Statewide Evaluation of Utah Mental Health Courts

Phase I Report

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Background

It is estimated that more than 300,000 of the 2.1 million prisoners in the United States (U.S.) suffer from a serious mental illness (Lamb, Weinberger, Marsh, & Gross, 2007). Given the prevalence of mental illness among criminally-involved populations, criminal justice professionals and policymakers have been under increasing pressure to explore strategies to meet the unique needs of these individuals, many of whom have not been successfully engaged by community mental health treatment agencies.

MHC Components and Standardization Efforts

Mental Health Courts (MHC) are specialized, treatment-oriented courts that divert non-violent, mentally-ill defendants from the criminal justice system into court-monitored, community-based treatment and social services. As a type of problem-solving court, the MHC model aims to address the underlying issues that are contributing to a defendant's criminal behavior and to use the court's authority to "forge new responses to chronic social, human, and legal problems [...] that have proven resistant to conventional solutions" (Berman & Feinblatt, 2001, p. 3). In addition to protecting public safety and holding defendants accountable, MHCs also strive to provide individualized justice and to increase defendant engagement with established treatment and service providers (Berman & Fox, 2010; Goldkamp & Irons-Guyunn, 2000). Specific components of the MHC model include: (1) a separate docket for mentally ill defendants; (2) a dedicated judge for all court hearings and monitoring sessions; (3) dedicated prosecution and defense counsel; (4) collaborative decision-making between criminal justice, mental health professionals, and other support systems; (5) voluntary participation in court and treatment by defendants; (6) intensive supervision with ongoing court monitoring and emphasis on accountability; and (7) dismissal of charges or avoidance of incarceration with successful completion of program requirements (Goldkamp & Irons-Guyunn, 2000).

Since the founding of the first MHC in Broward County, Florida, the number of MHCs in the U.S. has increased from four, in 1997, to more than 300 as of 2010 (American Bar Association, 2015; McGaha, Boothroyd, Poythress, Petrila, & Ort, 2002). Despite the growing numbers of MHCs, researchers have found a lack of standardization across MHCs; individual programs vary widely in both populations served and services provided (Erickson, Campbell, & Lamberti, 2006). As noted by Almquist and Dodd (2009), "each court develops locally, based on the needs and legal regulations of that particular jurisdiction and the treatment services available" (p. 5). For instance, there are no exact definitions of what diagnoses constitute an eligible mental health problem and there is no consensus on where in the judicial process program entry should occur (e.g., pre-plea, post-plea, post adjudication). Nor is there much agreement on the types (e.g., violent, sex, DUI) or severity (i.e., infraction, misdemeanor, felony) of criminal charges that should be accepted into MHCs (Almquist & Dodd, 2009). In a survey of over 100 MHCs, Erickson and colleagues (2006) found that although 98% courts accepted misdemeanant defendants, only one-quarter (27%) accepted felonies, and even fewer (4%) accepted defendants charged with violent felonies. Although early MHCs typically only accepted misdemeanor-level cases, there has been a gradual shift to include, or in some cases to primarily focus on, defendants charged with felony offenses.

In response to frustration over the lack of standardization among MHCs, efforts have been underway to provide guidelines for defining MHC policies/procedures, team member/agency roles, and measures of effectiveness (Thompson et. al, 2008; NCSC, 2010). For instance, according to the Council of State Governments (CGS), the 10 essential elements of a MHC include (Thompson et. al, 2008):

1. Planning and Administration: MHCs need a stakeholder community that includes representation of the various agencies, organizations, and systems that will be involved in service provision.

2. Target Population: Target populations should be carefully developed, balancing public safety concerns with treatment and service delivery capacity. There should also be a connection between the mental health issue and the offense committed.

3. Timely Participant Identification and Linkage to Services: Programs need have strategies for identifying potential participants, handling referrals and acceptance decisions in a timely manner, and, once in the program, ensuring swift connection to needed services.

4. Terms of Participation: Program engagement starts with individualized terms, such as program duration & supervision that are transparent and "put in writing prior to [the participant's] decision to enter the program." It is also recommended that participants received "positive legal outcomes" (e.g., charge reduction or dismissal) upon successful completion of the program.

5. Informed Choice: In accord with specific terms being written out (see Element 4, Terms of Participation), the specific terms and legal consequences must be explained to the participant by counsel before they enter the program. Moreover, courts should make efforts to ensure participants understand program terms and consequences at any critical juncture and have procedures in place to ensure participant competency.

6. Treatment Supports and Services: Arrangements should be put in place for a broad range of services (e.g., drug treatment, counseling, benefits) to which individual participants can be connected as needed. Treatment options should be gender and ethnically appropriate as well as evidence-based, when possible. Furthermore, case management should be used to connect participants to services and to monitor program compliance.

7. Confidentiality: All information-sharing about participants must be in line with applicable medical information laws and must protect rights guaranteed under the constitution. Any release forms to be signed by the participant must be explained prior to obtaining the signature (see Element 5, Informed Choice). Protections should be in place to ensure required privacy is maintained even in the event of a transferring of the case back to the traditional court environment.

8. Court Team: The MHC team should be collaborative. At minimum, the team should include: a judicial officer; a treatment provider and/or case manager, a prosecutor, and a defense attorney. If any program participants are concurrently on additional supervision (i.e., probation) this individual should also be on the MHC team. The judge should lead the team and ensure cooperation among the various members. The court should regularly evaluate court procedures and seek out best practices.

9. Monitoring Adherence to Court Requirements: Regular and frequent case staff meetings are an important component of MHCs. They ensure the constant flow of information between all team members on compliance, noncompliance, positive, and negative actions. Incentives, as well as sanctions, should be available to the court, and both should be individualized. The court should use incentives to recognize positive changes and reinforce treatment goals. Sanctions should be graduated and "specific protocols" should

be in place for the use of jail time as a sanction.

10. Sustainability: Performance measures and outcome data should be tracked. This should include both quantitative data (e.g., recidivism, acceptance, and graduation rates) and qualitative (e.g., interviews or surveys with participants, core team members, and service providers). To ensure consistency and improved transparency, courts should also compile information on their goals, eligibility criteria, information-sharing protocols, referral and screening procedures, available treatment resources, protocols for administering sanctions and incentives, and program completion requirements.

Juvenile Mental Health Courts

According to the Office of Juvenile Justice and Delinquency Prevention (OJJDP, n.d.), 70% of youths involved with the juvenile justice system suffer from a mental health disorder. In response to this pervasive need, officials in York County, Pennsylvania created the first juvenile MHC (JMHC) in 1998 (Callahan, Cocozza, Steadman, & Tillman, 2012). JMHCs are generally based on the same therapeutic justice model as adult MHCs, but vary slightly to address difference unique to juvenile populations (Callahan et. al, 2012). For instance, JMHCs must take into account juvenile cognitive and developmental issues (CSG Justice Center, 2008) and the difficulty of diagnosing mental illness among juveniles. The most common mental health problems reported at JMHCs are bipolar and depression disorders, but some JMHCs also accept individuals with primary diagnoses of attention-deficit-hyperactivity disorders (ADHD) or conduct disorders (Callahan et. al, 2012). Another challenge unique to JMHCs is the need to involve the youth's parent or guardians in the process (CSG Justice Center, 2008). There is, moreover, the necessity of working with a broader array of systems, such as school systems, foster care, and state offices of child and family services.

Part I: Review of MHC Outcome Studies

As previously mentioned, MHCs vary widely on program components, policies, and target populations. The implications of such variability are vast, especially when trying to determine the effectiveness of MHCs as a whole. The current study reviews MHC outcome studies published between 2000 and 2015 in order to characterize variations between courts and the different methodologies for evaluating their impact. In total, this review identified 66 studies of 38 adult mental health courts (AMHCs) and 6 studies of 5 juvenile mental health courts (JMHCs). Although there were no geographic limiters on the search, the vast majority of qualifying studies were of courts within the U.S. (36 AMHCS, all 5 JMHCs). This section of the report provides a summary of MHC site characteristics (i.e., eligibility criteria, participant characteristics, program components) and a summary of studies (i.e., study design and outcome comparisons).

Site Locations

Table 1, on the following page, provides a list of the included MHC sites (each with a corresponding number used throughout this report). The table provides the location of the MHC and the number of included outcome studies for each site. While some MHCs, such as Broward County, FL, had numerous studies, others had only a single study. A list of references for each included study, and the corresponding site number is provided in Appendix A.

Table 1 Review of Studies: Site Locations

Site#[1]	Jurisdiction	State/Country	# Studies
Adult MHCs – United States			
1	Anchorage	AK	2
2	Butte	CA	1
3	Sacramento	CA	1
4	San Francisco	CA	4
5	Santa Barbara	CA	3
6	Washington	DC	1
7	Broward	FL	5
8	Leon	FL	1
9	*unspecified*	FL	1
10	*unspecified*	GA	1
11	Marion	IN	1
12	Kalamazoo	MI	1
13	Wayne County	MI	1
14	*statewide*[2]	MI	2
15	Hennepin County	MN	2
16	St Louis	MO	2
17	Orange County	NC	4
18	Washoe County	NV	1
19	*4 sites* [3]	NY	2
20	Bronx	NY	2
21	Brooklyn	NY	4
22	Summit County	OH	1
23	Clark County	OR	2
24	Allegheny County	PA	1
25	Davidson County	TN	1
26	Salt Lake County	UT	1
27	Chittenden County	VT	1
28	Windsor County	VT	1
29	King County	WA	2
30	Seattle	WA	2
31	1 site - *unspecified*	UNK	1
32	1 site - *unspecified*	UNK	1
33	1 site - *unspecified*	UNK	1
34	8 sites - *unspecified*	UNK	1
35	2 sites - *unspecified*	MULTI	2
36	4 sites, 3 states[4]	MULTI	3
Adult MHCs – Outside U.S			
37	Australia	AUST	1
38	Canada	CAN	1
Juvenile MHCs – United States			
39	Alameda County	CA	1
40	Fresno County	CA	1
41	Santa Clara	CA	2
42	Jefferson	CO	1
43	Washington	DC	1

[1] See Appendix A for a full reference list of included studies and corresponding MHC site and study ID
[2] Statewide: First study includes combined results for 10 sites (8 adult, 2 juvenile), while second study includes 8 adult MHC sites combined.
[3] 4 NY sites: Westchester County, Queens, Brooklyn, Bronx
[4] MacArthur MHC Project: Santa Clara, CA; San Francisco, CA; Hennepin County, MN; Marion County, IN

Eligibility criteria.

Legal. As previously mentioned, although there has been a gradual shift toward including felony level cases, MHCs still vary on the severity of cases that are eligible for participation. Of the MHCs reviewed for this report, more than half (60%) of the courts accepted both felony and misdemeanor cases (see Table 2). However, even among MHCs accepting felony cases, the percent of participants with a felony case varied greatly, from 8% to 93% of participants (not in table, see Appendix C for details on participant characteristics). Only one AMHC indicated that *only* defendants charged with felonies were eligible to participate in the program and four AMHCs reported that more than three-quarters of their participants were felony-level cases. MHCs also vary on the types of offenses that are legally eligible; violent offenses were the most commonly excluded offense type. In fact, nearly half of the AMHCs and nearly all of the JMHCs had restrictions regarding the acceptance of defendants charged with violent offenses. It should be noted, however, that while a few courts would not accept any defendants with violent offenses, most courts with restrictions indicated that they would consider inclusion of violent charges on a case-by-case basis or with prosecutor and/or victim approval. A few of the courts also placed restrictions on driving under the influence (DUI) and sex offenses; however, this was far less common.

