URBAN INSTITUTE 2100 M STREET, NW WASHINGTON, DC 20037

Don Spencer
Senior Contracts Administrator
Office of Grants, Contracts and Pricing

Direct Dial: 202.261.5396
Facsimile: 202.728.0231
E-mail: DSpencer@.urban.org

February 28, 2012

Laurie Bright
COR
Senior Grants Management Specialist
National Institute of Justice
810 7th Street, N.W.
Washington, DC 20531

RE: Final Report "Criminal Justice Interventions for Offenders with Mental Illness: Evaluation of Mental Health Courts in Bronx and Brooklyn, New York"
ASP BPA 2004BF022, Task Requirement T-014, Task Order 2005TO096 (07745-007-00)

Dear Ms. Bright:

The Urban Institute is pleased to its final report entitled "Criminal Justice Interventions for Offenders with Mental Illness: Evaluation of Mental Health Courts in Bronx and Brooklyn, New York", under Task Requirement T-014, Task Order 2005TO096 (UI project number 07745-007-00).

Should you have questions of a technical nature, please direct them to Shelli Rossman at 202-261-5525. Questions of a technical nature may be directed to the undersigned.

Sincerely,

Don Spencer

Don Spencer

FINAL REPORT

FEBRUARY 2012

CRIMINAL JUSTICE INTERVENTIONS FOR OFFENDERS WITH MENTAL ILLNESS: EVALUATION OF MENTAL HEALTH COURTS IN BRONX AND BROOKLYN, NEW YORK

FINAL REPORT

Shelli B. Rossman
Janeen Buck Willison
Kamala Mallik-Kane
KiDeuk Kim
Sara Debus-Sherrill
P. Mitchell Downey

This report was prepared under ASP BPA 2004BF022, Task Requirement T-014, Task Order 2006 TO096 for the National Institute of Justice

Acknowledgments

The authors thank the many people whose support and contributions made this research possible. Foremost, we wish to acknowledge the contributions and assistance of the dedicated staff of the Bronx and Brooklyn Mental Health Court programs, the New York City Department of Health and Mental Hygiene (DOHMH), and the New York State Division of Criminal Justice Services (DCJS). While it is impossible to name the many staff who assisted us with this study, we would like to highlight the special contributions of the following individuals:

Bronx TASC Mental Health Court Program
Judge John P. Collins; Dr. Charles Amrhein; Cynthea Kimmelman-DeVries; Ryna Dery

Brooklyn Mental Health Court
Judge Matthew D'Emic; Lucille Jackson

Center for Court Innovation
Michael Rempel; Carol Fisler; Sarah Fritsche

New York City Department of Health and Mental Hygiene
Dr. Daniel Selling; Dominic Domingo; Patricia Brown; Louise Cohen; Suzette Gordon; Dr. Jason Hershberger; Dr. Charles Luther; Olivette Burton; Jacqueline Rivera

New York State Division of Criminal Justice Services
David J. van Alstyne; Renee Konicki; Diane Cavin

We also extend our appreciation to Marilyn Moses, Social Science Analyst, at the National Institute of Justice, for her support and guidance throughout the study, and to Ruby Qazilbash, Senior Policy Advisor for Substance Abuse and Mental Health, the Bureau of Justice Assistance, for sharing her insights and expertise.

Additionally, we thank Nancy LaVigne, Director of the UI Justice Policy Center, Julie Samuels, Rayanne Hawkins, Lynn Johnson, Katie Johnson, and Aaron Horvath for their support and assistance in completion of the final report.

Although we appreciate the contribution of those noted above, and any others inadvertently omitted, the authors acknowledge their responsibility for any errors within this report.

This report is dedicated to the late Laura Winterfield, Ph.D. the project's original Principal Investigator.

TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

Appendices

CHAPTER 1. EVALUATION OF CRIMINAL JUSTICE INTERVENTIONS FOR OFFENDERS WITH MENTAL ILLNESS: STUDY CONTEXT AND LITERATURE REVIEW

For the past five decades, U.S. law enforcement, courts, and correctional agencies have experienced steady growth in the number of offenders with mental illness who fall under their purviews. Various reasons have been suggested for this trend, such as: 1) the deinstitutionalization of persons with mental illness that occurred during the 1960s and early 1970s (i.e., the systematic shift in resources available for treating affected populations in community-based settings, rather than in residential, state-run psychiatric hospitals), 2) changes in civil commitment statutes that make it more difficult to involuntarily place affected individuals in psychiatric hospital settings, 3) the evolution of psychotropic medications that ideally make it possible to treat even the most severe disorders within outpatient programs, and 4) law enforcement strategies that have focused police resources on drug and low-level quality-of-life crimes (Denckla and Berman 2001; Fisher, Silver, and Wolff 2006; Pogrebin and Poole 1987; Teplin 1984).

The Mental Health Task Order: Goals and Objectives

By the early 2000s, if not before, it became increasingly clear that the criminal justice system had become the primary public response to inappropriate behaviors by the mentally ill, and that persons with mental illness were over-represented within criminal justice populations. In response, federal agencies offered support for programming and services targeting offenders with mental illness. One such initiative was undertaken by the National Institute of Justice (NIJ), which commissioned an evaluation of two distinct approaches to handling offenders with mental illness in the criminal justice system: 1) the Brooklyn Mental Health Court (BMHC), a specialized problem-solving court operating in the Kings County (New York) Supreme Court, and 2) the Pinellas County Mentally Ill Diversion Program (MIDP), operating in the 6th Judicial Circuit's Public Defender's Office in Clearwater, Florida.

In October 2005, researchers in the Justice Policy Center at the Urban Institute (UI) began a three-year evaluation of those two programs. Although both interventions primarily targeted offenders with mental illness booked into local jails and awaiting disposition of their charges, the two interventions differed significantly both in their approach toward such offenders and their operational structures. As such, the initial project was conceived as two separate evaluations, unified by common research questions about the process, potential offender-level impact, and costs of these two models of criminal justice intervention for offenders with mental illness.[1]

[1] UI's proposed research designs for both the New York and Florida projects consisted of process, impact, and cost-effectiveness components, using a quasi-experimental approach. The New York impact evaluation was expected to rely solely on administrative data to construct comparable treatment and comparison

Evaluation activities in each study site began in early 2006 following a two-month design phase and approval of the final research approach by NIJ. Several issues hampered sample recruitment and data collection, leading to a number of modifications to both the project and research design. As noted in Chapter 2 (Evaluation Design and Methodology), the most pressing issues occurred in the Florida site, where a prospective sampling approach was necessary in order to obtain informed consent and a signed Release of Information for treatment and comparison group cases. Instability with the program model, insufficient case flow, and funding uncertainties impeded treatment group recruitment, while administrative barriers hampered progress in the comparison site. As a result of the difficulties encountered in the field, the Florida site was eliminated from the study in January 2007. Subsequently, NIJ and UI researchers reached an agreement, in August 2008, to replace the Florida program with the Bronx (NY) Mental Health Court program. Prolonged contract negotiations gave rise to further modifications in the scope of the evaluation, including elimination of both 1) client focus groups and 2) courtroom observations that would have enabled comparison of standard (i.e., "business-as-usual") court processing of mentally ill offenders to that of the Bronx and Brooklyn mental health (treatment) courts.

Thus, the current project examines the impact of two New York City mental health courts on participant outcomes. The goal of the current study is to determine if participation in mental health court reduces subsequent criminal justice involvement—namely, recidivism as measured by new arrests and new convictions. It is important to note that the study treats the two evaluations as separate and distinct (i.e., an impact evaluation of the Brooklyn Mental Health Court and an impact evaluation of the Bronx Mental Health Court, not as a single cross-site study); site data are not pooled. Separate analyses have been conducted using distinct site-specific treatment and comparison groups. The same administrative data sources (i.e., New York State Division of Criminal Justice Services, New York City Department of Health and Mental Hygiene, program databases maintained by each court) and analytic techniques (propensity score matching) were used to construct equivalent comparison groups. Additionally, data needed to perform the intended cost analyses were not accessible within the resource constraints of the project as it evolved; as a result, the study provides guidance for conducting future cost analyses of mental health court programs.

Overview of this Report

This report presents findings from the process and impact evaluations of the Brooklyn and Bronx Mental Health Court (MHC) programs. In the remainder of this chapter, we present a brief review of relevant literature. First, in this chapter, we briefly review the considerable literature on mental health and mental illness, the relationship between mental illness and crime, justice system responses to offenders with mental health problems or mental illness, and problem-solving courts and their conceptual foundation; then, we examine the emerging literature specific to mental health courts, including the research on mental health court effectiveness.

---

groups, while the Florida evaluation anticipated a prospective sample of treatment cases drawn from MIDP and comparison cases sampled from a neighboring jurisdiction.

Chapter 2 discusses the design, data sources, and analytic strategy employed by the current study. The current design is contrasted against the original research approach to highlight key modifications, and a brief discussion of the factors necessitating these modifications is also provided.

Chapter 3 explores the Brooklyn and Bronx MHCs, as well as the Business-As-Usual (BAU) alternative for processing offenders with mental illness in the New York City criminal justice system. All three descriptions are supplemented by findings from the analysis of program data.

Chapter 4 describes how the quasi-experimental samples were constructed using propensity score matching (PSM). It also details the impact evaluation findings with respect to recidivism, looking separately at the effects of each mental health court.

Chapter 5 identifies the type of data needed to conduct a defensible cost-effectiveness evaluation. In the absence of these data, we provide guidance for practitioners (and other researchers) regarding our recommendations for establishing information systems that will support future analyses of this type.

Chapter 6 summarizes the study's objectives and approach, key findings, limitations, and recommendations for future research.

Review of the Literature

What are Mental Health and Mental Illness?

The Department of Health and Human Services (DHHS) regards mental health and mental illness as points on a continuum (DHHS 1999):

- *Mental health* constitutes a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity. While some of the key ingredients of mental health may be readily identifiable, mental health is nonetheless difficult to define, in part because the concept of "health," itself, is tied to cultural and subcultural values. Thus, the meaning of being mentally healthy is subject to diverse interpretations that are rooted in value judgments that vary across time and space.

- *Mental illness* refers collectively to all diagnosable mental disorders, which are health conditions characterized by alterations in thinking, mood, or behavior (either independently or in combination) associated with distress or impaired functioning. For example, antisocial personality disorder (ASPD) is an Axis II disorder characterized by a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood (APA 2000: 645–650). Similarly, depression constitutes a mental disorder largely marked by alterations in mood, while attention-

> deficit/hyperactivity disorders are mental disorders largely identified with alterations in behavior (overactivity) or thinking (inability to concentrate). Alterations in thinking, mood, or behavior contribute to a host of problems—patient distress, impaired functioning, or heightened risk of death, pain, disability, or loss of freedom.

Determinations of eligibility to receive publicly-funded mental health treatment services also may entail classifications of individuals as having *serious mental illness* (SMI) or *severe mental illness* or *severe and persistent mental illness* (SPMI). SMI generally refers to mental disorders that interfere with some area of social functioning, such as school or work. By contrast, SPMI encompasses more seriously affected persons, typically including such diagnoses as schizophrenia, bipolar disorders, and severe forms of depression, panic disorder, or obsessive-compulsive disorder, particularly where individuals exhibit high levels of functional impairment.

In addition to mental health and mental illness, it is not uncommon to see the term "*mental health problems*" used in the literature (and, at times, within this report). The phrase is commonly used to denote circumstances in which the individual's signs and symptoms are of insufficient intensity or duration to meet the criteria for any mental disorder. Virtually everyone has experienced mental health problems on some occasions when under duress (e.g., during a bereavement period). Though potentially not as serious as mental illness, mental health problems, nonetheless, may warrant active health promotion, prevention, and treatment efforts.

Lastly, in this report, and in the broader literature on offenders with mental health impairments, the term "*co-occurring disorders*" is often referenced (see, for example, Hills 2000, Prins and Draper 2009). Here, it is defined as circumstances in which individuals simultaneously experience mental illness and substance abuse disorders.

The Relationship Between Mental Illness and Crime

The deinstitutionalization of persons with mental illness that occurred during the 1960s and early 1970s rested on two assumptions: that needed services for the mentally ill would be available, and that those services would be accessible. Unfortunately, neither assumption proved true (Council of State Governments 2002). One of the unintended consequences of the shift in public policy is that it is reportedly far more difficult for many people with mental illness to access the mental health treatment system. States closed or shrank their psychiatric hospitals without adequately funding community-based treatment. As a result, many people with mental illness live in the community, where they are unable to access adequate support services or medication.

The problems associated with insufficient or inaccessible treatment resources may be further exacerbated by the stigmatization of persons with mental illness and by their own improper behavior. "Stigma leads others to avoid living, socializing or working with, renting to, or employing people with mental disorders, especially severe disorders such as schizophrenia. It reduces…access to resources and opportunities (e.g., housing, jobs) and

leads to low self-esteem, isolation, and hopelessness…. Nearly two-thirds of all people with diagnosable mental disorders do not seek treatment. Stigma surrounding the receipt of mental health treatment is among the many barriers that discourage people from seeking treatment" (DHHS 1999: 6). Then, as Prins and Draper (2009) point out, if they publicly behave in ways that are symptomatic of untreated mental disorders (e.g., evidencing public intoxication, creating public disturbances, or engaging in "nuisance" offenses), a bad situation may escalate as other citizens or the police intervene.

Additionally, individuals with mental illness are at increased risk of 1) developing substance abuse disorders during their lifetimes and 2) experiencing homelessness—each of which increases their visibility to law enforcement, along with increasing the likelihood that they will become mired in the criminal justice system. Hence, as previously noted, the criminal justice system is inundated with individuals who exhibit diverse mental health anomalies. For example, estimates reveal that individuals with serious mental illness are more than three times more likely to be housed in jails and prisons than in hospitals (Torrey, Kennard et al. 2010). Los Angeles County Jail, Cook County Jail, and Rikers Island all house more people with mental illness than any U.S. psychiatric facility (CSG Undated). Further, studies in local jurisdictions have found that jail inmates with severe mental illness are likely to spend significantly more time in jail than other inmates who have the same charges, but who do not evidence severe mental illness.

Although estimated prevalence rates for mental illness vary from study to study, research has repeatedly demonstrated that correctional populations have higher rates of mental illness than the general population (James and Glaze 2006; Lamb and Weinberger 1998; Steadman, Osher et al. 2009; Teplin 1994). For example, James and Glaze (2006) obtained nationally representative estimates by compiling data from surveys of the nation's inmates in jails and prisons; their estimates indicate that a disproportionate number of incarcerated individuals (64 percent of jail inmates, 56 percent of state prisoners, and 45 percent of federal prisoners) experience mental health problems,[2] as compared to 11 percent of the general population. Rates of *severe* mental illness reportedly are also higher for incarcerated populations. For instance, 24 percent of jail inmates and 15 percent of state prisoners have psychotic disorders, as compared with 3 percent of the general population. Research has found female inmates to have even higher rates of mental illness (Abram, Teplin, and McClelland 2003; James and Glaze 2006; Steadman et al. 2009). Furthermore, mental health problems are often compounded by co-morbid substance problems. For example, approximately 74 percent of state prisoners and 76 percent of jail populations with mental health problems also reported substance dependence or abuse (James and Glaze 2006).

Many researchers and advocates assert that individuals with mental illness are trapped in a "revolving door" of the criminal justice system, cycling in and out of correctional facilities due to their mental illness and lack of treatment. Conversely, others have claimed that mental health has little relation to criminal behavior and vice versa, citing

[2] "Mental health problems" were defined as the occurrence of a mental health diagnosis, treatment, or symptoms fitting DSM-IV criteria for a mental health disorder within the past 12 months.

the fact that the majority of individuals with mental illness do not commit crimes. Regardless, incarcerated individuals with mental health problems have more extensive criminal histories (James and Glaze 2006) and higher levels of criminal activity post-release (Baillargeon Binswanger et al. 2009; CSG Undated; Mallik-Kane and Visher 2008). Findings have been mixed on whether individuals with mental illness (or certain diagnoses) have higher rates of violence, although it appears that substance abuse may explain higher rates of violence when they are found (Elbogen and Johnson 2009; Fazel Gulati et al. 2009; Steadman, Mulvey et al. 1998).

Skeem and colleagues (2009) assert: 1) there is mixed evidence of mental health diversion successfully reducing criminal behavior even when evidence-based mental health treatment is used; 2) studies have found no significant relation between symptom reduction and reduced recidivism when symptoms did improve; 3) systems-level data show no link between the likelihood of incarceration for individuals with mental illness and the availability of mental health services, psychiatric inpatient beds, or funding of public mental health services; and 4) the rise in persons with mental illness who were incarcerated (4 percent) from 1950 to 2000 did not match the reduction of individuals with mental illness living in psychiatric institutions (23 percent) during this same period. As a result, they suggest a moderated mediation model that indicates a small number of individuals encounter legal trouble directly due to their mental health symptoms, while the majority of offenders with mental illness come in contact with the legal system for the same reason as other offenders who are not mentally ill: criminogenic needs.[3] In essence, Skeem and colleagues contend that individuals with mental illness are at higher risk for these criminogenic needs, which would explain the disproportionately high rates of mental illness among the incarcerated population. In support of this model, two studies (Girard and Wormith 2004, Skeem et al. 2009) have found that offenders with mental illness score higher on the Levels of Service Inventory/Case Management Instrument (LS/CMI), an assessment tool used to assess risk and criminogenic needs, compared to offenders without mental illness.

The Justice System's Response to Mental Illness

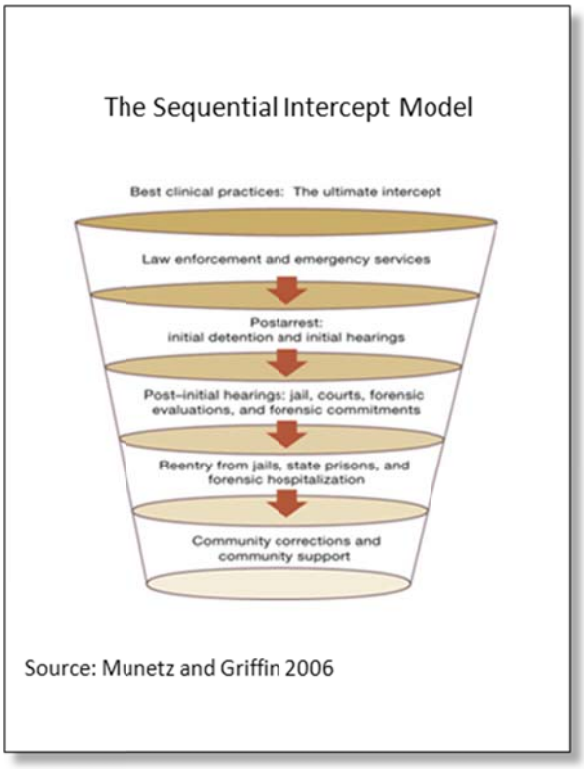
Until the mid-1990s, most suspects with mental illness could expect to be processed by the criminal justice system in the same manner as suspects who were not experiencing mental health issues. However, justice system actors increasingly have sought solutions for balancing traditional objectives (e.g., public safety, punishment, incapacitation) with innovative responses designed to meet the special needs of this population. For example, numerous police agencies now operate crisis intervention teams (CIT)[4] designed to productively interact with suspects exhibiting mental illness. Other criminal justice responses to mental illness include the expansion of jail screening procedures, mental

[3] Criminogenic needs are dynamic risk factors predictive of criminal activity that can be targeted in rehabilitative treatment. For example, the "Central Eight" criminogenic needs include: substance abuse, history of antisocial behavior, personality, cognition, peers, and circumstances regarding family/marriage, school/work, and recreation (Andrews and Bonta 2010).

[4] CIT are specialized law enforcement programs developed to provide more effective, compassionate, and safer approaches that police officers can use in interacting with people who suffer from mental illnesses or developmental disabilities.

health pods in local jails, and mental health housing units at correctional facilities. Also, within the past decade, two federal funding initiatives—the Substance Abuse and Mental Health Administration's (SAMHSA's) Targeted Capacity Expansion jail diversion program, and the Mental Health Courts grant program administered by the Bureau of Justice Assistance (BJA) and SAMHSA—have provided resources to various locales for innovative approaches to handling offenders with mental illness.

Along these lines, Munetz and Griffin (2006: 544) conceptualized The Sequential Intercept Model as a framework that identifies a series of points of interception at which interventions can be made to prevent individuals with mental health problems either from entering the criminal justice system or penetrating more deeply over time. The interception points are: law enforcement and emergency services; initial detention and initial hearings; jails, courts, forensic evaluations, and forensic commitments; reentry from jails, state prisons, and forensic hospitalization; and community corrections and community support.[5] The idea is to intercept most people at the early points, with decreasing numbers at each subsequent point. Below, we briefly describe the initial three intercepts, as these provide the backdrop for consideration of mental health courts.



Ideally, people with mental illnesses would seek or be referred for appropriate treatment before they engaged in seriously anti-social or criminal activities. However, even if local mental health systems had abundant and comprehensive resources, some people with serious mental disorders undoubtedly would come to the attention of the police before reaching service providers. Hence, pre-arrest diversion programs are likely to be the first point of interception (at least within the criminal justice arena).

Since deinstitutionalization, law enforcement agencies have played an increasingly important role in the management of persons with mental illness: experts estimate that between seven and ten percent of patrol officer encounters involve individuals experiencing mental health crises (some, but not all, of whom are psychotic or dangerous). Generally speaking, law enforcement officers have considerable discretion in resolving interactions with people who have mental disorders; this includes their

[5] Also see the GAINS Center Sequential Intercept for Developing Criminal Justice-Mental Health Partnerships, available online at: http://gains.prainc.com/pdfs/integrating/GAINS_Sequential_Intercept.pdf

authority to issue warnings, convey unruly persons to hospitals or service centers (where feasible), and make arrests. Mental health advocates suggest that arrest probably should be the option of last resort; however, when police officers lack knowledge of alternatives or are unable to access supportive services, they may regard arrest as the best disposition for people who clearly cannot be left on the street.

While mental health systems and law enforcement agencies historically have not worked closely together (e.g., they have engaged in little joint planning, cross training, or planned collaboration in the field), several strategies have been implemented by police departments—with or without the participation of local mental health systems—to more effectively deal with persons with mental illness in the community who are in crisis and who can be managed using police-level or pre-arrest diversion (level 1 intercept). These include 1) mobile crisis teams of mental health professionals, 2) mental health workers employed by the police to provide on-site and telephone consultation to officers in the field, 3) teaming of specially trained police officers with mental health workers from the public mental health system to address crises in the field, and 4) creation of a team of police officers who have received specialized mental health training and who then respond to calls thought to involve people with mental disorders.

In communities that lack pre-arrest or police-level diversion (intercept 1), individuals with mental health issues who commit less serious crimes may be considered for post-arrest diversion (i.e., diverted to treatment at the initial hearing stage—level 2 intercept) as an alternative to prosecution, particularly if they are nonviolent, low-level misdemeanants with symptomatic mental illness. In communities that have implemented strong intercept 1 programs, candidates for post-arrest diversion may be offenders who have committed more serious crimes.

There are several post-arrest diversion strategies in practice. In some, the courts employ mental health workers who screen individuals after arrest, either in local jails or at courthouses. These mental health practitioners then advise the courts about the possible presence of mental illness and suggest options for assessment and treatment, which could include diversion alternatives or treatment as a condition of probation. Alternatively, some courts have developed collaborative relationships with the public mental health system, which provides staff to conduct assessments and facilitate links to community service providers.

Optimally, a majority of offenders with mental illness are filtered out of the criminal justice system in intercepts 1 and 2, receive needed treatment and avoid future crime and incarceration. In reality, however, it is clear that both local jails and state prisons house substantial populations of persons with mental illness.

To stem the flow of the persons with impaired mental health into jails and prisons, one approach that has received considerable attention at the level of intercept 3 is the establishment of a separate docket or court program specifically to address the needs of individuals with mental illness who come before the criminal court. These special-jurisdiction courts—mental health courts— limit punishment and instead focus on linking defendants to community-based treatment and other problem-solving strategies to help

such individuals desist from future crimes and avoid further involvement in the criminal justice system.

The Emergence of Problem-Solving Courts

Although there are now various forms of problem-solving courts, including mental health courts, reentry courts, and veterans' courts, they share a common origin rooted in the wave of crime and violence associated with illegal drug use, particularly the epidemic of crack cocaine, in the 1980s. As penalties for drug possession and sales were toughened, and drug offenders were arrested and prosecuted in unprecedented numbers, the justice system was overwhelmed by burgeoning caseloads. Then in June 1989, drug treatment courts (or, simply, drug courts) essentially emerged as a grassroots movement from a model implemented as a partnership among the Court, the State Attorney's Office, and the Public Defender's Office in Miami-Dade County, FL. The original drug court was developed to deal with drug-related crimes and drug-using offenders by offering court-monitored drug treatment to reduce both defendants' drug use and the constant recycling of such offenders through the court system. As the program demonstrated success, drug courts mushroomed throughout the U.S. (see, for example, Rossman 2011 for detailed discussion of the evolution of the model), and later spawned adaptations such as the mental health courts that are the focus of this study.

Virtually, all problem-solving courts are community-justice partnerships that include public agencies and community organizations such as drug treatment and social services providers. Participants attend regularly held judicial status hearings or court sessions, receive access to comprehensive treatment services (including mental health or substance abuse treatment, as well as other services such as employment assistance, family services), participate in frequent monitoring (such as home visits, drug testing), and receive sanctions for behavioral infractions, or conversely, incentives for achievements. The programs' integration of behavioral modification principles from psychology, together with recurring courtroom experiences that include the interaction between the judge and the participant, the public aspect of being sanctioned or complimented, and the collaborative approach among the "key stakeholders" (including prosecution and defense) are considered essential elements of problem-solving courts.

Problem-solving courts differ from conventional court case processing in a number of fundamental ways (Berman and Feinblatt 2005; Casey and Rottman 2003; Farole, Puffett, et al. 2005; Office of Justice Programs and National Association of Drug Court Professionals 1997):

1) Voluntary participation.

2) A non-adversarial, problem-solving focus.

3) Integration of treatment services that ideally represent a continuum of outpatient and residential treatment, as well as support groups, with treatment assignment and frequency of attendance depending on participants' particular needs.

4) Intensive supervision of the treatment process by judges and case managers.

5) Direct conversational interaction between defendants and the judge during frequent status hearings.

6) Graduated sanctions, such as more frequent court appearances or increased drug testing, are used to monitor compliance and respond to problems.

7) Routine drug testing.

8) A team approach to decision-making.

9) Incentives to motivate and acknowledge accomplishments.

The Drug Court Model

In 1997, the Office of Justice Programs and the National Association of Drug Court Professionals described ten basic elements of drug courts, including:

- Integration of alcohol and drug treatment with justice system case processing.
- Use of a non-adversarial approach through which prosecution and defense promote public safety, while protecting defendants' rights to due process.
- Early identification and prompt placement of eligible participants in the program.
- Access to a continuum of treatment, rehabilitation, and related services.
- Frequent alcohol and drug testing.
- A coordinated strategy among the judge, prosecution, defense, and treatment providers to oversee participants' compliance.
- Ongoing judicial interaction with each participant.
- Monitoring and evaluation to measure achievement of program goals and gauge effectiveness.
- Continuing interdisciplinary education to promote effective planning, implementation, and program operations.
- Partnerships with public agencies and community-based organizations to support effectiveness.

As noted by Roman, Rossman, and Rempel (2011), the drug court model and other problem-solving courts have adapted approaches that are consistent with several prominent crime reduction theories, including:

- **Therapeutic jurisprudence** posits that legal rules and procedures can be used to improve psychosocial outcomes, an idea supported by a growing research consensus that coerced treatment is as effective as voluntary treatment (Anglin, Brecht, and Maddahian 1990; Belenko 1999; Collins and Allison 1983; DeLeon 1988a, 1988b; Hubbard, Marsden, et al. 1989; Lawental, McClellan, et al. 1996; Siddall and Conway 1988; Trone and Young 1996).

- **Procedural justice theory** predicts that individuals are as concerned about fair procedures and respectful treatment by legal authorities as they are about the outcomes of their interactions with the criminal justice system. The literature suggests that individuals' judgments of procedural fairness shapes their perceptions of the legitimacy of and satisfaction with legal authorities, which in turn influences their compliance with the law and decisions made by those in authority (Casper, Tyler, and Fisher 1988; Folger 1977; Gottfredson, Kearley, et al. 2007; Lind 1982; Lind, Kanfer, and Earley 1990; Lind and Tyler 1988; Thibaut and Walker 1975; Tyler's 1984, 1990, 2003). Procedural effects apparently are independent of outcomes produced. Thus, individuals who perceive they have been treated fairly by the system can demonstrate better procedural outcomes (e.g., compliance with court mandates), regardless of the outcome of their case (e.g., the length of the sentence).

- **Deterrence theory** holds that the threat or experience of a punishment for an infraction will reduce the likelihood that the infraction will be repeated; i.e., actual or threatened sanctions should deter crime (see Roman, Rossman and Rempel 2011 for more detailed review of this literature). *General deterrence* holds that by increasing the probability that a particular infraction will be punished, misbehavior will be reduced. *Specific deterrence* posits that an individual's own punishment experience will affect his/her future behavior. For all facets of deterrence, the goal is to increase expectations that infractions will be punished; expectations can be changed either by directly punishing an individual, making highly visible punishments of others, or simply by increasing individuals' beliefs that punishment will follow an infraction. Three aspects of punishment—perceived certainty, severity, and celerity of the possible sanctions—are hypothesized to affect would-be offenders' decision-making and to be correlated with offending (Andenaes 1974, Gibbs 1975). The theory is typically regarded as involving two linkages: 1) a perceptual link, where potential offenders form perceptions about the risks of committing the crime based on information regarding sanction policy and other experiences, and 2) a behavioral link, where the potential offenders' perceptions of sanction risk influence their behavior (Paternoster 1987, Scheider 2001). Drug courts employ graduated sanctions—incrementally more stringent responses to continuing infractions—as mechanisms to deter future offending. There have been few direct studies of the effectiveness of deterrence on client outcomes. Marlowe, Festinger, et al. (2005b) found correlational evidence that drug court clients with higher "elevated" perceptions of deterrence had better outcomes than those with lower levels of perceived deterrence while Gottfredson, Kearley, et al. (2007) report that both

procedural justice and deterrence contribute to better drug court participant outcomes.

- **Social learning theory** posits that humans learn behaviors (both positive and negative) from their environment; hence, publicly rewarding pro-social behaviors can reinforce those behaviors in group settings (Akers and Sellers 2008). Drug courts often combine deterrence-based approaches with positive rewards for good conduct based on social learning theory.

Mental Health Courts: An Overview

While the initiators of the first mental health courts used the drug court model for inspiration, there are important differences between the two models. In fact, some support for mental health courts developed due to observations that some offenders with mental illness were not achieving success in drug courts. Drug courts often have more formalized sets of goals and phase progression than mental health courts, and may be more willing to employ sanctions in response to noncompliance.

What is a Mental Health Court?

Mental health courts are defined as specialized court dockets— for certain defendants with mental illness—that substitute a problem-solving model in place of traditional court processing. Participants are identified through mental health screening and assessments and voluntarily participate in a judicially supervised treatment plan developed jointly by a team of court staff and mental health professionals. Incentives reward adherence to the treatment plan or other court conditions, non-adherence may be sanctioned, and success or graduation is defined according to predetermined criteria.

Source: Council of State Governments 2008

The first mental health court was established in Broward County, FL, in 1997 (Goldkamp and Irons-Guynn 2000) due to a growing concern for offenders with mental illness that was precipitated by an increase in suicides in the local jail. A judge convened a task force of mental health and criminal justice stakeholders to examine methods for better integrating the mental health and criminal justice systems. During this time, a grand jury also published a report on the treatment of offenders with mental illness, which further focused attention on this issue. The Broward County Mental Health Court began on an as-needed-basis for misdemeanor cases. Within the first two years, the court grew to handle nearly 900 cases. Other mental health courts soon followed in Seattle, WA; Anchorage, AK; and San Bernardino, CA (Goldkamp and Irons-Guynn 2000).

