs of those on probation or parole in Wayne County. Risk scores are entered to DCCM for MHC participants. Risk scores for those rejected from the MHC were provided retrospectively by the MHC MDOC probation officers.
MDOC and Offender Tracking Information System (OTIS)	Michigan Department of Corrections (MDOC) incarceration status during post-MHC period	MDOC provides, OTIS, a public web-based system. Anyone can search a particular name and find information on the person's criminal history within MDOC. OTIS was used for cross-sectional reviews of MDOC status for members of the Treatment and Comparison Groups. Because this data is cross-sectional, it provides a moment in time 'snapshot' of the person's current MDOC status. This data was supplemented with actual prison entry and exit dates provided by MHC MDOC probation officers.

APPENDIX B

Cost Analysis Methodology

This analysis involves calculating the costs associated with outcomes for the Treatment and Comparison Groups in the post-MHC period. The post-MHC period is defined as the year beginning 12 months after discharge (Treatment Group) or rejection (Comparison Group) from the MHC program. Costs considered for this analysis are considered to be standard costs, or the costs of services and processes equally accessible to members of both the Treatment and Comparison Group and directly related to criminal justice and treatment outcomes. Standard costs considered for this analysis are broadly categorized as: mental health treatment costs, substance abuse treatment costs, criminal justice processing costs, confinement costs, and victimization costs. Costs included in these categories are presented and defined in Table 6, below. With standard costs established, outcome costs, those costs incurred during the post-MHC period only, are compared between both groups (Treatment versus Comparison). This between group analyses allows the ability to determine if there are cost savings, or avoided costs, associated with participation in the MHC.

Determination of Standard Costs

Additional data sources were utilized to determine the standard costs considered for this analysis. Table 6, below, lists the dollar rate assigned to each of the standard services accessed in the post-MHC period. The standard services and corresponding rates are described below.

Mental health treatment is primarily provided by DCC for MHC participants (Treatment Group), the designated mental health treatment provider for the MHC, though some participants may see other providers within the DWMHA provider network or within other counties if living outside of Wayne County. Similarly, those who are not participants of the MHC (Comparison Group) are likely eligible for DWMHA network providers and others as well. For purposes of this analysis, mental health treatment utilization and costs are based on treatment received within the DWMHA network only. Due to the wide array of mental health services provided to participants, services have been categorized by intensity levels (low, medium, high) as outlined in the box below. *The average cost for low level services is estimated to be $60.02 per treatment episode. The average cost for medium level services is estimated to be $44.68 per treatment episode. Finally, the average cost for high level services is estimated to be $155.08 per treatment episode.*

Mental Health Treatment Intensity Levels

Low level services = case management, medication reviews, individual/group therapy
Medium level services = ACT case management, intensive outpatient, residential
High level services = psychiatric hospitalization, crisis residential, crisis center

Substance Abuse Treatment is typically provided to participants of the MHC (Treatment Group) who have been diagnosed with co-occurring mental health and substance use disorders; however, substance abuse treatment services are also available and utilized by individuals outside of the MHC, including those rejected from MHC (Comparison Group). Based on treatment data obtained from WCCFS, substance abuse treatment for both groups (Treatment and Comparison) consisted of residential and outpatient treatment only. *Residential treatment per diem is $48.50. The average cost for outpatient treatment services is $22.50 per unit. In addition, the assessment conducted upon initial admission to treatment is $65.00.*

Members of both groups are also subject to ***arrest and jail booking*** for offenses committed in the post-MHC period. Individuals are arrested then booked at the WCJ. *For purposes of this analysis, the cost of a single arrest is $219. The cost of a jail booking used for this analysis is $355.*

On average, a ***Traditional Court Case*** processed at Third Circuit Court is estimated to cost **$1,610**.

Confinement in the post-MHC period can be experienced at the Wayne County Jail or in a state prison. *The cost per day at WCJ for members of the Treatment and Comparison Group, who would likely be housed within the Mental Health Unit or receive outpatient services in general population, is $115.00 per day. The cost of confinement within a Michigan state prison is estimated to be $98 per day.*

Victimization costs consider the loss of productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life resulting from personal and property crimes. *For purposes of this analysis, an average victimization cost of $27,685 is applied per arrest.*

Table 6: Source of Standard Costs Incurred Post-MHC

Outcome Costs	Rate	Source
MH Treatment - Low Level (Avg)	$60	2008-2013 DWMHA treatment data accessed 09/30/13.
MH Treatment - Med Level (Avg)	$45	2008-2013 DWMHA treatment data accessed 09/30/13.
MH Treatment - High Level (Avg)	$155	2008-2013 DWMHA treatment data accessed 09/30/13.
SA Treatment - Residential (Per Day)	$49	C. Flakes, Wayne County Children and Family Services (personal communication, January 16, 2014).
SA Treatment - Outpatient (Avg)	$23	C. Flakes, Wayne County Children and Family Services (personal communication, January 16, 2014).
SA Treatment - Assessment (1x)	$65	C. Flakes, Wayne County Children and Family Services (personal communication, January 16, 2014). The cost of assessment is a one-time cost applied to SA treatment received in the post-MHC period.
Arrest	$219	Rossman et al, 2012; Bierie, 2009. Costs updated to 2013 dollars using the consumer price index (CPI) for relevant offense types.
Jail Booking	$355	Carey & Finigan, 2004. Costs updated to 2013 dollars using the CPI.
Court Case	$1,610	Third Judicial Circuit of Michigan, 2009. Annual budget divided by number of cases processed for year. Cost updated to 2013 dollars using the CPI.
Jail Day (w/ mental health services)	$115	J. Restum, Wayne County Jail Mental Health Program (personal communication, November 7, 2013).
Prison Day	$98	B. R. Levine, Citizens Alliance on Prisons and public Spending Michigan (personal communication August, 19, 2013).
Victimization Costs (Avg)	$27,685	Marchand, Waller, & Carey, 2006; Miller, Cohen, & Wiersema, 1996. Average of victimization costs presented for personal and property offenses.

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