Table 2 Review of Studies – Legal Criteria[1]

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
N	38	5	43
	n	n	n
Severity Level			
Felony only	1	0	1
Felony/Misdemeanor	23	3	26
Felony/Misdemeanor/Infraction	1	0	1
Misdemeanor only	7	0	7
Misdemeanor/Infraction	2	1	3
Infraction only	1	0	1
missing	*3*	*1*	*4*
Restricted Offense Types			
Violent	15	5	20
Sex	4	2	6
DUI	4	0	4

[1]See Appendix B for additional detail on eligibility criteria by MHC site

Mental health. Although nearly all MHCs require that participants have a "mental illness" or "severe and persistent mental illness (SPMI)" diagnosis, the specific diagnoses considered eligible varied across courts (see Table 3). Most MHCs require an Axis I diagnosis and exclude certain diagnoses (e.g., personality disorder) unless they are secondary to another qualifying diagnosis. Primary diagnoses most commonly accepted include: Psychotic/ Schizophrenia, Bipolar disorders, Depression, and Anxiety. Although less common, some MHCs also accepted defendants with developmental disabilities, traumatic brain injuries (TBI), or Attention-Deficit Hyperactivity Disorder (ADHD). The vast majority of reviewed MHCs also accepted participants with substance use disorders (SUD); however, most required that the SUD be a secondary, rather than primary, diagnosis. Only seven MHCs indicated that defendants with a primary mental illness that was substance-related were eligible for their program. In many of the other MHCs, these individuals were referred to another program (e.g., drug court) that was considered to be better suited to their needs.

Table 3 Review of Studies - Mental Health Criteria[1]

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
N	38	5	43
	n	n	n
Primary Diagnoses			
Psychotic/Schizophrenia	32	5	37
Bipolar	31	5	36
Depression	31	5	36
Anxiety	19	5	24
Personality	9	--	9
Substance-related	5	2	7
Traumatic Brain Injury (TBI)	4	3	7
Developmental Disability	12	3	15
ADHD	2	4	6
Other	19	4	23
Secondary Diagnoses			
Personality Disorders	1	3	4
Substance-related	27	2	29
Traumatic Brain Injury (TBI)	1	1	2
Developmental Disability	6	1	7

[1] See Appendix B for additional detail on eligibility criteria by MHC site

Participant characteristics.

Most AMHCs reported an average participant age between 30 and 39 (25 sites) and males made up 51-75% of their participants (32 sites; not shown in table). Psychotic/Schizophrenia and Mood Disorders were the most commonly reported diagnoses for participants from the reviewed MHCs (see Table 4). Individual MHCs varied on the percent of participants with co-occurring substance-use disorders (SUD), ranging from 12% to 87% of participants. Fifteen of the AMHCs reported that more than half of their participants had a co-occurring SUD. See Appendix C for additional details on participant characteristics (including demographics, criminal history, and mental health diagnoses) by MHC site.

Table 4 Review of Studies - Participant Mental Health Diagnoses[1]

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
N	38	5	43
	n	n	n
Most Common			
Psychotic/Schizophrenia	13	0	13
Mood Disorders	16	2	18
Bipolar	8	0	8
Depression	1	1	2
Unspecified	7	1	8
Substance-related	1	0	1
Other	2	1	*3*
Missing	*6*	*2*	*8*
Second Most Common			
Psychotic/Schizophrenia	10	0	10
Mood Disorders	19	1	20
Bipolar	15	1	16
Depression	3	0	3
Unspecified	1	0	1
Substance-related	1	0	1

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
Other	2	2	4
Missing	6	2	8
Percent with Co-Occurring SUD			
0-25%	2	0	2
26-50%	6	1	7
51-75%	10	0	10
76-100%	5	0	5
missing	15	4	19

[1] See Appendix C for additional details on participant characteristics by MHC site

Program characteristics.

Plea type. As previously mentioned, some MHCs accepted participants pre-plea (e.g., diversion), while others required participants to enter a plea prior to starting the program. Depending on the program and the circumstances of the case, post-plea participants may enter the program prior to adjudication (e.g., Plea-In-Abeyance (PIA)) or after adjudication (e.g., condition of Probation). Based on our review of outcome studies, we found that six MHCs were Pre-Plea only, 12 were Post-Plea only, and nine admitted defendants both Pre- and Post-Plea (see Table 5). Reported graduation rates also varied, ranging from 24% to 97%. Eighteen MHCs reported average program lengths of less than one year, but this varied by program from as short as four months to as long as three years.

Table 5 Review of Studies - Program Characteristics[1]

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
N	38	5	43
	n	n	n
Plea Type			
Pre-Plea	5	1	6
Post-Plea	11	1	12
Pre-Plea & Post-Plea	8	1	9
missing	*14*	*2*	*16*
Average Graduation Rate			
0-25%	2	0	2
26-50%	9	2	11
51-75%	10	2	12
76-100%	2	0	2
missing	*15*	*1*	*16*
Length (months)			
0-6	2	1	3
7-12	14	1	15
13-18	6	1	7
19-24	3	0	3
25+	1	0	1
missing	*12*	*2*	*14*

[1] See Appendix D for additional details on program characteristics by MHC site

Additional program components. In general, MHCs provide case management and supervision of participants that is more intensive than would otherwise be available in a traditional court setting. As shown in Table 6, more than half of the reviewed MHC sites had some portion of their participants on probation during MHC and only two used electronic

monitoring. Eleven of the reviewed MHC sites also reported using intensive case management components, including the Assertive Community Treatment (ACT) model.

In addition to increasing treatment access and engagement, most MHCs attempt to connect participants to other forms of assistance (e.g., housing, employment). In fact, research supports the notion that the provision of secure housing contributes to treatment retention and improved mental health (Wasylenki, Goering, Lemire, Lindsey, & Lancee, 1993). As shown in Table 6, many of the reviewed sites offered housing assistance, educational assistance, peer support, financial assistance, employment assistance, and vocational assistance. Another essential element of the MHC model is reentry planning, aftercare, and/or linking participants to resources that will continue to be available to them after they leave the program. Few of the reviewed sites mentioned reentry planning/aftercare services as part of their program.

Table 6 Review of Studies - Additional Program Components[1]

	Number of Sites		
	Adult MHCs	Juvenile MHCs	Combined
N	38	5	43
	n	n	n
Supervision			
Electronic Monitoring	1	1	2
Probation	20	3	23
Drug Testing	12	2	14
Intensive Case Management	8	3	11
Services			
Housing	16	0	16
Employment	9	2	11
Educational	10	3	13
Vocational	11	0	11
Family	6	3	9
Financial	12	0	12
Skills	8	2	10
Peer Support	10	3	13
Medical	6	3	9
Reentry/Aftercare	3	2	5

[1] See Appendix D for additional detail on program characteristics by MHC site

Summary of Findings

The following section of the report summarizes study characteristics (i.e., design, outcome measures and results) for the 72 outcome studies included in this review. In contrast to the previous section that reported results by the number of sites, and therefore only counted a site once regardless of the number of studies conducted on it, this section reports on the number of studies.

Study design.

As shown in Table 7, MHC outcomes studies were divided into three general methods of comparison: 1) MHC vs. Comparison Group (34 studies); 2) Pre/Post comparisons of MHC participants (40 studies); and 3) Sub-group Analyses (e.g., graduates vs. terminated, male vs. female) of MHC participants (21 studies). These categories were not exclusive and studies could use more than one method within a single study. MHC vs. Comparison Group studies were further divided into those using experimental design (RTC; 4 studies of 2 sites) and those using

quasi-experimental designs (28 studies of 22 sites). Nine quasi-experimental studies, that used unmatched comparison groups, were excluded from the remainder of MHC vs. Comparison results presented in this report. The most common outcome studied was criminal justice/recidivism (37 studies), followed by clinical/social (25 studies), and program completion/graduation (17 studies). Most of these studies selected comparison groups from the same jurisdiction as the MHC being studied (n = 21) and selected them during the same time period (n = 23, see Appendix E for additional detail).

Table 7 Review of Studies – Comparison Groups and Study Design[1]

	Number of Studies		
	Adult MHCs	Juvenile MHCs	Combined MHCs
N	66	6	72
Comparison Selection Method[2]			
MHC vs. Comparison Group:	32	2	34
Experimental (RCT)	4	0	4
Quasi-experimental:			
Matched Comparison Group	20	1	21
Unmatched Comparison Group	8	1	9
Pre/Post-MHC Participants	35	5	40
Sub-group of MHC Participants	20	1	21
Outcomes			
Criminal Justice	55	5	60
Clinical/Social	35	2	37
Program Completion	18	2	20
Cost	7	0	7
Other[3]	17	0	17

[1] See Appendix E for additional details on comparison groups and study design by MHC site
[2]These categories are not exclusive, and many of the studies included more than one method
[3] Other Outcomes: Hospitalization (10 studies, 8 sites); Procedural Justice (9 studies, 7 sites; Perceived Conflict (6 studies, 5 sites)

As shown in Table 8, follow-up periods for MHC participants either started at the point where they entered the program (i.e., post-start) or when they exited (i.e., post-exit). Follow-up starting points for comparison groups typically started at the point of sentencing. Length of follow-up also varied ranging from less than one year post-start to three years post-exit.

Table 8 Review of Studies – Follow-up Periods[1]

	Number of Studies			
	MHC vs. Comparison Group		Pre/Post Comparisons	
	Adult MHCs	Juvenile MHCs	Adult MHCs	Juvenile MHCs
N	24	1	13	3
Starting Point:				
Post-Start	8	--	9	2
Post-Exit	16	1	4	1
Length:				
Less than 1 year	6	--	3	1
1 year	12	1	6	2
2 years	6	--	3	--
3 years	--	--	1	--

[1]See Appendix E for additional details on comparison groups and study design by MHC site

Clinical and social outcomes.

Many of the review studies examined the impact of MHCs on clinical and social outcomes (37 studies). Theses outcomes fell into seven general categories: 1) mental health treatment engagement, 2) substance use treatment engagement, 3) mental health symptoms, 4) physical health, 5) drug use, 6) quality of life, and 7) self-sufficiency. As shown in Table 9, studies used a variety of assessments, official records, and self-report records to measure these constructs. Additional detail, including specific assessment tools and the sites/studies using each are provided in greater detail in Appendix F.

Table 9 Review of Studies – Clinical and Social Outcome Measures[1]

	Number of Studies		
	Assessment	Official Record	Self-Report
Outcome:	n	n	n
Mental Health Treatment Engagement	3	15	--
SUD Treatment Engagement	--	1	1
Mental Health Symptoms	25	8	--
Physical Health	1	--	--
Drug Use	4	5	3
Quality of Life	7	--	1
Self-Sufficiency	6	3	6

[1] See Appendix F for additional details on clinical and social outcome measures

MHC vs. Comparison Group. Fifteen studies compared MHC participants to a RCT or matched comparison group on clinical and social outcomes. MHC participants had statistically significantly better mental health treatment engagement outcomes than the comparison group in all six studies that examined this outcome. Only one study compared the groups on substance-use disorder (SUD) treatment engagement, but reported no difference between the groups. Nevertheless, three studies showed a statistically significantly greater decrease in drug use for MHC participants; however, one study found no difference between the groups. The impact of MHC on the remaining clinical and social outcomes (i.e., mental health symptoms, physical health, quality of life, self-sufficiency) is less clear; none of the studies reported significantly worse outcomes for MHC participants.