Federal legislation followed later to reinforce the importance of this innovative court model. In 2000, America's Law Enforcement and Mental Health Project funded the Bureau of Justice Assistance (BJA)/Substance Abuse and Mental Health Services Administration (SAMHSA) Mental Health Courts Program, which provides financial support to local and state governments that are interested in implementing mental health courts (Public Law 106-515). The program has funded 123 mental health courts in 39 states, as of 2011 (BJA undated). The Mentally Ill Offender Treatment and Crime Reduction Act of 2003 authorized an additional $50 million for collaborative initiatives between criminal justice and mental health agencies, including programs such as mental health courts (Public Law 108-414). In addition, the BJA has selected five mental health courts to serve as learning sites: Akron, OH; Bonneville County, ID; Bronx County, NY;

Dougherty Superior Court, GA; and Washoe County, NV. Other jurisdictions in the country can contact or visit these sites to learn about how to develop and implement a mental health court. The federally-funded Criminal Justice/Mental Health Consensus Project (administered by the Council of State Governments) also provides educational resources and technical assistance on mental health courts.

Beyond the federal level, mental health courts cannot succeed without local or state support. Individual jurisdictions choose to pursue these initiatives and may also provide funding, dependent on available resources. With this mix of local, state, and federal support, the mental health court model has spread widely and can be found in every region of the country today.

Current Status of Mental Health Courts

As of 2011, the Criminal Justice/Mental Health Consensus Project listed more than 240 court-based mental health interventions within their Local Programs Database. Mental health courts are located primarily in the Western (37 percent) and Southern (37 percent) regions, with fewer courts in the Midwest (15 percent) or Northeast (11 percent) (CSG 2005a). As mentioned previously, court characteristics vary across jurisdictions with regard to a number of key court elements (CSG 2005b):

- **Size.** There is a wide range of caseload sizes across mental health courts; e.g., a survey of 90 mental health courts found annual caseloads ranged from 3 to 852 individuals, with a median size of 36 active clients (Redlich, Steadman, et al. 2006).

- **Entry point.** The point of entry into the mental health court also varies across jurisdictions. Courts generally follow one of two models: the pre-adjudication model and the post-adjudication model. In the pre-adjudication model, prosecution is deferred until the client completes the program. In the post-adjudication model, the defendant's participation in the court is contingent upon a guilty plea. The post-adjudication model is more common among mental health courts, particularly among those that accept felony offenders (Almquist and Dodd 2009). On the one hand, pre-adjudication models can cause challenges with

Key Elements of a Mental Health Court

The following are some defining features of mental health courts (Almquist and Dogg 2009; Thompson, Osher, and Tomasini-Joshi 2008):

Serve defendants with mental illness

- Provide diversion for justice-involved individuals with mental health problems

Involve stakeholders from multiple fields

- Involve stakeholders from the criminal justice, mental health, substance abuse, and related fields during the planning stages and administration

Voluntary and informed participation

- Require informed consent to participate from defendants

Link participants to community-based services

- Identify appropriate mental health treatment options in the community and coordinate entry into these services (typically achieved through case management services)

Monitor treatment compliance

- Use court setting to monitor treatment compliance; track participation in treatment through regular meetings with defendants and communication with treatment providers

Use of sanctions and incentives

- Use sanctions and incentives to encourage treatment engagement and court compliance

Therapeutic jurisprudence

- Rely on the principles of therapeutic jurisprudence to view the court as a potentially therapeutic experience

future trials if a client fails to successfully complete the mental health court program (e.g., the prosecutor may be unable to find witnesses or the witnesses may not recall salient details of the incident/case). On the other hand, clients are left with little protection if they fail the program in courts using a post-adjudication model.

- **Eligibility criteria.** Mental health courts generally have two types of eligibility criteria: clinical eligibility and legal eligibility. In terms of *clinical eligibility*, courts vary with respect to which mental health problems are acceptable for inclusion in their programs. For instance, some courts use a legally-defined term of serious/severe and persistent mental illness (SPMI), while others use a clinical definition such as Axis I disorders. Courts also vary regarding how severe symptoms may be and still qualify for inclusion. The acceptance of traumatic brain injuries, developmental disorders, and Axis II or personality disorders also are controversial clinical eligibility issues. Some courts purposely exclude these diagnoses, whereas other courts are willing to accept participants with these conditions on a case-by-case basis.

  In terms of *legal eligibility*, most courts have restrictions on certain types of crime (e.g., rape, arson). Half of surveyed mental health courts in 2005 admitted both misdemeanor and felony offenders (Redlich et al. 2006). Two-thirds of BJA-funded mental health courts automatically deny violent offenses (CSG 2005b). However, more courts are accepting serious and violent crimes than at the outset of the mental health court movement. Past criminal history is another point of diversity across courts. While some courts disqualify defendants for extensive criminal histories, other courts view this as a symptom of the "revolving door" and do not exclude solely on this basis. There are also different philosophies on the role mental illness must play in the current charge. Some courts require that the mental illness be directly tied to the offense, while others merely require that the defendant have mental illness, regardless of its relation to the crime.

- **Screening.** In addition to the eligibility criteria, themselves, courts vary in terms of how they determine individuals' mental health needs and how comprehensive their screening measures are in terms of detecting and identifying mental health problems. Some jurisdictions complete relatively informal assessments, while other jurisdictions conduct full, systematic psychiatric evaluations with collected information and records from other external sources (e.g., previous medical records, family interviews).

- **Program staffing and services.** Mental health courts differ in terms of how the court team is constructed (e.g., rotating vs. dedicated attorneys, internal vs. external treatment and case management services) and forms of treatment, depending on that particular jurisdiction's court and community resources.

- **Supervision and monitoring.** Once accepted into a mental health court program, clients may experience vastly different forms of supervision and court monitoring.

Supervision in the community may be the responsibility of treatment providers, probation officers, mental health court personnel, or other criminal justice agencies (Redlich et al. 2006). Additionally, judicial status hearings may range from multiple times per week to quarterly appointments, although most courts (91 percent) have participants begin with weekly to monthly hearings (Redlich et al. 2006).

- **Sanctioning.** If participants are noncompliant with court requirements, there may be a variety of sanctions used. Often, the most severe sanction is return to jail. Courts also vary on their use of this controversial punishment, with 8 percent of courts reporting that they never use jail as a sanction, and the largest portion of courts (39 percent) using jail sanctions in 5 to 20 percent of cases (Redlich et al. 2006). Mental health courts with more felony offenders, and with more frequent status hearings, tend to use jail sanctions more often.

- **Program completion.** A study of 400 participants from four mental health courts found 48 percent had graduated and another 23 percent remained in the program one year after entry into the court (Redlich et al. 2010). As is the case with drug court and other problem-solving court programs, if participants fail to comply with program requirements to the extent that their sanctioning options are exhausted, they may be terminated from the program. Redlich and colleagues (2010) found nearly one-third (29 percent) of participants in their study were terminated from the programs; differences were seen among courts with termination rates ranging from 17 to 41 percent.

Although mental health courts have become a popular approach for responding to offenders with mental illness, some concerns have surfaced. For instance, Sarteschi and colleagues (2011) discuss thorny issues surrounding the extent of voluntariness and participant comprehension, expungement practices for reduced or eliminated charges in post-adjudication models, possible gender and race selection biases, and "creaming" practices where mental health courts only accept clients with few risk factors who would be expected to succeed regardless of program participation. The issue of "creaming" is particularly important when considering evaluation methodology. Since admission into these programs can sometimes be dependent on the subjective assessments of multiple stakeholders (e.g., judge, prosecutor, clinical team, etc.), there is a risk of selection bias where more "promising" candidates expected to succeed and present less danger to the community are chosen for participation (Wolff et al. 2011). This presents a challenge to evaluation studies comparing outcomes to other offenders with mental illness who may already have a higher risk for reoffending than those participating in the mental health court from the outset.

Mental Health Court Research

Mental health court research is still relatively sparse; however, existing process and outcome studies and meta-analyses provide preliminary support for the viability of this approach. The literature documents a mix of single and multisite studies in which the majority of multisite studies are descriptive or process evaluations. Most of the reported

outcome studies use quasi-experimental designs, with the exception of one study (Cosden, Ellens, et al. 2003) that implemented random assignment. Studies also employ a mix of self-reported information and administrative records for outcome measures, and most studies have follow-up periods of up to two years from program entry.

Process Evaluations

Descriptive or process evaluations of mental health courts describe the way the courts function or examine intermediary goals or mechanisms, such as engagement and delivery/receipt of treatment and other services. One area of interest for these studies is describing the populations served by mental health courts. For instance, a study of a mental health court in North Carolina documented demographic and criminal history differences from North Carolina arrestees, with more misdemeanant, nonviolent, female, white, and older offenders found in the mental health court (Hiday, Moore, et al. 2005). Similar findings regarding the higher likelihood of female, white, and older individuals within mental health courts were replicated in another study on seven courts (Steadman, Redlich, et al. 2005). Petrila and colleagues (2001) also identified some special needs of the mental health court population in Broward County, with approximately one-quarter of participants evidencing homelessness, and 29 percent having co-morbid substance abuse.

Another question explored by process evaluations is the role of activities or outputs within mental health courts. Lacking an understanding regarding whether intermediary mechanisms (i.e., mental healthcare, court monitoring by a specialized judge, etc.) are being successfully implemented, it is difficult to interpret subsequent outcome findings. Two areas in particular have been studied: courtroom procedures and provision of mental health services. Court observations have revealed an atmosphere marked by less formality and the absence of an adversarial orientation, as compared to more traditional courts (Petrila Poythress, et al. 2001). Respondents in this same study believed the judge was the primary source of success in their court.

A few researchers indicated they found a reluctance to sanction program participants within the courts they studied, a characteristic these authors contrasted with the drug court model (Griffin, Steadman, and Petrila 2002; Petrila et al. 2001). In our view, this may be overtly or subtly due to a key distinction in the way the court teams perceive the participants, the nature of their anti-social behavior, and their abilities to conform with required activities. Despite the potential for overlap in their presenting problems, MHC participants must have mental health problems or mental illness, neither of which is illegal. By contrast, drug court participants must exhibit alcohol or substance abuse, both of which constitute illegal behaviors.

In terms of mental healthcare, past studies have shown that MHC clients are more likely to engage in treatment than they were prior to participating in the mental health court program (Ridgely, Engberg, et al. 2007) and compared to a similar group of offenders with known mental health problems (Boothroyd, Poythress, et al. 2003; Trupin and Richards 2003). Respondents in Petrila and colleagues' study (2001) of the Broward County MHC acknowledged potential challenges regarding the program's capacity and available services in the community. Similar issues with community resources also were

discussed in a descriptive study of four courts in different states (Watson, Hanrahan, et al. 2001).

A few studies also have examined procedural justice issues within mental health courts. While participants often report positive views on issues such as procedural justice and coercion based on their experience with mental health court (O'Keefe 2006; Poythress, Petrila, et al. 2002; Redlich, Hoover, et al. 2010; Wales, Hiday, and Ray 2010), evidence has shown that participants may not fully understand the voluntary nature of these diversion programs or other important information about how the courts function (Redlich, Hoover, et al. 2010).

One study of particular interest is an evaluation of the Brooklyn Mental Health Court describing the functioning of the court within its first 28 months of existence (O'Keefe 2006). The report provides a comprehensive portrait of the court's functioning at that point in time. A selection of these observations follows. The court began with a restriction against violent offenses, but slowly incorporated more of these types of felony cases, an evolution towards accepting more severe crimes that other courts have also experienced (Redlich, Steadman, et al. 2005). The report assesses the referral/screening process and finds it to be inconsistent, lengthy, and at times unclear. At the time, no universal screening was in place, and referrals had to be reviewed by the Assistant District Attorney, which could take weeks. Of those admitted to the court, the primary diagnoses were bipolar disorder (28 percent), schizophrenia (26 percent), and major depression (25 percent); nearly half of participants had co-morbid substance abuse. Like other studies, respondents reported challenges providing treatment within the resources available in the community and indicated this contributed to delays in receiving treatment. Courtroom observations were characterized by high levels of direct communication between the judge and MHC participants, including hand-shaking and verbal, positive feedback.

Outcome Evaluations

While the previously described research is important to understanding *how* courts function, additional research is necessary to know whether the courts achieve their ultimate goals, particularly in relation to mental health and criminal justice outcomes. Studies have shown positive impacts on clinical outcomes. As described previously, mental health court participants are more likely to engage in treatment; however, evidence of clinical improvement (e.g., reduction in mental health symptoms) is more ambiguous. Mental health court participants may experience improvements in substance abuse (Cosden et al. 2003) and level of "functioning"[6] compared with other offenders with mental health diagnoses (Cosden et al. 2003; O'Keefe 2006; Trupin and Richards

[6] All three studies used the Global Assessment Functioning (GAF) to assess level of functioning among clients. The GAF score is a numerical measurement of the individual's psychological, social, and occupational functioning based on clinical judgment (American Psychiatric Association 2000).

2003). However, a review[7] of eight studies with clinical outcomes found only two with clinical improvement (Sarteschi, Vaugh, and Kim 2011).

Findings have also been mixed regarding criminal justice outcomes, although a consensus seems to be building in favor of mental health courts. O'Keefe (2006), for example, conducted a small outcome study of 37 Brooklyn Mental Health Court participants who had completed the program and found that arrest rates declined after participation (from 27 to 16 percent) compared to the12 months prior to court enrollment, although this change was non-significant (possibly due to low statistical power given the small sample size). Sarteschi and colleagues (2011) conducted a meta-analysis of 18 studies published before July 2009. Their analysis showed that mental health court participants had better criminal justice outcomes than similar comparison groups. The lack of rigorous study design prevents strong conclusions, though; studies with better methodological design found smaller impacts, revealing a possible influence of selection bias.

Examples of positive findings from individual studies include that mental health court participants spend fewer days in jail post-release than they had before going through the specialized court (Cosden, Ellens, et al. 2005; Ridgely et al. 2007). In addition, they spend less time in jail than other offenders with mental illness (Christy, Poythress, et al. 2005; Trupin and Richards 2003). In terms of recidivism, mental health court participants have more days before re-arrest compared with other arrestees with mental disorders (McNiel and Binder 2007) and experience fewer arrests than they did before participating (Christy et al. 2005; Herinckx, Swart, et al. 2005) and compared to other offenders with mental illness (Cosden et al. 2003; McNiel and Binder 2007; Moore and Hiday 2006).

While these studies have shown positive impacts of mental health courts, other studies have been more equivocal. Some research has shown similar outcomes for both mental health court clients and other individuals with mental illness processed more traditionally in terms of symptom reduction (Boothroyd et al. 2005), time spent in jail (Cosden et al. 2003), and time to re-arrest (Christy et al. 2005). Most outcome studies examine individual courts, which may account for conflicting findings across studies. Many also do not include process components, making it difficult for researchers to isolate possible causes of differing outcomes.

A study published after Sarteschi et al.'s meta-analysis (2011) examined the criminal justice outcomes of mental health court participants in four jurisdictions compared with propensity score-matched controls (Steadman et al. 2011). This study has a stronger methodological design than many of the earlier studies, using modified propensity score matching to address potential selection bias into mental health courts. Compared with matched offenders with mental illness undergoing traditional processing, mental health court participants across the four jurisdictions were less likely to be arrested, had a larger reduction in arrest rate, and spent fewer days incarcerated during the 18 months after program entry (intervention group) or jail admission (comparison group). For those

[7] The authors attempted to conduct a meta-analysis of these studies, but the effect sizes were too heterogeneous to produce a valid estimate.

involved in the mental health court, substance use, schizophrenia or depression diagnoses, lack of pre-MHC treatment, and more significant criminal history were related to worse criminal justice outcomes.

Limitations of Existing Research

Methodological weaknesses of extant studies (e.g., sole reliance on self-reported outcomes, lack of random assignment, and short-term follow-up) make it difficult to reach confident conclusions. Most of the existing outcome studies examine single courts, which may account for conflicting findings across studies; however, meta-analyses help to produce overall estimates of mental health courts' effectiveness.

In addition to these shortcomings, little research has been conducted on questions of efficiency and cost. One study (Ridgeley et al. 2007) investigated costs for a mental health court in Allegheny County. This study found that the jurisdiction's mental health court costs were similar to those of the traditional court system. The authors speculated that it was likely that the mental health court might become less costly over time.

Given the state of the field, additional research is warranted to fill gaps in knowledge and help stimulate informed decision-making by practitioners who are either implementing new mental health courts or strengthening their existing efforts. The current study is intended to support this objective by: 1) contributing a two-site process and outcome evaluation of mental health courts in New York City, using sophisticated analytic techniques to control for selection bias (the largest methodological threat to mental health court evaluation research) and 2) presenting guidance to support future economic analyses.

CHAPTER 2. EVALUATION DESIGN AND METHODS

This study consists of process and impact evaluation components that draw on multiple data sources to describe the two New York court programs (their operations, structures, and client caseload) and assess the impact of each program on participant criminal justice outcomes. The impact evaluation features a quasi-experimental design and employs propensity score matching (PSM) to construct equivalent comparison groups for each court's treatment sample. In this section, we describe the study's methods and sample construction. Limitations and considerations associated with the final design are discussed in Chapter 6.

The Proposed Study

In October 2005, NIJ selected UI to evaluate two distinct criminal justice interventions for offenders with mental illness: the Brooklyn Mental Health Court, a specialized problem-solving court operating in the Supreme Court in Brooklyn, NY, and the Pinellas County Mentally ill Diversion Program (MIDP), operating in the Public Defender's Office in Clearwater, FL. The evaluation was intended to answer the following questions:

- Does either model reduce participants' criminal justice involvement?
- Does either model increase access to, participation in, or retention in mental health treatment?
- Is either model cost-effective compared to business-as-usual, and is one more cost effective than the other?

Because the two interventions differed significantly in their approaches toward offenders with mental illness and their operational structures, UI developed separate and slightly different evaluation design strategies for each.[8] Evaluation activities began in each site in early 2006, following NIJ's approval of UI's proposed evaluation strategies.

Although UI encountered early challenges in both locations, the most pressing issues occurred in the Florida treatment site where evaluation activities were hampered by funding uncertainties and on-going substantive and structural changes to the MIDP intervention (e.g., changes in target population, screening and assessment procedures, staff roles and responsibilities, and services), as well as administrative barriers and legal constraints that impeded the research. Following several months of negotiations with NIJ, the decision was made in January 2007 to cease data collection and evaluation activities in Florida and to explore adding a second New York City mental health court program to the evaluation in order to optimize resources.

[8] Although both strategies employed quasi-experimental designs with impact and process evaluation components, as well as cost-benefit and transferability analyses, the New York evaluation relied on administrative records data and a retrospective sample, while the Florida study required a prospective sampling approach in two jurisdictions (treatment and comparison). Evaluation design reports for both sites were presented to NIJ for review and approval in early 2006.

Ultimately, the initial research plan was modified, as follows:

- A second New York City treatment court site—Bronx Mental Health Court—was approved by NIJ in September 2008, and formally agreed to participate in the evaluation in January 2009.

- The proposed network analysis (initially designed to support the transferability analysis) was eliminated due to concerns that this type of assessment is costly and likely would yield little value in a study of this nature.

- Focus groups with both MHC participants and, separately, comparison group offenders were eliminated to conserve evaluation resources.[9]

- Comparison court sites were eliminated from the courtroom observation task to conserve evaluation resources; courtroom observation of both the Brooklyn and Bronx MHC sites was retained. The rationale for this modification was that examining differences between the two court models, rather than between the mental health courts and traditional courts, would yield more relevant information.

- The proposed economic analyses task was re-purposed. Since researchers were unable to access information about post-incarceration services and utilization for either the treatment or comparison groups, the cost analysis shifted from an assessment of whether mental health courts are cost-effective relative to conventional case processing to development of a practitioner tool to guide jurisdictions interested in conducting costs analyses (including the type of information to collect and how to estimate critical program and criminal justice costs). This is discussed more fully in Chapter 5.

While most of the original expectations about the Brooklyn evaluation held regarding data acquisition and sample construction, it become clear during the design phase that several proposed evaluation features were not viable, notably the ability to measure retention and utilization of post-incarceration treatment services (Appendix A provides a table listing both the original and final designs for the Brooklyn Mental Health Court, facilitating quick comparison). Although early discussions with court partners suggested that it would be possible to access post-release service use data from the New York State Department of Health (DOH) Office of Medicaid Management, which contains service data (provider, type of service, recipient, dates of service) for all services paid by

[9] Additionally, it was thought that participant focus groups, even with the addition of comparison 'business-as-usual' subjects, would not add much to our understanding of the courts' operations. Other studies—namely, Policy Research Associates' (PRS') qualitative evaluation of the Brooklyn Mental Health Court, on-going in 2006—were using a similar approach, and findings were expected before the end of this evaluation. With funding from the National Science Foundation, PRS was examining participant perceptions, understandings, and appreciation of BMHC procedures and requirements; as part that study, PRA was interviewing BMHC participants at court intake, and then examining some defendant-level outcomes (such as bench warrants) at 12 months. Analysis focused on participant understandings in relationship to specific case outcomes.

Medicaid, agency policies prohibited the release of individual-level data for research purposes (e.g., data cannot even be released to the agency's own divisions), unless the research is directly related to improvements in the delivery of the Medicaid program, itself. Without post-detention service information, the impact evaluation for the Brooklyn court site (and, ultimately, the Bronx court evaluation, as well) was limited to criminal justice outcomes only. Sufficient data could not be collected to support economic analyses, either, for reasons discussed in Chapter 6.

Final Evaluation Design

The final evaluation design focused primarily on measuring the impact of the two court programs on participant recidivism. The study features a quasi-experimental design that includes process and impact analyses. Both evaluation components relied on multiple data sources. Semi-structured interviews with program staff and key partners, repeated courtroom observation of the Brooklyn and Bronx MHCs, and document review informed the process evaluation. The impact evaluation relied on administrative data drawn from the two New York City MHC programs, the New York City Department of Health and Mental Hygiene (DOHMH), and the New York State Division of Criminal Justice Services (DCJS); court program data also supported the descriptive analyses presented in Chapter 3. The study's key components and their objectives are described below.

Process Evaluation

The objective of the process evaluation was to:

- Document the operational structure of the mental health courts and how the two MHCs differed from business-as usual (BAU) in their respective jurisdictions.
- Identify any significant changes made to the program model during the study period, and explore the rationale for those changes.
- Examine factors that impeded or facilitated either program's ability to achieve intended objectives.

As noted above, the process evaluation drew on multiple data sources, but relied primarily on 1) semi-structured interviews with program staff, key criminal justice partners, and a limited set of mental health treatment providers—both those contracted to serve mental health court participants and staff at the NYC Department of Health and Mental Hygiene (DOHMH) to document program operations, policies and procedures, as well as business-as-usual; and 2) courtroom observations to explore the in-court dynamics of the two mental health court programs and how program philosophy manifested. Program materials and documents also were important sources of secondary information for this evaluation component. For example, the Mental Health Court program data described in the Impact Evaluation section, below, were used to generate process evaluation findings presented in Chapter 3.

Field Visits

Project researchers made a series of site visits early in the study (October and November 2005) to the two original programs to document court operations and gather information for the impact analysis. These visits focused on understanding the logic and underlying philosophy of the Brooklyn MHC program and the FL site that was subsequently dropped from the research. Following the resumption of evaluation activities late in 2008, the research team visited both the Bronx and Brooklyn MHCs twice between January and October 2009 to: 1) document extant program operations; 2) identify any changes in procedures, practices or program policies; and 3) observe the courtroom operations. The visits to the Bronx MHC also focused on data acquisition (identifying available data sources, the parameters of those data, and the process for obtaining access). During the October 2009 visit, researchers also met with DOHMH staff to understand discharge planning procedures mandated by the *Brad H* lawsuit.[10] (The *Brad H* lawsuit and its relevance to this study are detailed in Chapter 3.)

The team also had intended to conduct field visits to: 1) Rikers Island to speak with facility staff and site-based providers, and to observe protocols involving determinations of mental illness and responses to inmates' mental health needs; and 2) community-based treatment providers who provided mental health services to MHC program participants. Constrained time and resources ultimately undermined the team's ability to perform these activities. However, a series of phone interviews subsequently were conducted with treatment providers who routinely served MHC participants to have them describe the range of treatment and services offered, as well as how they interacted with the two court programs.

To aid in identifying changes in program operations that occurred during the project's 21-month hiatus and to facilitate quick comparison of the two court sites, researchers developed a matrix of key program characteristics for both Brooklyn and the Bronx mental health courts. We populated the matrix based on review of initial field notes (for the Brooklyn court site), program reports, and other materials obtained from the two court programs. Staff in both sites reviewed the matrix, corrected any discrepancies, and noted any key changes in program practice or policies. (The matrix of key court characteristics is located in Appendix B.)

Stakeholder Interviews

Stakeholder interviews with key court personnel (i.e., judges, prosecutors, and defense attorneys), program staff (i.e., clinical directors, case managers, and intake coordinators), and treatment providers focused on documenting current program operations, treatment philosophy, and factors that impede or facilitate achievement of program objectives. Semi-structured interviews with DOHMH staff focused primarily on describing business-

[10] Since 2003, New York City has provided discharge planning services to inmates with mental illness under the settlement terms of a class-action lawsuit, *Brad H vs. The City of New York*. The lawsuit argued that given the number of inmates with mental illness who are treated by DOC, it functions as a *de facto* psychiatric hospital and, as such, must provide comparable aftercare and discharge planning services to its inmate-patients.

as-usual and the scope of services available to offenders with mental illness. The latter also explored the importance and impact of the *Brad H* class action lawsuit in service provision to offenders with mental illness, including discharge planning.

Courtroom Observation

Since mental health courts are a form of problem-solving courts, they are often viewed as an analogous application of therapeutic jurisprudence.[11] Further, the theoretical model for the study's two mental health courts hypothesizes that active judicial monitoring helps to achieve positive outcomes. With this in mind, the courtroom observation component of the process evaluation was designed to achieve three central goals, to:

1. Document the day-to-day courtroom operations of the Brooklyn and Bronx specialized mental health courts.

2. Explore the application of therapeutic jurisprudence; that is, to explore how principles of therapeutic jurisprudence are practiced in mental health court settings.

3. Examine similarities and differences between the mental health court models and drug court models including how practices within mental health courts might differ from the drug court approach.

Structured observations of judicial status hearings were conducted in both courts between April and October 2009, with observations of two full court sessions in Brooklyn and one full court session in the Bronx. In all, UI researchers observed in excess of 130 scheduled court appearances (86 in Brooklyn and 46 in the Bronx).

Data collection instruments were developed (adapted from O'Keefe (2006); see Appendix C for a copy of the study's courtroom observation tools) to systematically document courtroom dynamics, including the nature and tone of interactions between courtroom actors and defendants, and the details of individual-level appearances (e.g., stakeholders in attendance, level of participation, decision-making process, information sharing, demeanor of judges), as well as the disposition of each case discussed/heard (e.g., type of appearance, compliance status, court response, judicial interaction). Our framework for understanding courtroom dynamics within the mental health courts was

[11] Therapeutic jurisprudence, a term, introduced by David Wexler, refers to ways in which the practice of the law can be used to support and enhance beneficial outcomes beyond the immediate case disposition (Wexler and Winick 1996). As such, therapeutic jurisprudence seeks to achieve therapeutic outcomes through the legal system without subordinating due process and other justice values. The goal is to practice law in a way that supports the health and well-being of those being tried in a court of law (Rottman and Casey 1999). Two aspects of mental health courts that are theorized to promote beneficial therapeutic outcomes: mental health treatment and ongoing judicial monitoring. The latter is hypothesized to promote treatment adherence, thereby improving mental health outcomes and reducing criminal behavior.

shaped by Satel's (1998) work conceptualizing elements of the drug court setting.[12] The structured courtroom observation data collection included the following components:

- *Length* of each appearance.

- *Characteristics of the participant*—limited to basic demographics, and whether the participant was incarcerated at the start of the hearing (i.e., "Yes" or "No").

- *Appearance type*—options included MHC status hearing, MHC graduation/sentencing, pre-MHC or plea, non-MHC case, and no-show or non-appearance. Observers also could also select other/ unknown, and record the nature of the appearance.

- *Courtroom participants*—observers checked off all staff (judge, case manager, resource coordinator, prosecutor, defense counsel, defendant, community treatment provider, and others) who participated in each appearance, and whether each party spoke (beyond stating their name or greeting).

- *Judicial interaction with defendant*—observers were asked to check off all that applied for each appearance with respect to how the judge interacted with the defendant (possible options were: eye contact with defendant, asked non-probing questions of defendant, asked probing questions of defendant, imparted instructions/ advice to defendant including consequences of future compliance and noncompliance, directed comments to audience, defendant approached bench, spoke off-record to defendant, and touched or shook hands with defendant).

- *Defendant interaction with judge*—observers recorded if the defendant asked questions or made statements to the judge or displayed art/talent for the court.

- *Good report*—observers were instructed to check "good report"[13] if there was any compliance noted during the hearing, and to record (check all) the types of *rewards conferred* on participants. Options included: none, courtroom applause, praise/recognition from the judge, decreased court appearances, phase certificate, and graduation.

- *Bad report*—observers were instructed to check "bad report"[14] if there was any noncompliance noted during the hearing, and to record (check all) the types of

[12] Since mental health courts, in many ways, evolved from drug courts, we looked to Satel's work for guidance and adapted her methodology, together with instruments UI used in NIJ's Multi-Site Adult Drug Court Evaluation (see Volume 1, Chapter 3 of Rossman, Roman, et al. 2011) to understand mental health courts and recorded information about the mental health court sessions and interactions during individual defendant appearances.

[13] Under the "Compliance Status" section of the courtroom observation reporting instrument, observers could select both "Good report" if ANY compliance was recognized and "Bad report" if ANY noncompliance was noted. Selecting both indicated "mixed" compliance by the defendant.

[14] See the above note on compliance status.

sanctions conferred on participants. Options included: none, adjustment to treatment plan, admonishment/recognition from judge, increased court appearances, remand to jail, and failed MHC including sentence or other consequence.

- *Defendant satisfaction with hearing*—observers were instructed to select all that applied for each appearance with respect to the defendant's demeanor. Options included: visibly happy/satisfied, neutral, visibly unhappy/ upset/dissatisfied, and other.

- *DA or defense attorney reaction*—observers were instructed to record a brief description of the DA's or defense attorney's reaction, if notable.

These structured data served to highlight differences in the courts' procedures and interaction with participants, and offered important context in which to interpret results from the impact analysis.

Impact Evaluation

The impact analysis assessed the effect of the two mental health courts on participant criminal justice outcomes, specifically if participation in mental health court reduces subsequent criminal justice involvement—namely, re-recidivism as measured by new arrests and new convictions after admission to mental health court. A quasi-experimental design was employed to compare the outcomes of mental health court participants with other defendants who were mentally ill (primarily felony offenders with Axis I designations, arrested in either the Bronx or Brooklyn, consistent with the MHCs' target populations) whose cases were processed as usual in the criminal justice system between 2002 and 2006.

Defining the Treatment and Comparison Groups

Consistent with the study's approach to conduct separate (not pooled) evaluations of the two courts, four retrospective samples—a treatment group sample for each court program and matched comparison groups for each court program—were drawn from administrative records data maintained by the New York State Division of Criminal Justice Services (NYS DCJS); New York City Department of Health and Mental Hygiene (DOHMH) and the program databases maintained by each court program. In addition to supplying cases for the treatment and comparison group samples, these data also supported the impact analysis. Cases that met the following criteria were considered eligible for the research:

- Axis I mental health diagnosis indicative of a serious, persistent mental illness.

- Felony offender (current offense).

- Arrested in either the Bronx or Brooklyn between 2002 and 2006.

- Detained in jail (Rikers Island) awaiting disposition.

- Treatment group cases had to be MHC participants (individuals who were referred, but did not participate in MHC were excluded) with valid plea date information.

- Comparison cases had to have been "deemed" or "designated" as eligible for *Brad H* discharge planning services (i.e., sufficiently mentally ill to qualify for services under the *Brad H* settlement).[15]

Propensity score matching techniques were used to construct equivalent comparison groups, as discussed in Chapter 4 (Impact Analysis and Findings).

The *treatment group for the Bronx impact analysis* consisted of individuals who participated in the Bronx MHC between *January 1, 2002* and *December 31, 2006*. Of the 648 individuals who participated in the Bronx program during the reference period, 564 were matched to arrestees in jail with a diagnosed mental disorder (comparison group).

The *treatment group for the Brooklyn impact analysis* consisted of individuals who participated in the Brooklyn MHC between *March 1, 2002 and December 31, 2006*; the earlier reference date coincides with the inception of the Brooklyn MHC program. Of the 327 individuals who participated in the Brooklyn program since its inception, 316 met the research criteria for inclusion in the impact analysis with 303 matched to appropriate comparison cases (i.e., arrestees in jail with a diagnosed mental disorder).

Comparison groups for both impact analyses were drawn from a pool of approximately 5,000 offenders[16] entered in the *Brad H* database maintained by DOHMH. The pool of potential comparison cases consisted of individuals who were 1) arrested between January 1, 2005 and December 31, 2006 in either Brooklyn or the Bronx and 2) either "designated" or "deemed" as eligible for *Brad H* services in the DOHMH database.

Data Acquisition and File Construction

Since the study used retrospective samples drawn from administrative records data, informed consent was not obtained from individual offenders. To maintain the confidentiality of the data and the anonymity of individual research subjects, UI and its study partners devised a two-step protocol to provide redacted, but linkable analytic datasets to UI using a vetted intermediary agency. Under the two-step protocol, the NYS DCJS served as the intermediary by assigning unique, random, anonymous research IDs

[15] "Designated" individuals were determined to be sufficiently mentally ill to qualify for services after having gone through a series of jail-based mental health assessments; "deemed" individuals received a baseline amount of mental health treatment in jail, but were released from custody before the full assessment was completed.

[16] The initial DOHMH data file contained records on 9,493 unique individuals, but missing data on key variables reduced the number of viable cases to roughly 5,000.

to each study record, thus allowing UI to link information across databases without using personal identifiers.

Step 1 required each partner agency (i.e., both MHC programs and DOHMH) to identify cases for the sample from their respective databases using the parameters outlined by UI (described below) and to submit the case *identifiers only* to DCJS (the submission to DCJS contained identifiers only and no substantive program data such as mental health or criminal justice status). DCJS then matched the individuals to their criminal history records and assigned a unique, anonymous research ID to each record. DCJS then appended the research ID to the identifiers-only file and returned it to the appropriate partner agency.

Step 2 required each partner agency to extract substantive program data about sample members, append the research ID to these records, remove all personal identifiers, and submit the de-identified file of sample data to UI. Additionally, DCJS extracted criminal history records for all court and comparison group sample members, including sealed records, appended the research ID to these records, removed all personal identifiers, and submitted the de-identified file to UI. Under this protocol, UI then linked records across partner submissions using the anonymous research ID to create an analytic file. Figure 2.1 - Data Flow Chart provides an illustration of the two-step protocol.

Below, we briefly discuss the administrative data sources identified in Figure 2.1.

Mental Health Court Program Data

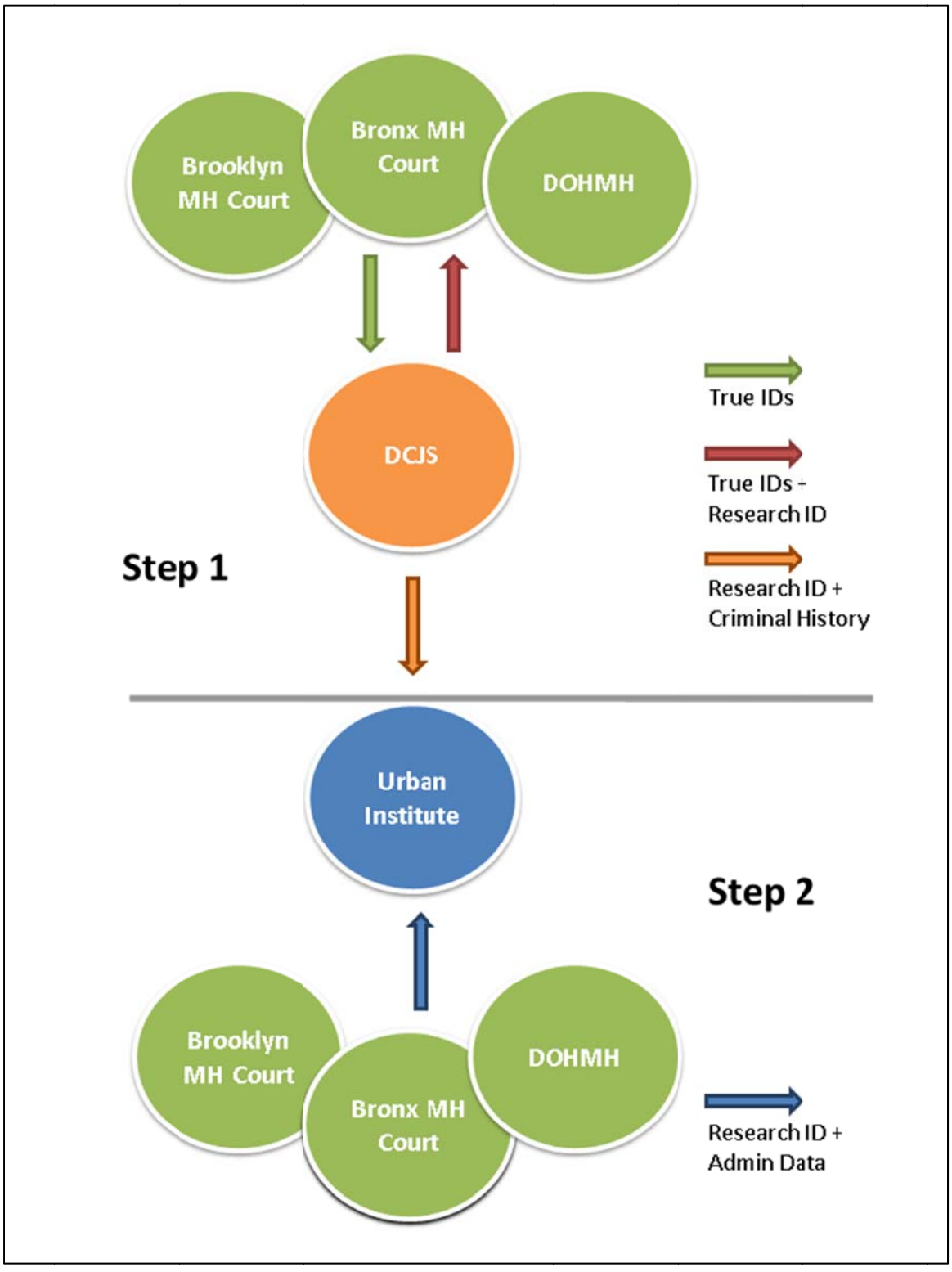
Both the Bronx[17] and Brooklyn[18] MHCs maintained program databases containing basic client-level information about program participants, and to a lesser extent, candidates referred to their respective programs. These data informed descriptive analyses about each court program (quantified participant characteristics and case processing statistics) and provided the basis for construction of treatment group samples used in the impact analysis.

For the current study, UI requested data on demographics, mental health status (current diagnosis and history), co-occurring substance abuse, arrest and referral dates, criminal charges, court case processing dates and milestones, case management services provided and mental health services utilization from both court programs. Not all data were

[17] Data about clients referred to the Bronx MHC between 2002 and 2006 were maintained in an Access database that was originally developed for the "regular TASC" drug court program. This database chronicled information on client demographics, legal representation, criminal history, substance use history and HIV status, indictment charges, plea upon entry to the mental health court, program assignments, warrants issued, final case disposition, and reasons for case termination (e.g., successful, unsuccessful, or neutral case closing). Data were collected on all persons referred to the program; data entry occurred at the time of initial screening by a TASC case manager, and the database was updated as needed throughout TASC's involvement in a case.

[18] The Brooklyn MHC stores data as far back as March 2002 in an Access database: the Mental Health Court Application. This database contains information on participant demographics, mental health assessment results, court mandates, treatment compliance, and graduation status. It does not, however, maintain post-program information about clients.

Figure 2.1. Data Collection Plan: Evaluation of Criminal Justice Interventions for Offenders With Mental Illness



available electronically,[19] and some data were not routinely collected during the study's reference periods (2002 through 2006). The matrix in Appendix D catalogues the types of data supplied by each program, as well as DOHMH and the NYS DCJS, and the extent to which comparable data were available across the sample groups.

Criminal Justice Records Data

Criminal justice records data from the NYS DCJS were collected on all cases meeting the research parameters. The study relied on computerized criminal history data to measure both prior criminal involvement (age at first arrest, number of priors) and recidivism (any arrest post-release and entry into the sample, and subsequent convictions). Criminal justice data were collected on each subject through December 31, 2008[20] to allow a minimum 24-month follow-up period for all cases in the research sample (i.e., the last cases entered the sample in December 31, 2006).[21]

Mental Health Records Data

UI collected data from the DOHMH's discharge planning database to build appropriate comparison groups of defendants with mental illness whose cases were adjudicated as usual in traditional courts. The DOHMH provided data on all persons who were arrested in Brooklyn or the Bronx during 2005 and 2006 who were sufficiently mentally ill to receive services under the terms of the *Brad H* settlement (i.e., persons deemed or designated as eligible for *Brad H* discharge planning services). UI received basic demographic data, including: age at arrest, arrest date and jail admission data, release information, mental health status (i.e., Axis I and II diagnoses, as well as measures of functional status and the severity of illness), and mental health assessment and discharge planning service dates.

Cost Analysis

UI researchers had initially proposed a general analytic approach to estimate the costs and outcomes on a per-person basis for both the intervention and comparison groups. Although the project planned to estimate the cost of program inputs through a review of secondary data (i.e., financial reports, budgets, invoices, progress reports, and other documents to identify the costs of labor and services) and to supplement this information through semi-structured interviews with program personnel to develop estimates of the quantity of services used by each individual defendant, this proved infeasible. It became clear during the feasibility phase (Phase I) that evaluation activities in neither site would support this approach. Following the project's 21-month hiatus (during which the second

[19] UI explored manual data extraction from hard-copy case files to collect service utilization data, but time and resource constraints precluded it.

[20] Criminal justice records data, like all administrative data for the sample, were compiled according to the two-step process described above; the last provided list was submitted to DCJS for processing in mid-2010, thus allowing ample time for any official contact with the criminal justice system to have been recorded in the criminal justice data system.

[21] Most recent cases did not make it into the matched case-control sample developed for impact evaluation. Thus, the final sample has a longer follow-up period than 24 months.

New York site was approved to replace the original Florida site), virtually all New York agreements had to be renegotiated or modified to include the Bronx sites and access to individual-level treatment data for both groups was denied, jeopardizing the proposed cost analyses. UI continued to pursue the possibility of economic analyses that would examine, at some level, whether mental health courts are cost-effective relative to conventional case processing; however, as detailed in Chapter 5, we were unable to obtain sufficient data to address this issue

Cognizant that programs in most jurisdictions share the same struggles with data as the Brooklyn and Bronx program sites, we developed guidance to aid practitioners and program developers in collecting and using data that can support future cost-effectiveness analyses. This information is presented in Chapter 5.

Data Analysis: Overview

Ultimately, robust samples were constructed for both MHC evaluation sites using propensity score matching (PSM) techniques. For the Bronx evaluation, PSM yielded a matched sample consisting of 1,128 cases: 564 treatment cases (Bronx MHC participants) and 564 comparison case (offenders with mental illness drawn from DOHMH records). For Brooklyn, a matched sample of 606 cases (303 Brooklyn MHC participants and 303 comparison cases of offenders with mental illness drawn from DOHMH records) was generated.

Impact analyses compared recidivism outcomes of MHC participants with matched comparison groups of offenders with mental illness processed in traditional criminal courts. For the current study, *recidivism* was measured as a subsequent arrest or conviction after being admitted to MHC. For comparison cases (i.e., arrestees in jail serviced by DOHMH), we measured whether or not an arrestee had a subsequent arrest or conviction after the initial mental health diagnosis, after which point they would be exposed to the risk of reoffending. The minimum length of time observed was 30 months.[22]

For explanatory variables (covariates), there are four broad domains examined in the impact analysis. First, we measured the *baseline demographic characteristic*s of arrestees, followed by *mental health conditions and drug use history*, the *characteristics of instant offense* for which arrestees have been referred to mental health courts or DOHMH, and lastly *number of prior offenses*. Chapter 4 discusses the analytic approach and presents findings from the impact analyses of both MHC programs.

[22] Data for our analysis were not truncated based on the amount of at-risk time. Earlier cases from MHCs provide long survival data that could enrich our understanding about the long-term effect of treatment on re-arrest. Instead of disregarding such information, we measured and adjusted for the time at risk in survival analysis. It should be noted, however, that the minimum follow-up of 30 months is available for all cases in the final sample, which is reasonably long enough to observe most failure events. The implication of not truncating data, therefore, would have little impact on our findings.

CHAPTER 3. BRONX AND BROOKLYN MENTAL HEALTH COURT PROGRAMS AND BUSINESS-AS-USUAL

The Bronx and Brooklyn Mental Health Courts are two among a growing number of mental health courts in New York State and across the country. As O'Keefe noted (2006: 3), derived from the problem-solving court model, these courts have a common set of goals and share common elements that include developing mechanisms to assess and identify potential participants, providing adequate clinical information to facilitate informed decision-making, using the court's authority to reinforce treatment goals, and linking participants to services in the community. Yet each employs a slightly different approach that reflects the specific program philosophy of key stakeholders, local norms, available resources, and the unique needs of the populations they serve.

This chapter examines each of these two mental health courts individually, including their respective structures, philosophies, logic, policies and procedures, target populations, and services. We begin with the Bronx Mental Health Court program and then move to the Brooklyn Mental Health Court. (Chapter 6 presents key themes and findings across the two courts.) The final section of this chapter explores "business-as-usual," specifically how the New York City criminal justice system processes offenders with mental illness, and the resources available to these individuals.

Bronx Mental Health Court

The Bronx Mental Health Court (Bronx MHC) officially started taking case referrals in 2001, although the first participants were seen during a pilot project in 1999. A committee of 41 agencies contributed to the planning of the new mental health court, and funding was supplied by the Bureau of Justice Assistance (BJA) Mental Health Courts Grant Program, the New York City Council, the New York State Legislature, Department of Probation and Correctional Alternatives (DPCA), Substance Abuse and Mental Health Services Administration (SAMHSA), the New York City Office of the Criminal Justice Coordinator, and the National Institute on Drug Abuse (NIDA). The initiators of the court visited other established mental health courts and held meetings with various stakeholders, such as defense and prosecuting attorneys, judges, Treatment Accountability for Safer Communities (TASC) members, defendants with mental illness diagnoses, psychiatrists, and drug treatment providers. Although the court started as a felony court, it began accepting misdemeanor cases after grant funding was acquired for this purpose. The court was named a BJA Mental Health Court Learning Site to assist other jurisdictions interested in adopting the mental health court model.

Administrative Structure and Staffing

The Bronx MHC is a collaboration comprised of criminal justice personnel (judge, defense attorneys, and prosecuting attorneys), a clinical team (clinical director, case managers, and psychiatrists), and coordinating staff (administrative project director). The clinical team is a separate mental health unit of the Bronx TASC office, which is operated by the Education and Assistance Corporation, a not-for-profit organization that operates

multiple social service programs in New York City. Individuals from each component of the court described positive working relationships with the other entities. Interviewees reported substantial open communication between the prosecution, defense, and TASC, and characterized relationships as more collaborative than adversarial. Trust was seen as an important factor in these relationships.

The Role of the Judge

The MHC is a specialized court housed in the Bronx Supreme Court. The same judge has presided over the Bronx MHC since the court's inception. This dedicated judge is knowledgeable about the special issues related to offender with mental illness, and helps maintain consistency in court mandates and sentencing; there is no jury. Although the judge has expertise with this specialized population and consequentially handles cases in a different manner than traditional criminal case processing, the judge expressed a desire to nonetheless maintain a formal court setting and treat mental health court defendants (also referred to as "participants" or "clients") like defendants in other courts.

The MHC judge's primary functions are presiding over status hearings and sentencing both successful and unsuccessful defendants. During status hearings, the judge monitors compliance with the treatment mandate set forth in the initial plea agreement. For this reason, the specialized mental health court docket also is referred to as "compliance court." The MHC judge is rarely involved in the initial plea negotiation into the mental health court. Initial plea agreements are typically made in each case's court of origin and are handled by the judges presiding over those other courts.

The Role of the Prosecution

All prosecuting attorneys involved in the Bronx MHC are based in the Narcotics Bureau of the Bronx District Attorney's (DA's) Office. Approximately ten prosecuting attorneys rotate to handle all Bronx MHC cases. The Chief of the Narcotics Bureau supervises all prosecutors and makes all final prosecution and program decisions. Most of the attorneys spend about 15 percent of their time on MHC cases, while the Deputy Chiefs and Chief of the Narcotics Bureau spend substantially larger portions of time on these cases. When a case is referred to the MHC from another division of the DA's Office, the original prosecutor may remain on the case, along with the assigned prosecutor from the Narcotics Bureau. However, the original prosecutor rarely attends court, and conducts few prosecutorial functions for the case. The DA's Office has designated staff to maintain records on substance abuse and mental health cases.

Prosecutors play a large role in the Bronx MHC, particularly in entry decisions. Defendants in Narcotics Bureau cases are routinely screened using a seven-item questionnaire to determine potential eligibility for the MHC and other alternatives to incarceration. Prosecutors also make discretionary decisions on suggested sanctions for client noncompliance, final sentencing offered after graduation, and how charges will be handled (e.g., charges dismissed or reduced). Prosecutors have weekly meetings with TASC to discuss defendants' problems with compliance. If there are no particularly

pressing issues, prosecutors learn about the defendants' progress through TASC's reporting of client progress in court.

The Role of the Defense

Bronx MHC participants are typically represented by attorneys from indigent defense firms, such as Legal Aid and Bronx Defenders, the 18B Assigned Counsel Plan (a local program that contracts with private attorneys to represent indigent defendants), and occasionally private defense attorneys. Defense attorneys are active in the Bronx MHC process in the following ways: referring clients to the mental health court program, explaining MHC policies and other alternatives to their clients, and serving as advocates for clients during the monitoring period. Defense attorneys do not participate in screening; however, they may try to negotiate eligibility with the DA's office in certain cases. Defense attorneys rarely attend court for routine compliance monitoring appearances; however, they are present for court appearances that involve pleas, client problem behavior, negotiations with prosecutors, graduations, and sentencing. While defense attorneys do not have regularly scheduled meetings with TASC or the prosecution, they are free to meet with either on an as-needed basis. Many of the defense attorneys involved in the Bronx MHC receive specialized training, such as monthly meetings about mental health issues where speakers are invited to talk and provide training on relevant laws and policies.

The Role of the Clinical Team

The Bronx TASC clinical team is a neutral and separate entity from the court, providing case management services for all participants within the Bronx MHC program; a separate TASC team handles drug court cases. At the time of this study's fieldwork in 2009, the MHC TASC team was composed of one clinical psychologist, two part-time consulting psychiatrists, a supervising case manager, and 12 case managers.[23] The TASC case managers have a variety of educational backgrounds, including both bachelor- and masters-level degrees in psychology and social work, and other degree programs unrelated to social sciences. The primary goal of the clinical team is to engage clients in treatment as opposed to symptom elimination, which stakeholders felt may be unrealistic given the diagnosis and prognosis of some of the clients, and beyond the scope of what the court could legally or ethically require.

TASC's Clinical Director is a clinical psychologist who serves as a supervisor, performs psychiatric evaluations, and makes final clinical eligibility decisions. The Clinical Director and consulting psychiatrists perform comprehensive evaluations, including psychiatric interviews, mental status exams, administration of risk assessment

[23] At the time, the MHC also employed an Administrative Director and a Data Coordinator. As of June 2011, the program's funding levels were reduced and staffing levels were lower than in 2009. The 2011 program had the following full-time positions: one clinical psychologist, one project coordinator, and six case managers. Part-time staff included three doctoral-level psychology interns, one forensic psychiatry fellow, and a supervising forensic psychiatrist. Three to four interns with master's degrees assisted during the year. Lastly, one vocational specialist and one peer specialist, each from other agencies, worked with MHC clients.

instruments, and review of collateral information sources (e.g., jail medical records). Evaluations typically last approximately one hour and are performed at the TASC office or in the court's holding cells. Once an evaluation is complete, the Clinical Director or psychiatrist produces a report that describes the social history, medical and psychiatric history, current clinical presentation of symptoms and diagnoses, assessment of risk for danger, and recommendations on diversion decisions and types of treatment. While TASC shares these evaluation reports with the court, neither the Clinical Director, nor consulting psychiatrists testify in court. Once a client has undergone the biopsychosocial assessment by a case manager and a psychiatric evaluation by the Clinical Director or a consulting psychiatrist, the Clinical Director makes a decision on whether the client is clinically eligible and would benefit from the Bronx MHC program. As a supervisor, the Clinical Director also solves problems with the case management team on their current cases and offers guidance for difficult situations such as the decompensation of clients, difficulties with treatment providers, and ineffective medications.

The case managers are split into two types of roles: pre-placement and post-placement. The pre-placement team serves as case managers for all Bronx MHC participants prior to their placement in treatment. In this role, their primary tasks are to conduct psychosocial assessments of potential participants and match accepted clients with appropriate treatment services. Case managers typically perform two to three assessment interviews daily. These interviews usually occur at the TASC office or inside the holding cells at the courthouse. Potential participants then either are referred for comprehensive psychiatric evaluations or denied entry into the Bronx MHC. Once a client has completed the evaluation process and formally entered the Bronx MHC (by entering a guilty plea with deferred sentencing), s/he meets with the pre-placement case manager on a weekly basis (if they are in the community) or on court dates (if detained). At the time of study interviews in 2009, pre-placement case managers typically had caseloads of 15 to 25 clients; recent staffing cuts have increased workloads.

In addition, three pre-placement case managers also serve as court liaisons. As court liaisons, the case managers attend court every week to report on the progress of all the Bronx MHC participants, including those under supervision by the post-placement team. Interviewed case managers emphasized the importance of developing rapport with multiple attorneys and judges (since court liaisons are involved in the pre-plea process that occurs in the original courts).

The post-placement team provides case management services to clients who have been matched to a treatment provider. Pre-placement case managers exchange information about a client transitioning into the post-placement caseload through an intake memo that summarizes information about the participant and the assigned treatment. After a participant transitions to a post-placement case manager, they meet on a weekly basis. Participants may be required to meet more or less often depending on their clinical status and progress within the Bronx MHC program. TASC uses consistent appointment times for participants, and working clients are allowed to schedule appointments for the end of the work day. Case managers visit participants in residential treatment once or twice per month.

Meetings with participants typically last about 15 minutes, although they can take up to 40 minutes if a person is in crisis. During these meetings, case managers obtain a general status reports about participants' treatment progress and general well-being. Case managers also teach participants skills to work with their treatment providers and advocate for themselves. While participants may try to use a case manager as a therapist, the case manager's primary role is to support successful treatment by outside agencies and serve as a mediator between clients and treatment providers. Apart from the traditional case management model, one case manager also runs a self-help program, and two case managers provided an illness management psychoeducational group program in the past. A vocational counselor also provides assistance with employment pursuits.

The TASC team may use various interventions to address individual behavior apart from those that are court-ordered. Examples of these include verbal reinforcement of behavior, more or less frequent TASC visits, clinical interventions, or increased treatment intensity (e.g., more frequent treatment attendance, changing from outpatient to inpatient treatment, or required participation in drug rehabilitation).

Another important part of the post-placement team's job is to coordinate and collaborate with treatment providers. Case managers' interactions with treatment providers vary from once per week to once per month depending on a participant's situation. In addition, case managers receive written progress letters from treatment providers on a regular basis. Some interviewed members from the post-placement team stated treatment providers, in some ways, also were considered clients.

The pre- and post-placement teams have weekly meetings to review their caseloads with a supervisor. While the pre-placement team is focused on sharing evaluation results and brainstorming possible treatment placements, the post-placement meetings revolve around problem-solving issues about compliance, conflicts with treatment providers, and other needs (e.g., housing, employment). The two teams also meet with each other weekly to allow the court liaisons from the pre-placement team to receive information about participant progress from the post-placement case managers. Interviewed case managers liked the split structure and felt that it would be difficult for one case manager to fulfill all the responsibilities of assessment, placement location, court liaison duties, and progress monitoring for each participant in his or her caseload.

Case managers receive formal training on court liaison responsibilities and in-service education about new laws and medications. However, most training occurs informally through the job and from hearing about other case managers' clients during meetings.

The Role of Treatment Providers

Mandatory treatment is provided to participants through community-based treatment organizations. These organizations work directly with the participants to provide mental health services, while also remaining in regular contact with TASC case management staff. The Bronx MHC uses a variety of different types of treatment providers, including therapeutic communities, outpatient drug and alcohol treatment providers, inpatient

rehabilitation programs, detoxification programs, and temporary housing. Many of the provider types recorded in the program's database were substance abuse treatment services.[24] Additionally, participants are placed into therapeutic communities, and sometimes with private therapists or psychiatrists. Due to a lack of available services in the Bronx borough, clients may be matched to treatment providers in other parts of the NYC metropolitan area.

Program Structure and Target Population

Figure 3.1 illustrates how cases proceed through the Bronx MHC. In general, defendants are referred to the program, screened for eligibility, enter the court through a formal plea process, are matched with community-based treatment, and then participate in court monitoring, case management, and treatment services. The duration of participation can vary based on charge and mental illness characteristics. There is a minimum six-month treatment mandate for misdemeanor crimes, while treatment mandates for felony crimes typically last 18 to 24 months. The mandated length of treatment begins upon entry into a treatment program, rather than the plea date. Since it can often take a significant amount of time to find an appropriate and available treatment program, participants may be under court supervision for longer periods of time than the treatment mandate. Each stage is discussed in more detail, below.

Target Population

The Bronx MHC was intended for felony and misdemeanor offenders (primarily nonviolent) with serious mental illness. MHC personnel reported a mix of crime types within the program, including both violent and nonviolent crimes at both felony and misdemeanor levels. Stakeholders reported that very few participants were gang members. Data obtained from the Bronx MHC database showed that 648 participants were referred to the mental health court during the 2002 to 2006 study period.[25] As shown in Table 3.1, 93 percent of these individuals were indicted on felony offenses. Drug selling was the most common offense charged; substantially smaller numbers of participants were charged with drug possession, assault, burglary, robbery, weapon, and other offenses. MHC participants often had extensive criminal histories, as recorded by program personnel from participants' rap sheets. Most (86 percent) had prior arrests, and those who had been arrested before averaged 9.3 lifetime arrests. More than three-quarters (78 percent) had prior convictions, with an average of 8.7 lifetime convictions. Many participants were concurrently involved in other cases: 60 percent had other current open cases, 8 percent were on parole, and 5 percent were on probation.

[24] This is because the MHC evolved from the Bronx's drug court in response to the volume of offenders with mental illness seen in drug court. The program initially adopted the drug court database to record information on MHC cases, and used this database to provide information on 2002-2006 cases for this research. The MHC has since adopted a new case tracking database.

[25] The analysis operationally defined Bronx MHC participants as those who had a plea date recorded in the program database.

Figure 3.1. Case Flow Diagram of Bronx Mental Health Court

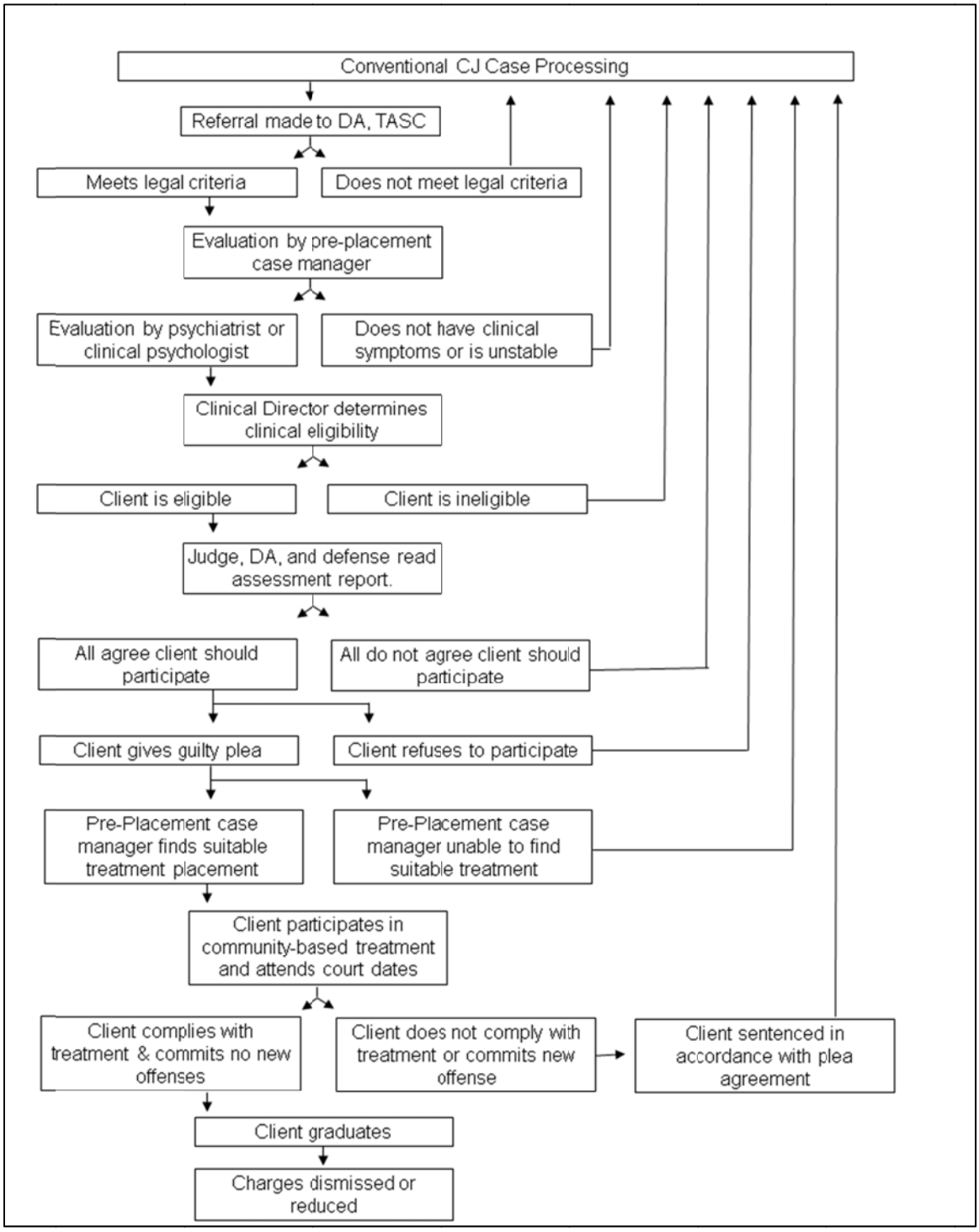


Table 3.1. Current Offenses and Criminal History of Bronx MHC Participants

Current Offenses and Criminal History Among Bronx MHC Participants (N=648)	
Current offense	
Felony	93.0%
Misdemeanor	7.0%
Incarcerated at the time of screening	58.8%
Concurrent cases	
Had additional indictment charge	13.0%
Current open cases	60.3%
On parole at time of initial screening	7.6%
On probation at time of initial screening	4.8%
Criminal history	
Any prior arrests	85.7%
If yes, mean number of prior arrests	9.3
Any prior convictions	78.1%
If yes, mean number of prior convictions	8.7
Prior Felony Offender (PFO)	40.3%

The court was intended to serve individuals with serious mental illnesses. However, the program database in use during the 2002-2006 study period did not record client diagnoses.[26] These were maintained in paper files and other systems inaccessible to the research team. As presented in Table 3.2, data obtained on a subset of 153 MHC participants who were incarcerated in 2005-2006[27] suggest that Bronx MHC participants typically were seriously and persistently mentally ill (SPMI). Nearly all (96 percent) had received psychiatric medication while in jail, and about one in ten had been housed in a mental observation unit (MOU). Mood disorders such as depression and bipolar disorder were the most common Axis I diagnosis (40 percent), followed by substance-related disorders (29 percent) and psychotic disorders such as schizophrenia (23 percent). Two-thirds of Bronx MHC participants had co-occurring substance use and mental health disorders, defined by the research team as a substance-related diagnosis on either Axis I or Axis II.