Table 10 Review of Studies –Clinical and Social Outcomes[1 2]
MHC vs. Comparison Group

Statistically Significant Differences	Number of Studies					
	Adult MHCs			Juvenile MHCs		
N	14			1		
Outcomes	Worse	None	Better	Worse	None	Better
MH Treatment Engagement	--	--	6	--	--	--
SUD Treatment Engagement	--	1	--	--	--	--
Mental Health Symptoms	--	2	3	--	--	--
Physical Health	--	1	--	--	--	--
Drug Use	--	1	3	--	--	--
Quality of Life	--	3	1	--	--	--
Self-Sufficiency	--	2	1	--	--	--

[1] MHC vs. Comparison Group studies limited to those with matched or RCT comparison groups
[2] See Appendix G for additional details on clinical and social outcomes by MHC site

Four of the studies included in Table 10 were experimental studies, using RCT (not shown in table, see Appendix G). The first study of a MHC in Butte County, CA found no significant difference between MHC participants and the comparison group on: mental health symptoms, physical health, drug use, quality of life, or self-sufficiency (Gary Bess Associates, 2004). The

other three RCT studies were conducted at the same MHC in Santa Barbara, CA and found that MHC participants had statistically significantly better outcomes in: mental health treatment engagement (2 studies), mental health symptoms (3 studies), and drug use (3 studies) (Cosden et. al, 2003; Cosden et. al, 2004; Cosden et. al, 2005). The studies reported that the impact of the program on quality of life and self-sufficiency was less clear.

Pre/Post Comparisons. In addition to comparing MHC participants to a comparison group on clinical and social outcomes, 24 studies compared participants prior to MHC (or at intake) and during MHC (or at exit). As shown in Table 11, a number of studies reported significantly better outcomes post-MHC (compared to pre-) in the areas of: mental health treatment engagement, mental health symptoms, drug use, SUD treatment, quality of life, and physical health. Mixed results were noted for the outcome of self-sufficiency (2 significantly better, 2 no difference). None of the studies reported MHC participants having significantly worse clinical or social outcomes post-MHC, compared to pre-MHC.

Table 11 Review of Studies – Clinical and Social Outcomes[1]
Pre/Post Comparisons

Statistically Significant Differences	Number of Studies					
	Adult MHCs			Juvenile MHCs		
N	21			3		
Outcomes	Worse	None	Better	Worse	None	Better
MH Treatment Engagement	--	1	11	--	--	--
SUD Treatment Engagement	--	--	2	--	--	--
Mental Health Symptoms	--	2	7	--	--	1
Physical Health	--	--	1	--	--	--
Drug Use	--	2	5	--	1	--
Quality of Life	--	--	4	--	--	--
Self-Sufficiency	--	2	2	--	--	--

[1] See Appendix G for additional details on clinical and social outcomes by MHC site

The four RCT studies also conducted pre/post comparisons on clinical and social outcomes for MHC participants (not shown in table, see Appendix G). The first study found statistically significant differences post-MHC, compared to pre-MHC, in the areas of: mental health symptoms, physical health, drug use, and quality of life (Gary Bess Associates, 2004). Once again, this study found no significant pre- to post- differences on measures of self-sufficiency. The other three RCT studies of Santa Barbara MHC (Cosden et. al, 2003; Cosden et. al, 2004; Cosden et. al, 2005) reported statistically significant pre- to post- improvement on MHC participants' mental health treatment engagement (2 studies), mental health symptoms (3 studies), drug use (3 studies), quality of life (3 studies), and self-sufficiency (2 studies).

Criminal justice outcomes.

As previously mentioned, criminal justice outcomes were measured in 60 of the reviewed studies. The impact of MHCs on recidivism was measured by comparing MHC participants to comparison groups and/or by comparing participants' behavior prior to starting MHC to behavior during (post-start) or after (post-exit) the program. It is important to note that studies examining recidivism post-start included at least a portion of time where the participant was being supervised and receiving services, while post-exit recidivism studies did not. Recidivism was operationalized through a variety of criminal justice measures including: acts of violence/aggression, arrests, new charges, severity of new charges, time to recidivism, jail bookings, jail days, and convictions. With the exception of the category of "violence/aggression," which were measured by official records (new violent charges – 6 studies), self-report (1 study),

or assessment (1 study), all other criminal justice outcomes were measured using official criminal justice records.

MHC vs. Comparison Group. Twenty studies compared MHC participants to a RCT or matched comparison group on criminal justice outcomes. The most common criminal justice measure examined for MHC vs. Comparison Groups studies were: arrest, charge severity, time to recidivism, and number of days in jail. As shown in Table 12, a number of studies reported that MHC participants had significantly fewer: arrests, new charges, jail days, and convictions. Seven studies also reported that MHC participants had longer lengths of time before recidivating compared to the comparison group. Group differences on the number of jail bookings and severity of charges were less clear, with an equal number of studies reporting significantly better outcomes or non-significant differences. None of the studies reported MHC participants had significantly worse criminal justice outcomes than the comparison group.

The four RCT studies also compared MHC participants to comparison groups on criminal justice outcomes (not shown in table, see Appendix H). The first study of the MHC in Butte County, CA reported significantly fewer convictions and lower charge severity for MHC participants (Gary Bess Associates, 2004). Two other RCT studies on the Santa Barbara MHC (Cosden et. al, 2004; Cosden et. al, 2005) found that MHC participants spent significantly fewer days in jail, but had significantly more jail bookings than the comparison group. These researchers proposed that this increase in jail bookings post-MHC was likely due to the inability to decipher between jail bookings for program sanctions and new charges.

Table 12 Review of Studies –Criminal Justice Outcomes[1] [2]
MHC vs. Comparison Group

Statistically Significant Differences[3]	Number of Studies					
	Adult MHCs			Juvenile MHCs		
N	23			1		
Outcomes	Worse	None	Better	Worse	None	Better
Violence/Aggression	--	--	3	--	--	--
Arrest[4]	--	2	7	--	--	1
New Charge	--	--	4	--	--	--
Charge Severity	--	4	4	--	--	--
Time to Recidivism	--	1	7	--	--	--
Jail Booking	--	1	1	--	--	--
Jail Days	--	1	7	--	--	--
Convictions	--	1	6	--	--	1

[1] MHC vs. Comparison Group studies limited to those with matched or RCT comparison groups
[2] See Appendix H for full additional details on criminal justice outcomes by MHC site
[3] The number of studies that found that MHC participants had statistically significantly better or worse outcomes than the comparison group. Numbers listed under the None category represents studies that found no statistically significant differences between MHC participants and the comparison group.
[4] Arrest: not limited to new charges and could include warrants or violations

Pre/Post Comparisons. Twenty-nine studies examined the impact of MHCs on recidivism by comparing MHC participants' criminal activity prior to starting MHC (pre-MHC) to criminal activity during the program or after exiting the program. As shown in Table 13, a number of studies reported that participants had significantly fewer new charges and acts of violence/aggression post-MHC. Seven studies also reported significantly fewer arrests post-MHC; however, three studies found no significant effect compared to pre-MHC rates. Findings regarding pre/post differences in jail bookings and jail days were mixed, with some studies reporting better, worse, or no significant differences.

Three of the RCT studies also conducted pre/post comparisons for MHC participant criminal justice outcomes (not shown in table, see Appendix H). The first study reported significantly fewer convictions and lower charge severity post-MHC, compared to the time periods prior to MHC (Gary Bess Associates, 2004). Similar to the MHC vs Comparison group findings, two of the Santa Barbara MHC RCT studies found that, compared to the pre-MHC time period, participants had significantly more jail bookings post-MHC but spent significantly fewer days in jail (Cosden et. al, 2004; Cosden et. al, 2005).

Table 13 Review of Studies – Criminal Justice Outcomes[1]
Pre/Post Comparisons

Statistically Significant Differences[2]	Number of Studies					
	Adult MHCs			Juvenile MHCs		
Outcomes	Worse	None	Better	Worse	None	Better
Violence/Aggression	--	--	1	--	--	4
Arrest	--	3	7	--	--	--
New Charge	--	--	7	--	--	1
Charge Severity	1	3	3	--	--	--
Jail Booking	2	--	6	--	1	--
Jail Days	4	3	6	--	--	--
Convictions	--	2	4	--	--	--

[1] See Appendix H for full additional details on criminal justice outcomes by MHC site
[2] The number of studies that found that MHC participants had statistically significantly better or worse outcomes post-MHC (either during program or at exit), compared to pre-MHC (either before program or at intake). Numbers listed under the None category represents studies that found no statistically significant difference for MHC participants post-MHC, compared to pre-MHC.
Arrest: not limited to new charges and could include arrests for warrants or violations

Recidivism rates. Recidivism rates varied by site, follow-up length, and follow-up starting point (i.e., post-start, post-exit). As shown in Table 14, most post-start recidivism studies only followed participants for one year after starting the program. Depending on the length of the program, this may or may not have included some time after the participant exited the program. One year *post-start* recidivism rates ranged from as low as 10% to as high as 47%.

Table 14 Review of Studies – Recidivism Rates Post-Start[1] [2]

		Number of Studies		
		1 Year	2 Years	3 Years
Site	State/Country	%	%	%
4	CA			40
7	FL	47		
8	FL	14		
9	FL	10		
17	NC	43		
19	NV	20		
21	NY	16	42	
23	OR	46		
30	WA	32		
36	DC	26		

[1] Recidivism (i.e., new charge, arrests, new charge bookings) for participants post-start (could include some time after program exit). If more than one study reported post-exit recidivism rates for a single site, the most recent was reported.
[2] See Appendix I for additional details on recidivism rates by MHC site and participant group (i.e., graduates, unsuccessfully terminated)

As shown in Table 15, *post-exit* recidivism rates also varied widely from as low as 7% to as high as 43% in the year following program exit. The four sites that followed participants for two years post-exit reported recidivism rates ranging from 34% to 61%. Only two sites conducted three-year post recidivism studies, including one in Utah (Van Vleet, Hickert, Becker & Kunz, 2008).

These studies reported three-year recidivism rates between 48% and 63%. All of the studies that compared recidivism rates of MHC graduates to participants who were terminated unsuccessfully reported lower recidivism rates among graduates (see Appendix I).

Table 15 Review of Studies – Recidivism Rates Post-Exit[1] [2]

		Number of Studies		
		1 Year	2 Years	3 Years
Site	State/Country	%	%	%
1	AK	39		
6	DC	28		
10	GA		61	
14	MI	7		
17	NC	32	43	48
26	UT	37	55	63
28	VT	29		
34	UNK	34		
37	AUST		45	
43	DC	43		

[1] Recidivism (i.e., new charge, arrests, new charge bookings) for participants (graduates and unsuccessfully combined) reported. If more than one study reported post-exit recidivism rates for a single site, the most recent was reported.
[2] See Appendix I for additional details on recidivism rates by MHC site and participant group (i.e., graduates, unsuccessfully terminated)

Factors associated with recidivism. Numerous studies conducted analyses to identify participant or program factors that were associated with recidivism. A summary of the factors is provided in Table 16, but a more detailed list, including the specific sites and studies reporting each, is provided in Appendix J. The factors that were most commonly associated with increased recidivism fell under the following general categories: criminal history, participant demographics, and substance use. In particular, recidivists had more prior arrests (7 studies), were younger (8 studies), and had co-occurring substance use disorders (7 studies). The impact of a felony level index offense (i.e., the charge/case that led to MHC) was less clear. In fact three studies found that having a felony index offense was associated with higher recidivism and three reported that felons had lower recidivism (not shown in table). Two studies found that prior violence offenses were not associated with recidivism.

Table 16 Review of Studies – Factors Associated with Recidivism[1]

	Number of Studies
Substance Use	10
Mental Health	6
Criminal History	14
Index Offense:	4
Compliance During Program	2
Participant Demographics	13
Other	4

[1]See Appendix J for additional details on factors associated with recidivism

Program completion. A number of studies examined factors associated with program completion. In general, studies found more factors that were associated with failure to complete the program than with successful completion. As shown in Table 17, participant demographics (including race, gender, age); criminal history; index offense/case; and substance use were all associated with MHC program failure.