[26] Tracking forms developed by the program since 2006 record diagnostic information. Additionally, the Bronx MHC was in the process of adopting a new and improved program database in 2010.
[27] These data were obtained from the NYC DOHMH, which oversees the provision of health services to inmates incarcerated by the NYC DOC. These data are described in Chapter 2.

Table 3.2. Mental Health Indicators Among a Subset of Bronx MHC Participants who Received Jail-Based Mental Health Services from DOHMH, 2005-2006

Mental Health Indicators Among a Subset of Bronx MHC Participants who Received Jail-Based Mental Health Services from DOHMH, 2005-2006 (N=153)	
Received medication for mental illness	96%
Housed on a mental observation unit	13%
Assessed as SPMI (Serious and Persistent Mental Illness)	75%
Mean Global Assessment of Functioning (GAF) score, on a scale of 1 (low) to 100 (high)	54
Axis I Diagnoses	
Adjustment disorder	2%
Mood disorder	40%
Psychotic disorder	23%
Substance-related disorder on Axis I	29%
Axis II Diagnoses	
Adjustment disorder	0%
Mood disorder	19%
Psychotic disorder	5%
Substance-related disorder on Axis II	66%
Substance use reported on either Axis I or Axis II	66%

Source: Urban Institute analysis of DOHMH data.

Bronx MHC program staff believed most clients to be dually diagnosed with substance abuse problems, and analysis of the Bronx program data suggests a high level of co-occurring disorders among participants. As Table 3.3 demonstrates, almost all participants in the Bronx MHC database (99 percent) reported either current or past drug use. More than three-quarters (77 percent) had a history of alcohol abuse, while 73 percent reported a history of marijuana use. A history of hard drug use was prevalent among Bronx participants, including cocaine (68 percent reported previous use); heroin (59 percent), and crack cocaine (57 percent). Nearly 90 percent of participants (577 of 648 participants) reported a current primary drug at the time of screening into the MHC: 41 percent reported heroin as their primary drug; 22 percent reported crack cocaine; 15 percent marijuana; 10 percent reported cocaine, and 8 percent reported alcohol. Nearly three-quarters (73 percent) reported prior treatment.

Demographic Profile

Key demographic and socioeconomic characteristics of Bronx MHC participants are presented in Table 3.4. Bronx MHC participants were, on average, 37 years old at the time of the arrest leading to their mental health court case. The majority (62 percent) were male. Most were from racial and ethnic minority groups: more than half (58 percent) were Hispanic and one-third (34 percent) were Black. (Note that the program data did not distinguish between race and Hispanic ethnicity.)

Table 3.3. Self-Reported Substance Abuse by Bronx MHC Participants

Substance Abuse Reported by Bronx MHC Participants (N=648)	
Any current or past drug use	98.8%
Substance abuse history	
Alcohol	76.7%
Cocaine	68.4%
Crack	57.1%
Heroin	59.3%
Marijuana	73.2%
Other drugs	43.5%
Primary drug reported at initial screening	
Alcohol	8.0%
Cocaine	10.2%
Crack	21.7%
Heroin	41.2%
Marijuana	15.1%
Age at first use	
Age that client started taking primary drug	20.9 years
Age that client started taking secondary drug	19.7 years
Prior substance abuse treatment	
Any prior treatment	73.2%
Number of prior treatment contacts (mean)	1.6

Participants in the Bronx MHC were typically socioeconomically disadvantaged. Nearly all (93 percent) were unemployed, and relied on indigent defense counsel for legal representation (94 percent). Nearly two-thirds of participants had less than a high school education.

Most (88 percent) Bronx MHC participants lived in that borough; others reported a residence elsewhere in New York City, and a small portion were from suburban New York localities and from out–of-state. Bronx MHC staff reported that many participants lacked vital family support and lived with negative influences, such as drug-using cohabitants. Although relatively few clients (0.3 percent) were explicitly recorded as being homeless in the program's database, Bronx MHC program personnel estimated that 30 percent had clinical or shelter needs for housing. Staff reported that many participants lacked stable housing, and were functionally homeless (rotated among various people's couches), but were not residing in shelters or on the street. This hampered individuals' abilities to qualify for homeless assistance from the state because they technically had alternative housing.

Veteran and HIV status were other client characteristics that could affect service delivery. Three percent of MHC participants reported being veterans; these individuals presumably

were eligible for veterans' benefits. About one in ten Bronx MHC participants were either HIV positive or had AIDS, for which certain programs may reserve treatment slots.

Table 3.4. Demographic, Socioeconomic, and Health Characteristics of Bronx MHC Participants

Characteristics of Bronx Mental Health Court Participants (N=648)	
Mean age at arrest	37.3 years
Male	62.3%
White, non-Hispanic	7.3%
Black, non-Hispanic	33.8%
Hispanic	58.0%
Other race or ethnicity	0.9%
Bronx resident	88.2%
High school diploma or GED	34.8%
Unemployed	92.8%
Representation by indigent defense counsel	94.4%
Veteran status	2.5%
HIV Positive or Has AIDS	11.1%

Eligibility Criteria

Defendants are eligible to participate in the MHC if they meet both clinical and legal criteria. Potential participants must have mental health problems in order to participate. While clients do not need to have a "severe and persistent mental illness" designation (major Axis I disorder or substantial history of hospitalization or poor functioning), they must have mental health problems that cannot be handled adequately in other traditional or alternative justice venues. This often means that participants have DSM Axis I disorders. Unlike many other mental health courts in the country, the Bronx MHC does not exclude personality disorders if they believe the defendant can be helped through available treatment resources. Clinicians from TASC also consider risk for future violence in their decision-making.

On the other hand, the mental health court does not accept defendants who are unstable or need hospitalization. If a defendant is unstable or incompetent to stand trial, the court cannot be sure the potential participant is able to make an informed decision about participating in the program. TASC also is not confident in its ability to secure consistent hospital treatment due to lack of space and the defined treatment mandate (i.e., hospital treatment can often be indefinite, which is beyond the scope of the court). TASC also will not accept individuals if it does not believe suitable treatment can be secured.

The court accepts both felony and misdemeanor charges, excluding charges of murder, sex offenses, and arson. Unlike the Brooklyn MHC, the Bronx court does not require that the conviction offense be related to the individual's mental illness. The court takes this stance, because they feel that it is difficult to make a confident determination on this

matter. However, Bronx MHC staff takes into account whether treatment will reduce the risk of violence and crime in the future.

Referral

Cases are typically identified for referral between arraignment and the plea or trial. Cases can be referred to the mental health court through various sources, including prosecutors, defense attorneys, judges, family members, community providers, jail mental health staff, probation officers, "730" competency hearings, other case management or diversion programs, or by the defendant. Many referrals originate in the Narcotics Bureau of the DA's office or through the traditional TASC team that deals with cases for substance abuse. TASC obtains approval from the DA's Office before TASC evaluates a client. For example, if a defense attorney suspects a mental health issue with a client, s/he calls the Narcotics Bureau and describes the client and case. If the defense attorney obtains approval from the DA's Office, then either the defense or DA contacts TASC to set up further evaluation.

The DA's office was the chief source of referrals to the Bronx MHC, as illustrated by Table 3.5. Mental health court participants between 2002 and 2006 were most often (46 percent) referred by the DA's office. A sizeable number (40 percent) were referred to the MHC by other programs. In particular, some participants who initially enrolled in the Bronx "regular TASC" drug court program were later found to need mental health services and so were subsequently transferred to the Bronx MHC program; these cases were initially referred to the drug court by the DA's office. Taking both direct referrals to the mental health court and transfers from drug court into account, the DA's office initiated 76 percent of the MHC's participant caseload (not shown in the table).

Table 3.5. Referral Sources for Bronx MHC Participants

Referral Sources for Bronx MHC Participants (N=648)	
District Attorney	45.7%
Drug Court, Other Program, or Self-Referral	39.7%
Case transferred to MHC from drug court	37.4%
Judge or Court	13.5%
Defense Attorney*	1.1%
Incarcerated at the time of MHC screening	58.8%

* Defense referrals are underestimated in the program's administrative database. Defense referrals are often made directly to the prosecutor, who then considers the case and refers the case to TASC; these may be recorded as prosecutor referrals, although the impetus came from the defense bar.

Roughly six in ten MHC participants had been detained at the time of referral. The time from arrest to mental health court referral was typically five months (see Table 3.6). [28] The median time to case referral was 100 days when cases were referred directly to the Bronx MHC program. When cases had been transferred from the drug court, the time

[28] Medians are reported here because the means are skewed by some outliers with atypical case-processing statistics.

from arrest to mental health screening was considerably longer (a median of 221 days) as these clients spent 78 days (median) in the drug court first.

Table 3.6. Time from Arrest to Bronx MHC Participation

Time from Arrest to Bronx MHC Participation (N=648)						
	All Participants (N=648)		Direct Referrals (N=406)		Drug Court Transfers (n=242)	
	Mean	Median	Mean	Median	Mean	Median
Days from arrest to initial TASC screening	266.0	148.5	189.4	101.0	397.1	221.0
Days from MH screening to MHC participation	38.1	16.0	60.8	49.0	0.0	0.0
Days in drug court before transfer to MHC	n/a	n/a	n/a	n/a	226.6	77.5
Days from arrest to MHC participation	303.1	189.0	248.6	174.0	397.1	221.0

Screening

All cases entering the DA's Office are informally screened during intake, and any cases with suspected mental health issues are directed to the Chief of the Narcotics Bureau for further screening. Defendants in narcotics cases and cases directed from intake to the Narcotics Bureau are screened with a seven-question form developed by the Bronx MHC (see Appendix E). If there is a positive screening, the prosecutor informs the defense attorney that the defendant may qualify for a special program.

The supervising case manager processes all referrals and assigns a pre-placement case manager to handle the assessment process. Before the assessment can occur, case managers need to receive medical files from Rikers Island to obtain a complete picture of the individual's mental health and to ensure they are on appropriate medication. Defendants are then screened for clinical eligibility by TASC case managers who administer a battery of measures, including a biopsychosocial assessment, clinical interview, standardized risk assessment tools, and measures of mental health, substance use, health, social functioning, and criminal behavior.

Specifically, TASC case managers perform a biopsychosocial assessment, which covers areas such as demographics, family history, medical history, psychiatric history, receipt of current services, legal issues, and risk indicators. Case managers obtain collateral information through Rikers medical records, conversations with the initial prosecutor of the case, and other sources, as needed. Case managers do not use a specific standardized instrument for this assessment; however, they have guidance on which topics to cover.

Once this assessment is complete, the supervising case manager or Clinical Director makes a decision on whether to proceed with an evaluation performed by a consulting psychiatrist or the Clinical Director. The full psychiatric evaluation examines client history, symptoms and diagnoses, risk for future violence, and issues of compliance and appropriate treatment. The evaluation report is shared with the court, and eventually, the treatment provider.

Entrance into the Mental Health Court

The MHC judge makes the final approval decision based on recommendations by the TASC team, the prosecuting attorney, and the defense attorney. The TASC team makes a recommendation based on their clinical evaluation. Defendants cannot join the program if they are incompetent to stand trial or if they are currently unstable. If an individual needs to be stabilized, s/he will be sent to Bellevue Hospital (males) or Elmhurst Hospital (females) or, if these are not available, return to Rikers Island for treatment. Language barriers and lack of insurance do not exclude someone from participating in the Bronx MHC. However, clients who are clinically eligible and accepted into the program may ultimately be unable to participate if there is no available treatment that is appropriate for the particular situation of client (e.g., Spanish-speaking provider).

The DA has discretion to refuse a case. Prosecutors take into account the complaining witnesses' opinion in the decision to allow a defendant to participate in the mental health court. Reportedly, victims of crime rarely protest entry into the Bronx MHC program. However, prosecutors have occasionally overridden a complaining witness' request to refuse the mental health court option. Defense attorneys may choose to have a case dismissed rather than go through the court system if they feel the charges are unjustified.

The defendant must voluntarily agree to participate and make a guilty plea (at a higher charge than the individual would receive otherwise) in order to be a part of the program. This process occurs in the courtroom of the original judge for the case and is publicly documented. As depicted in Table 3.7, most (91 percent) pleas to the mental health court were to felony offenses, and class B felonies in particular (67 percent). Drug selling was the prevailing charge in the majority of cases (72 percent), followed by drug possession (8 percent). Assaults, robberies, burglaries, and weapon offenses also were observed. More often than not, the plea charge carried one year or more of incarceration time.

A defendant makes the decision to enter the MHC program without knowing what the required treatment will be. Program data from 2002 to 2006 showed that 91 percent of treatment placements occurred after the plea date. However, staff reported that most individuals would know at this point whether the recommended treatment is inpatient or outpatient.

An individual may choose not to participate for various reasons (e.g., a person may not want to be labeled mentally ill or s/he may try to receive a better deal in traditional court, rather than be monitored for a lengthy amount of time and have mandatory treatment). Defendants who decline participation or are denied access to the Bronx MHC may have other diversion options, including the Mentally Ill/Chemically Addicted (MICA)

Table 3.7. Plea Charges and Sentences at Entry to the Bronx MHC[29]

Plea Charges and Sentences at Entry to the Bronx MHC (N=648)	
Charge level of plea into mental health court	
Felony	90.91%
Class A	0.16%
Class B	66.93%
Class C	9.56%
Class D	11.76%
Class E	2.04%
Unspecified class	0.47%
Misdemeanor	8.93%
Class A	8.15%
Class B	0.63%
Unspecified class	0.16%
Violation	0.16%
Charge on entry to the mental health court	
Assault	3.26%
Burglary	2.33%
Drug possession	8.23%
Drug selling	72.36%
Larceny	2.48%
Robbery	3.88%
Weapon	0.47%
Unclassified/other	6.99%
Multiple plea charges on entry to the mental health court	40.9%
Sentence Length, If Incarcerated on Original Plea	
Probation or conditional discharge	0.44%
Days	5.96%
Months	2.65%
1 or more years	55.41%
Unspecified in database	35.54%

program[30] or drug court, if applicable. Furthermore, they remain eligible for any business-as-usual discharge planning services provided through Rikers Island and its

[29] New York State felony and misdemeanor offenses are further classified according to the level of seriousness. Class A offenses are the most serious, carrying the longest sentences.

[30] The MICA Project is a federally-funded program through BJA. MICA functions differently in various jurisdictions, but services in the Bronx include a specially trained social worker and assistant paired with a defense attorney to help address particular mental health issues, traumatic brain injury, or mental retardation. Clients can be involved in both the MICA and Bronx MHC programs.

community-based LINK and SPAN program partners.[31] Appendix F provides the results from an analysis comparing Bronx MHC participants and nonparticipants; the analysis examines the extent to which the two groups differ according to demographics, criminal justice indicators (prior and current involvement), mental health status, and reason for nonparticipation.

Court Proceedings

While the guilty plea that initiates entry into the Bronx MHC program can occur in any courtroom, all participants continue any future court proceedings within the Bronx MHC's courtroom. Participants are required to have quarterly status hearings; these may be conducted more often in individual cases, if deemed necessary by the judge. The Bronx MHC is managed within a mixed docket called "Compliance Court." Other cases seen within this docket are TASC substance abuse cases. Court sessions occur on Tuesday and Thursday mornings.

There are various individuals involved in the court hearings. The judge, stenographer, and clerk sit at the front of the court room. The prosecutors and court liaison case managers sit at one table, while the defense attorney and client are at a second table. On occasion, there are other participants such as probation or parole officers. No jury is present. Cases generally last a few minutes, and the presiding judge chooses to manage the court in a formal manner in order to maintain a more typical court atmosphere.

The research team observed the mental health court in session during May 2009. This session, which staff described as typical, lasted between three and four hours. There were 46 scheduled court appearances, each lasting between one and two minutes. Researchers observed from the jury box, taking notes on the court environment, communication patterns, and judicial responses to both participants' compliance and noncompliance with court conditions.

Each court session included a variety of types of court appearances. The most common type of appearance was a status hearing, as shown in Table 3.8. During status hearings, the court reviewed the progress and compliance of MHC participants. A small portion of hearings were sentencings, both successful and unsuccessful. Other types of hearings included cases from other dockets (e.g., drug court cases), non-appearances (including people medically unable to come, those in custody and not produced, and a few failures to appear). One-third of the scheduled hearings were actually no-shows. Some of these no-shows were noncompliant, whereas other offenders did not appear because they were in detention awaiting a treatment placement. With regard to other dockets, about one-quarter of the Bronx docket was drug court cases.

We observed very little, if any, orchestration of the courtroom environment in the Bronx MHC. (The drug court literature suggests that some judges in specialized courts see a

[31] Assuming they had been incarcerated pretrial and determined to be eligible for *Brad H* services through the jail-based screening and assessment process. This is not applicable for other referrals who were never incarcerated pretrial.

value in setting up courtroom community by requiring defendants to stay for the entire session and ordering cases in a strategic way.) Defendants were not required to remain for the duration of the session. Although defendants were required to arrive at the start of the session at 10 o'clock, they could leave once their appearance was finished. There was also no deliberate ordering of cases. Rather, the logistics of bringing defendants up to the courtroom from the holding cells on a lower level of the building sometimes dictated which defendants appeared because of elevator capacity constraints. There was no assigned seating, and microphones were not used.

Table 3.8. Types of Bronx MHC Hearings Observed

Types of Bronx MHC Hearings Observed (N=46)	
Status hearings	28%
Sentencing (successful or unsuccessful)	9%
Non-MHC	28%
No show	33%
Other or unknown	2%

The main courtroom actors were: the judge, the defendant, a defense attorney, a prosecuting attorney, and the case management representative. Defense attorneys did not appear with the defendant during routine status hearings, unless it was a particularly significant appearance, such as program completion or if some noncompliance had been noted. We also noted that the case management representative in court was typically not the defendant's assigned case manager, but instead a representative from the case management team. In the Bronx, one person from the clinical team was assigned to cover the court session and provide updates on the all of the cases.

Table 3.9 shows who, other than the judge, spoke at status hearings. The Bronx judge placed a high value on maintaining a formal court atmosphere. In this court, the case manager was typically addressed first by the judge, and asked to give a report on the individual's status. The judge typically did not speak with defendants during hearings, but when he did, he spoke directly to them, not through their attorneys, addressed their compliance with court requirements, and imparted instructions to the defendants. Defendants did not speak much during these interactions. When they spoke, they typically provided "yes," "no," or other similarly brief responses to closed-ended questions from the judge. We also observed the use of third person language when the judge addressed defendants. For example, when defendants completed the program successfully, the judge often said "the court congratulates you," as opposed to personally congratulating the defendants.

Much of the judge-participant exchange concerned monitoring compliance with court requirements. The case management team is responsible for monitoring compliance between scheduled court appearances (through a combination of client meetings, urinalysis, and provider reports on clients) and circulates written progress reports to the judge, prosecutor, and defense attorneys in advance of courtroom sessions. The case manager in court usually gave a verbal status report on client compliance during court,

and we observed the judge referring to the written reports in court. Defendants rarely spoke during these appearances, with the exception of brief responses to closed-ended questions from the judge.

Table 3.9. Courtroom Participation During Bronx MHC Hearings

Courtroom Participation During Bronx MHC Hearings (N=46)	
Other than the judge, who spoke at status hearings?	
Case manager	69%
Defense attorney	39%
Defendant	23%
Prosecutor	15%
Other	15%
Judicial interactions with defendant:	
Defendant addressed first	8%
Defendant approached bench	0%

The most frequent participant in Bronx MHC hearings was the case management representative. One of the representative's roles was to present information to the court. The case management team prepared written progress reports in advance of the court session and often gave a brief verbal report on the defendant status. We also observed case managers functioning in a problem-solving role during court (e.g., troubleshooting problems with a service provider, or dealing with court requirements during a bench conference).

Attorneys participated less than half the time during status hearings. When attorneys participated in status hearings, it was usually because there was some issue. In the Bronx, defense attorneys did not appear at routine status hearings unless some noncompliance was being discussed. Similarly, prosecuting attorneys rarely spoke during the status hearings. However, the Bronx DA's Office had a regularly scheduled conference with the case management team before court to discuss the caseload. Stakeholders interviewed for the study described a generally collaborative, rather than adversarial relationship between prosecutors and defense attorneys once a case had been accepted to the MHC.

The majority of cases we observed were compliant. The judge typically responded to compliant cases with praise. The Bronx court did not use any other rewards such as phase or progress certificates. This stems from a philosophical decision that such rewards come from a drug court tradition, and that it is not appropriate to mark treatment progress in a mental health court setting because the court's objective is not to cure someone of their mental illness. Occasionally, the judge decreased court appearances in compliant cases, but this was not done explicitly as a reward for compliance. Rather, a decrease in court appearances or postponement was granted in response to a specific need of the defendant. We observed that sometimes cases were simply continued without overt praise: this

happened in three of the seven status appearances we observed where defendants were compliant.

We observed some defendants' final appearances upon program completion. In the Bronx, program completions were referred to as sentencings whether they were successful or unsuccessful. In fact, as an observer, it took some time to figure out whether a given sentencing represented a successful end of court supervision or an unsuccessful one. Sentencing hearings were longer than other appearances, between five and ten minutes. During the appearance, the old plea was withdrawn and a new plea was entered, along with the terms of the new sentence being given by the court. Following this, the defendant was given an opportunity to speak. This was the defendant's statement at sentencing, and in the Bronx, was usually the only time when defendants spoke beyond giving yes or no answers. These statements usually involved thanking the court for the opportunity, or remarking on the difference that the court made in their lives.

The following types of noncompliance were observed in other hearings: treatment absences or nonparticipation, positive drug tests, and failure to appear at court. All stated noncompliance was addressed by the judge; this was typically verbal recognition by the judge. The judge commented on the noncompliance, issued instructions or advice to the defendant, and explained the consequences of not complying with the court's conditions. Occasionally, we observed that the judge increased appearances to either court or to the case management agency. Additionally, we witnessed defendants who were remanded to jail. (More often, we saw defendants who had been remanded to jail on their previous appearance, and were being seen again by the judge who was evaluating whether or not to release them on recognizance at this time.) Warrants were issued if the defendants were no-shows without a reason. In a small number of cases, we saw defendants who failed the MHC program and were being sentenced for the original offense.

The Bronx MHC did not apply a fixed sanctioning algorithm for dealing with noncompliance. During our stakeholder interviews, we were told that noncompliance was dealt with on a case-by-case basis, and that frequent "second chances" were given depending on the context of the situation. Remand is used as a last resort. Changing the frequency of case management meetings or treatment is a more common tool for modifying behavior.

Program data from 2002-2006 corroborate these observations, as shown in Table 3.10. Warrants were issued in one-third (35 percent) of cases, and one-fifth (19 percent) of individuals who ultimately completed the program successfully had been "warranted" previously as an intermediate sanction. (Violation of conditions letters were another means of addressing noncompliance. These were tracked in the program database between 2002 and 2004, and were observed among successful program completers as well.)

Clinical Treatment and Case Management

Once clients are accepted into the Bronx MHC, the TASC pre-placement clinical team assists participants with applications for public assistance (e.g., Medicaid) and attempts to

match the client with appropriate treatment. This process can often be difficult as treatment providers may not have available slots or there may not be appropriate treatment options (e.g., treatment for Spanish speakers). Stakeholders stated they sometimes have to "fit square pegs into round holes" to ensure participants can receive at least some type of treatment. About half of the participants require residential treatment; they must be substance-free for a certain period of time before residential placements will accept them. Stakeholders reported that it usually takes four to six weeks to secure a placement for a client. The TASC team does not exclude facilities outside of the Bronx borough and will match participants to treatment providers anywhere in the metropolitan area. Roughly six in ten Bronx MHC defendants are already in custody when they are diverted to the mental health court. If participants are detained at the time of acceptance, they remain incarcerated until an appropriate placement is found.

Table 3.10. Intermediate Sanctions Issued in the Bronx MHC

Intermediate Sanctions Issued in the Bronx MHC (N=648)	
Warrant ever issued during MHC case	35.35%
Time from MHC enrollment to warrant (mean)	250.6 days
Time from MHC enrollment to warrant (median)	188 days
Time from warrant to administrative case termination (mean)	193.9 days
Time from warrant to administrative case termination (median)	106.5 days
Violation of Conditions letter ever presented to court during MHC case (2002-2004 only)	5.86%
Time from MHC enrollment to violation of conditions letter (mean)	189.2 days
Time from MHC enrollment to violation of conditions letter (median)	146 days

According to program data from 2002-2006, most (81 percent), but not all of the clients who pled into the Bronx MHC were successfully placed into treatment;[32] one-fifth were not successfully enrolled into a treatment program. Examining the program database, we found that the most common reasons were client failure before intake, disqualification from lack of a true mental illness, and client involvement in other open cases. More than one-fifth of the clients who did not enroll into treatment failed to report for program intake. One-quarter of these clients were determined to not have an underlying mental illness after having pled into the program. Staff reported that this was possible even after the initial psychiatric examination because symptoms of mental illness are sometimes substance induced; symptoms of mental illness may clear once clients have abstained from drugs or alcohol for a period of time, such as under court-monitoring or jail-based detox. The remainder of cases not placed into treatment were for a variety of reasons, including open cases in other jurisdictions, a lack of appropriate treatment in the community for a given client (e.g., due to language barriers, or the severity of a client's illness), and client withdrawal from the program.

[32] Defined by the research team as having a treatment intake date recorded in the program database.

As illustrated in Table 3.11, the average time from initial screening (before the plea) to a treatment intake was roughly three months for those placed into treatment. Most clients who were placed into treatment had their intake after the plea, but about one in ten were placed in treatment before their plea into the MHC; some were cases that had been transferred from the drug court, and staff explained that others could be clients who were re-accepted to a treatment program in which they were previously enrolled. For those who were placed after the plea, the median time to treatment intake was 41 days after the plea into MHC.

Table 3.11. Mental Health Treatment Received by Bronx MHC Participants

Mental Health Treatment Received by Court Participants (N=648)	
Percentage of participants who made intake into a treatment program	80.7%
Of those who entered a treatment program (N=523)	
Number of programs participant was placed into (mean)	1.7 programs
Treatment placement into 'alcohol rehab/inpatient alcohol'	0.6%
Treatment placement into 'detox'	1.9%
Treatment placement into 'outpatient drug and/or alcohol'	57.2%
Treatment placement into 'substance abuse rehab/short term	0.4%
Treatment placement into 'therapeutic community/IP drug'	57.2%
Treatment placement into 'temporary housing'	6.5%
Treatment placement into unknown program type	1.1%
Time from arrest to MH treatment intake (mean)	370.6 days
Time from arrest to MH treatment intake (median)	261.5 days
Time from MH screening to treatment intake (mean)	100.1 days
Time from MH screening to treatment intake (median)	83 days
MH treatment services began before MHC enrollment	9.4%
Time from pre-plea treatment intake to MHC enrollment (mean)	66.8 days
Time from pre-plea treatment intake to MHC enrollment (median)	26 days
MH treatment services began on or after MHC enrollment	90.6%
Time from MHC enrollment to post-plea treatment intake (mean)	69.9 days
Time from MHC enrollment to post-plea treatment intake (median)	41 days
Time in MH treatment during MHC participation (mean)	450.6 days
Time in MH treatment during MHC participation (median)	542 days

Once a client is placed into treatment, the TASC post-placement case manager coordinates and communicates with treatment providers to monitor treatment progress and resolve any problems. TASC case managers rarely provide any form of treatment, themselves, and do not typically develop formal treatment plans (treatment plans may be in place through treatment providers).

During the treatment period, the client is required to participate in community-based treatment in addition to maintaining routine contact with both TASC and the court. The participant takes part in weekly appointments with TASC members; this may be reduced to bimonthly meetings depending on the client's progress. The participant also has

weekly drug tests at the TASC office, and may additionally be drug-tested through his/her treatment provider. If a participant is in a residential placement, the TASC team will visit the individual on a monthly basis. The majority of Bronx MHC participants take psychotropic medications as part of their treatment regimen. Most clients pay for treatment through SSI or Medicaid.

Participants may be placed into multiple programs as needed. A given client may require concurrent services from multiple providers, or may have to move from one program to another. Looking again to Table 3.11, we see that of those who were placed into treatment, one-half (52 percent) were placed into a single treatment program, close to one-third (31 percent) were placed into two programs, 13 percent were placed into three, 3 percent were placed into four, and 2 percent were placed into five programs. The most common types of placement were into therapeutic communities (57 percent) and outpatient drug or alcohol treatment programs (57 percent). Seven percent were placed into temporary housing. Other types of substance abuse treatment placements comprised much smaller shares. These were described in the program database as "detox" (2 percent); "alcohol rehab or inpatient alcohol" (1 percent) and "substance abuse rehab, short term" (0.4 percent). For the most part, treatment placements were to community-based programs, but some placements were to private psychiatrists or therapists; these were coded in the program data as outpatient drug or alcohol treatment. Among those who were placed in treatment, the median time in treatment was 18 months.

Program Exit

The average time from the MHC date to case termination was 18 months during the 2002-2006 study period, regardless of case outcome (see Table 3.12). Approximately one-half of participants completed MHC requirements successfully; three in ten failed the program; and two in ten were classified by the program as "neutral" terminations, whose cases were closed for other reasons unrelated to client compliance.

Individuals graduate from the Bronx MHC program once the court (TASC, judge, DA, and defense attorney) feels that treatment plan goals are achieved. Program data from 2002 to 2006 show that one-half (52 percent) of clients in the MHC successfully completed their treatment mandates, as shown in Table 3.12. The Bronx MHC does not use treatment phases or stages to define success as they feel that goals must be client-centric. They are most interested in seeing participants achieve treatment compliance and insight, rather than reduction of symptoms. Because these graduation requirements are somewhat nebulous, participants can be retained in the MHC beyond the typical treatment mandate. However, most who graduate reportedly do so within the suggested mandate period if they are complying with treatment, remain stable, and have not been arrested or had a positive drug test. The median time to successful program completion (i.e., from the initial plea to resentencing for the reduced charge) among 2002-2006 cases was 21 months, of which 19 months were spent in treatment (see Table 3.13). TASC is the guiding force behind graduation recommendations. Participants may remain in their community-based treatment program(s) beyond the court-mandated term; this decision is made between the client and treatment provider.

Table 3.12. Case Outcomes Among Bronx MHC Participants

Case Outcomes Among Bronx MHC Participants (N=646)*	
Successful completion of treatment mandate	52%
Program failure before treatment placement	5%
Client failed before treatment placement	1%
Client failed to report to treatment placement	5%
Program failure after treatment placement	26%
Client left treatment	18%
Client rearrested, warranted, or violated conditions	8%
Neutral termination**	17%
Client sentenced to incarceration prior to treatment***	3%
Client sentenced to incarceration after beginning treatment***	1%
Probation to supervise or other non-incarcerative sentence***	0%
Client unable to participate in treatment due to death or medical disability	0%
Client withdrew application	2%
Criminal justice system opposition (e.g., Judge, DA)***	2%
Client ineligible due to medical reason or death	0%
Client ineligible due to psychiatric reason	1%
Client unable to participate due to psychiatric reason	0%
Subsequent discovery of no true mental illness and program transfer	5%
Other	2%

Percentages may not sum exactly due to rounding.
* Note: two records were missing data on termination status
** The program uses the term "neutral" to describe cases terminated before program completion through no fault of the client's.
*** These may have resulted from other concurrent open cases.