Table 17 Review of Studies – Factors Associated with Program Failure[1]

	Number of Studies
Substance Use	6
Mental Health	3
Criminal History	7
Index Offense/Case:	6
Compliance During Program	2
Participant Demographics	9

[1]See Appendix K for additional details on factors associated with program completion/failure

Part II: Utah Mental Health Courts

There are currently nine mental health courts operating within the state of Utah. These MHCs include seven adult mental health courts (AMHCs) and two juvenile mental health courts (JMHCs). This final section of the report briefly describes each of the MHC's eligibility criteria, current participant characteristics, program components, and available data. This information was gathered directly from programs in anticipation of a future statewide evaluation.

Site Locations

Started in 2001, the Salt Lake County AMHC is the oldest MHC in the state (see Table 18). Most of the Utah MHCs are comprised of a mixture of defendants who are in the program Post-Plea/Pre-Adjudication (e.g., plea-in –abeyance) and Post-Adjudication (e.g., condition of probation). All but two of the courts (Salt Lake AMHC and Utah AMHC) also accept defendants who enter the program pre-plea (e.g., diversion). Programs report graduation rates from as low as 25% (Sevier AMHC) to as high as 90% (Utah AMHC).

Table 18 Utah MHCs – Site Locations[1]

	Adult MHCs						Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Cache	SL
Year Started	2008	2010	2001	2012	2004	2011	2007	2006
Plea Type:								
Pre-Plea	X	X		X		X	X	X
Post-Plea/Pre-Adjudication	X	X	X	X	X	X	X	X
Post-Adjudication	X	X	X	X	X			X
# of Phases	5	3	3	4	4	4	3	3
Avg. Program Length (mos)	24-36	18-36	36	18-36	12	12	12	18
Graduation Rate	47%	75%	70%	25%	90%		75%	85%

[1]Data missing for Weber AMHC

Eligibility Criteria

Legal.

All of the Utah AMHCs and JMHCs accept defendants who have been charged with felonies and violent offenses, although many courts indicated that decisions are made on a case-by-case basis and may require prosecutor approval (see Table 19). Sevier AMHC is the only court that *only* accepts felony cases, although a few reported that the majority of their cases are felony-level. Only Cache AMHC and Utah AMHC accept defendants who have been charged with sex offenses; however, many of the other courts will accept defendants who are not currently charged with a sex offense, but have sex offense histories.

Table 19 Utah MHCs – Legal Criteria[1]

	Adult MHCs						Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Cache	SL
Index Offense(s)								
Severity:								
Felony	X	X	X	X	X	X	X	X
Misdemeanor	X	X	X		X	X	X	X
Type:								
Violent Offense(s)	X	X	X	X	X	X	X	X
Sex Offense(s)	X				X			
Criminal History								
Type:								
Violent Offense(s)	X	X	X	X	X	X	X	X
Sex Offense(s)	X			X	X	X		X

[1]Data missing for Weber AMHC

Mental health.

Eligible mental health diagnoses also vary between the Utah MHCs. All courts accept defendants who are diagnosed as Psychotic/Schizophrenic or Bipolar, and nearly all accept defendants with primary depression or anxiety diagnoses (see Table 20). A few MHCs also accept defendants with personality disorders, Post-Traumatic Stress Disorder (PTSD), Attention Deficit Hyperactivity Disorder (ADHD), Traumatic Brain Injuries (TBI), and Developmental Disabilities. All of the AMHCs and JMHCs accept defendants with a co-occurring substance use disorder (SUD) that are secondary to another qualifying primary diagnosis.

Table 20 Utah MHCs – Mental Health Criteria[1]

	Adult MHCs						Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Cache	SL
Primary Diagnosis								
Psychotic/Schizophrenia	X	X	X	X	X	X	X	X
Bipolar	X	X	X	X	X	X	X	X
Depression	X	X	X	X			X	X
Anxiety	X	X		X		X	X	X
Personality	X			X				X
PTSD	X	X		X				
ADHD	X	X		X				
Traumatic Brain Injury				X				
Developmental Disability	X						X	
Secondary Diagnoses								
Substance-related	X	X	X	X	X	X	X	X
Personality							X	
ADHD							X	X
Developmental Disability								X

[1]Data missing for Weber AMHC

Program Components

A variety of participant assessments are conducted in Utah MHCs (see Table 21). In addition to DSM diagnoses, a few of the courts also conduct assessments during the program to measure mental health symptom changes and management. More than half of the AMHCs also conduct assessments on current medications, substance use, motivation to change, trauma history, and social supports. Only two AMHCs, both of the JMHCs, conduct criminogenic risk assessments on participants.

Table 21 Utah MHCs – Assessments

	Adult MHCs							Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Weber	Cache	SL
MH: DSM Diagnosis	X	X	X	X	X	X	X	X	X
MH: Symptom Changes	X	X				X	X		X
MH: Symptom Management	X	X				X	X		
Current medications		X		X		X	X		
Substance Use		X	X	X		X			
Criminogenic Risk		X					X	X	X
Motivation to Change		X		X		X	X		
Trauma History		X		X		X	X		
Social Support/Family		X		X		X	X		X
Quality of Life		X				X	X		

All Utah MHCs provide participants with mental health treatment, substance abuse treatment, judicial monitoring, and standard case management (see Table 22). Salt Lake AMHC reports that all participants receive standard case management, but intensive case management is also available, if determined necessary. All MHCs report that some participants are also on probation while in MHC, and many courts report that a majority or all of their participants are on probation. Nearly all MHCs use drug testing to monitor participants and Davis AMHC reports using electronic monitoring. Both of the JMHCs monitor participants' educational progress through school meetings. As shown in Table 22, Utah MHCs vary on the number and type of additional services offered (e.g., housing, employment). Only a few courts report providing aftercare or reentry planning; however, some MHCs noted that exiting participants can continue to receive services from partner agencies (e.g., NAMI, JDOT, local substance abuse authority, local mental health authority) after they are no longer under court supervision.

Table 22 Utah MHCs – Program Components

	Adult MHCs							Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Weber	Cache	SL
Treatment									
Mental Health	X	X	X	X	X	X	X	X	X
Substance Use	X	X	X	X	X	X	X	X	X
Supervision									
Judicial Monitoring	X	X	X	X	X	X	X	X	X
Case Management:									
Standard	X	X	X	X	X	X	X	X	X
Intensive			X						
School Meetings	--	--	--	--	--	--	--	X	X
Probation	X	X	X	X	X	X	X	X	X
Drug Testing		X	X	X	X	X	X	X	X
Electronic Monitoring		X							
Additional Services/Assistance									
Housing			X	X		X			
Employment				X		X			
Educational						X		X	X
Vocational									
Family									X
Financial			X						
Skills	X	X						X	X
Peer Support	X	X							
Medical					X				
Aftercare									
Outside Referrals								X	X
Transition Planning			X						
Aftercare			X				X		

Participant Characteristics

Utah MHCs vary widely in the size of the population served, ranging from three current participants in Sevier AMHC to as many as 150 in Salt Lake AMHC (see Table 23). Both JMHCs are relatively small, with each reporting 12 current participants. Salt Lake AMHC and Cache JMHC both report higher percentages of male participants, compared to the other courts. The two most common diagnoses among current participants in most Utah MHCs are Schizophrenia and Bipolar disorders (not shown in table). Two exceptions to this were reported for Davis AMHC and Cache JMHC. The two most common diagnoses of current participants were Depression and Attention-Deficit Hyperactivity Disorder (ADHD) at Davis AMHC and Bipolar and Depression at Cache JMHC. However, differences in mental health diagnoses among JMHC participants, compared to AMHCs, may be a reflection of the difficulty of diagnosing youth, rather than a reflection of differences in the populations being served. In addition to the participants' primary diagnosis, many of the courts reported that a large percent of participants with more than one mental health diagnosis (see Table 23). Although all MHCs reported accepting participants with co-occurring SUD (see Table 20), the percent of participants with substance use disorders vary widely across courts.

Table 23 Utah Mental Health Courts – Current Participant Characteristics

	Adult MHCs							Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Weber	Cache	SL
# Active Participants	25	45	150	3	25	24	18	12	12
Male	45%	50%	85%	33%				92%	50%
Average Age	31	25	31	43				14	15
On Probation during MHC	100%	80%	100%	100%				100%	100%
Mental Health Diagnoses:									
2+ MH diagnosis	90%	50%	80%	100%				100%	
Co-occurring SUD	42%	80%	90%	100%				10%	60%

Data Availability

During phase one of this project, court and treatment provider personnel from all nine MHCs provided detailed information on the type of information recorded on program participants. Information was provided on the type, source/location, and format (e.g., electronic, paper files) of available data. Broad data categories included: referral and intake information (i.e., demographics, person and case identifiers, screening and intake dates and decisions); participant history; assessments; participation detail s (i.e., program compliance, court orders, treatment participation); outcomes (i.e., criminal justice, health, school engagement, quality of life, aftercare, participant satisfaction). A sample of data collected by each of the MHC is provided in Table 24; however, a more detailed record of available data elements and the format of each is provided in Appendix L. Of note, very few of the data points were collected by all MHCs. Although the specific data required will depend on the selected outcomes and official sources will be used to collect recidivism data, programs will likely have to collect additional data as part of these efforts.

Table 24 Utah MHCs – Sample of Available Participant Data[1] [2]

	Adult MHCs							Juvenile MHCs	
	Cache	Davis	SL	Sevier	Utah	Wash.	Weber	Cache	SL
Screening and Intake									
Person/Case identifiers	X	X	X	X	X	X	X	X	X
Plea/Intake date	X	X	X	X	X		X	X	X
Plea/Intake type	X	X	X		X		X		
Hx of drug use		X	X	X		X		X	X
Drug(s) of Choice		X	X	X				X	
Participation and Compliance									
Court dates (appeared & missed)	X	X	X	X	X		X		X
Phase Change dates	X	X		X	X		X		X
Exit date/status	X	X		X	X		X	X	X
Drug testing date/results		X		X			X		
Case Management contacts		X				X	X	X	
MH Treatment/Services									
Dates received/missed	X	X		X		X	X	X	
Type (e.g., individual, group)	X	X		X		X	X	X	X
Location (e.g., community, residential)	X	X		X		X	X		X
Outcomes									
New charge jail bookings	X	X	X			X	X		
Inpatient hospitalization(s)		X					X		X
Emergency room visit(s)		X					X		
MH medication compliance		X					X		
School: excused absences	--	--	--	--	--	--	--		X
School: unexcused absences	--	--	--	--	--	--	--		X
Quality of Life: Housing	X					X			X
Quality of Life: Employment	X				X	X	--	--	X

[1]Table limited to data available in electronic format.
[2] See Appendix L for a more detailed chart of all available data in both electronic or other formats (e.g., paper)

Next Steps

During the second phase of the project, UCJC researchers will work with stakeholders to determine the best strategy for identifying an appropriate comparison group and to identify specific outcome measures. Although a common strategy, historical comparisons, where a pre-intervention period is compared to the study cohort, have severe limitations and should be avoided. Specifically these types of comparisons can never account for possible historical effects or differences. Another technique is to use an experimental design (e.g., randomized control trials (RCT)) to select a comparison group. Considered by many to be the "gold standard" of social science research, this method helps isolate the impact of an intervention, but requires that treatment be withheld from the comparison group. As a result, this type of study design is often met with resistance when proposed in criminal justice or treatment settings (McNiel & Binder, 2007). RCT study designs were used to evaluate two of the sites (4 studies) included in the study review. At both of these sites, offenders were screened for eligibility at the local jail. Once offenders were determined eligible and consented to participate they were randomly assigned either the treatment group (i.e., MHC) or treatment as usual (Cosden et. al, 2003; Gary Bess Associates, 2004).

In lieu of a RCT study design, many researchers attempted to control for nonrandom assignment by identifying a matched comparison group. Although techniques varied in the reviewed studies, comparison groups were typically matched to MHC participants on a variety of demographic, mental health, and criminal history factors. If a matched comparison approach is deemed most

viable, it should be considered whether it can be implemented with fidelity and if a large enough population of similar offenders, who are not enrolled in MHC, can be identified to sample from.

Although MHCs identify primary goals of addressing mental health issues and improving the quality of life of participants, research on the impact of MHCs on clinical and social issues remains limited. Fifteen of the matched comparison studies looked at clinical and social outcomes and the six studies that looked at mental health engagement reported statistically significantly better outcomes for the MHC group. On the other hand, five studies compared the groups on mental health symptoms, and while three of the studies reported significantly better outcomes for the MHC group, two studies reported no group differences. Furthermore, a recent meta-analysis that examined the effect of AMHCs on clinical outcomes (based on 5 studies), found no significant effect of AMHCs on clinical outcomes (Cross, 2011). These mixed findings, and the limited existing research, highlight the need for additional research on the impact of MHCs on clinical and social outcomes and the relationship between these outcomes and recidivism.

Compared to research on the impact of MHCs on clinical and social outcomes, substantially more research has been conducted on the impact of MHCs on criminal justice outcomes. Many of these studies have found that MHC participants were at no more risk of re-offending than mentally ill offenders handled in the traditional courts and many reported significantly better recidivism outcomes for the MHC group. However, a few studies have found evidence suggesting that the benefit of MHC may only last through the first two to three years following program exit (Cosden et. al, 2005; Hiday & Ray, 2010; Van Vleet et. al, 2008). Furthermore, results from recently conducted meta-analyses on AMHCs have also been mixed. While three found that AMHCs had a small to moderate effect in reducing recidivism (Cross, 2011; Lee et. al, 2011; Sarteschi, Vaughn, & Kim, 2011), another reported no statistical difference in the effect of MHC court on in-program and post-program recidivism (Molloy, Sarver, & Butters, 2012).

In addition to determining how to measure recidivism (e.g., new charges, arrest, conviction) a decision should also be made regarding the follow-up starting point (i.e., post-start, post-exit) and length (e.g., 1 year, 2 years). Only six matched comparison studies looked at recidivism rates at least two years post-start and none of the studies tracked recidivism rates for two or more years post-exit. NCSC (2010) recommends that MHC performance should be measured based on 2-year post-exit recidivism rates.

This report provides details on the programs, participants, eligibility criteria, and methods/outcomes used to study 43 MHCs across the United States, Australia, and Canada. It also describes the program components, target populations, and available data for the nine MHCs in Utah. Both the Utah MHCs and the studies included in this review reflect significant heterogeneity in terms of program and study components. Unfortunately, these differences limit the generalizability of findings across programs. Nevertheless, this report provides a detailed cataloguing of methods used to evaluate the impact of MHCs and can be used to inform discussions as a statewide evaluation plan is finalized.

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Appendix A: Reference List for Included Outcome Studies

Site/ Study	Citation
1A	The Alaska Judicial Council, 2003
1B	Ferguson, Hornby, Zeller, Sumey, & Rhoades, 2008
2	Gary Bess Associates, 2004
3	Román, 2001
4A	McNiel & Binder, 2007
4B	Lindberg, 2009
4C	Steadman, Callahan, Robbins, Vesselinov, McGuire, Morrissey, 2014
4D	McNiel, Sadeh, Delucchi, & Binder, 2015
5A	Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2003
5B	Cosden, Ellens, Schnell, & Yamini-Diouf, 2004
5C	Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2005
6	Hiday, Wales, & Ray, 2013
7A	Poythress, Petrila, McGaha, & Boothroyd, 2002
7B	Boothroyd, Poythress, McGaha, & Petrila, 2003
7C	Christy, Poythress, Boothroyd, Petrila, & Mehra, 2005
7D	Boccaccini, Christy, Poythress, & Kershaw, 2005
7E	Boothroyd, Mercado, Poythress, Christy, & Petrila, 2005
8	Gallagher, 2014
9	Anestis & Carbonell, 2014
10	Burns, Hiday, & Ray, 2013
11	Luskin, 2013
12	Kothari, Butkiewicz, Williams, Jacobson, Morse, & Cerulli, 2014
13	Kubiak, Tillander, Trudel, Comartin, & Roddy, 2014
14A	Kubiak, Tillander, Comartin, & Ray, 2012
14B	Michigan Supreme Court, State Court Administrative Office, 2013
15A	Morin, 2004
15B	Eckberg, 2006
16A	Dirks-Linhorst & Linhorst, 2012
16B	Dirks-Linhorst, Kondrat, Linhorst, & Morani, 2013
17A	Gurrera, 2005
17B	Moore & Hiday, 2006
17C	Hiday & Ray, 2010
17D	Ray, 2014
18	Frailing, 2010
19A	Pratt, Koerner, Alexander, Yanos, & Kopelovich, 2013
19B	Kopelovich, Yanos, Pratt, & Koerner, 2013
20A	Broner, Lang, & Behler, 2009
20B	National Institute of Justice, 2012
21A	O'Keefe, 2006
21B	Berman, Rempel, & Wolf, 2007
21C	National Institute of Justice, 2012
21D	Reich, Picard-Fritsche, Cerniglia, & Hahn, 2014
22	Munetz, Ritter, Teller, & Bonfire, 2014

Site/ Study	Citation
23A	Herinckx, Swart, Ama, & Knutson, 2003
23B	Herinckx, Swart, Ama, Dolezal, & King, 2005
24	Ridgely, Engberg, Greenberg, Turner, DeMartini, & Dembosky, 2007
25	Burke, Griggs, Dykens, & Hodapp, 2012
26	Van Vleet, Hickert, Becker, & Kunz, 2008
27	Wicklund, Breneman, Halvorsen, 2013
28	Wicklund, Schlueter, Halvorsen, 2012
29A	Trupin & Richards, 2003
29B	Neiswender, 2005
30A	Trupin, Richards, Wertheimer, & Bruschi, 2001
30B	Trupin, & Richards 2003
31	Hiday, Ray, & Wales, 2014
32	Ray & Dollar, 2013
33	Moy, 2009
34	Ray, Pimlott Kubiak, Comartin, & Tillander, 2014
35A	Canada & Epperson, 2014
35B	Canada, Engstrom, & Jang, 2013
36A	Steadman, Redlich, Callahan, Robbins, & Vesselinov, 2011
36B	Keator, Callahan, Steadman, & Vesselinov, 2013
36C	Redlich & Han, 2014
37	Lim & Day, 2014
38	Verhaaff & Scott, 2014
39	National Center for Youth Law, 2011
40	Stanford Criminal Justice Center, 2008
41A	Behnken, 2008
41B	Behnken, Arredondo, & Packman, 2009
42	Heretick & Russell, 2013
43	Ramirez, Andretta, Barnes, & Woodland, 2014

Appendix B: MHC Outcome Studies - Eligibility Criteria

MHC Outcome Studies – Eligibility Criteria																				
Site Location		Case/Charge(s)						Diagnoses												
		Severity Level			Restricted Offense Types			Primary										Secondary		
MHC#[1]	State	Fel	Misd	Infrac/ Status	Violent	Sex	DUI	P/S	BIP	DEP	ANX	PER	SUD	TBI	DEV	ADHD	OTH	PER	SUD	TBI	DEV
Adult MHCs – United States																					
1	AK	X	X					X	X	X	X	X	X	X	X		X				
2	CA		X		X			X	X	X	X						X		X		X
3	CA	X	X		X			X	X	X									X		
4	CA	X	X					X	X	X	X	X	X		X		X				
5	CA	X	X			X		X	X	X									X		
6	DC		X																X		
7	FL		X	X	X		X	X	X	X					X		X		X		
8	FL	X	X					X	X	X	X	X			X				X		
9	FL	X	X					X	X	X	X	X	X		X						
10	GA	X	X					X	X	X	X						X		X		
11	IN	X	X					X	X	X							X		X		
12	MI		X		X			X	X	X	X	X							X		
13	MI				X			X	X	X							X		X		
14	MI	X	X	X	X	X		X	X	X	X				X		X		X		
15	MN	X	X		X		X	X	X	X	X	X		X	X	X	X		X		
16	MO			X															X		
17	NC	X	X					X	X	X	X				X				X		
18	NV	X	X					X	X	X	X										
19	NY							X	X	X	X										
20	NY	X	X					X	X	X			X				X				
21	NY	X	X		X			X	X	X							X	X	X	X	X
22	OH		X		X	X		X	X												
23	OR		X		X			X	X	X	X						X		X		
24	PA	X	X					X	X	X							X		X		
25	TN							X	X	X	X						X		X		X
26	UT	X	X		X	X	X	X	X	X	X								X		
27	VT	X	X					X		X		X			X				X		
28	VT	X	X																		
29	WA	X	X		X														X		
30	WA		X				X	X	X	X	X	X		X	X		X		X		
31	UNK		X		X														X		
32	UNK	X	X		X			X	X	X	X								X		X
33	UNK	X						X	X	X	X		X		X	X	X				X
34	UNK	X	X					X	X	X									X		X
35	MULTI	X	X					X	X	X							X		X		
36	MULTI	X	X		X			X	X	X							X		X		
Adult MHCs – Outside U.S.																					
37	AUST	X	X					X	X	X	X	X		X	X		X				
38	CAN		X	X																	

MHC#[1]	State/ District	Fel	Misd	Infrac/ Status	Violent	Sex	DUI	P/S	BIP	DEP	ANX	PER	SUD	TBI	DEV	ADHD	OTH	PER	SUD	TBI	DEV
Juvenile MHCs – United States																					
39	CA	X	X		X			X	X	X	X		X	X	X	X	X	X			
40	CA				X			X	X	X	X			X	X						
41	CA	X	X		X			X	X	X	X			X	X	X	X	X	X		
42	CO	X	X		X	X		X	X	X	X					X	X	X	X	X	X
43	DC		X	X	X	X		X	X	X	X		X			X	X				