Upon successful completion of the Bronx MHC program, individuals with felony charges often re-plead to a lesser felony charge or a misdemeanor charge (see Table 3.14). Misdemeanants may have charges reduced to a violation or dismissed. In most cases, successful completers received a non-incarcerative sentence such as probation or conditional discharge. Relatively few had their charges dismissed or were sentenced to time already served, and fewer still, but some, were sentenced to incarceration. Participants receive a certificate of graduation and a picture of the participant with the certificate is placed on a bulletin board in the TASC office. In some situations, the judge may ask that a participant return to court periodically after graduation.[33] Clients who successfully graduate from the Bronx MHC are not allowed to repeat the program if they are re-arrested.

[33] There was a time lag between the resentencing that marked successful program completion and the administrative case closing date. The median time from resentencing to administrative case closing was 3 days, but the mean was 15 days, reflecting the influence of cases with longer time lags.

Table 3.13. Duration of Bronx MHC Participation

Duration of Bronx MHC Participation (N=648)	Mean	Median
Days from MHC enrollment to administrative case termination	464.6	539
Days from MHC enrollment to sentencing for successful completers	626.7	644
Days from MHC sentencing (of successful completers) to administrative closing	15.7	3

Table 3.14. Sentencing Outcomes Among Successful Bronx MHC Completers

Sentencing Outcomes Among Successful Bronx MHC Completers (N=339)	
Sentence type	
Dismissal	4.72
Time already served	5.01
Probation or conditional discharge	79.06
Incarceration	1.18
Unspecified	10.03
Charge level of sentence imposed on successful program completers	
Dismissal	4.72
Misdemeanor	37.17
Felony	16.52
Unspecified	41.59

A participant can fail the MHC program through serious lapses in compliance, most frequently for absconding. If individuals fail the program, they are sentenced to the jail alternative specified in the plea agreement when they entered the program. Those who failed the program are eligible to participate again in the future. Program data show that about 30 percent of Bronx MHC participants were terminated unsuccessfully. Most program failures occurred after a client stopped attending treatment. The median time spent in treatment among program failures was 5 months, compared to 19 months among those who completed successfully. About one-quarter of program failures were due to re-arrest, having a warrant, or violation of conditions. A small share of program failures occurred before placement into a treatment program; this was usually because the client did not report to treatment as required.

A portion of clients—nearly 20 percent during the 2002-2006 study period—were considered "neutral" terminations from the MHC for other reasons, such as the inability to find suitable treatment or concurrent criminal cases in another jurisdiction. The median time from the MHC plea date to case termination was just under four months.

These neutral terminations are evaluated on a case-by-case basis and subject to a range of sentencing options including time already served, probation, or an incarceration.

Stakeholder Views of the Bronx Mental Health Court

Every interviewed individual was satisfied or extremely proud of the Bronx MHC program. One interviewee claimed the community has accepted the program, and multiple stakeholders cited examples of participant appreciation, including thank-you letters and visits from clients. However, there were some identified challenges and areas for improvement.

Program staff estimated that 960 to 1,000 of the 6,000 felony indictments in the Bronx each year have a serious mental illness. However, the MHC's capacity is considerably smaller. About 200 clients are screened for eligibility annually, and about 150 are accepted into the program.[34] A need was seen for more financial resources and a larger clinical team.

The Bronx MHC has not had much success with misdemeanor cases. While they offer the program to misdemeanants, some stakeholders felt that the court did not have enough leverage to deal with misdemeanor offenders when the alternative sentence was minimal.

During the participant evaluation stage, there were reported delays and difficulties in obtaining collateral information from hospitals and outpatient treatment providers. One stakeholder expressed that records might not be produced, even after a judge has ordered the records. Some also felt that the evaluation process should not end after the original assessment, and that participants should be re-evaluated throughout the program to track progress and identify new issues. One respondent wished the program began earlier in the process, when individuals were identified as incompetent. This individual felt that defendants became stable in the hospital, but then decompensated once they returned to jail to await trial.

Many of those interviewed reported difficulties with finding placements for clients. Common placement issues included a general lack of programs, a lack of programs providing housing, a lack of programs well-suited for particular populations (e.g., Spanish-speakers, adolescent MICA clients, DSM Axis II disorders, clients requiring residential treatment who have children), frequent turnover at provider agencies, and programs' denial of clients due to criminal history or violence. Furthermore, some stakeholders expressed concerns that the quality of care was deficient in many of the treatment facilities. Many interviewees pointed to these limitations in the public health system as inhibiting client progress. Case managers also reported difficulties collaborating with treatment providers. Some case managers felt that treatment providers withheld information, thinking they were protecting clients from negative consequences in the court system.

[34] These mental health court statistics are based on the program data from 2004-2006, which reported higher numbers than the initial years of court operations.

Finally, at the time of the interviews, revisions to New York's Rockefeller Laws were under consideration. One interviewed stakeholder felt these legislative changes had the potential to undermine the Mental Health Court, believing that defendants would prefer to "try their luck" with a judge who might give a more lenient sentence, rather than commit to a lengthy treatment period. At the time of report publication, these laws were indeed modified to remove mandatory minimum sentences; it remains to be seen whether and how these changes will impact the problem-solving courts in New York.

Brooklyn Mental Health Court

Established in 2002, the Brooklyn MHC was developed collaboratively by the Center for Court Innovation (CCI) and the New York State Office of Court Administration (OCA), in partnership with the New York State Office of Mental Health (OMH).[35] As this research study began, Brooklyn MHC was one of just five mental health courts operating in New York State; the others included the Bronx TASC Mental Health Court Diversion Services, Buffalo City Mental Health Court, Monroe County Mental Health Court, and Niagara Falls Mental Health Court (O'Keefe 2006).[36]

The Brooklyn MHC is a post-indictment problem-solving court that handles primarily felony offenders (roughly 80 percent).[37] It links defendants with serious, persistent mental illness (SPMI) to long-term treatment as an alternative to incarceration (either jail or prison) and, by doing so, works to effectively address both the needs of defendants with mental illness and the public safety concerns of the community. Stakeholders described the goals of the Brooklyn MHC program as 1) improving the court's ability to identify, assess, evaluate, and monitor offenders with mental illness; 2) creating effective linkages between the criminal justice and mental health systems; 3) engaging participants in treatment and ensuring they are linked to high-quality services; and, perhaps of foremost importance, 4) improving public safety by reducing recidivism among offenders with mental illness. The underlying assumption of the Brooklyn MHC is that defendants' criminal behaviors are the result, at least in part, of untreated or inadequately treated mental illness. Program operations are guided by the supposition that treating a defendant's mental illness leads to stability, which, in turn, leads to a reduction in criminal behavior and improved psychosocial functioning.

The following sections discuss key aspects of the Brooklyn MHC program, including program structure, staffing and the roles of key courtroom, eligibility criteria and target

[35] CCI conducted a feasibility study for a mental health court in 2000. The findings from this study were published in Rethinking the Revolving Door (Denckla and Berman 2001). Initial funding for the Brooklyn MHC was supplied by private foundations, a contract from the New York State Office of Mental Health, a New York City TANF grant, and a BJA grant. Currently, the program is funded through two contracts, one with OMH and another with the New York State Unified Court System (UCS).

[36] As O'Keefe noted (2006: 3), these courts all have a common set of goals and share common elements derived from the problem-solving court model that include developing mechanisms to assess and identify potential participants, providing adequate clinical information to facilitate informed decision making, using the court's authority to reinforce treatment goals, and linking participants to services in the community (O'Keefe 2006: 3).

[37] Brooklyn MHC also takes misdemeanants that have been transferred to Supreme Court through a Superior Court Information.

population, referral sources and mechanisms, the role of screening and assessment, and case planning and treatment. Supplementing this discussion are data on program operations and participant characteristics derived from analysis of Brooklyn MHC records data. Descriptive analyses focus on the 327 individuals[38] who participated in the MHC between March 1, 2002 and December 31, 2006.

Administrative Structure and Staffing

The Brooklyn MHC is a specialized court operating within the Kings County Supreme Court. Court occurs weekly: most cases are heard Tuesday mornings, but "spillover" cases may be heard on Thursdays. The court program is presided over by a single designated judge. Other key personnel include an extensive clinical team (project/clinical director, dedicated senior social worker, three forensic counselors, and consulting psychiatrists), designated Assistant District Attorney (ADA), and a core set of defense attorneys affiliated with local indigent services agencies (Legal Aid, Brooklyn Defender Services). Private attorneys represent some participants.

Role of the Judge

Part of the court's problem-solving approach is that cases are calendared together and heard by a dedicated judge; this allows the judge to develop expertise in dealing with that particular type of case, as well as a deeper knowledge of each individual case. In the case of the Brooklyn MHC, the same judge has presided over the program since its inception.

The judge's primary functions are presiding over status hearings and sentencing both successful and unsuccessful defendants. During status hearings, the judge monitors compliance with the treatment mandate set forth in the initial plea agreement. He also weighs in on decisions pertaining to the legal eligibility of referred cases, and makes the final determination regarding which cases move forward in the program. Additionally, the Brooklyn MHC judge regularly visits treatment providers in the community to understand the settings in which clients receive treatment and to build rapport with both providers and participants.

The Role of the Prosecution

A dedicated prosecutor is assigned to the Brooklyn MHC and serves as the liaison from the DA's Office to the court program, making the "official" referral to the Brooklyn MHC program. (Referrals that go directly to the court's judge or clinical team are re-directed back to the DA's office for a determination of whether the dedicated ADA will consider MHC participation for that defendant; the clinical team awaits word from the ADA before beginning its evaluation). As is the case with the presiding judge, the same ADA has worked with the Brooklyn MHC since its start. This individual screens cases, evaluates eligibility from a legal standpoint, outlines plea agreement terms, and has the authority to decline cases. Additionally, the ADA liaisons with the "complaining

[38] Although 327 individuals participated in the Brooklyn MHC during the study period, the impact analysis included only 316 participants – i.e., the number that could be matched to appropriate comparison cases, as discussed in Chapter 4.

witness" in a case when evaluating whether to send a defendant forward to the Brooklyn MHC; while witness agreement is not an absolute requirement, the ADA will consult with witnesses and take the witnesses' perspectives into account particularly in assault cases or other violent crimes.

The Role of the Defense

Defense attorneys from both Legal Aid and the Brooklyn Defender Services routinely represent Brooklyn MHC clients. The Supervising Attorney for the MICA Project, an initiative that works with individuals who are mentally ill and chemically dependent, carries a large number of Brooklyn MHC cases and advises other attorneys from her office assigned to MHC clients. Some candidates for the program and participants are represented by assigned counsel from the 18B Assigned Counsel Plan (a local program that contracts with private attorneys to represent indigent defendants) or retain private attorneys.

In addition to representing clients throughout their mental health court involvement, defense attorneys also provide a "court orientation" to clients considering participation in the Brooklyn MHC. As part of this process, the defense attorney explains the terms of the plea and the consequences of failing to comply with the court's treatment mandate; the alternatives to mental health court (i.e., traditional case processing); and that participation in the Brooklyn MHC is voluntary. Defense attorneys also review the treatment plan with their clients to ensure they know and understand the terms of their treatment plans (i.e., length of the treatment mandate, the jail or prison alternative if they fail to complete MHC, and the promised disposition if the client succeeds).

The Role of the Clinical Team

The Brooklyn MHC follows a "Clinic Court Team" design: the clinical team is part of the court, not a separate agency, and consists of a clinical director, a senior social worker, a resource coordinator (who is also a social worker), and three forensic coordinators; a set of consulting psychiatrists also assists the team with psychiatric evaluations. Participants meet with several members of the clinical team—a case manager, a social worker, and a psychiatrist—presumably to build broader support and familiarity with the client. Additionally, the clinical team conducts psychosocial assessments, develops individualized treatment plans, links participants in the court to community-based mental health treatment and related services, communicates regularly with service providers about the participants' progress in treatment, and advises the judge on clinical matters related to participants' compliance or lack of compliance with their court-mandated treatment plans.

Psychiatric assessments are conducted by one of the team's consulting psychiatrists. These assessments are typically performed with clients at the courthouse in the clinical team's office, and take about 60 minutes. Diagnoses are made based on the psychiatric interviews and review of the defendants' medical and psychiatric records, if available. Where possible, the psychiatrist also collects collateral information from family members who accompany defendants to the interview. The psychiatric assessment serves two

purposes: it establishes a diagnosis and thus, eligibility for the court program; and it provides treatment recommendations (i.e., types of treatment that would be most effective for the individual given his/her mental health status).

Psychosocial assessments are primarily conducted by the team's senior social worker, although both the resource coordinator and clinical director conduct assessments, as needed; these assessments focus on clients' psychiatric, medical, substance abuse, housing, employment, education, and social histories. Reports are produced and provided to the court (judge, defense attorney, and DA) with recommendations about both program admission and treatment. Each report forms the basis for the client's treatment plan, which is largely designed by the team's clinical director.

The clinical team's forensic coordinators each maintain a caseload numbering between 20 and 30 Brooklyn MHC participants. Key duties include coordinating with treatment providers to support client success, monitoring participant progress, and performing random drug tests. Forensic coordinators obtain weekly updates from the court's treatment providers, and meet with MHC participants prior to each court session to assess progress and to explore any treatment issues. Periodic visits are made to treatment providers, particularly new providers, to observe their programs. Additionally, the team's senior forensic coordinator leads a weekly Remand Intervention group that focuses on clients who are struggling in the court; new in 2008, the group is designed to help participants "get back on track" to avoid being remanded.

The team's clinical director performs a variety of duties and has authority over a number of critical decisions. Foremost, final approval of defendant clinical eligibility rests with the clinical director, as do decisions about participant treatment (again, the clinical director designs and revises participant treatment plans to address emergent needs or developments). Additionally, the clinical director provides participant updates to the judge prior to each court session and holds regular meetings with the clinical team to review case progress, including which participants may be ready for advancement to the next phase. These regular clinical team meetings are designed to build the team's knowledge of the collective caseload; as a result, any member of the clinical team is prepared to assist a client if his/her assigned coordinator is unavailable. The team meetings also provide feedback from the team members regarding individual participants' treatment plans.

The Role of Treatment Providers

Treatment is provided to Brooklyn MHC participants through a network of more than 100 community-based organizations. These organizations work directly with MHC clients to provide mental health services, while also remaining in regular contact with the MHC clinical staff. Brooklyn MHC staff work to link participants to a variety of services, including outpatient mental health treatment (in-patient hospital care is rare; participants with co-occurring disorders may be placed in appropriate residential drug treatment programs), community-based case management, supportive housing services for participants who are homeless at entry into the program or require clinical services to maintain housing stability, and vocational and educational services. The program will

place participants with treatment providers in other parts of the NYC metropolitan area, as well as out-of-state, to ensure the most appropriate service match.

Program Structure and Operations

Figure 3.2 illustrates how cases proceed through the Brooklyn MHC. Briefly, defendants are referred to the Brooklyn MHC program, screened for eligibility, matched with community-based treatment, enter the court through a formal plea process, and then participate in court monitoring, case management, and treatment services.

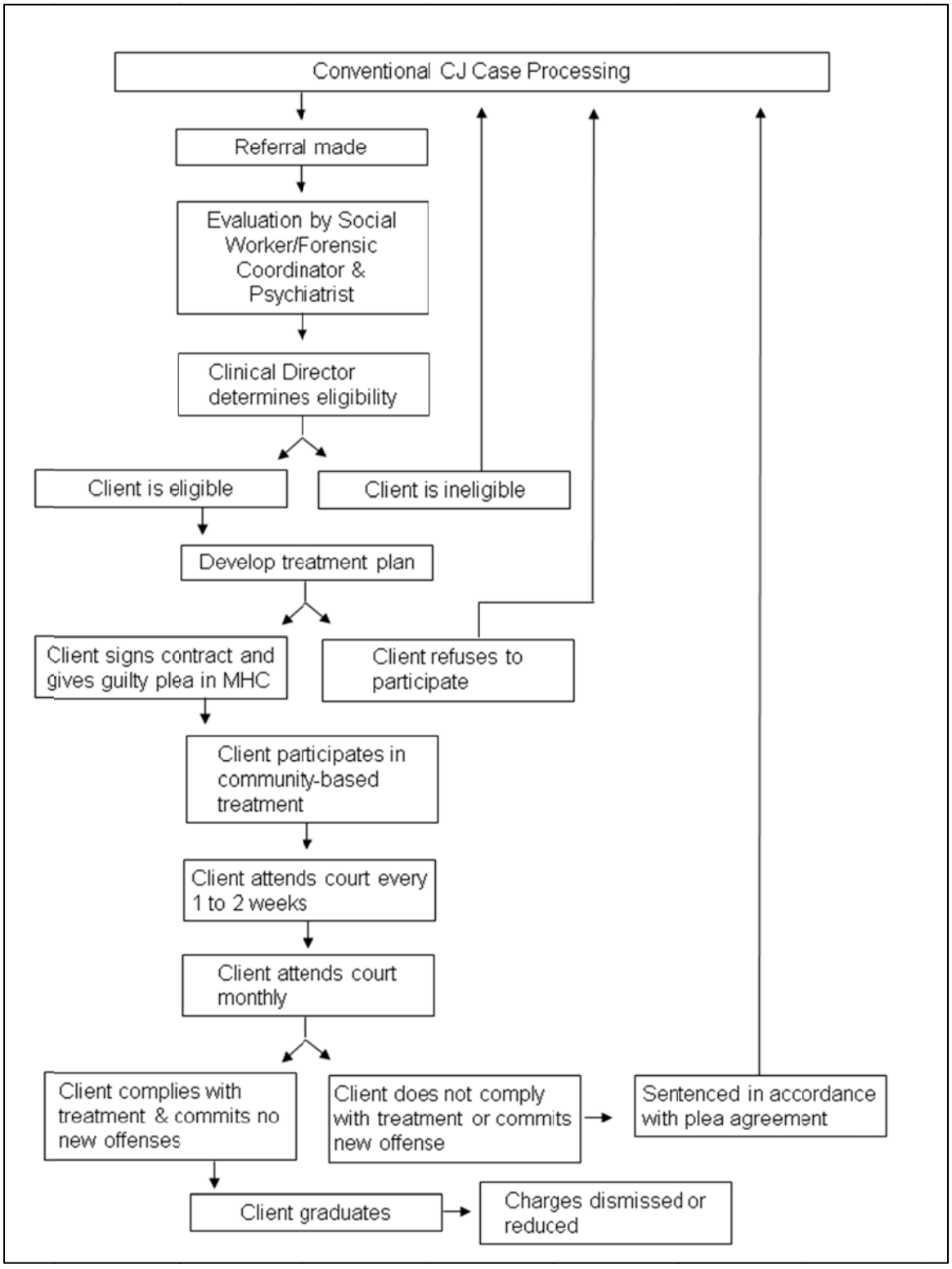
As previously mentioned and discussed in more detail below, duration of participation in the Brooklyn MHC program varies based on charge and mental illness characteristics:

- There is a 12-month treatment mandate for misdemeanor crimes.
- Treatment mandates for nonviolent felony crimes typically span 12 to 18 months.
- Predicate felony offenders and first-time violent felony offenders typically have mandates of 18 to 24 months.

Participants enter the court by agreeing to a guilty plea with a sentence comparable to what they would have received in a traditional courtroom. Although a sentence is agreed upon at the time of the guilty plea, formal sentencing is suspended while the defendant participates in the court and associated treatment. Defendants typically do not take a plea until all community-based services are in place. Because it often can take a significant amount of time to find an appropriate and available treatment placement, participants may wait a considerable length of time while service linkages are made, either in jail or while released to the community (depending on their bail- or own-recognizance status.)

Each stage is discussed in more detail below.

Figure 3.2. Brooklyn Mental Health Court Case Flow



Target Population and Eligibility Criteria

The Brooklyn MHC currently[39] targets both adult[40] misdemeanor and felony offenders, including predicate felons and, in some cases, violent offenders, whose mental illness is believed to have contributed to their current criminal justice involvement. Court planners held the view that, "most (if not all) of the behavior that led to the court charge is due to mental illness … hence the condition of the offender, rather than the charge, defines the appropriateness of the court" (CCI undated); however, the court team has come to recognize that the connection between the mental disorder and criminal behavior is often attenuated. Participation in the MHC is voluntary.

Potential Brooklyn MHC cases must meet both the clinical and legal eligibility criteria of the program in order to participate. Clinical eligibility rests on a diagnosis of serious and persistent mental illness (SPMI) on Axis I[41]—such as schizophrenia, bipolar disorder, major depression, and schizoaffective disorder—for which there is a known, effective treatment. Defendants with substance disorders may be eligible as long as they have an additional Axis I diagnosis. Individuals with personality disorders, cognitive impairment, developmental disabilities, brain damage, and dementia are not eligible for the MHC program unless they also are diagnosed with an eligible major mental illness. Finally, the MHC will not accept clients unless they are stabilized and competent to stand trial.

Legal eligibility hinges on the defendant's immediate criminal offense. Determinations about legal eligibility are made by the Brooklyn MHC judge in conjunction with the program's designated ADA. The program's formal criminal justice eligibility guidelines are as follows:

- **Felonies.** All nonviolent felonies are eligible. Felonies involving assault, robbery, and burglary are presumed eligible, but are reviewed by the clinical team and the ADA. Other violent felonies are presumed ineligible, but are reviewed on a case-by-case basis, if referred. Murder and rape are "charge rule outs" (i.e., excluded).

- **Misdemeanors.** All offenses are eligible, but the court is not intended for offenders who would spend only a short amount of time in jail. Therefore, misdemeanor offenders must be willing to accept a 12-month treatment mandate and a potential jail sentence of up to one year for failure to comply.

[39] The Brooklyn MHC was initially oriented toward nonviolent felony offenders. At the urging of defense counsel, its focus has gradually evolved to include chronic misdemeanants.
[40] Although Brooklyn MHC initially only worked with individuals aged 18 or older, the court program began to accept 16 and 17 year olds in 2003-2004, consistent with the New York State age of majority.
[41] The Diagnostic and Statistical Manual of Mental Disorders (fourth edition) presents a five-fold classification that takes into account various mental disorders, the general medical condition of the patient, any psychosocial or environmental problems, and the level of functioning. Clinical disorders, including major mental illnesses, substance use disorders, and developmental disorders are included in Axis I; personality disorders are on Axis II.

It also is important to note that individuals may participate in Brooklyn MHC more than once. That is, a person is still eligible for the program if they have participated in the program in the past.

Cases deemed ineligible or individuals who decline to participate are processed as usual with prosecution reverting to the original ADA who was assigned the case. Misdemeanor offenses are processed by the Criminal Court, whereas felony cases go through business-as-usual Supreme Court processing. Likewise, because Brooklyn MHC is a voluntary program, any defendant who is determined to be eligible retains the option to decline participation and may choose to have his or her case handled through conventional (more traditional) means.

Demographic Profile

The Brooklyn MHC program routinely records data on participating defendants, and to a lesser extent, on candidates referred to the MHC program. The types of data collected and recorded in the Brooklyn MHC database include demographics, mental health and substance abuse status, services provided through the courts, and dates of case processing milestones.

Table 3.15 presents the demographic characteristics of the 327 individuals who participated in Brooklyn MHC between 2002 and 2006. On average, the MHC participants were 33 years old when arrested on the instant offense leading to their involvement in the court. The majority were male (76 percent); Black or African American (58 percent); and unmarried (76 percent), although another 12 percent were separated, divorced, or widowed.

According to program records, just 40 percent of BMHC court participants had earned a high school diploma or otherwise obtained higher educational attainment. A sizeable number (about 20 percent) of participants were homeless at the time of program intake; 30 percent had a history of homelessness in the previous five years. These figures suggest that Brooklyn MHC participants present with a relatively high levels of need.

Although not presented in Table 3.15, the current analysis of Brooklyn MHC participants indicates that the majority were arrested for a felony offense (84 percent)[42]—consistent with the program's initial focus on felony offenders—and referred to the court an average (median)[43] of five months after arrest. Roughly 60 percent were incarcerated at the time of their referral to the court.

The Brooklyn MHC is intended to serve individuals with serious mental illness, and the consensus among program staff and partners is that they receive the "sickest of the sick" (UI interviews April 2009). Data on Brooklyn MHC participants' mental health status

[42] Felony offenses carried an average minimum incarceration term of 2.3 years and an average maximum term of 3.3 years.
[43] Medians are reported here because the means are skewed by a small share of cases with atypical case processing statistics.

and substance abuse issues are presented in Table 3.16. Mood disorders (e.g., bipolar disorder, major depression) were the most common Axis I mental illnesses diagnosed among Brooklyn participants (55 percent), followed by psychotic disorders such as schizophrenia (37 percent). The remainder of participants were diagnosed with other Axis I conditions, typically substance-related Axis I disorders (3 percent) or anxiety disorders (3 percent). Roughly 80 percent of Brooklyn MHC participants also were diagnosed with secondary Axis I or Axis II disorders; these were most commonly substance-related disorders, followed by personality disorders and learning disorders. A relatively small share of BMHC participants (less than one in ten) had organic brain impairments and developmental disabilities.

Table 3.15. Demographic Characteristics of Brooklyn MHC Participants, 2002-2006

Demographic Characteristics of Brooklyn MHC Participants (N=327)	
Age at arrest	33 years
Male	76%
White race	38%
Black race	58%
Other race	4%
Hispanic ethnicity[44]	21%
Has minor children	31%
Minor children lived with client	20%
High school graduate or higher educational attainment	40%
Never married	76%
Homeless at program intake	19%
Homeless in the last 5 years	30%

Roughly six in ten (62 percent) Brooklyn MHC participants had co-occurring substance use problems, defined by the research team as a substance-related diagnosis on either Axis I or Axis II, and one-half of the participants reported alcohol use in the six months prior to intake. Similarly, about one-half reported drug use in the six months prior to intake. About one-third of alcohol users (35 percent) and 45 percent of drug users reported past treatment for their substance use. (Data not shown in a table.)

MHC participants had extensive histories of past hospitalizations: 70 percent reported prior hospitalizations for psychiatric reasons. In the year before the arrest leading to Brooklyn MHC involvement, roughly 40 percent visited the emergency room (ER) for psychiatric-related reasons, while another 46 percent reported a psychiatric-related hospitalization. Close to half (48 percent) of the MHC participants had received mental health treatment in the year before arrest, and about one-quarter (23.9 percent) were in treatment at the time of program intake. Also, approximately 24 percent of participants were on medication at the time of arrest.

[44] Although one-fifth of participants were Hispanic, program personnel did not cite language as a significant barrier to client placement for treatment.

Table 3.16. Mental Health Characteristics of Brooklyn MHC Participants

Mental Health Characteristics of Brooklyn MHC Participants (N=327)	
Axis I diagnoses	
Adjustment disorder	0.9%
Anxiety disorder	2.8%
Attention-deficit and disruptive behavior disorders	0.3%
Impulse-control disorder	0.3%
Learning disorder	0.3%
Mood disorder	54.9%
Psychotic disorder	37.1%
Substance-related disorder	2.8%
Other Axis I diagnosis	0.3%
Secondary Axis I or Axis II diagnoses	
Of those diagnosed with a secondary Axis I or Axis II diagnosis (n=272)	
Adjustment disorder	0.4%
Anxiety disorder	3.7%
Attention-deficit and disruptive behavior disorders	1.1%
Delirium, dementia, amnesic and other cognitive disorders	0.7%
Impulse-control disorder	0.7%
Learning disorder	3.3%
Mental retardation	0.7%
Mood disorder	1.5%
Personality disorder	10.7%
Substance-related disorder	70.2%
Other Secondary Axis I or Axis II diagnosis	1.8%
Substance abuse	
Any primary or secondary substance use disorder (Axis I or Axis II)	61.2%
Other mental impairments	
Brain impairment	6.5%
Developmental disorder	2.4%
Mental health history	
Psychiatric-related visits to ER in year before arrest	40.4%
Visits to the ER in year before arrest	13.6%
Psychiatric hospitalizations in total lifetime	70.2%
Psychiatric-related visits to hospital in year before arrest	46.7%
Any days in hospital in year before arrest	42.9%
On medication at time of arrest	27.9%
Mental health treatment during year prior to arrest	47.3%
Was in mental health treatment as of program intake	23.9%

Referral

The Brooklyn MHC does not employ a universal screening mechanism (e.g., based on charges or criminal history) to determine which types of cases will be sent to the court for an eligibility determination. Instead, referrals may originate from a variety of sources, including the Office of the DA, defense attorneys, "730" competency proceedings,[45] other judges,[46] and other sources within the Brooklyn court system.

As in most jurisdictions, an arrest ushers an individual into the criminal justice system. The typical legal process in NYC is as follows: arrestees are booked by the police at the local precinct. By law, arrestees must be arraigned in Criminal Court within 24 hours of arrest, where they are formally charged. At arraignment, the arrestee may be released (through case dismissal, bond, bail, or personal recognizance) or remanded to custody at Rikers Island. Following arraignment, misdemeanor offenses are formally charged; felony offenses are transferred to Supreme Court for indictment. A Superior Court Information (SCI) may be used to transfer misdemeanor cases to Supreme Court.[47]

Most referrals to the Brooklyn MHC occur after indictment or SCI. The time from arrest to referral is on the order of months, not weeks. As discussed in the previous section, the MHC receives referrals from a variety of sources. While there is no universal mental health screening process for all defendants in NYC, all admissions to Rikers Island are screened for mental illness (e.g., those defendants who were remanded to custody after arraignment). The purpose of this screening is to determine eligibility for discharge planning services under the *Brad H* settlement (discussed more fully in the Business-As Usual section of this chapter). Because of the differing aims of the *Brad H* mental health screening process, Brooklyn MHC does not consider the results of that process in determining program eligibility; however, the jail-based screening may help other system actors "flag" a case as appropriate for referral to the Brooklyn MHC.

When a case is referred, it is placed on the treatment court calendar for a first appearance (a defendant may be placed on the Brooklyn MHC calendar if the referral source believes the person has SPMI or is at least mentally ill). If the referral source is the defense attorney, then the defense attorney may contact the ADA ahead of the first appearance to discuss the case. Screening of a defendant's case does not start until after the first appearance when all parties agree to the clinical screening.

Eligibility Screening and Program Acceptance

Brooklyn MHC clinical staff begins the assessment process once all parties signal their agreement to do so. The clinical assessment occurs after the client's first MHC appearance. It consists of a psychosocial assessment by the clinical team's senior social

[45] This process determines fitness to stand trial. Unless the DA's office objects on criminal justice grounds, all cases in which a defendant has been found unfit are automatically calendared in the Brooklyn MHC once the defendant is restored to fitness.
[46] Typically, this refers to the criminal court judge on whose docket the case originally appeared.
[47] Indictment is specific to felony cases, which are processed in the NY Supreme Courts. Misdemeanors are typically processed in the NY Criminal Courts.

worker and a psychiatric evaluation by one of the program's consulting psychiatrist. Each produces a written report that is provided to all parties involved (judge, defense attorney, DA, BMHC clinical staff). The final mental health eligibility determination is made by the Court's Clinical Director based on the results of these assessments.

The clinical assessment includes an assessment of potential participants' risk of violence to evaluate whether the defendant presents too great a risk to remain in the community;[48] results of the assessment are shared with key decision makers, including the judge, the ADA, and the defense attorney. The BMHC judge makes the final decision on defendant participation.