Appendix C: MHC Outcome Studies - Participant Characteristics

MHC Outcome Studies – Participant Characteristics															
Site Location		Demographics							Criminal History				Mental Health Diagnosis		
									Lifetime Priors	Index Offense					
MHC#[1]	State	Age	Male	Non-White	Homeless	Married	Emp	< HS edu		Felony	Violent/ Person	Drug	Co-SUD	Most Common	
		Mn	%	%	%	%	%	%	Mn	%	%	%	%	1st	2nd
1	AK		64	48					14	11	47		67	P/S	BIP
2	CA	32	52	16	11	8	7			--			78	P/S	BIP
3	CA	37	65	47					8				12	BIP	P/S
4	CA	38	73	58	34					70	11		48	P/S	BIP
5	CA	49	29										12	DEP	P/S
6	DC	41	30	90						--	17	40	54		
7	FL	36	73	41		6				--			29	OTH	BIP
8	FL	37	73	60					7	46	32	28	38	P/S	BIP
9	FL	36	69	52	1					50	23	10		P/S	BIP
10	GA		48	33	17		31			78	28	29	83	BIP	DEP
11	IN	36	49	45						52	27	15		BIP	P/S
12	MI	35	67	50		14	11			--	28	18	65	P/S	BIP
13	MI												87	BIP	P/S
14	MI	36	62	30			8	45		45			57	BIP	DEV
15	MN	37	59	45									59	P/S	BIP
16	MO	36	65	30		13	33			--	49	7	47	BIP	DEP
17	NC	35	68	40						8	13	6		SUD	MOOD
18	NV		47	13							18	29		MOOD	P/S
19	NV	39	65	84				36							
20	NY	37	62	93	19		7	65	9	93	8	81	66	MOOD	SUD
21	NY	33	74	80	12	26	11	79		82	52		45	P/S	BIP
22	OH	43	65	62						--				P/S	BIP
23	OR	35	56	11	11		9	24	6	--				MOOD	P/S
24	PA	38	64	55							23		52	OTH	BIP
25	TN	29	69	43		10		39	4		51		73	P/S	BIP
26	UT	34	67	14	22		10				54	59	63	P/S	BIP
27	VT	34	55	5					8	19					
28	VT	33	76	4											
29	WA	40	75	18							23			MOOD	P/S
30	WA	39	75	43							--			P/S	BIP
31	UNK	42	60	56							--	40			
32	UNK		76	43					3	16	47				
33	UNK		77	54				54			25		82	MOOD	P/S
34	UNK	36	64	63						41				BIP	DEP
35	MULTI	40	55	66			5			86	19	21	84	BIP	P/S
36	MULTI	37	58	51					15		31	26		P/S	BIP
37	AUST	34	60								27		63	MOOD	P/S
38	CAN	35	60		18		26	45			--		49	MOOD	OTH
39	CA	15	65	80					4					DEP	OTH

40	CA	15	60	66											
41	CA	15	67	66									47	ADHD	BIP
42	CO	14	72	25										MOOD	ANX
43	DC	16	66	100						--					

Appendix D: MHC Outcome Studies - Program Components

MHC Outcome Studies – Program Characteristics																				
Site Location		Additional Components														Completion				
		Supervision				Services												Potential Incentives		
MHC#[1]	State/ Country	Electronic Monitoring	Probation	Drug Testing	Intensive CM	Housing	Employment	Educational	Vocational	Family	Financial	Skills	Peer Support	Medical	Re-entry/ Aftercare	Length (mos)	Plea Type(s)	Reduction of Charge(s)/ Sentence	Dismissal of Charge(s)	Graduation Rate
Adult MHCs – United States																				
1	AK		X		X	X	X		X	X	X	X		X		12	Post			90%
2	CA		X			X	X	X	X		X					12				
3	CA		X														Post			
4	CA		X													24	Post			48%
5	CA			X	X	X	X		X	X		X			X	18	Pre, Post	X	X	
6	DC			X												5			X	
7	FL		X													12	Post		X	58%
8	FL																			
9	FL																			
10	GA			X		X					X					14				43%
11	IN				X		X			X		X	X	X		12	Pre			
12	MI		X			X	X	X					X			12	Pre, Post		X	
13	MI			X								X				18				38%
14	MI		X	X		X	X	X			X		X			9	Post			45%
15	MN		X					X	X		X		X	X			Pre, Post			27%
16	MO		X					X	X				X			11		X	X	50%
17	NC		X			X	X		X			X				10	Pre, Post		X	59%
18	NV			X		X										12	Post	X	X	
19	NY																			
20	NY			X		X		X	X		X		X	X		21	Post			52%
21	NY		X	X	X	X		X	X		X				X	16	Post	X	X	73%
22	OH		X								X					24	Pre	X	X	
23	OR		X		X	X	X			X	X	X	X	X		13	Post			24%
24	PA		X														Pre, Post		X	
25	TN								X			X						X		32%
26	UT		X	X	X	X		X			X		X		X	36	Post			53%
27	VT																	X	X	57%
28	VT																			58%
29	WA		X			X								X			Pre, Post			97%
30	WA		X		X	X				X						9	Pre, Post	X	X	
31	UNK			X												5	Pre			58%
32	UNK															10				58%
33	UNK		X		X														X	
34	UNK			X												18	Post			41%
35	MULTI		X					X	X		X	X	X			8				

Site Location		Additional Components														Completion				
		Supervision/ Monitoring				Services/Assistance												Potential Incentives		
MHC#[1]	State	Electronic Monitoring	Probation	Drug Testing	Intensive CM	Housing	Employment	Educational	Vocational	Family	Financial	Skills	Peer Support	Medical	Reentry/ Aftercare	Length (mos)	Plea Type(s)	Reduction of Charge(s)/ Sentence	Dismissal of Charge(s)	Graduation Rate
36	MULTI					X										12	Pre, Post			47%
Adult MHCs – Other Countries																				
37	AUST															7	Pre			76%
38	CAN	X	X	X		X	X	X	X	X	X		X				Pre			25%
Juvenile MHCs – United States																				
39	CA				X									X						
40	CA		X	X	X		X	X		X		X	X		X	13	Post			36%
41	CA	X	X	X			X	X				X	X	X	X	12	Pre, Post			48%
42	CO		X		X					X										75%
43	DC							X		X			X	X		6	Pre			56%

Appendix E: MHC Outcome Studies – Comparison Groups and Study Design

MHC Outcome Studies – Comparison Groups and Study Design

ALL Studies

Site Location				Comparisons							Outcomes				Follow-up Period (years)					
				Sample Size		Experi-mental	Quasi-Experimental				Criminal Justice	Clinical /Social	Success. Complete	Cost						
MHC#[1]	Study	State	Year	MHC	Comp		Match Comp	Unmat Comp	Pre/ Post	Sub-group					Post-	<1	1	2	3	>3
Adult MHCs – United States																				
1	A	AK	2003	175	--				X		X	X		X	Start	X				
	B		2008	218	218		X				X	X	X	X	Exit		X			
2	--	CA	2004	18	24	X			X		X	X		X	Exit	X				
3	--	CA	2011	43	46		X		X		X				Start			X		
4	A	CA	2007	170	8067		X		X		X				Start		X			
	B		2009	94	--				X		X		X	X	Start				X	
	C		2014	296	386		X				X	X		X	Start				X	
	D		2015	88	81		X				X				Exit		X			
5	A	CA	2003	137	98	X			X		X	X			Start		X			
	B		2004	137	98	X			X		X	X			Start			X		
	C		2005	137	98	X			X		X	X			Start			X		
6	--	DC	2013	408	687		X				X				Exit		X			
7	A	FL	2002	121	101		X								Start	X				
	B		2003	116	97		X		X			X			Start	X				
	C		2005	116	101		X		X		X				Start		X			
	D		2005	800	--					Rediverted (y/n)	X				Start		X			
	E		2005	97	77		X		X			X			Start	X				
8	--	FL	2014	100	100		X				X				Start		X			
9	--	FL	2014	198	198		X		X		X				Start		X			
10	--	GA	2013	99	--				X		X		X		Exit			X		
11	--	IN	2013	89	82		X		X			X			Start	X				
12	--	MI	2014	93	--					Gender (male/fem)	X	X	X		Exit				X	
13	--	MI	2014	105	45			X[2]			X	X		X	Exit		X			
14	A	MI	2012	678	--				X		X	X	X		Exit		X			
	B		2012	97	159		X[3]				X	X			Start			X		
15	A	MN	2004	21	51			X			X				Start		X			
	B		2006	191	--				X[4]		X				Start	X				
16	A	MO	2012	488	89			X[2]			X		X		Exit		X			
	B		2013	642	--					Exit Status (succ/unsuc)			X		Start	X	X			
17	A	NC	2005	72	72		X		X		X	X			Exit		X			
	B		2006	82	183		X				X				Start		X			
	C		2010	99	--				X		X	X			Exit			X		
	D		2014	449	--					Exit Status (succ/unsuc)	X				Exit					X
18	--	NV	2010	146	238			X[2]	X		X	X			Start		X			

Site Location				Comparisons							Outcomes				Follow-up Period (years)					
				Sample Size		Experi-mental	Quasi-Experimental				Criminal Justice	Clinical /Social	Success. Complete	Cost						
MHC#[1]	Study	State	Year	MHC	Comp		Match Comp	Unmat Comp	Pre/ Post	Sub-group					Post-	<1	1	2	3	>3
19	A	NY	2013	51	--					Recidivist (y/n)	X	X			Start		X			
	B		2014	338	--					Procedural Justice		X			Start	X				
20	A	NY	2009	589	--					Homeless (y/n)	X	X	X		Start		X			
	B		2012	648	564		X		X		X		X		Start			X		
21	A	NY	2006	106	--				X		X	X			Start		X			
	B		2006	106	--				X		X	X			Start		X			
	C		2012	303	303		X		X		X	X	X		Start			X		
	D		2014	654	--					Exit Status (succ/unsuc) Recidivist (y/n)	X		X		Start			X		
22	--	OH	2014	35	17			X[3]							Exit	X				
23	A	OR	2003	119	--				X[3]		X	X			Start	X				
	B		2005	368	--				X		X	X			Start		X			
24	--	PA	2007	199	--				X[7]					X	Start		X			
25	--	TN	2012	93	131					Intel. Disabled (y/n)	X	X	X		Start		X			
26	--	UT	2008	263	--				X		X	X	X		Exit			X		
27	--	VT	2013	99	--					Exit Status (succ/unsuc)	X				Exit				X	
28	--	VT	2012	103	--					Exit Status (succ/unsuc)	X				Exit			X		
29	A	WA	2003	31	46			X	X		X	X			Start	X				
	B		2005	114	80			X[2]			X				Start	X				
30	A	WA	2001	65	--				X		X	X			Start		X			
	B		2003	65	82			X[2]	X		X	X			Start	X				
31	--	UNK	2014	238	170					Exit Status (succ/unsuc)	X	X	X		Start	X				
32	--	UNK	2013	135						Exit Status (succ/unsuc)			X		Start		X			
33	--	UNK	2009	607	--				X	Probation (MH, Reg, No)	X	X			Start		X			
34	--	UNK	2015	234	--				X	Severity (fel, misd) Exit Status (succ/unsuc)	X				Start		X			
35	A	MULTI	2014	80	--					X	X	X			Start	X				
	B		2014	80	--					Age (old, young)	X	X			Start	X				

Site Location				Comparisons							Outcomes				Follow-up Period (years)					
				Sample Size		Experi-mental	Quasi-Experimental				Criminal Justice	Clinical /Social	Success. Complete	Cost						
MHC#[1]	Study	State	Year	MHC	Comp		Match Comp	Unmat Comp	Pre/ Post	Sub-group					Post-	<1	1		2	3
36	A	MULTI	2011	447	600		X		X		X				Start		X			
	B		2013	296	386		X		X		X	X			Start		X			
	C		2013	146	238					Therapeutic Jurisprudence	X		X		Start		X			
Adult MHCs – Outside U.S.																				
37	--	AUST	2014	219	--				X	Exit Status (succ/unsuc)	X		X		Exit			X		
38	--	CAN	2014	419	--					Exit Status (succ/unsuc)			X		Start		X			
Juvenile MHCs – United States																				
39	--	CA	2011	33	--				X		X	X			Exit		X			
40	--	CA	2008	67	--					Exit Status (succ/unsuc)			X		Start		X			
41	A	CA	2008	64	--				X[3]		X				Start			X		
	B		2009	64	--				X[3]		X				Start			X		
42	--	CO	2013	81	549			X	X		X		X		Exit		X			
43	--	DC	2015	54	54		X		X		X	X			Exit		X			

[1] See Appendix A for full reference list of included studies
[2] Defendants who were eligible for the MHC program, but opted-out.
[3] MHC sample limited to graduates
[4] MHC sample limited to participants with c-occurring mental health and substance use disorders
[5] Perceptions of procedural justice and satisfaction with outcome of court hearing
[6] Perceptions of procedural justice, perceived coercion, and impact on hospital admissions
[7] Costs of MHC participation compared to estimated costs of routine adjudication and processing

MHC Outcome Studies – Comparison Groups and Study Design[1]										
Site Location				Sample Size		Comparison Groups			Follow-up Periods	
MHC#[2]	Study	State	Publish Year	MHC	Comp	Jurisdiction	Timeframe	Method	Post-	Years
1	B	AK	2008	218	218	same	concurrent	MAT TAU	Exit	1
2	--	CA	2004	50	43	same	concurrent	RCT	Exit	<1
3	--	CA	2011	43	46	same	concurrent	MAT TAU	Start	2
4	A	CA	2007	170	8067	same	concurrent	PROP MAT	Start	1.5
	D		2015	88	81	same	concurrent	PROP MAT	Exit	1
5	A	CA	2003	137	98	same	concurrent	RCT	Start	1
	B		2004	137	98	same	concurrent	RCT	Start	2
	C		2005	137	98	same	concurrent	RCT	Start	2
6	--	DC	2013	408	687	same	concurrent	MAT TAU	Exit	1
7	B	FL	2003	116	97	different	concurrent	MAT TAU	Start	<1
	C		2005	116	101	different	concurrent	MAT TAU	Start	1
	E		2005	97	77	different	concurrent	MAT TAU	Start	<1
8	--	FL	2014	100	100	same	concurrent	PROP MAT	Start	1
9	--	FL	2014	198	198	same	concurrent	PROP MAT	Start	1
11	--	IN	2013	89	82	same	concurrent	MAT TAU	Start	<1
14	B[3]	MI	2013	97	159	same	concurrent	MAT TAU	Start	2.5
17	A	NC	2005	72	72	same	historical	MAT TAU	Exit	1
	B		2006	82	183	same	historical	MAT TAU	Start	1
20	B	NY	2012	648	564	same	concurrent	PROP MAT	Start	2.5
21	C	NY	2012	303	303	same	concurrent	PROP MAT	Start	2.5
36	A	MULTI	2011	447	600	same	concurrent	PROP MAT	Start	1.5
	B		2013	296	386	same	concurrent	MAT TAU	Start	1.5
43	--	DC	2015	54	54	same	concurrent	MAT TAU	Exit	1

[1] This table is limited to studies with comparison groups identified using random-control trials (RCT) or matched to the treatment groups using statistical techniques, such as propensity score matching. See previous table for additional detail on these and all other included studies (including those using pre/post design, unmatched comparison groups, and sub-group analyses).

[2] See Appendix A for full reference list of included studies

[3] MHC sample limited to graduates

Appendix G: MHC Outcome Studies – Clinical and Social Outcome Measures

Domains	Type	Specific Measure	Studies
Mental Health (MH) Treatment Engagement	Assessments	Attitudes Toward Psychiatric Medication Scale (ATPMS)	35A
		Insight and Treatment Attitudes Questionnaire	36A
		Treatment Motivation Questionnaire	4D
	Official Records	Treatment admissions (hours, type, dosage, medication compliance)	5B, 5C, 7B, 11, 14A, 14B, 20A, 23B, 25, 26, 29A, 30A, 30B, 36A, 36B
Substance Use Disorder (SUD) Treatment Engagement	Official Records		11
	Self-Report		25
Mental Health	Assessments	Addition Severity Index (ASI) – *Psychiatric Status composite*	2
		Behavior & Symptom Identification Scale (BASIS-32)	2, 5A, 5B, 5C
		Brief Psychiatric Rating Scale - Anchored (BPRS-A)	7B, 7C, 7E, 33B, 35A
		Brief Symptom Inventory (BSI)	23
		Colorado Symptom Index (CSI)	4D, 19A, 19B, 26A, 36A, 36C, 37
		Conners Comprehensive Behavior Rating Scales – Self Report (CBRS-SR)	4B, 35A, 36B, 43
		Glick & Ziglar psychiatric symptomology classification	25
		Global Assessment of Functioning (GAF)	2, 4B, 5B, 29A, 30B
		Health of the Nation Outcome Scale (HoNOS)	21A, 21B
		Recovery Assessment Scale (RAS)	19A, 19B
		Young Adult Behaviour Checklist (YABCL)	25
Physical Health	Assessments	Addition Severity Index (ASI) – *Medical Status composite*	2

Drug Use	Assessments	Addition Severity Index (ASI) – *Illegal Drug Use composite*	2, 5A, 5B, 5C
		Behavior & Symptom Identification Scale (BASIS-32)	5A
	Official Records	Drug test results	14A, 18, 20A, 31
		New Charges - Drug	42
	Self-report		1B, 14A, 21A
Quality of Life	Assessments	Addition Severity Index (ASI) – *Family Social Status composite*	2
		Lehman's Quality of Life – Short Form Scale (QOL-SF)	2, 5A, 5B, 5C, 23
		QOLI	20A
		DSS	20A
		Unspecified	14B
	Self-report	Interview questions on feelings of safety and level of support	1B
Self-Sufficiency	Assessments	Addition Severity Index (ASI) – *Employment Status composite*	2
		Behavior & Symptom Identification Scale (BASIS-32)	5A
		Global Assessment of Functioning (GAF)	5A, 5C, 5B, 20A, 25
	Official Records	Changes from Intake to Exit/During on: benefits enrollment, employment, housing placements	1B, 5A, 25
	Self-report	Changes from Intake to Exit/During on: employment status and living situation	1B, 5A, 14B, 20A, 21A, 21B
Procedural Justice	Assessments	Impact of Hearing (IOH) Measure	7A, 19A
		MacArthur Admission Experience Survey: Short Form (MAES)	19A, 22
		Perceptions of Procedural Justice (PPJ)	19A
		Frazer's MHC Procedural Justice Measure (MHC-PJ)	19B
		Unspecified	7A, 21A, 21B, 22, 37
Perceived Coercion	Assessments	MacArthur Perceived Coercion Scale (MPCS)	21A, 21B, 22, 37
Other	Assessments	Yamaguchi's Working Relationship Scale (WRS)	35A
		MacArthur Perceived Impact of the Program scale	22
		Consumer Choice Questionnaire (CCQ)	23

Appendix G: MHC Outcome Studies – Clinical and Social Outcomes

MHC Outcome Studies – Clinical and Social Outcomes *MHC vs. Comparison Group*																							
Site Location				**MH Treatment Engagement**			**SUD Treatment Engagement**			**Mental Health**			**Physical Health**			**Drug Use**			**Quality of Life**			**Self-Sufficiency**		
MHC#[1]	Study	State	Year	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B
2	--	CA	2004								X			X			X			X			X	
4	A	CA	2007																					
	D		2015																					
5	A	CA	2003									X						X		X				X
	B		2004			X						X						X		X				
	C		2005			X						X						X			X		X	
7	B	FL	2003			X																		
	C		2005																					
	E		2005								X													
11	--	IN	2013			X		X																
20	B	NY	2012																					
21	C	NY	2012																					
36	A	MULTI	2011			X																		
	B		2013			X																		
43	--	DC	2015																					

W	significantly worse
N	not significantly different
B	significantly better

Site Location				MH Treatment Engagement			SUD Treatment Engagement			Mental Health			Physical Health			Drug Use			Quality of Life			Self Sufficiency		
MHC#[1]	Study	State	Year	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B
2	--	CA	2004									X			X			X			X		X	
4	A	CA	2007																					
5	A	CA	2003									X						X			X			X
	B		2004			X						X						X			X			
	C		2005			X						X						X			X			X
7	B	FL	2003			X																		
	E		2005								X													
11	--	IN	2013			X			X															
14	A	MI	2012			X			X															
18	--	NV	2010															X						
20	B	NY	2012																					
21	A&B	NY	2006									X					X						X	
	C		2012																					
23	A	OR	2003			X																		
	B		2005			X																		
26	--	UT	2008			X																		
29	A	WA	2003			X						X												
30	A	WA	2001			X																		
	B		2003		X						X													
36	A	MULTI	2011																					
	B		2013			X																		
41	B	CA	2009																					
42	--	CO	2013																					
43	--	DC	2015									X					X							

W	significantly worse
N	not significantly different
B	significantly better

Appendix H: MHC Outcome Studies – Criminal Justice Outcomes

MHC Outcome Studies – Criminal Justice Outcomes

MHC vs. Matched Comparison

Site Location				Violence/ Aggression			Arrest			New Charge			Charge Severity			Time to Recidivism			Jail Booking			Jail Days			Conviction		
MHC#[1]	Study	State	Year	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B
1	B	AK	2008									X			X			X						X			
2	--	CA	2004																		X			X			X
3	--	CA	2011												X												X
4	A	CA	2007			X						X						X									
	D		2015			X																					
5	A	CA	2003																	X							X
	B		2004																					X[1]			
	C		2005																					X[1]			
6	--	DC	2013						X					X				X									
7	C	FL	2005			X		X						X			X							X			
8	--	FL	2014						X					X				X									
9	--	FL	2014									X		X				X									
11	--	IN	2013																					X			
14	B	MI	2013																								X
17	A	NC	2005						X						X												
	B		2006						X						X												
20	B	NY	2012						X									X							X		
21	C	NY	2012						X									X									X
36	A	MULTI	2011									X												X			
	B		2013					X															X				
43	--	DC	2015						X																		X

[1]Only significant after removing outlier repeat offenders

W	significantly worse
N	not significantly different
B	significantly better

MHC Outcome Studies – Criminal Justice Outcomes

Pre/Post-MHC Comparison

Site Location				Violence/ Aggression			Arrest			New Charge			Charge Severity			Jail Booking			New Chg Booking			Jail Days			Conviction		
MHC#[1]	Study	State	Year	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B
2	--	CA	2004												X												X
3	--	CA	2011												X												X
4	A	CA	2007			X																					
	B		2009						X			X						X					X				
5	B	CA	2004													X								X[1]			
	C		2005													X								X[1]		X	
7	C	FL	2005						X																		
9	--	FL	2014										X														
10	--	GA	2013																			X					
14	A	MI	2012																					X			
15	B	MN	2006									X															X
17	A	NC	2005					X						X													
	C		2012						X															X			
18	--	NV	2010																					X			
21	A	NY	2006					X																			
	B		2006					X																			
23	A	OR	2003						X									X									
	B		2005						X																		
26	--	UT	2008						X									X						X			
29	A	WA	2003											X				X					X				
30	A	WA	2001															X					X				X
	B		2003									X		X							X	X					
34	--	UNK	2015															X				X					
36	A	MULTI	2011									X										X					
37	--	AUST	2014									X			X												
41	A	CA	2008			X						X															
	B		2009			X						X															
42	--	CO	2013			X																					
43	--	DC	2015						X																	X	

[1]Only after removing outliers (top repeat offenders)

W	significantly worse
N	not significantly different
B	significantly better

Appendix I: MHC Outcome Studies – Recidivism Rates

MHC Outcome Studies – MHC Participant Recidivism Rates[1]																				
Site Location			**One Year**						**Two Year**						**Three Year**					
			Post-Start			Post-Exit			Post-Start			Post-Exit			Post-Start			Post-Exit		
MHC#	Study	State	Grad	Term	Comb	Grad	Term	Comb	Grad	Term	Comb	Grad	Term	Comb	Grad	Term	Comb	Grad	Term	Comb
			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	B	AK				30	45	39												
4	B	CA															40			
6	--	DC						28												
7	C	FL			47															
8	--	FL			14															
9	--	FL			10															
10	--	GA										25	91	61						
14	A	MI						7												
16	A	MO				15	38													
17	A	NC						43												
	B		27	70	43	27	70	43												
	C											20	58	48						
	D					20	53	32				28	67	43				37	70	48
19	A	NV			20															
21	A&B	NY			16															
	D										42									
23	B	OR			46															
26	--	UT				21	62	37				47	68	55				59	72	63
27	--	VT				23	49					23	49					25	51	
28	--	VT					18	29												
30	A	WA			32															
34	--	UNK						43												
36	B	MULTI			26															
37	--	AUST												45						
43	--	DC						43												