For those individuals deemed eligible and suitable,[49] the defense counsel will work with the defendant to confirm his/her willingness to enter the program; a key part of this process, as noted earlier, is making sure the defendant understands the terms of the plea, including the treatment mandate and both the positive and negative consequences of complying with the treatment mandate.[50] For eligible defendants who choose to participate in the program, the next step is to submit a guilty plea and agree to participate in the services specified in the individualized treatment plan; a release also is signed, which allows the clinical team to collect and exchange client information with the court's treatment providers.

The individualized treatment plan typically includes some combination of mental health treatment, substance abuse treatment, community-based case management services, supported housing, and vocational/educational services. Tailoring treatment plans to the needs of the individual participant is a critical element of the mental health court approach in Brooklyn, as was emphasized by the court program's clinical staff.

According to the MHC staff, the individualized case plan is developed prior to the time of plea. Frequent appearances are scheduled before the judge to monitor client progress. While defendants are in the pre-participation "candidacy" stage, they appear in court once per month. Fully-enrolled participants appear in court every one or two weeks for the first three months and then monthly unless otherwise specified by the judge. More frequent court appearances may result from noncompliance or because the judge feels extra judicial supervision will encourage compliance. Defendants also meet with case management staff whenever they have a scheduled court appearance.

Although a sentence is agreed to at the time of the guilty plea, formal sentencing is suspended while the defendant participates in the MHC. Defendants agree to comply with their treatment plans for a specified period of time, typically ranging from 12 to 24

[48] The Brooklyn MHC does not use a structured or actuarial risk assessment tool. The program's social workers and psychiatrists received training on one of the leading instruments (the HCR-20) and incorporate risk factors into their clinical assessment.
[49] Early in the study, the MHC staff noted that defendant motivation, public safety concerns, and lack of appropriate treatment could be grounds for deeming a case ineligible.
[50] This decision is typically made based on the assessed likelihood of full prosecution and a sentence to incarceration.

months.[51] Participants typically entered the programs in the agreed-upon treatment plan once they submitted a guilty plea to the court. However, because of the time needed to establish the treatment plan and secure program slots before the plea, participants were often in contact with the court for longer than the mandated supervision period. Each stage is discussed in more detail below.

If participants comply and successfully complete the terms of the court mandate, misdemeanants and first-time nonviolent felons have their plea vacated and case dismissed. Predicate felons and first-time violent felons may have their felony charges reduced to a misdemeanor with a sentence of either conditional discharge or probation. Conversely, participants who persistently fail to comply with the court's mandates or commit new offenses are sentenced to the jail or prison term agreed to at the time of the plea. However, individual instances of noncompliance and new offenses did not necessarily result in automatic termination from the program. The judge exercised discretion in evaluating individual incidents within the context of a given participant's circumstances and history with the program, as described further in the study's courtroom observations.

Table 3.17 provides case processing statistics for BMHC participants. The full eligibility and placement process for BMHC participants lasted two to three months on average (median was 70 days) before defendants officially began their participation in the court.[52] Generally, the timeline was as follows:

- Defendants' first, pre-plea court appearance as mental health court candidates typically occurred on the same day or within one day of their first contact with mental health court staff.

- Eligibility assessment spanned about a month with a psychiatric assessment typically conducted 11 days after initial contact with the court, the psychiatrist's report completed 3 days later, and assessment of other eligibility considerations (e.g., criminal justice eligibility and cooperation of the district attorney) taking up the remaining 2 weeks.

- Eligibility determination to program acceptance lasted approximately another month, during which the Brooklyn MHC clinical staff worked to finalize public entitlements (e.g., Medicaid coverage), treatment plans, and placements with community-based mental health service providers.

[51] Early in the program, Brooklyn MHC participants signed contracts to signal their understanding and agreement to comply with the court's treatment mandates; as the program matured, key actors viewed the court record as sufficiently binding.

[52] Medians are reported in this section because the means were skewed by a small number of observations with atypical case processing statistics.

Table 3.17. Case Processing Statistics Among Brooklyn MHC Participants

Case Processing Statistics Among Brooklyn MHC Participants (N=327)		
	Mean	**Median**
Time from arrest to first court contact	245 days	149 days
Instant offense is a felony charge	84%	n/a
Incarcerated at time of referral	57%	n/a
Time from first court contact to MHC program start	93 days	70 days
Time from first court contact to eligibility determination	38 days	28 days
Time from first court contact to first appearance	1 day	0 days
Time from first court contact to psychiatric assessment	30 days	11 days
Time from psychiatric assessment to report	4 days	3 days
Time from psychiatric report to eligibility decision	22 days	12 days
Time from eligibility decision to plea offer	55 days	30 days
Days from MHC start to case closing	521 days	444 days

As previously discussed, defendants enter Brooklyn MHC by submitting a guilty plea to the charged offense. Participants who complete the treatment mandate successfully receive reductions in the disposition charge and associated sentence. Prospective clients and their counsel must agree to the initial charge and sentence, the length of the court-ordered treatment mandate, and the alternate charge and sentence, if any, upon successful completion of the court's requirements. Most participants were accepted and elected to participate on their first referral to the mental health court, though approximately five percent of participants had been referred once before.[53]

Although the final approval on whether to accept eligible cases rests with the Brooklyn MHC judge, participation is voluntary and candidates may decline to the opportunity to enter the treatment court.

Brooklyn Mental Health Court Proceedings

Brooklyn MHC operates a dedicated mental health court docket (i.e., only mental health court cases appear on the docket and are heard when court is in session). It is designed to reduce stigma and promote a sense of community among participants.

Initially, the MHC participants appear in court weekly, then appearances drop to every two weeks for the first three months, and then to monthly for the duration of the treatment mandate. More frequent court appearances can be required for noncompliant participants. Court sessions occur Tuesday mornings; "spillover" cases may be heard on Thursdays, however, the Thursday docket may include a variety of cases, including those

[53] Multiple referrals may have resulted from a defendant initially having been found mentally unfit to stand trial, restored to fitness, then re-referred to the program.

on other specialized dockets, such as domestic violence or "Treatment Alternatives for Dually Diagnosed Defendants."

Project researchers observed two sessions of the Brooklyn MHC, first in April 2009 to field test the courtroom observation data collection protocol and again in October 2009. Each session lasted three to four hours. During the October 2009 session, researchers observed 85 scheduled appearances; defendant appearances averaged one to two minutes. Observations were conducted from the jury box with researchers using a one-page data collection protocol to document the court environment[54] and communication patterns, and record judicial responses to both compliance and noncompliance with court conditions (see Chapter 2 for more information on the instrument, including key data collection components). These data were aggregated and are reported in Tables 3.18 and 3.19.

The observed session included a variety of court appearances. The most common type of appearance was a status hearing, as shown in Table 3.18. During status hearings, the court monitored the progress or compliance of MHC participants. Status hearings were held weekly, biweekly, or monthly in the Brooklyn court. Roughly 10 percent of the hearings we observed were pre-plea appearances, during which defendants were evaluated for inclusion in the mental health court. A few of the hearings observed were graduations, where a defendant successfully completed the MHC program. Other types of hearings included cases from other dockets (e.g., domestic violence cases) and non-appearances (including people medically unable to come, those in custody, and a few failures to appear). Approximately one-fifth of the scheduled hearings were actually no-shows.

Table 3.18. Types of Brooklyn MHC Hearings Observed

Types of Brooklyn Mental Health Court Hearings Observed (N=85)	
Pre-plea or plea	13%
Status hearings	45%
Graduation or sentencing	4%
Non-MHC	18%
No-show	20%

Main courtroom actors consisted of the judge, MHC participants, defense attorneys, the prosecutor, and supervisory members of the clinical team (the clinical director and the resource coordinator). The clinical director remained in the courtroom during proceedings, but off to the side. Occasionally there were other courtroom actors, including interpreters, family members, and the court clerk. Table 3.19 shows who, other than the judge, spoke during these status hearings. Defendants typically appeared with

[54] Main courtroom actors included the judge, MHC participants, defense attorneys, the prosecutor, the clinical director. The judge, stenographer, and clerk sat at the front of the courtroom. The prosecutor sat at one table; the defense attorney at the other. The clinical director remained in the courtroom during proceedings, often sitting off to the side.

their attorneys at all status hearings. It should be noted that the case management supervisors who participated in court were generally not the case managers assigned to work with the participant for whom they were speaking in court.

Table 3.19. Courtroom Interactions Observed During Brooklyn MHC Hearings

Courtroom Interactions Observed in the Brooklyn Mental Health Court (N=85)	
Other than the judge, who spoke at status hearings?	
Defendant	92%
Defense attorney	37%
Case manager*	21%
Prosecutor	8%
Other	5%
Judge-Defendant interactions	
Defendant addressed first	71%
Defendant approached bench	53%

* The term "case manager" is used generically here to refer to any member of the court's clinical case management team.

Examining the judge-participant exchange, we observed that the judge typically spoke directly to participants, not through their attorneys, to address their compliance with court requirements and to impart instructions. Overall, proceedings in the Brooklyn court were often defendant-centered. The judge addressed the participant first before addressing other courtroom actors and employed a conversational style, starting his interactions with the defendants with open-ended queries such as, "How are things going?" The Brooklyn judge often asked probing questions and frequently invited defendants to participate in discussions with him at the bench. Participants typically spoke in court (about 90 percent of the time), asking questions or making statements, and about 50 percent of the time approached the bench to speak with the judge.

Much of the judge-participant exchange centered on monitoring compliance with court requirements. The majority of compliance monitoring activity (regular meetings with defendants, urinalysis, and periodic progress reports from treatment providers) took place outside of court, and the case management team produced written reports of client progress, which were circulated to the judge, defense, and prosecution in advance of the court session. Additionally, the case management supervisor briefed the judge on the caseload during the hour before the court session began. The judge was observed referring to these written reports in court.

Compliance

The majority of cases we observed were compliant. The judges typically responded to compliant cases with verbal praise, but we observed that sometimes cases were simply continued without overt praise. The Brooklyn MHC employed other rewards, as well. The judge often invited compliant defendants to speak with him at the bench (close to 60 percent of compliant defendants spoke with the judge at the bench, regardless of overt

praise); noncompliant defendants were rarely invited to speak at the bench. The court also used phase completion certificates to mark progress in the treatment mandate, and there was courtroom applause when these certificates were awarded.

Defendants "graduated" upon successful program completion. In Brooklyn, this was announced as graduation day. The judge awarded a certificate to the defendant, the defendant received a small present (e.g., a box of chocolates), and the defendant shook hands with the judge. The defendant was also given an opportunity to speak to the court. In some observed cases, the judge further clarified the terms of the reduced sentence in response to defendants' questions.

Noncompliance

The following types of noncompliance were observed in other appearances: treatment absences or nonparticipation, positive drug tests, and failure to appear at court. All stated noncompliance was addressed by the judge; this was typically through verbal recognition. The judge commented on the noncompliance, issued instructions or advice to the defendant, and explained the consequences of not complying with the court's conditions. Occasionally, we observed that the judge increased the frequency of either court appearances or case management meetings. Additionally, we occasionally witnessed defendants who were remanded to jail. (More often, we saw defendants who had been remanded to jail on their previous appearance, and were being seen again by the judge, who was evaluating whether or not to release them on recognizance at this time.) Warrants were issued if defendants were no-shows without acceptable reasons. The court did not apply a fixed sanction algorithm. During our stakeholder interviews, we were told that noncompliance was dealt with on a case-by-case basis, and that frequent "second chances" were given. Note that the terminology "second chance" was used by both courts, though in reality defendants were given multiple chances.

The case managers in attendance during Brooklyn court appearances were typically the clinical team supervisors, rather than the case managers directly assigned to client cases. During the court session, they often functioned in problem-solving roles. We observed case management supervisors troubleshooting clients' problems with their providers or court requirements during bench conferences. They tended not to speak in hearings if there was no problem. Overall, we observed that representatives of the case management team spoke in less than half of the Brooklyn hearings. Although one of their roles is to provide information to the court, this was done through the written reports prepared in advance of the court session. The case management did not routinely make verbal reports in court of defendants' progress.

Prosecuting and defense attorneys typically participated in more traditional appearances, such as pre-plea and sentencing (e.g., final) appearances, but participated less than half of the time during status hearings. When attorneys participated in status hearings, it was usually when there was some type of an issue. For example, defense attorneys were observed advocating for their clients if some noncompliance was being discussed. Prosecuting attorneys rarely spoke during the status hearings. Stakeholders interviewed

by the research team spoke of a generally collaborative, rather than adversarial spirit, once a case had been accepted to the MHC.

Clinical Treatment and Case Management

The Brooklyn MHC uses a Clinical Court Team design: the clinical team is part of the court, as opposed to a separate agency, and clinical staff develops a shared knowledge of every participant in the program through regular team case review. Once accepted into the program, clients participate in mandated, community-based treatment for a 12-month period (misdemeanors), 12- to 18-month period (first-time felonies), or 18- to 24-month period (for predicate felons). The clinical team places participants in different boroughs and states, if necessary, to facilitate access to the proper treatment; most treatment is outpatient programming, although residential programs are also used.

Once a defendant is part of the MHC, the case management team engages in back-and-forth problem-solving with the community treatment providers, designed to monitor participant progress and trouble-shoot any potential issues the either provider or the participant may have with the placements.

It is important to note that the court's clinical team works to place Brooklyn MHC participants in the same community-based programs, when possible. The rationale is that placing participants together builds a sense of community and reduces stigma—a key concern of the program.

Mental Health Court Participation and Outcomes

A total of 519 individuals were referred to the Brooklyn MHC program between 2002 and 2006, of whom, 327 participated in the program. As noted earlier, cases must meet the program's mental health and legal eligibility requirements and agree to enter a plea in order to participate. Not all referrals are determined to be eligible. In turn, participation in the Brooklyn MHC is voluntary and eligible defendants may choose not to participate for a various reasons. Appendix F provides the results from an analysis comparing Brooklyn MHC participants and nonparticipants; the analysis examines the extent to which the two groups differ according to demographics, criminal justice indicators (prior and current involvement), mental health status, and reasons for nonparticipation.

For the 327 individuals who participated in the Brooklyn MHC program, participation lasted for an average of 15 months[55] from the plea date to case closing. The majority of participants who enrolled in the mental health court completed successfully: 74 percent graduated. In contrast, roughly 18 percent terminated unsuccessfully and just under 10 percent had their cases closed for other reasons. About one percent of cases were still participating at the time of data collection in 2010.

[55] Medians are reported in this section because the means were skewed by a small number of observations with atypical case processing statistics.

Program staff reported that the majority of participants received outpatient mental health treatment from community-based providers. However, detailed information about the nature of the mental health treatment received (e.g., provider type, therapeutic approaches, or prescription medications) was not present in the administrative database available to the research team.

In addition, MHC participants received a number of specialized services through the court, as is reflected in Table 3.20. Participants were typically referred to more than one type of service: 40 percent were referred to two program types, 35 percent were referred to three program types, and 7 percent were referred to four program types. Clients usually received some form of case management services from a community-based treatment provider; the court's clinical team explicitly does not function in a case management capacity once a participant is accepted into a treatment program. Overall, three-quarters of participants were recorded as receiving case management services, including services described as case management (53 percent), integrated or supportive case management (39 percent), and assertive community treatment (ACT) team services (6.4 percent).

One-half of MHC participants were placed into housing as part of their court-mandated treatment plan. This included supportive housing services (20 percent), residential substance abuse treatment (27 percent), and mentally ill chemically addicted (MICA) housing (10 percent). Of those who had been homeless upon referral to the court, 81 percent had been placed into some type of housing. Nearly one-half (47 percent) of the clients who were homeless were placed into residential substance abuse programs, 12 percent were placed into shelter programs, 10 percent were residing with family members, 2 percent were living independently, and the remainder were in a range of supportive housing arrangements.

Nearly three-quarters of mental health court participants received substance abuse treatment services, specifically: MICA treatment (47 percent), substance abuse residence (27 percent), substance abuse treatment (23 percent), MICA housing (10 percent), and adolescent drug treatment (0.3 percent).

A small portion of mental health court participants also received vocational services. Seven percent received adult vocational or educational services and one percent received similar services targeted to adolescents.

Program Exit

Brooklyn MHC stakeholders look for multiple outcomes to define program success: no re-arrests, cessation of drug use, and adherence to the treatment mandate.

To graduate, participants must successfully pass through the court's four stages (Adjustment; Engagement; Progress and Preparing to Graduate) and remain arrest-free. Certificates are awarded to participants at the completion of each stage.[56] Graduation

[56] Note that there are no universal program criteria for moving through these four stages. Criteria for moving from one stage to the next are determined for each individual based on their situation at program

results in a dismissal of charges for misdemeanor and nonviolent, first-time felony offenders. Predicate felons and individuals who commit first-time violent felonies will have their charges reduced to a misdemeanor plea and receive a period of probation. Individuals who fail to complete the Brooklyn MHC are typically sentenced to jail or prison in accordance with the original plea agreement.

Table 3.20. Specialized Treatment and Services Provided Through the Brooklyn MHC

Additional Services* Provided Through the Mental Health Court (N=327)	
Total number of program types assigned by the court (mean)	2.3 programs
Any case management services	**74.3%**
Assertive Community Treatment (ACT) Team	6.4%
Case management	52.6%
Integrated Case Management (ICM) or Supportive Case Management (SCM)	38.5%
Any housing	**51.7%**
Housing	19.6%
Mentally Ill Chemically Addicted (MICA) housing	10.4%
Substance abuse residence	27.2%
Any substance abuse treatment services	**72.8%**
Adolescent drug treatment	0.3%
Mentally Ill Chemically Addicted (MICA) housing	10.4%
Mentally Ill Chemically Addicted (MICA) treatment	46.5%
Substance abuse residence	27.2%
Substance abuse treatment	22.9%
Any vocational services	**7.7%**
Adolescent vocational/education	1.2%
Vocational / Rehab / Education	6.7%

* Meaning services in addition to mental health treatment.
Note: Percentages may not sum exactly because a person may be assigned to multiple program types within each category.

Table 3.21 presents program outcomes for the Brooklyn MHC's 327 participants who entered the program between 2002 and 2006. Nearly three-quarters graduated upon successful completion of the treatment mandate. Close to one-fifth had their cases terminated as unsuccessful, and the remainder had cases that were terminated for other reasons. Four individuals who were referred to the MHC between 2002 and 2006 were still participating in the program as of this study's data collection in late 2010.

---

intake (e.g., levels of psychiatric stability, substance use, functioning, and social supports). Progression through these stages is used to mark and celebrate progress rather than measure quantifiable achievements.

Table 3.21. Case Outcomes for Brooklyn MHC Participants

Case Outcomes for Brooklyn MHC Participants (N=327)	
Current Participant	1.22%
Graduated	74.01%
Terminated	18.35%
Other	6.74%

Graduates of the MHC originally pled to average incarceration sentences of 2.2 to 3.1 years (median 1.3 to 2.5 years). Table 3.22 provides additional sentencing-related data outcomes for Brooklyn MHC graduates. Nearly four in ten graduates had their charges dismissed, and about one-half had their felony cases reduced to misdemeanor sentences. In 21 percent of cases, there were no further supervision requirements; but in 30 percent, there were 1- to- 3-year probation requirements. Roughly 11 percent of cases had other case dispositions.

Table 3.22. Sentencing Outcomes Among Brooklyn MHC Graduates

Sentencing Outcomes Among Brooklyn MHC Graduates (N=242)	
Charges Dismissed	37%
Misdemeanor conviction with time served	21%
Misdemeanor conviction with 1 year probation	3%
Misdemeanor conviction with 3 years probation	27%
Other	11%

Participants who failed to complete the MHC originally pled to average incarceration sentences of 2.5 to 3.6 years (median 2 to 3.5). This was not a statistically significant difference when compared to the plea offers made to program graduates, suggesting that successful participants had comparatively serious offenses and criminal histories as those who failed.

Longer-term criminal justice outcomes of MHC participants are addressed in later sections of this report, specifically in Chapter 4 that covers the impact evaluation. However, it is worth noting, here, that a very small percentage of MHC health participants (2 percent) were subsequently re-referred to the mental health court between 2002 and 2006, after their initial case closed. These included program graduates, program failures, and defendants who had alternate dispositions. The time from case closing to re-referral ranged from 63 to 882 days.

Comparison of Successful and Failed Participation in the Mental Health Court

We conducted t-tests to understand factors that differentiated program success and failure among Brooklyn MHC participants. The following reports on the characteristics of MHC graduates compared to defendants who terminated unsuccessfully. Our analysis found differences in demographic characteristics, substance abuse history, and services received between program graduates and those who failed. Bivariate correlations were assessed using t-tests. Unless otherwise noted, reported differences were statistically significant at the 95 percent confidence level.

As Table 3.23 below, indicates successful completers were more likely to be White (p=.10) and less likely to be Black (p=.08). Successful completers were also somewhat older, with an average age at arrest of 34 compared to 31 among program failures (p=.11). Additionally, successful completers were less likely to have been homeless at intake; 16 percent had been homeless at program intake compared to 28 percent of program failures (p=.08).

We did not observe any differences in the types of mental illness diagnosed among program graduates and program failures; however, those who failed the Brooklyn MHC were significantly more likely to have had a substance abuse diagnosis in addition to their mental health condition. Specifically, 55 percent of program graduates had primary or secondary substance use diagnoses, compared to 82 percent of program failures.

Program graduates and failures were similar with respect to having been charged with a felony offense. However, program failures were more likely to have been incarcerated at the time of referral: 72 percent of program failures had been incarcerated pretrial compared to 52 percent of program graduates. The median time from arrest to program referral was between 4 and 5 months (139 days) for program graduates and 5 to 6 months (163 days) for program failures, but the difference in means was not statistically significant. There were no appreciable differences between program graduates and program failures in the duration of the screening and eligibility process.

Brooklyn MHC program graduates and program failures spent a comparable amount of time in the mental health court from their plea at entry until case closing. The median time in the mental health court was 14 to 15 months (434 days) for successful completers and 16 to 17 months (498 days) for unsuccessful participants; the difference in means was not statistically significant.

Table 3.23. Characteristics of Brooklyn MHC Graduates and Failures, 2002-2006

Characteristics of Brooklyn MHC Graduates and Failures, 2002-2006 (N=327)	Graduated (n=242)	Failed (n=60)	p-value
Demographics			
Age at arrest	33.8 years	30.9 years	0.1079
Male	72.7%	88.3%	**0.0026**
Black race	55.0%	67.8%	**0.0753**
White race	40.4%	28.8%	0.1008
Other race	4.6%	3.4%	0.6883
Hispanic ethnicity	22.1%	13.6%	0.1465
Homeless at program intake	16.4%	28.1%	**0.0775**
Referral to MHC			
Felony charge	82.6%	88.3%	0.2810
Incarcerated at the time of program referral	51.5%	71.7%	**0.0047**
Mental health			
Axis I mood disorder	54.1%	59.3%	0.4740
Axis I psychotic disorder	36.8%	33.9%	0.6812
Substance abuse diagnosis on either Axis I or II	55.0%	81.7%	**0.0001**
Mental health court processing			
Days from arrest to first court contact (mean)	215.8	319.7	0.1700
Days from first court contact to psychiatric assessment (mean)	22.4	31.4	0.3411
Days from first court contact to eligibility decision (mean)	35.7	43.3	0.1444
Days from eligibility assessment to court start date (mean)	51.4	66.7	0.1405
Days of mental health court participation from plea to closing (mean)	519.7	547.0	0.5629
Mental health programs received			
Number of program types received	2.3	2.4	0.5144
Any case management services	77%	65%	0.0595
Any housing	46%	70%	0.0009
Any substance abuse treatment services	69%	87%	0.0010
Any vocational services	9%	5%	0.2771

Persons who graduated and failed the mental health court received different levels of supportive mental health services. Given the higher rates of substance abuse among program failures, it is not surprising that significantly more program failures participated in substance abuse treatment, particularly residential substance abuse treatment.

Similarly, program failures were more likely to have been homeless before their participation, and so were more likely to have received housing. Additionally, those who failed were significantly less likely to have received case management services (p=.06). Approximately 77 percent of program graduates received case management services compared to 65 percent of program failures. This difference was driven by differences in services described simply as "case management," as program graduates and program failures were similar with respect to receiving assertive community treatment (ACT) team services, intensive case management (ICM), and supportive case management (SCM) services.

Stakeholder Views of the Brooklyn Mental Health Court

Brooklyn MHC stakeholders identified the long-standing stability of the court team (the judge, clinical director, and ADA are founding members; the primary defense attorney has been with the team many years); the court's hands-on approach and attentiveness to building a sense of community among participants and reducing stigma; its recognition of the importance of individual treatment and success outcomes; and the checks and balances of having the judge, defense, prosecution, and treatment working together as critical elements of the Brooklyn MHC program. Stakeholders believe these elements are critical to the program's longevity and to achieving program outcomes, namely increased public safety, reduced re-offending, and improved participant mental health.

Most stakeholders expressed satisfaction with current program procedures, including assessment, decision-making, treatment mandate, case supervision, and case management. Lack of community-based mental health treatment was the only challenge consistently cited by stakeholders. One stakeholder provided a more nuanced view that the challenge was in locating specialized services for clients with multiple needs; while outpatient mental health treatment is generally available, services for clients requiring integrated substance abuse treatment or supportive housing are considerably more limited.

"Business-as-Usual" Mental Health Services Received by Criminal Defendants in Brooklyn and the Bronx, New York

Generally speaking, the current evaluation used existing records and a quasi-experimental design to measure the impact of mental health court participation as compared to conventional criminal case processing. In this section, we discuss the mental health services received by defendants whose cases were processed through conventional courts.

The court system as a whole neither measures, nor tracks the mental health status of defendants, so it is impossible to precisely estimate the full population of criminal defendants with mental illness. From our interviews with mental health court stakeholders, we know that arrestees with mental illness include a combination of those who have been treated in community-based settings, as well as those who have not. However, there is no source of information that describes the characteristics of the universe of all criminal defendants with mental illness.

Systematic data, however, are collected and maintained on a large subset of criminal defendants with mental health problems. All persons incarcerated by the New York City Department of Correction (DOC)[57]—typically in the jail facilities on Rikers Island—undergo a series of screenings upon admission to identify possible mental health issues. Persons with identified mental health issues are provided further mental health evaluation and treatment services during their incarceration. Additionally, inmates with mental health issues receive discharge planning services to facilitate continuity of care in the community upon release.

This population of DOC inmates who received jail-based mental health services forms the basis of the study's comparison group. There is no comparable source of information on the mental health status of defendants who were not incarcerated before trial. We describe the jail system's admission, screening, mental health treatment, and discharge planning processes to provide an understanding of the standard level of mental health services typically received by defendants with mental illness whose cases were adjudicated through conventional courts. Bear in mind, however, that defendants with mental illness who were not incarcerated pretrial would not have received these services, and may have received more or less care in the community. Additionally, to the extent that mental health court defendants were incarcerated pretrial, they would have received these services prior to the additional screening, assessment, treatment placement, and court monitoring provided by the specialized MHC programs.

The DOC inmate population includes a large number of defendants with mental illness. Nationwide, researchers estimate that 64 percent of jail inmates experience mental health symptoms (James and Glaze 2006) and 14.5 percent of men and 31 percent of women are estimated to have a serious mental illness (Steadman 2009). The DOC's average daily population of inmates has remained between 13,000 and 14,000 for much of the past decade.[58] According to the Council of State Governments (2005), the jail systems in New York, Los Angeles, and Chicago house more persons with mental illness than any psychiatric facility in the nation. The New York City Department of Health and Mental Hygiene (DOHMH), Division of Health Care Access and Improvement, Bureau of Correctional Health Services oversees the delivery of physical and mental health services to inmates at City jails. DOHMH contracts out for these services and has had a contract with the current contractor, Prison Health Services, Inc. (PHS) since 2000. PHS utilizes a clinical staff of roughly 500 clinicians, about 82 of whom provide mental health services.

Since 2003, the City of New York ("City") has additionally provided discharge planning services to mentally ill inmates under the terms of the settlement in the matter of *Brad H vs. The City of New York*. This class-action lawsuit argued that the DOC functions as a *de facto* psychiatric hospital by virtue of the number of inmates with mental illness that it treats and, as such, must provide comparable aftercare and discharge planning services to its inmate-patients. Discharge planning services are provided by DOHMH's Health Care

[57] DOC admissions include criminal defendants detained after arrest but before trial, as well as offenders sentenced to serve incarceration terms in a City jail.
[58] City of New York, Department of Correction statistics reported on http://www.nyc.gov/html/doc/html/stats/doc_stats.shtml, accessed June 16, 2011.

Access and Improvement, Forensic Behavioral Health Services Discharge Planning ("Discharge Planning") staff. Discharge Planning consists of approximately 70 staff members, 49 of whom are line staff: 22 caseworkers who assist inmates with applications for public entitlements, and 27 social workers who create comprehensive discharge plans that include making appointments and referrals to care post-release. In addition, DOHMH provides discharge planning for other, non-mentally ill inmates, including those with substance abuse disorders and significant chronic diseases such as HIV.

Jail-based mental health and discharge planning services are often provided within the context of relatively short jail stays. About three-quarters of jail releases are pretrial detainees; release decisions for this population are court- and bail-based, each of which is driven by judicial and prosecutorial decision-making. While the average length of stay among detainees regardless of mental status has been about 50 days in recent years,[59] one-half of all admissions were released within 14 days. The remaining one-quarter of inmates are sentenced offenders. Overall, most (about 80 percent) of the Rikers Island population is released to the community, but a minority of inmates is transferred to other correctional authorities such as state prisons.

Program Operations

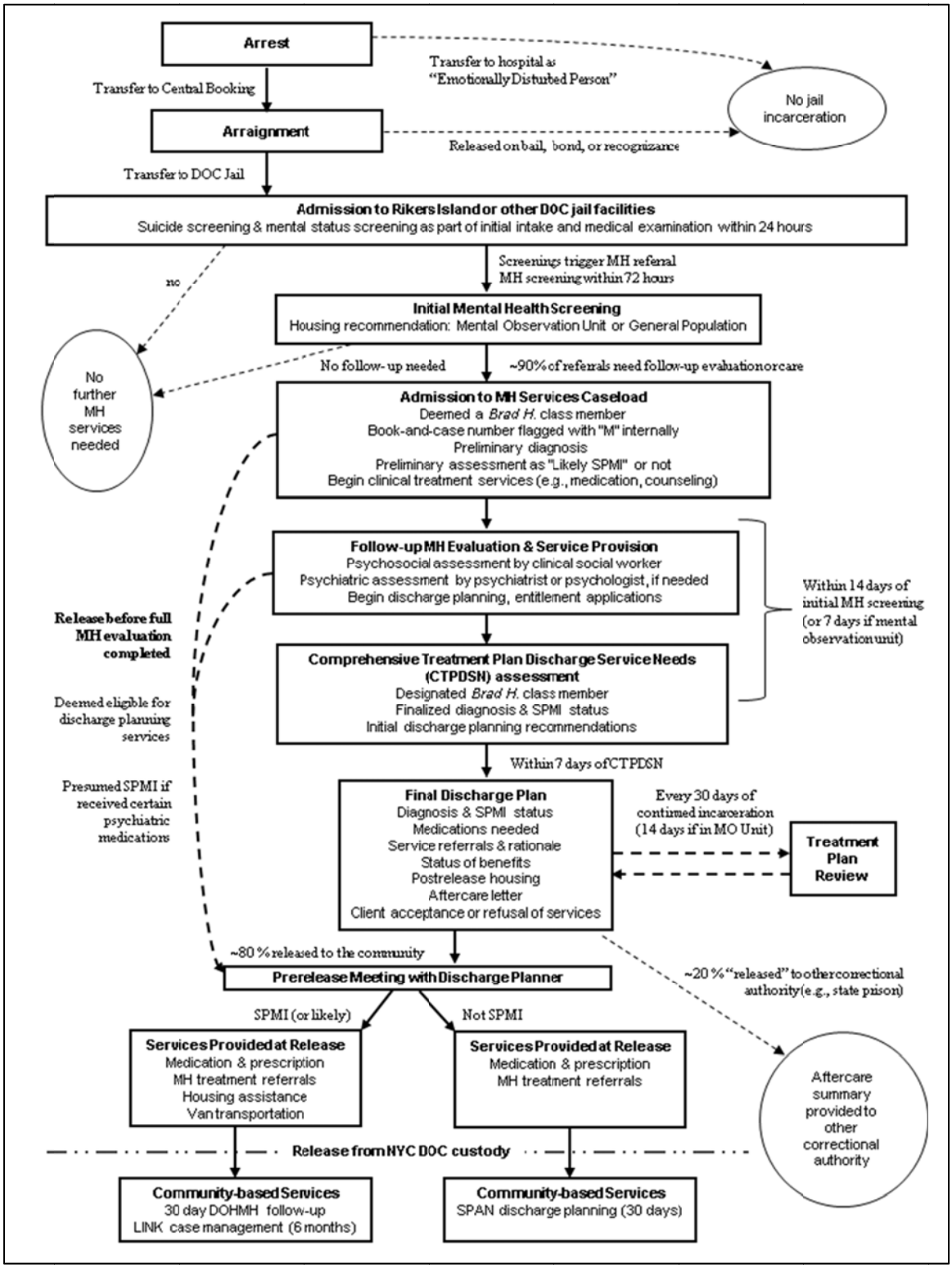
The process by which inmates receive jail-based mental health services is summarized in Figure 3.3, and the following description is based on the research team's interviews with DOHMH personnel in 2009. Staff described this as the typical experience; deviations and exceptions are noted separately. Additionally, DOHMH provided the research team with data on all persons who were arrested in Brooklyn or the Bronx during 2005 and 2006 who were sufficiently mentally ill to receive services under the terms of the *Brad H* settlement.[60] (The purpose was to form a comparison pool for the analysis of mental health court impacts.) Our analysis of the data on this segment of DOHMH's service population is presented here as well.

Arrest and Admission to City Jails

Once arrested, suspects are typically held at the precinct, transferred to a central booking facility, and then arraigned at court.[61] At arraignment, a judge decides whether a suspect may be released pretrial. Those who are not granted pretrial release (e.g., because they are judged to be a flight risk) or cannot pay the bail amount are transferred to the DOC

[59] City of New York, Department of Correction statistics reported on http://www.nyc.gov/html/doc/html/stats/doc_stats.shtml, accessed June 16, 2011.
[60] That is, persons who were either "deemed" or "designated" as eligible for *Brad H* discharge planning services.
[61] A small minority of arrestees are taken to the emergency room instead as "emotionally disturbed persons" (EDP) and thus diverted from this process.

Figure 3.3. Mental Health Services Provided During Pretrial Detention



for pretrial detention. The majority of inmates under DOC control are incarcerated at the nine facilities located on Rikers Island. There were between 102,000 and 110,000 inmate admissions during the 2002 to 2006 study period for the mental health courts evaluation; this figure was just below 100,000 at the time of study interviews with DOHMH personnel.[62]

Referral to Mental Health Services

All mental health service provision in City jails is referral-based. Referrals to mental health services are usually made during the intake process, but some referrals arise from the court during arraignment, inmate self-referral to services, and a small share (about 100 per month) result from inquiries initiated by family members or defense attorneys. When processing a new admission to a City jail, DOC runs fingerprints, checks criminal history, assigns security level, and administers a suicide prevention checklist developed by the New York State Office of Mental Health, the SPSG330, to determine whether referrals to mental health services for the inmate are necessary. Inmates subsequently undergo full medical examinations within approximately 24 hours of arrival at a City jail. Part of the examination includes a 22-item mental status screening conducted by a physician or physician's assistant, which may result in a referral to mental health services. Copies of key screening instruments are included in Appendix E.

Mental Health Services

Assessment and Evaluation

Once a mental health referral is made, an initial mental health assessment is conducted by a licensed clinical social worker, psychologist, or psychiatrist within 72 hours. This initial assessment may be conducted sooner in urgent situations. Based on this assessment, staff determines whether follow-up assessment or care is needed and whether an inmate should be housed in a specialized mental observation unit (MOU) or with the general population. Staff reported that about 90 percent of referrals are "admitted"[63] to the mental health caseload and, therefore, deemed eligible for discharge planning services under the terms of the *Brad H* settlement. Inmates' book-and-case numbers are marked internally with an "M," and service provision is tracked in the Mental Health Discharge Planning Citrix database. [64]

DOHMH provided the research team with 12,299 arrest-event records from this database, representing all of its encounters with Brooklyn and Bronx arrestees in 2005 and 2006.

---

[62] City of New York, Department of Correction statistics reported on http://www.nyc.gov/html/doc/html/stats/doc_stats.shtml, accessed June 16, 2011.

[63] The term "admitted" is used to describe someone's entry onto the mental health caseload. This does not mean they are hospitalized or moved to a mental observation unit.

[64] This "M" designation is used internally only for DOC to identify a class member, in order to ensure that eligible inmates are provided with *Brad H*-required services. This is not a functional or diagnostic designation and should not be construed as meaningful for treatment purposes. Furthermore, the "M" designation is used internally only, and does not appear externally as part of inmates' book-and-case numbers (on rap sheets or in court, for example) in order to protect the confidentiality of inmates' health information as required by law.

These represented 9,493 unique Brooklyn and Bronx defendants who were mentally ill and served by DOHMH in jail during 2005 and 2006. A sizeable portion of these individuals (23 percent) were arrested and received mental health services from DOHMH more than once during the 2005 to 2006 period; in these cases, only their first arrest-event was included in the analysis.

As shown in Table 3.24, Brooklyn and Bronx inmates with mental illness in the study data were predominantly male (74 percent). Their average age at arrest was 36. African Americans comprised the largest share of such inmates (59 percent); Caucasians comprised 18 percent, while 23 percent were described as being of another race.[65] Nearly 4 in 10 (38 percent) were Hispanic, and 95 percent were recorded as English speakers. Roughly 1 in 10 (8%) had been homeless at the time of arrest.

Table 3.24. Characteristics of Brooklyn and Bronx Arrestees Who Received Mental Health Services from DOHMH in Jail During 2005-2006

Demographic Characteristics (N=9,493)	
Age at arrest (mean)	35.5 years
Male	74.19%
Black	58.69%
White	18.27%
Other race	23.04%
Hispanic ethnicity	38.02%
English language ability	94.59%
Homeless at arrest	8.00%

Note: Data on race, ethnicity, language and homelessness were available for roughly 70 percent of the sample.

Once inmates are "admitted" to the mental health services caseload, a series of follow-up evaluations and plans must be completed within 14 days, or sooner (within 7 days) if they are housed in a MOU. First, a psychosocial assessment is conducted by a clinical mental health social worker under the supervision of a psychologist. A further psychiatric assessment is conducted for those requiring psychiatric care. A Comprehensive Treatment Plan Discharge Service Needs (CTPDSN) assessment is then written by the clinical mental health social worker. Within seven business days of the CTPDSN, a discharge planning social worker completes a discharge plan. The CTPDSN document functions as a treatment plan with initial discharge planning recommendations; it includes the mental health diagnosis, SPMI determination (i.e., whether someone has "serious and persistent mental illness"),[66] functional status, community-based treatment history,

[65] Fewer than 1 percent of each were specifically described as Asian or Native American.

[66] "Serious and persistent mental illness" (SPMI) is largely an administrative, legal, or status code and not a diagnostic term. There are numerous definitions of SPMI in the mental health field, with different variations of diagnostic and functional criteria. The SPMI determination is primarily for the purpose of discharge planning, as a SPMI determination triggers certain additional rights under the *Brad H* stipulation. DOHMH uses the New York State Office of Mental Health (OMH) definition for the general public, as specified in the *Brad H* stipulation. The OMH SPMI definition is used in the community to determine eligibility for Intensive Case Management (ICM) programs, Assisted Outpatient Treatment (AOT),

recommendations for treatment in jail, and recommendations for treatment upon release.

Analysis of the Brooklyn and Bronx data in 2005 and 2006 showed that arrestees were typically[67] referred to mental health services within two days of arrest and received an initial mental health assessment on that same day, as presented in Table 3.25. It took another nine days from the initial assessment to conduct follow-up assessments and write a CTPDSN, including a diagnosis, SPMI designation and discharge planning recommendations. The remaining length of stay in jail after the CTPDSN was completed was another two months.

Table 3.25. Time to Selected Mental Health Service Milestones

Mental Health Service Milestones (N=9493)	
Received initial assessment	96.22%
Time from arrest to referral (median)	2 days
Time from referral to initial assessment (median)	0 days
CTPDSN completed	62.09%
Time from initial assessment to CTPDSN (median)	9 days
Released from jail	97.96%
Time from CTPDSN to release	55 days
Eligible, but refused *Brad H* discharge planning services	26.83%

Note that the extent to which mental health needs were assessed and treated in jail depended on the length of stay. As presented in Table 3.26, the average length of stay for Bronx and Brooklyn jail inmates with mental illness in 2005 and 2006 was between three and four months (104 days), but there was considerable variation in the duration of incarceration. Short stays in jail were common, with nearly one-half of inmates with mental illness released within one month of arrest: one in five of such jail inmates (21 percent) were released in less than one week, another 10 percent were released within 14 days, while 9 percent were released within 21 days of arrest, and 5 percent were released within 28 days. While the majority (62 percent) of inmates served by DOHMH had a CTPDSN completed, more than one-third of the inmates who received initial assessments were released before the full assessment process and plan were completed; the section (below) on "alternate release and discharge planning scenarios" provides more information on the services provided to this sub-group.

---

supportive housing, and other non-*Brad H* services. Note, however, that SPMI is neither a diagnostic definition nor an assessment of functional status. Someone on a psychotropic medication who consistently takes medication and can function well within the general population may be designated as SPMI, and yet may be very different in functional capacity from someone else who also is defined as SPMI, but is not medication-compliant.

[67] The statistics given here are medians, as the means were skewed by some extreme outliers. Statistics on the 75th percentile are similar. Seventy-five percent of mentally ill inmates were referred to mental health services within seven days of arrest and received an initial mental health assessment on the same day. The time from initial mental health assessment to a CTPDSN was within 12 days for 75 percent of inmates. However, at the 75th percentile, inmates remained in jail for another 152 days after the CTPDSN was written.

Table 3.26. Time Served in Jail

Time Served in Jail (N=9493)	
Percentage released from jail	97.96%
Time from arrest to release (mean)	104 days
Time from arrest to release (median)	36 days

Mental Health Treatment in Jail

DOHMH personnel estimated that on any given day approximately 3,300 inmates are on the mental health caseload, receiving treatment or discharge planning services. Of these, about 2,500 to 2,800 persons receive medications, while the remainder (roughly 25 percent) receive only therapy or counseling. Inmates are not forcibly medicated. Between one-quarter to one-third of the mental health caseload is designated SPMI, and about 900 individuals are housed in a mental observation unit (MOU). Staff reports there are about 20,000 mental health treatment encounters per month.

Analysis of the data for Brooklyn and Bronx arrestees in 2005 and 2006, presented in Table 3.27 showed that about one in ten (12 percent) were housed in a MOU, and the remaining 88 percent were in the general population.[68] Mental health diagnoses and SPMI status were available for 75 percent and 85 percent, respectively, of the inmates served by DOHMH in jail. As depicted in Table 3.28, the most common Axis I mental health diagnoses were mood disorders (38 percent), substance-related disorders (24 percent), adjustment disorders (17 percent), psychotic disorders (13 percent) and anxiety disorders (4 percent). Less than one percent were diagnosed as malingering or fabricating symptoms. One half (51 percent) were assessed as SPMI.[69] The average functional status of inmates as measured by the Global Assessment of Functioning was a score of 57 on a scale of 1 to 100, meaning that the average inmate with mental illness had moderate symptoms and difficulties in social, occupational, or school functioning.

[68] Differences between staff estimates of the mental health caseload and the study's data analysis stem from a number of legitimate methodological differences. First, staff reports focused on current practices at the time of study interviews in 2009. By contrast, the data analysis is retrospective and based on a subset of cases in 2005 and 2006. Second, staff reports reflect the stock inmate population on any given day, whereas the study's data collection focused on admissions during the study period. Statistics based on stock populations tend to reflect those with a longer length of stay, which may be due to more complicated criminal cases or more severe mental illness. Finally, staff reported on their experience with all mentally ill inmates, regardless of case jurisdiction. By contrast, the study selected a subset of defendants in Bronx and Brooklyn cases, who may have systematically different socioeconomic and health characteristics from the aggregate population.

[69] As noted earlier, "serious and persistent mental illness" (SPMI) is largely an administrative, legal, or status code based on diagnostic and functional criteria, but it in itself is not a diagnostic term. It is also not, necessarily a determination of functional status. For example, someone on a psychotropic medication who consistently takes his or her medication, and can function well within the general population, may be defined as SPMI (and is for the purpose of service provision under the *Brad H* stipulation), but may be very different in functional capacity from someone who is not medication-compliant.

Table 3.27. Indicators of Mental Health Status

Indicators of Mental Health Status (varying Ns)	
Housed in MH Unit	12.23%
SPMI or Likely SPMI	51.25%
Mean Global Assessment of Functioning (GAF) Score on a scale of 1 (low) to 100 (high)	57
Received medication in jail	83.24%

Note: The availability of different measures varied in the program database, depending on when the data were collected in a given inmate's incarceration. Data on placement in a mental observation unit were available for 9,380 inmates; SPMI status was available for 8,090 inmates (we report on the finalized SPMI status when available, and the initial "Likely SPMI" assessment in the 29 percent of cases where a confirmation of SPMI status was not available); Global Assessment of Functioning was available for 7,228 inmates; and medication usage was available for 4,462 inmates.

Table 3.28. Mental Health Diagnoses

Mental Health Diagnoses Recorded in the Program Data		
	Axis I Diagnoses (N=7,121)	Axis II Diagnoses (N=4,791)
Adjustment disorders	17.29%	4.05%
Anxiety disorders	3.76%	4.80%
Attention deficit disorders	0.87%	0.48%
Cognitive disorders	0.20%	0.13%
Dissociative disorders	0.03%	0.02%
Eating disorders	0.01%	0.02%
Mental disorder due to medical condition	0.01%	0.04%
Impulse control disorders	1.54%	1.65%
Mental retardation	0.01%	0.04%
Mood disorders	37.96%	14.78%
Motor skills disorders	0.00%	0.02%
No disorder on given Axis	0.07%	0.04%
Personality disorders	0.20%	1.15%
Psychotic disorders	12.96%	5.87%
Sexual or gender disorders	0.03%	0.00%
Sleep disorders	0.11%	0.08%
Somatoform disorders	0.00%	0.02%
Substance-related disorder	23.61%	63.39%
Tic disorders	0.01%	0.02%
Other disorder on Axis II	1.32%	3.40%

Inmates with mental illness housed in the general population are required to have a minimum of monthly psychiatric visits. More extensive services are provided in the MOU. Inmates in a MOU typically have a weekly clinical encounter and, at minimum,

biweekly psychiatric visits. They are also seen two to three times per day as part of clinical rounds. Additional services include group therapy, art therapy, music therapy, and cognitive behavioral therapy. The most extensive services are provided to the approximately 30 inmates on suicide watch on any given day. These inmates have a daily clinician encounter and are visited on rounds three times per day.

Staff estimated that about 80 percent of the mental health caseload has co-occurring substance use problems. By "problems," they did not necessarily mean dependence, but rather that inmates engage in substance use. As shown in Table 3.29, analysis of the data on Brooklyn and Bronx arrestees in 2005 and 2006 showed that nearly 6 in 10 (58 percent) had co-occurring substance use conditions, defined by the research team as having a substance-related diagnosis on either Axis I or Axis II. Inmates with purely substance-related issues are not admitted to mental health services, but instead are provided substance abuse treatment services. There are currently five substance abuse treatment units. Each unit houses between 40 and 50 inmates at any given time. Services include inpatient therapeutic communities, cognitive behavioral therapy groups, as well as court advocacy and discharge planning services.

Table 3.29. Substance Abuse Diagnoses

Substance Abuse Recorded on Either Axis I or Axis II (N=7,159)	
Any substance-related diagnosis on Axis I or II	57.54%
Alcohol	6.31%
Cocaine	9.00%
Heroin	11.08%
Marijuana	3.53%
Other*	23.36%
Unknown substance type	9.60%

*Note: "Other" includes and was frequently polysubstance use.

Discharge Planning Services In Jail

The *Brad H* settlement requires discharge planning for each inmate who is receiving certain psychotropic medications in jail or received more than two mental health service visits. Required elements of discharge planning include submitting applications for entitlements and benefits (e.g., Medicaid, Public Assistance, Food Stamps, Medication Grant Program), making referrals or appointments to community-based mental health services, and providing medications upon release (a 7-day supply of medications plus prescriptions to ensure an additional 21-day supply). Inmates who are identified as SPMI must be given additional assistance with supportive housing applications, SSI applications (if they are sentenced offenders as opposed to detainees), and transportation upon release from jail; they also are referred to community-based programs that provide assistance to SPMI adults in acquiring psychiatric care and other entitlements and services including but not limited to mental health, drug and alcohol treatment, and medical care.

Discharge planning begins soon after the initial mental health screening, but the bulk of discharge planning is done once the CTPDSN is completed. A formal discharge plan must be written within seven days of the CTPDSN, including the following elements:

- The inmate's SPMI status.
- Housing information.
- The status of various public assistance applications.
- Referrals or appointments for community-based mental health services. This must also include a justification for the choice of referral.
- An aftercare letter to the client outlining the discharge plan. The letter includes the name of the community provider, a contact person and their telephone and address information (if appropriate), the inmate's mental health diagnosis, and medications needed upon release.

Inmates who are still incarcerated 30 days after the treatment plan is written (14 days if housed in a MOU) undergo a treatment plan review, and the discharge plan may be revised as needed. The treatment plan is periodically reviewed in this manner for the duration of a person's jail incarceration.

Release and Aftercare

Most jail inmates are released to the community. Staff estimated that about 500 inmates with mental illness are released every month, one-third of whom are SPMI. On the day of release, inmates are provided discharge planning. The discharge planning staff will try to convert service referrals to actual appointments. Inmates also are provided with "walking medications," (i.e., a 7-day supply of medications) and prescriptions to obtain an additional 21-day supply of medicines. Inmates who have been identified as SPMI are provided with van transportation to their place of residence, shelter, or program.

DOHMH also has established two programs to help released inmates with mental illness obtain continuity of care in their home communities. The SPAN and LINK programs, described below, are networks of community-based providers with whom the City contracts to provide services to released inmates with mental illness.

The SPAN program was established to provide services to inmates who were released from custody before discharge planning was completed, and who want to complete the process once they return to the community. *Brad H* class members are eligible for SPAN services for 30 days post-release. SPAN provider offices are generally located in each borough within one-half mile of the court.[70]

[70] As of June 2011, the SPAN provider for all five boroughs is the Bowery Residents' Committee.

Persons who were identified as SPMI are additionally referred to LINK[71] program providers located in each of the boroughs. For those clients who were assessed as SPMI in jail, and who consented to receive services, Discharge Planning staff will provide medical records and assessments to the LINK program to provide LINK services for six months post-release.[72] Discharge planning staff also must follow up 30 days post-release to determine whether the discharged SPMI inmates kept their appointments.

Alternate Release and Discharge Planning Scenarios

Many inmates who qualify as part of the affected class of the *Brad H* action have relatively short stays in jail. Data obtained from the DOHMH show that nearly four in ten (38 percent) of Bronx and Brooklyn arrestees in 2005 and 2006 were released before the CTPDSN was completed. DOHMH has a difficult task in providing the *Brad H* settlement-required discharge planning process described above to individuals with relatively short lengths of stay. DOHMH staff emphasized that release decisions are court- and bail-based, and are independent from mental health service provision. Staff indicated that inmates with shorter stays require a different approach to discharge planning; at the same time, it is difficult to predict when a given inmate will be released. Inmates released before the *Brad H* specified process can be completed receive abbreviated discharge planning services in jail.

The average length of stay for this sample of Bronx and Brooklyn jail inmates with mental illness in 2005 and 2006 was between three and four months (104 days), but there was considerable variation in the duration of incarceration. As previously described, short stays in jail were common, with nearly one-half of inmates with mental illness being released within one month of arrest. In fact, one in five such jail inmates (21 percent) were released in less than one week, and another 19 percent were released within 21 days of arrest. The extent to which mental health needs were assessed and treated in jail depended on the length of stay. This sample of Bronx and Brooklyn inmates were typically[73] referred to mental health services within two days of arrest and received initial mental health assessments on that same day. It took another nine days from the initial assessment to conduct follow-up assessments and write CTPDSNs, including diagnoses, SPMI designations, and discharge planning recommendations. However, more than one-third of those who received initial assessments were released before the full assessment

[71] LINK is not an acronym, but the program name is capitalized. As of June 2011, the LINK providers are: 1) Federation Employment Guidance Services, Inc. ("F.E.G.S."), which covers Manhattan; 2) Fordham-Tremont Community Health Center, which is a part of St. Barnabas Hospital, and covers the Bronx; 3) Volunteers of America–Greater New York, which covers Queens; and 4) the Education and Assistance Corporation, which covers Brooklyn and Staten Island.

[72] The original *Brad H* settlement specified a time period of two years for LINK services, but the period for LINK services has since been amended to six months.

[73] The statistics given here are medians, as the means were skewed by some extreme outliers. Statistics on the 75th percentile are similar. Seventy-five percent of inmates with mental illness were referred to mental health services within seven days of arrest, and received initial mental health assessments on the same day. The time from initial mental health assessment to a CTPDSN was within 12 days for 75 percent of inmates. However, at the 75th percentile, inmates remained in jail for another 152 days after the CTPDSN was written.

process and plan were completed. Those who remained in jail until the CTPDSN was completed remained in jail for another two months until release. The net result is that the one-half of inmates with mental illness who were released within one month of arrest, and particularly those who were released within two weeks, often received incomplete services. For example, less than one-quarter of the inmates released within two weeks of arrest had a CTPDSN completed compared to more than 90 percent of inmates who were in jail for more than one month.

Individuals who are released before discharge planning can be completed are eligible for SPAN services within 30 days of release. SPAN services include providing prescriptions; assistance with Medicaid applications and public assistance applications; Medication Grant Program; and transportation to home, shelter, or mental health service providers; and escorts to appointments. DOHMH contracts with SPAN providers to assist in the provision of discharge planning services for up to 3,500 individuals in the community. However, DOHMH personnel reported that this is a voluntary service that few former inmates actually request.

The most severely ill inmates are sometimes transferred to secure psychiatric wards at Bellevue and Elmhurst hospitals. This is a relatively small portion of the mental health caseload; approximately 50 inmates with mental illness are under the care of these hospital wards on any given day. Additionally, inmates whose competency to stand trial is in question are often released to a state mental facility. In these cases, discharge planning is completed by the hospital.

Finally, a minority of inmates, roughly 20 percent, are transferred to other correctional authorities. For example, pretrial detainees who are subsequently convicted may be "released" to a New York State prison to serve their sentences. In these cases, medical and mental health aftercare summaries are transferred to the new institution.

Barriers to Continuous Care in the Community

The effectiveness of these linkages to community-based services has been a point of concern for DOHMH and advocates alike. Relatively few released inmates remain in prolonged, continuous care in the community. It is beyond the scope of this study to evaluate the effectiveness of jail-based services, but we offer some observations on potential barriers to care in the community.

Lack of client interest and motivation is one factor. Data obtained from DOHMH for Brooklyn and Bronx arrestees in 2005 and 2006 show that 27 percent of the mental health caseload refused discharge planning services. Receipt of discharge planning services is voluntary. If an inmate is housed in the general population and declines services, there is no requirement to force the inmate to accept services or to re-offer them. For inmates in a MOU, however, DOHMH staff must re-offer services three times, twice by a social worker and, if the inmate refuses the two re-offerings, a third time by a supervisor. Additionally, there has to be a declaration of whether the person is "capable" of declining the discharge plan.

DOHMH personnel reported that very few clients follow up with their discharge plans. This is a concern among Discharge Planning staff. There are many potential reasons for this lack of follow-up, including, but not limited to, a lack of interest on the part of the former inmate. In discussions with inmates, DOHMH found that released inmates had other, higher priorities that competed with getting mental health treatment, including reconnecting with family members and obtaining public benefits. Additionally, some community-based providers may experience more challenges in working with criminal justice clients.

The uncertainly of inmates' release dates also posed a challenge for Discharge Planning staff. Because release dates are determined by factors beyond the control of jail-based health providers (i.e., bail and court decisions), Discharge Planning staff reported that they cannot know how much time they will have with an individual inmate in order to fully process entitlement applications or make referrals to services.

Although, SPAN services were designed to assist *Brad H* class members who were not incarcerated long enough to have discharge plans developed, the utilization of the service has been low. DOHMH staff also noted challenges with successfully following up with homeless clients, and spoke of the difficulties in locating people in the shelter system.

Clients who do access LINK services are reassessed by the LINK program, which then makes a decision about whether they will work with a referred client. Upon reassessment, the LINK program may decide that a person is not really SPMI, and there is then a process to renegotiate the diagnosis. DOHMH staff and others interviewed for this study noted that determination of SPMI status can be subjective.[74] DOHMH noted that jail-based diagnoses may err on the side of overestimating the severity of illness, partly because patients' symptoms tend to be worse in jail (possibly due to the stress of incarceration), and because clinicians want to ensure that clients can access needed services.

In sum, continuity of care for jail inmates with mental illness remains a difficult issue. While individuals receive mental health care and services in jail, follow-up in the community remains a challenge for this population.

Collaboration and Coordination with Mental Health Courts

The capacity of the Brooklyn and Bronx mental health courts is small relative to the total number of defendants with mental illness. These two mental health courts serve a small slice of the greater universe of defendants with mental illness. Cross-referencing the population of Brooklyn and Bronx arrestees who received mental health services in jail with the two court programs, we found that just 6 percent of jailed defendants with mental illness had ever been referred to either the Brooklyn or Bronx mental health

[74] DOHMH staff also noted that "serious and persistent mental illness" (SPMI) is largely an administrative, legal, or status code and not a diagnostic term. There are about 22 definitions of SPMI with different variations of diagnostic and functional criteria.

courts, and 4 percent of jailed defendants with mental illness subsequently participated in one of those courts.[75]

Collaboration between the mental health courts and DOHMH consists mainly of the transfer of medical and discharge planning records from the jail to the MHCs. The Brooklyn and Bronx mental health courts sometimes request treatment records and diagnostic information from DOHMH as part of its larger process of evaluating potential candidates for mental health court (described earlier in this chapter). DOHMH cooperates with these requests by providing the medical record with psychiatric and discharge planning information.

In general, however, the court system is not always aware of an individual's mental health status because of the various federal, state and local privacy laws in place to protect the confidentiality of inmates' medical conditions and records. Those defendants who come to the attention of the mental health courts are individually referred by their defense counsel, prosecuting attorneys, and judges, as described earlier in this chapter. Although the book-and-case numbers of inmates with mental illness are internally marked with an "M", this is done only to provide DOC information on whom they must provide *Brad H* settlement-required services. No indications of inmates' mental health status appear on court calendars, rap sheets, or other documents available to court personnel. Again, this is done in order to preserve the confidentiality of the medical condition of the inmate as required by various laws.

There also is no systematic process by which DOHMH staff would know when a mental health court client has been remanded to jail. They are reliant on the mental health courts to inform them when someone is remanded. It stands to reason that remands from mental health court would undergo DOC and DOHMH's intake, screening, and assessment processes upon admission to jail. However, the recent introduction of electronic health records in the City jails is expected to enhance efficiency and quality of care by making the longitudinal health record of an inmate available to all medical and mental health providers in the jail system. Furthermore, a long term goal of DOHMH's development of an electronic medical records system is to ease the exchange of medical information between jail- and community-based providers (with appropriate patient consent and authorization), thus facilitating improved efficiency, continuity of care, and health outcomes. DOHMH staff reported that the electronic medical records system has been developed in line with the provisions of the recently enacted health care reform law,[76] and that the agency is working to enter into agreements with local Regional Health Information Organizations ("RHIOs") comprised of area hospitals and community-based health care providers.

---

[75] These statistics were generated by matching individuals among the 9,493 inmates treated by DOHMH in 2005 to 2006 to the sample of all individuals referred to the Brooklyn and Bronx MHCs between 2002 and 2006. Of the 9,493 individuals served by DOHMH in 2005 and 2006, 218 had been referred to the Brooklyn Mental Health Court, including 145 who participated. Similarly, of the 9,493 individuals served by DOHMH in 2005 and 2006, 333 had been referred to the Bronx Mental Health Court, including 153 who participated.

[76] The Patient Protection and Affordable Care Act of 2010.

How Do Mental Health Court Defendants Compare to the Broader Universe of Defendants With Mental Illness?

Anecdotal evidence from mental health stakeholders suggests that MHC participants may be systematically different from the "business-as-usual" jail population with mental illness. Stakeholders felt that mental health court participants would be among the defendants with more severe mental illness, predicting they would have longer lengths of stay in jail.

We examined the subset of MHC court participants within the broader population of jail inmates who received DOHMH services while incarcerated in order to empirically examine these assertions. In short, our analysis corroborates stakeholder perceptions that mental health court participants are more severely ill, but does not support the assertion that mental health court participants served longer terms in jail. Detailed similarities and differences are described separately for the Bronx and Brooklyn MHC programs, below, and these findings were used to develop methods for selecting appropriate comparison cases for the evaluation of mental health court impacts.

Bronx Mental Health Court

We conducted a similar analysis of the Bronx mental health court. Of the 9,493 inmates with mental illness treated at Rikers Island in 2005 and 2006, we found that 203 were referred to the Bronx MHC in 2005-2006; ultimately, 153 of these individuals participated in the mental health court. We conducted bivariate t-test comparisons between this subset of Bronx MHC participants and other jail inmates with mental illness, and found that they differed with respect to many demographic, mental health, and substance use characteristics. These differences were statistically significant at the 95 percent confidence level.

The Bronx MHC participants who were in jail during 2005 and 2006 were more likely to be female, Hispanic, and older compared to other jail inmates with mental illness. Approximately four in ten of the Bronx MHC participants were female. By contrast, about one-quarter of all the jail inmates served by DOHMH were female. More than one-half of Bronx MHC participants were Hispanic, compared to roughly four in ten in the entire jail population. Additionally, the Bronx program participants in jail were older, with an average age of 39, compared to the average age of 35 among the total jail population with mental illness.

The Bronx MHC participants who received mental health services in jail were more severely mentally ill than other inmates. This was reflected across a range of measures including: medication use in jail (96 percent compared to 83 percent), SPMI status (75 percent were assessed as seriously and persistently mentally ill, compared to 50 percent), and the Global Assessment of Functioning (an average score of 54 versus 57). On other metrics, however, Bronx MHC participants were similar to other jail inmates with mental illness. They had a similar likelihood of pre-jail homelessness and were as likely to have been housed on a mental observation unit while incarcerated.

With respect to mental health diagnosis, the Bronx MHC participants in jail in 2005-2006 were similar to other inmates in some respects, but different in others. Axis I mood disorders were the most common disorder type in both groups, assessed in about four in ten persons. Substance-related Axis I mental disorders (e.g., substance-induced mental health symptoms) also were common in both groups, assessed in about one-quarter of persons. Taking Axis II substance disorders into account as well, however, we found that substance-related problems were more prevalent among the Bronx mental health court participants in jail; 66 percent had primary or secondary substance use disorders (Axis I or Axis II), as compared to 57 percent of the business-as-usual population. Axis I psychotic disorders also were more prevalent in the Bronx MHC group (23 percent compared to 13 percent), whereas business-as-usual inmates with mental illness were more likely to have been diagnosed with Axis I adjustment disorders (18 percent, as compared to 2 percent of the Bronx MHC participants). In short, the Bronx mental health court population was more likely to have psychotic illnesses and substance-related problems.