[1] Recidivism = new charges, arrests, or new charge jail bookings

W	significantly worse
N	not significantly different
B	significantly better

Appendix J: MHC Outcome Studies – Factors Associated with Recidivism

Factors Associated with Recidivism	
Substance Use:	
Prior SUD tx	1B
Co-occurring SUD	1B, 5B, 14A, 16A (grads), 21C, 21D, 37
Severity of SUD issue at intake	5B, 5C
Recent drug use	36A
Cocaine/Heroin users	20B
Mental Health:	
Prior MHC participation	4B
Diagnosis:	
Personality disorder	1B
Schizophrenia	36A
Depression	36A
Not prescribed psychiatric meds	16A (unsucc)
No MH Tx at intake	36A
RAS – Non-Domination by Symptoms	19A
Prior psychiatric hospitalization	23B
Criminal Activity	
Criminal Hx:	
Prior arrests	4B, 7C, 17C, 17D, 21D, 36A, 26
Prior convictions	15B
Prior charges	15B
Criminal Hx	37
Severity of Priors	17B
More than 1 booking in prior year	23B
Prior incarceration days	10, 36A
Prior property offense	21C
Prior drug offense	20B

Index Offense:	
Severity - felony	14A, 17B, 34
Type – public order	16A (unsucc)
Type – driving/traffic	16A
Type - Drug	16A (grads)
During Program:	
Rearrested	17D
Jail booking	26
Jail days	26
Probation	33
Perceived Procedural Justice and Coercion:	
Lower levels of understanding MHC	36C
Lower levels of perceived procedural justice	36C
Lower levels of perceived voluntariness	36C
MAES – Negative Pressures (perceived coercion)	19A
Demographics:	
Marital status - unmarried	16A (unsucc)
Gender – male	9
Gender - female	37
Age – younger	6, 16A (grad), 17D, 20B, 21C, 21D, 34, 27
Race – Non-White	16A (grads), 19A
Housing instability (greater # of housing transitions 12mos prior)	20A
Homeless during	26
Perceived conflict with caseworker	35A (related to days spent in jail)

Factors Associated with Desistance	
MHC Program:	
Completion	1B, 4A, 4B, 6, 10, 12, 14A, 15B, 16A, 17A, 17B, 17C, 17D, 20A, 23B, 26, 27, 28, 31, 34, 37,
Time in program	10, 26
High integration court	14A
Mental Health:	
Prior psychiatric hospitalization	1B
Diagnoses:	
Psychotic/Schizophrenia	8, 23B
Co-occurring SUD	15B
Index offense:	
Severity - felony	8, 9, 14A
Criminal Hx:	
Prior violent crime	20B, 21C
Knowledge of MHC	36C
Post-HS education	21D
Felony Courts	14A (jail days reduced)

Factors NOT Associated with Recidivism	
SUD:	
Co-occurring SUD	4B, 8
Hx SUD	33
Mental Health:	
Diagnosis	21D, 33
Intensity of treatment	5B, 23B, 36B
Total BPRS score	7C
Intellectual Disability	25, 33
Pres. Psychiatric med	33
Prior hospitalization	33
Criminal Hx:	
Self-reported acts of violence and aggression at intake	7C
Prior felony	23B
Index offense:	
Felony	4B, 34 (grad)
Type - violent	4B, 9, 16A, 33, 34, 37
Demographics:	
Age	4B, 7C, 19A, 23B, 33, 35B, 37
Gender	7C, 12, 19A, 23B, 33
Race	7C, 23B
Education level	19A, 33
Perceived recovery	19A
Homeless	20A
Baseline GAF	20A
Baseline QOLI	20A
Baseline DSS	20A
FTAs	26
BW	26
Perceived bond to caseworker	35A (not related to jail days but was related to service use)

Appendix K: MHC Outcome Studies – Factors Associated with Program Completion

Factors Associated with Program Failure	
Substance Use:	
Co-SUD	1B, 5B, 16A, 21C, 31, 38
Prior AOD tx	1B
Positive drug tests during	31
Drug use during index offense	31
Mental Health:	
Personality disorder	1B
Bipolar disorder	1B
Multiple diagnoses	1B, 16B
Multiple MHC admissions	16A
Criminal Activity:	
Criminal History:	
Prior Arrests	21D, 31, 26, 32
Prior Incarceration	10, 21C, 21D, 26
Higher risk level	37
Index Offense:	
Level - Felony	14A, 34
Type - Property	16B, 27
Type – Drug	31
Type – Public Order	16A
Type – Traffic	27
During Program	
Jail Bookings	26
Jail Days	26
FTA court	26, 31
BW issued	26
FTA CM mtgs	31
Self-Sufficiency:	
Residential Instability	38
Homeless at Intake	21C
Employed	38
Demographics:	
Age – younger	14A,16A, 17C, 21C, 31
Race – Non-White	16B, 17C, 21C, 31, 32, 40
Gender – Male	16A, 16B, 32, 40

Factors Associated with Program Completion	
Substance Use:	
Co-SUD	10, 16B
Mental Health:	
Engaged in treatment prior to MHC	1B
Prescribed psychiatric meds	16B
Less severe psychiatric symptoms	35A
Self-Sufficiency:	
Having disability income	16B
Lower levels of perceived conflict with case worker	35A

Factors NOT Associated with Program Completion	
Index Offense:	
Severity level	4B, 21C, 42
Mental Health:	
Diagnosis	4B, 21C, 21D, 42
Intensity of tx	5B, 26
Intellectual Disability	25
Demographics:	
Age	4B, 40, 42
Gender	12, 17C
Race	42
Homeless	20A
Baseline GAF	20A
Baseline QOLI	20A
Baseline DSS	20A
Perceived bond to caseworker	35A

Appendix L: Utah MHCs – Available Data

KEY		*Electronic format*		*Other or unspecified format*		*Not Applicable*

Category	Variable	Adult							Juvenile	
		SL	Sevier	Weber	Utah	Wash	Davis	Cache	SL	Cache
REFERRAL AND INTAKE INFORMATION										
Demographics/IDs	Participant Name									
Demographics/IDs	DOB									
Demographics/IDs	gender									
Demographics/IDs	race/ethnicity									
Demographics/IDs	veteran status									
Demographics/IDs	education level									
Demographics/IDs	home zipcode									
IDs - Person	SSN									
IDs - Person	SO									
IDs - Person	SID									
IDs – Index Case	Incident ID(s)									
IDs – Index Case	Court Case Number(s)									
IDs – Index Case	OTN									
Screening and Intake	Referral date									
Screening and Intake	Referral source (ex: tx prov, LDA)									
Screening and Intake	Screening date(s)									
Screening and Intake	Non-Admission: Reason									
Screening and Intake	Non-Admission: Date									
Screening and Intake	Plea date									
Screening and Intake	Plea type (ex: pre-, PIA, post-)									
PARTICIPANT HISTORY AND FUNCTIONING AT INTAKE										
SUD Clinical Assessment	type									
SUD Clinical Assessment	date									
SUD Clinical Assessment	item results									
SUD Clinical Assessment	total score									
Participant History	Hx of drug use									
Participant History	Drug(s) of Choice (1st, 2nd, 3rd)									
Participant History	Hx of alcohol use									
Participant History	Hx of suicide attempts									

Category	Variable	Adult							Juvenile	
		SL	Sevier	Weber	Utah	Wash	Davis	Cache	SL	Cache
Family Functioning	Hx of drug use by parent(s)									
Family Functioning	Hx of drug use by close relative(s)									
Family Functioning	Hx of family MH issues									
Family Functioning	Parent(s) been to prison									
Family Functioning	Parent(s) been to jail									
Family Functioning	Close relative(s) been to prison									
Family Functioning	Close relative(s) been to jail									
Family Functioning	History of family violence									
PARTICIPANT ASSESSMENTS										
Do you collect any of the following assessment types?										
Assessment-Criminogenic Risk										
Assessments - Social Supports										
Assessments - Family Functioning										
Assessments - Quality of Life										
Assessments – MH Diagnoses										
Assessments – MH symptom changes										
Assessments – MH symptom management										
Assessments – Current Medication(s)										
Assessments – Motivation to Change										
Assessments - Trauma History										
Assessments - Education										
PARTICIPATION DETAILS										
Program Compliance	Dates of Court Attendance & FTA									
Program Compliance	Dates of Phase Change									
Program Compliance	Exit Date									
Program Compliance	Exit Status (ex: grad, unsucc term)									
Incentives/Sanctions	Completion Incentive									
Incentives/Sanctions	precipitating event: date(s)									
Incentives/Sanctions	precipitating event: description(s)									
Incentives/Sanctions	response: date(s)									
Incentives/Sanctions	response: description(s)									
Court Orders	Court fees ordered									

Category	Variable	Adult							Juvenile	
		SL	Sevier	Weber	Utah	Wash	Davis	Cache	SL	Cache
Court Orders	Court fees paid									
Court Orders	Tx fees ordered									
Court Orders	Tx fees paid									
Court Orders	Restitution ordered									
Court Orders	Restitution paid									
Court Orders	Probation: Supervising Agency									
Court Orders	Probation: level of intensity									
MH treatment/services	Treatment provider									
MH treatment/services	Service dates and FTA dates									
MH treatment/services	Types (ex: individual, group)									
MH treatment/services	location (ex: inpatient, outpatient)									
SUD treatment/services	Treatment provider									
SUD treatment/services	Service dates and FTA dates									
SUD treatment/services	Types (ex: individual, group)									
SUD treatment/services	location (ex: inpatient, outpatient)									
Drug testing	date(s)									
Drug testing	results (e.g., pos, neg, dilute, skip)									
Self-help/Peer Support	date(s)									
Case Management	case manager name/contact info									
Case Management	date(s) of contact									
Case Management	duration of contact (in minutes)									
Do your participants use any other ancillary services to address criminogenic needs that you track?										
CRIMINAL JUSTICE OUTCOMES										
Criminal Involvement	Jail: booking date(s)									
Criminal Involvement	Jail: release date(s)									
Criminal Involvement	Jail: reason (ex: new charge, WA)									
Criminal Involvement	Jail: NC bookings – charge type(s)									
Criminal Involvement	Jail: NC bookings - charge level(s)									
OTHER OUTCOMES										
Health - Medical	Inpatient hospital: start date									
Health - Medical	Inpatient hospital: end date									
Health - Medical	Inpatient hospital: reason									

Category	Variable	Adult							Juvenile	
		SL	Sevier	Weber	Utah	Wash	Davis	Cache	SL	Cache
Health - Medical	Emergency Room visit(s): date									
Health - Medical	Emergency Room visit(s): reason									
Health - MH Medication	MH Medication Compliance									
Out-of-home placements	Ex: group homes, foster care									
School engagement	Attendance: # unexcused absence									
School engagement	Attendance: # excused absence									
School engagement	Performance: GPA, grades, credits									
School engagement	Behavioral issues: aggressive									
School engagement	Behavioral issues: disruptive									
Do you track any other positive outcomes or prosocial activities for participants during/post MHC?										
Quality of Life	Housing status									
Quality of Life	Employment status									
Quality of Life	Mainstream benefits enrollment									
Quality of Life	Health Insurance/Medicaid									
Quality of Life	Household Income									
Participant Satisfaction	Exit interviews or Surveys									
Aftercare	dates of contact									
Aftercare	type of contact (ex: referral, call)									