Those Bronx MHC participants who were in jail in 2005-2006 had a shorter length of stay in jail compared to other inmates with mental illness, with an average of 77 days (i.e., two to three months) as opposed to 104 days (i.e., three to four months). Despite this shorter length of stay, there were no appreciable differences in the receipt of jail-based assessment and discharge planning services. Interestingly, inmates who were referred to the mental health court, but did not participate, had the longest length of stay in jail, 167 days (i.e., five to six months).

Brooklyn Mental Health Court

Of the 9,493[77] inmates with mental illness treated at City jails during 2005 and 2006, 132 were referred to the Brooklyn MHC in 2005-2006; ultimately, 77 of these participated in the Brooklyn MHC program. We conducted bivariate analyses using T-tests and analysis of variance to identify statistically significant differences (at the 95 percent confidence level) between those who participated in the Brooklyn MHC and those whose cases were adjudicated as usual.

More than one-quarter of the Brooklyn MHC participants in jail during 2005-2006 were Caucasian, making them more likely to be White and non-Hispanic compared to other jail inmates with mental illness. However, they were similar to other inmates with respect to gender, age, English language ability, and homelessness.

The Brooklyn MHC participants treated at Rikers Island were more severely ill than other inmates served by DOHMH on a number of metrics. They were more likely to be classified as SPMI (76 percent compared to 51 percent), more likely to have received medication in jail (93 percent vs. 83 percent), and more likely to have been housed in a MOU (31 percent vs. 12 percent). Their average score of 54 on the Global Assessment of

[77] As noted in Chapter 2, missing information reduced the pool of eligible cases for consideration in the impact analysis to roughly 5,000.

Functioning also was statistically significantly lower than the average of 57 among other inmates.

With respect to mental health diagnoses, the Brooklyn MHC participants treated at Rikers Island were similar to other inmates in that they were most commonly (about 40 percent) diagnosed with mood disorders while in jail. However, Brooklyn program participants were more likely to have been diagnosed with psychotic disorders (25 percent compared to 13 percent) and less likely to have been diagnosed with an adjustment disorder (6 percent compared to 17 percent of other jail inmates).

Roughly one-fifth of the Brooklyn MHC participants treated at Rikers Island were diagnosed with an Axis I substance-related disorder while in jail, which was comparable to other jail inmates with mental illness. Taking Axis II substance use into account as well, we found that 48 percent had some co-occurring substance abuse compared to 58 percent of other inmates with mental illness. This difference, however, is of marginal statistical significance (p=.1057).

Brooklyn MHC participants who were in jail in 2005 and 2006 were incarcerated for an average of 111 days, which was not significantly different from the length of stay by other inmates with mental illness (103 days). In keeping with this finding, MHC participants were comparable to other such inmates with respect to the jail-based assessment and discharge planning services they received. Interestingly, it was nonparticipants in the mental health court (i.e., persons referred to the mental health court who did not participate) who spent the longest time in jail, with an average length of stay of 188 days.

Conclusions About Mental Health Court Participants and Other Jail Inmates With Mental Illness

This analysis has identified some commonalities among MHC participants, and differences from the broader population of jail inmates with mental illness. In brief, our analyses indicate that MHC participants were comparable to other such jail inmates with respect to: 1) diagnosis of mood disorders, 2) receipt of jail-based assessment and discharge planning services, and 3) length of stay in jail—that is, MHC participants had *similar or shorter lengths of stay* than other jail inmates with mental illness. Conversely, MHC participants and individuals processed under standard conditions differed on: 1) demographic characteristics, 2) severity of mental illness whereby MHC participants evidenced more severe mental illness diagnoses, including the presence of psychotic illnesses, and 3) co-occurring substance abuse issues, with MHC participants in the Bronx (only) presenting more than Brooklyn or business-as-usual cases.

CHAPTER 4. IMPACT ANALYSES AND FINDINGS

Analytic Overview

As previously indicated, we conducted separate evaluations of the Brooklyn and Bronx Mental Health Courts, assessing each program's impacts on recidivism outcomes as measured by re-arrest and re-conviction. Based on administrative records, we performed a matched comparison analysis to determine the extent to which MHC participation affected individual likelihoods of recidivism during a minimum 30-month follow-up period. The impact analysis focuses on developing a plausible comparison between arrestees who participated in a MHC program and matched arrestees in jail who were diagnosed with mental disorders.

Each MHC identified individuals who had been referred or admitted to MHC. The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) provided data on all arrestees in NYC who were diagnosed with mental illness. Based on official criminal history data, analytic databases were constructed to measure a variety of factors, such as demographic characteristics, criminal history, mental disorders, and drug use among arrestees. It is important to note that each source of data provides different levels of data completeness and consistency. For our impact evaluation, it was necessary to rely on consolidated data to pool information from different sources. The final sample size and the list of variables available for impact analyses were therefore slightly different from those in the descriptive analyses reported in Chapter 3.

The impact analysis employs propensity score matching (PSM) methods to "match" individuals in each MHC and its respective comparison group as closely as possible. As an alternative to randomized experiments, PSM has widely been used with observational data to estimate program impacts through sampling comparable treatment and control cases from a larger pool of such cases (Rosenbaum and Rubin 1983, 1984). In this approach, the matched comparison represents a counterfactual of what would have happened to the treatment group had they not received treatment. The extent of program impact on recidivism is assessed by comparing the difference in the outcome of interest between the treatment and comparison groups.

Measures

The impact analyses focus primarily on recidivism. Re-arrest and re-conviction were measured as indicators of recidivism in this study. Unfortunately, other outcome measures such as employment and mental health problems were not available for our impact analyses. For MHC participants, we assessed whether or not an arrestee had a subsequent arrest or conviction after being admitted to MHC. For arrestees in jail serviced by DOHMH, we measured whether or not an arrestee had a subsequent arrest or conviction after the initial mental health diagnosis, after which point they would be exposed to the risk of reoffending.[78]

[78] Some individuals in the comparison group were detained longer than others while awaiting the legally mandated assessment at the jail. Based on detention status, our initial analyses compared different sampling

For explanatory variables (covariates), there are four broad domains examined in the impact analyses. First, we measured the baseline demographic characteristics of arrestees, including race, gender, and age at arrest. Second, mental health conditions and drug use history were measured. We examined a series of diagnostic indicators of mental disorder assessed by clinicians and self-reported drug use indicators. Third, we measured the characteristics of instant offense for which arrestees were referred to mental health courts or DOHMH. Fourth, the criminal history of study participants was examined in great detail. Not only did we assess how many times an individual committed different types of offenses in the past, the impact analyses also examined when they were arrested for the first time, if they started a criminal pathway as a violent offender or drug offender, and how many different types of offenses they ever committed. These measures reflect the extent, severity, and character of one's criminal history. Some of these explanatory variables were not commonly available for both Brooklyn and Bronx MHC participants. As such, the Bronx and Brooklyn evaluations were based on slightly different data specifications.[79]

Analytic Strategies

The most desirable feature of randomized experiments, if executed properly, is that one can simply compare those who received treatment to those who did not, and ascribe the difference in the outcome of interest between the two groups to treatment. In observational data, such a comparison does not necessarily bear a causal interpretation due largely to sample selection bias. To the extent that treatment and comparison cases are different in their characteristics, one cannot determine whether the difference in the outcome, if any, is due to treatment or the systematic difference in the characteristics of study subjects.

We have thus employed propensity score matching methods to mimic the framework of an experimental design by which to interpret the difference between the treatment and comparison groups as a causal effect of treatment.[80] Matching involves pairing treatment

---

protocols for the donor pool of comparison cases. Findings were consistent across different sampling frameworks.

[79] Because of this limitation, pooling data from both MHCs would restrict data to a reduced set of variables commonly available in both MHCs. This would increase the chance of hidden bias in propensity score matching analysis. As the primary objective of our impact analysis is to develop less equivocal, more convincing evidence regarding the effectiveness of two MHCs, a pooled analysis is therefore not pursued in our evaluation.

[80] Another conventional approach to propensity score analysis is regression adjustment or stratification based on propensity scores. The key difference between matching and stratification is that matching adjusts for differences between the treated and untreated via study design, whereas stratification involves grouping study subjects into strata based on propensity scores and executing separate analyses within each stratum. One can think of stratification as a coarse form of matching in that the treated are matched to the untreated as a group within each stratum. Although stratification has long been used in the literature to remove selection bias (Cochran 1968; Rosenbaum and Robin, 1983), one of the critical disadvantages of stratification guides against its implementation in this project. Stratification may yield tenuous results when a stratum is disproportionately or exclusively comprised of either treated cases or untreated cases. On the contrary, the matching approach requires that unmatched cases be removed from analysis so that the comparison between the treated and untreated is balanced and uncompromised in terms of internal validity.

and comparison units that are similar in terms of their observed characteristics (Dehejia and Wahba 1998; Rosenbaum and Rubin 1983, 1984). By "balancing" the characteristic differences between treatment and comparison units, one can ascribe the difference in the outcome of interest to treatment. Our impact analyses employed an extensive list of variables, including demographic characteristics, mental health conditions, and prior criminal history to pair treatment and comparison units. Several dozens of observed covariates were used in a logistic regression model to estimate the probability of being admitted to MHC.[81] The predicted probability from this selection model is known as propensity scores.

Using the propensity scores, we performed a one-to-one match between arrestees who participated in MHC and arrestees in jail diagnosed with mental disorders.[82] When the treatment unit encountered more than one candidate for matching who have the exact same propensity scores, one of the candidates was chosen at random. When the candidate for matching is quite different from the treatment unit in terms of case characteristics measured by the propensity score, the treatment unit was left unmatched and removed from the analysis.[83] Limiting the scope of analysis to those who can surely be matched facilitates the development of an analytic framework that resembles that of randomized controlled trials. These principles in propensity score matching can yield a higher level of internal validity in the results of the impact analysis.

---

[81] A list of covariates examined in data analysis is provided in Appendix G.

[82] We have conducted the 1-to-1 match with and without replacement. With replacement, untreated cases from the donor pool of arrestees can be used more than once for matching. If matching is implemented with replacement, there will be, presumably, a greater number of matched pair sets and improved balance between treatment and control cases. However, to the extent that a single control unit is repeatedly used for matching over and over again, matching with replacement may become a problem. Because the primary objective of our propensity score matching analysis is to construct a comparison group equivalent to the treatment group, we present the results from the 1-to-1 match with replacement in this report. However, it should be noted that our comparison on the results from matching with and without replacement yielded relatively little difference. We also conducted 1-to-many matches. In principle, the 1-to-1 match would yield the highest balance and the highest level of internal validity. As the second best match and the third best match (and the next best match) to the treated are included in analysis, it only widens the overall difference between the treated and untreated. The practical advantage of having multiple control units per treated case is the increased sample size. Again, having discovered little difference between the results from 1-to-1 and 1-to-many matches, we report the results from the 1-to-1 match in this study.

[83] This can be implemented by enforcing "common support" and "caliper" in matching. In propensity score matching, there should be a substantial overlap between the treated and untreated in terms of estimated propensity scores. This overlap is known as "common support." In practice, treated cases with very high propensity or untreated cases with very low propensity tend to be outside the region of common support. Such cases should be excluded from the comparison under most circumstances. This is one of the key strengths of matching as it makes transparent the need for common support across the treated and untreated. To ensure the similarity among paired cases, one can also specify a value for the maximum distance, known as caliper, between the treated and untreated in a matching estimator. We have experimented with various matching estimators, including nearest neighbors, kernel, and Mahalanobis matching, with varying calipers (Leuven and Sianesi 2003). Although various matching parameters yielded slightly different results across the models, the overall findings regarding the effectiveness of MHCs remain broadly consistent. In this report, we present findings from the most parsimonious, less equivocal specification that is also relatively less prone to data loss.

Results from the Bronx Mental Health Court

Development of Comparison Groups

The initial Bronx Mental Health Court sample was comprised of 815 persons referred to the court. Of these, 648 arrestees participated in the program between January 1, 2002 and December 31, 2006. Individuals referred to the program who did not participate (N=167) were not considered for inclusion in the impact analysis. Of the 648 eligible treatment subjects, we matched 564 to arrestees in jail diagnosed with mental disorder, as shown in Table 4.1. The matching was conducted on various measures, including demographic characteristics of arrestees, prior criminal history, instant offense characteristics, and drug use.[84]

A fraction of the MHC treatment group had the estimated chance of receiving treatment too high to be matched to anyone in the DOHMH sample and was therefore removed from analysis. The final sample for analysis includes 1,128 observations. Focusing on the matched set of treatment and comparison groups provides greater confidence in the results. Although the removal of unmatched cases could compromise the external validity of findings, the credibility of research evidence assessing program effectiveness usually deserves higher priority in any single evaluative research.

Table 4.1 shows descriptive statistics of key variables before and after matching. The unmatched treated group refers to the 648 treatment subjects who participated in the Bronx mental health court program, 564 of whom were matched to an equivalent comparison subject. The unmatched comparison group refers to the donor pool of arrestees in the DOHMH sample. The matched comparison group includes 564 matched comparison subjects.

The last two columns show the t-statistic and significance level on a given variable. A few notable observations emerging from Table 4.1 include that the treatment and comparison groups are substantially similar to each other after matching. With rare exceptions, the difference between the treatment and comparison groups is statistically

[84] The literature on propensity score analysis offers conflicting perspectives on the issue of selecting covariates to be included in the propensity score estimation. Although there is a general agreement that covariates should have some theoretical bearing on treatment assignment as well as outcome measures, differing opinions exist as to the roles that theory and statistics should play in the decision for covariate selection. On the one hand, Rosenbaum (2002:76) notes that adding more covariates would cause no harm especially when they are powerful predictors of treatment assignment. Similarly, Diamond and Sekhon (2010) develop a search algorithm to iteratively improve the balance between the treated and untreated without paying much attention to a theoretical motivation to impose any particular relationship between covariates and outcomes. On the other hand, Pearl (2009) cautions that the "experimentalist" approach of including covariates in the propensity score estimation based on statistical properties of the covariates may actually amplify bias. In our approach to balancing the difference between treatment and comparison samples, we attempted to include as many covariates as possible. Since administrative records of subjects constitute a rather limited source of information to begin with, it did not seem reasonable to impose a further restriction on the use of already limited data. Moreover, all the covariates examined in this study were of theoretical relevance to recidivism, suggesting no compelling reason for exclusion.

indistinguishable from zero. For example, 35 percent of the Bronx treatment group (matched) and 31 percent of the comparison group (matched) were black. This difference of 4 percentage points has a t-statistic of 1.39, which does not reach statistical significance. Before matching, however, the DOHMH sample (unmatched) shows a much higher proportion of black arrestees (55 percent). Similarly, the matched treatment and comparison groups have an average of 1.34 and 1.33 prior violent felony arrests, respectively, while the DOHMH sample shows an average of 2.44 prior violent felony arrests.

Table 4.1. Descriptive Statistics of Key Measures

Variable	Sample	Treated	Comparison	t	p>|t|
Black	Unmatched	0.34	0.55	-9.91	0.00
	Matched	0.35	0.31	1.39	0.16
White	Unmatched	0.07	0.08	-0.54	0.59
	Matched	0.07	0.07	0.00	1.00
Hispanic	Unmatched	0.58	0.35	11.17	0.00
	Matched	0.57	0.61	-1.39	0.17
Male	Unmatched	0.62	0.66	-1.92	0.06
	Matched	0.62	0.61	0.06	0.95
Age at Arrest	Unmatched	37.04	34.46	5.83	0.00
	Matched	36.79	36.93	-0.24	0.81
Number of Prior Arrests	Unmatched	13.50	16.18	-4.25	0.00
	Matched	13.17	13.00	0.23	0.82
Age at 1st Arrest	Unmatched	24.53	21.48	9.35	0.00
	Matched	24.26	23.78	0.94	0.35
N of Any Violent Felony Offenses	Unmatched	1.33	2.44	-9.49	0.00
	Matched	1.34	1.33	0.13	0.90
N of Firearm-related Offenses	Unmatched	0.19	0.43	-6.89	0.00
	Matched	0.21	0.20	0.11	0.91
N of Drug-related Offenses	Unmatched	6.67	5.69	3.74	0.00
	Matched	6.46	6.26	0.63	0.53

Table 4.1. Descriptive Statistics of Key Measures (cont.)

Variable	Sample	Treated	Comparison	t	p>|t|
N of Property Offenses	Unmatched	2.88	4.33	-4.36	0.00
	Matched	2.78	2.71	0.23	0.82
N of Public Order Offenses	Unmatched	3.29	4.65	-5.96	0.00
	Matched	3.29	3.22	0.29	0.77
1st Offense as Robbery	Unmatched	0.09	0.17	-4.67	0.00
	Matched	0.10	0.10	0.30	0.77
1st Offense as Burglary	Unmatched	0.11	0.10	0.64	0.52
	Matched	0.10	0.13	-1.41	0.16
1st Offense as Assault	Unmatched	0.09	0.12	-2.55	0.01
	Matched	0.09	0.09	-0.42	0.68
1st Offense as Drug Sale	Unmatched	0.12	0.06	6.01	0.00
	Matched	0.12	0.10	1.13	0.26
Alcohol Use	Unmatched	0.02	0.06	-4.35	0.00
	Matched	0.02	0.03	-0.77	0.44
Cocaine Use	Unmatched	0.10	0.10	0.11	0.91
	Matched	0.11	0.13	-1.18	0.24
Marijuana Use	Unmatched	0.05	0.07	-1.90	0.06
	Matched	0.05	0.04	1.31	0.19
Heroin Use	Unmatched	0.16	0.11	3.91	0.00
	Matched	0.16	0.13	1.28	0.20
Instant Offense: Violent Felony	Unmatched	0.09	0.24	-8.68	0.00
	Matched	0.10	0.10	-0.10	0.92
Instant Offense: Firearm-related	Unmatched	0.02	0.06	-4.67	0.00
	Matched	0.02	0.03	-1.36	0.17

Table 4.1. Descriptive Statistics of Key Measures (cont.)

Variable	Sample	Treated	Comparison	t	p>|t|
Instant Offense: Drug-related	Unmatched	0.77	0.38	19.19	0.00
	Matched	0.75	0.76	-0.14	0.89
Offense Variety Score[85]	Unmatched	4.72	5.36	-6.51	0.00
	Matched	4.65	4.76	-0.75	0.45
Propensity Score	Unmatched	0.50	0.07	64.57	0.00
	Matched	0.46	0.46	0.00	1.00

It is clear that the DOHMH sample (arrestees serviced by DOHMH) has characteristics distinctive from those of the treatment group.[86] The DOHMH arrestees tend to be younger, have more prior arrests, started criminal careers as violent offenders, and have engaged in different types of offenses. Table 4.1 shows that these differences between the DOHMH and treatment groups reduced significantly after matching.

Second, there exists little difference between matched and unmatched treatment subjects. For example, the age at arrest is 37.04 for those who participated in the Bronx MHC program (unmatched) and 36.79 for the subset of the treatment subjects who were matched. This implies that the consequence of removing the unmatched treatment cases in subsequent analyses would not distort the overall characteristics of MHC participants.

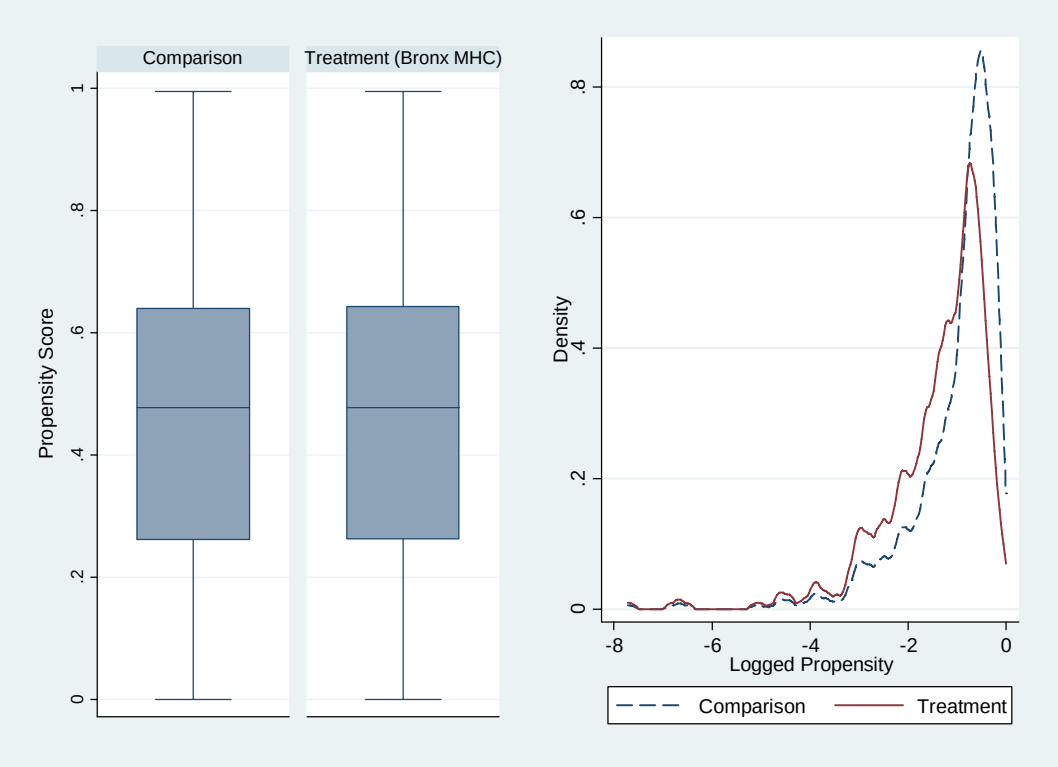
Third, the estimated propensity score is substantially higher for the MHC sample (50 percent chance of receiving treatment) than DOHMH sample (7 percent chance of receiving treatment). After matching, however, the propensity score is nearly identical for both groups (46 percent chance of receiving treatment). The matching procedure resulted in remarkable performance in achieving the overall balance between the treatment and comparison groups, which is also well-illustrated in Figure 4.1.

Figure 4.1 shows the distribution of estimated propensity scores. There seem to be no distributional differences between the treatment and comparison groups. Although the two groups are still slightly different on a few individual covariates after matching, the overall balance between the two groups is highly satisfactory. The distribution of logged propensity scores estimated for the Bronx MHC and the comparison groups also yields similar patterns. Both groups show a wide range of common grounds for comparison. To recap, the matching procedure significantly reduced the differences in the pre-treatment conditions. The treatment group as a whole is virtually identical to the comparison group

[85] This factor is measured by the number of different types of offenses one has committed in the past.
[86] The preexisting difference between treatment and comparison groups can be conceived as a bias. This was measured by as a percentage of the square root of the average of the sample variances in the treated and untreated groups (see Rosenbaum and Rubin (1985) for technical details). After matching, the extent of standardized bias reduced from 29.8 to 3.3 – nearly a 90 percent reduction in bias.

in terms of a variety of observed characteristics of study participants, including demographics, criminal history, and substance use.

Figure 4.1. Propensity Scores, by Bronx Mental Health Court and Comparison Groups



Before turning to the next section, it is worth emphasizing that the propensity score is the coarsest function of all the covariates. While this approach can improve the overall comparability between treatment and comparison groups, it is always feasible in propensity score matching that the two groups may not balance on certain covariates. To the extent that the propensity score is not balanced, it is important to note that the observed covariates used to calculate the propensity score will continue to be useful in predicting treatment assignment (Rosenbaum 2009:166). Hence, some of the key covariates are included in later analyses to enhance the statistical rigor of the estimated treatment effect for MHC programs. A further discussion on this issue follows in a later section of this report.

Does Mental Health Court Reduce Recidivism?

This section discusses the results from propensity score matching analysis. Table 4.2 reports the average treatment effect of Bronx MHC on recidivism measured by re-arrest and re-conviction. After matching on a wide range of offender characteristics, we found that the treatment group was less likely to experience recidivism than the comparison

group in our 30-month (minimum) follow-up.[87] First, the re-arrest rate was 69 percent for the treatment group and 75 percent for the comparison group. The difference of 6 percentage points is statistically significant, suggesting that MHC participation reduces the chance of being re-arrested. In other words, had the Bronx MHC participants not been admitted to treatment, the chance of re-arrest would have increased by 6 percentage points.

Table 4.2. Average Treatment Effect of Mental Health Court on Recidivism

Variable	Bronx Treatment	Control	Difference	S.E.	T
Re-arrest	0.69	0.75	-0.06	0.04	-1.66+
Re-conviction	0.62	0.62	<-0.01	0.04	-0.04

Note. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

MHC participation, however, did not result in a measurable reduction in the chance of re-conviction. Although its effect on re-conviction is still in the expected direction (although rounding in Table 4.2 obscures this), there is no statistically significant difference between the treatment and comparison groups. To better understand recidivism patterns between the treatment and comparison groups, Table 4.3 shows the type of offense for which study participants were rearrested. The offense categorization is approximately based upon UCR classification. Violent crime refers to murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property crime includes burglary, larceny, motor vehicle theft, and arson. All controlled substance offenses are classified as drug crime. Some of the examples included in other crime are forgery, prostitution, fraud, gambling, DWI, loitering, and disorderly conduct.

Overall, the breakdown of offense type is fairly similar between the treatment group and the comparison group. Drug crime accounts for the majority of all recidivism offenses: 48 percent in the treatment group and 44 percent in the comparison group. The Pearson's χ^2 (= 3.92) indicates that there is no meaningful association overall between the treatment assignment and the offense type for re-arrest (p=.27).[88]

[87] Most recidivism studies typically rely on a 6-month, 1-year, or 2-year follow-up and universally discover that recidivists would tend to re-offend relatively quickly after intervention. It is rather unusual that recidivists would remain crime-free for a long time before recidivating. That said, adjusting for the at-risk time for recidivism in this analysis might not be as critical as in other studies with a short-term follow-up period. This view is supported by findings from survival analysis, adjusting for the exposure to risk of recidivism. As further discussed in a later section of this report, the PSM results reported herein do not differ much from those of survival analysis.

[88] The official statistics on the three-year follow-up recidivism rates for offenders who were convicted of felony and misdemeanor offenses in New York City and sentenced to probation afterwards indicate that the probability of being re-arrested for a violent felony offense is similar to the probability of being re-arrested for a drug offense in the probationer population (approximately 12-13 percent in the mid-2000s). It is clear that the study sample examined in this evaluation is quite different from a larger offender population in New York City in that the majority of recidivists in our study sample were re-arrested for drug crimes (NYS DCJS 2011).

Table 4.3. Offense Type for Re-Arrest by Treatment and Comparison Groups

	Re-Arrest		
Offense Type	**Control**	**Bronx MHC**	**Total**
Violent	25 5.91%	29 7.46%	54 6.65%
Property	46 10.87%	29 7.46%	75 9.24%
Drug	188 44.44%	186 47.81%	374 46.06%
Other	164 38.77%	145 37.28%	309 38.05%
Total	423 100%	389 100%	812 100%

Pearson's $\chi^2 = 3.92$ with df (3)

What Explains Recidivism in Bronx Mental Health Court?

Although the question of program effectiveness is addressed in the above analysis, it is advantageous to check the robustness of findings by employing further statistical adjustments to control for residual bias that may exist among the treatment and comparison groups. Not only does this increase efficiency (Rubin 1997), but such analyses can afford an opportunity to examine the extent to which other factors explain recidivism. Based on the matched case-control sample, Table 4.4 thus presents the results from logistic regressions predicting the chance of re-arrest and re-conviction. It is important to note that the results reported in Tables 4.2 and 4.4 rely on the same analytic framework of a matched case-control design, but additional covariate adjustments are applied to the later analysis. By additionally controlling for relevant covariates, the logistic models reported in Table 4.4 complement the initial PSM estimates of program impact.

Table 4.4. Logistic Regressions Predicting Re-Arrest and Re-Conviction (N=1,128)

Bronx	**Model (1)** Re-Arrest	**Model (2)** Re-Conviction
	Odds Ratio	**Odds Ratio**
MHC Treatment	0.707+	0.961
	(-1.67)	(-0.21)
Black	1.968	1.747
	(0.86)	(0.94)
White	0.778	0.838
	(-0.30)	(-0.27)
Hispanic	1.392	1.439
	(0.42)	(0.62)
Male	1.210	1.172
	(0.93)	(0.81)
Age	0.951**	0.954**
	(-4.62)	(-4.74)
Bronx (Arrest Location)	4.512**	2.794*
	(3.14)	(2.39)
Instant Offense: Violent	0.639	0.765
	(-1.36)	(-0.87)
Instant Offense: Property	2.135	2.758*
	(1.58)	(2.20)
Instant Offense: Drug	1.034	1.006
	(0.13)	(0.03)
Substance Use (Hard Drugs)	2.109**	1.616*
	(3.29)	(2.17)
Number of Prior Arrests with Violent Felony Charge	0.980	0.895+
	(-0.27)	(-1.69)
Number of Prior Arrests with Property Offense Charge	1.191**	1.119**
	(3.69)	(2.75)
Number of Prior Arrests with Drug Offense Charge	1.047+	1.051*
	(1.82)	(2.15)
Number of Prior Arrests with Public Disturbance Charge	0.991	1.012
	(-0.33)	(0.46)
Offense Variety Score	1.020	1.027
	(0.27)	(0.42)
AIC	1210.9	1402.9
BIC	1296.4	1488.3
Log Likelihood	-588.4	-684.4
Chi-squared	88.39	67.76

Exponentiated coefficients; *t* statistics in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

There are several findings that are noteworthy. First, while controlling for demographic and case characteristics, we found that being in the Bronx MHC program would reduce the chance of re-arrest (Model 1). Consistent with the earlier findings, the odds of being re-arrested are approximately 29 percent lower for the treatment group than the comparison group. The predicted probability of re-arrest is 76 percent for the comparison group and 70 percent for the MHC treatment group. Model 2 reports the odds of being re-convicted. Similar to the earlier results, MHC participation yielded a negative, marginal effect on the chance of reconviction, but failed to reach statistical significance. Overall, the re-arrest and re-conviction models were in accord to each other. Most covariates also yielded an effect that is in the same direction and of similar size between the re-arrest and re-conviction models.

Second, with respect to demographics, neither gender nor race yielded a meaningful effect on recidivism. However, age at arrest shows a highly significant effect on re-arrest. Each additional year of age at arrest is associated with a reduction in the chance of re-arrest by 1 percentage point.

Third, the effect of instant offense on recidivism was examined through a set of binary indicators assessing the type of offense. The reference category was set to "other," which combines numerous minor offenses and public disorder offenses. The effect of violent crime indicator, approaching statistical significance, suggests that arrestees diagnosed with mental disorders and charged with violent offense are associated with positive recidivism outcomes than similar arrestees charged with other offenses. By contrast, those who were arrested for property crime are associated with negative recidivism outcomes. Similar to the instant offense type, the number of prior arrests for property is significantly associated with negative recidivism outcomes. The higher the number of prior arrests for property, the more likely it is for offenders to be re-arrested. This pattern of recidivism is also detected among those who have prior records of drug offense. Although we found no direct support for this speculation, it is conceivable from these observations that mental health treatment may be more equipped to address temperament, which might instigate violence, as opposed to drug addiction or other cognitive problems, which might be a stimulus to drug or property crime.[89]

Fourth, when it comes to drug use and program effectiveness, the odds of experiencing recidivism for hard drug users (cocaine and heroin) are 2.1 times the odds of those who do not use hard drugs for recidivism, while controlling for other factors. Put differently, individuals diagnosed as hard drug users may be at a greater risk of recidivism, thereby necessitating more attention in MHC.

[89] We tested the interaction effect of treatment and the presence of violent crime in a separate model. The estimated effect of the interaction term is in the expected direction, but failed to reach statistical significance at the 0.05 level.

How Soon to Re-Offend?

So far, the results suggest that MHC participation reduces recidivism. This section further discusses the effect of MHC treatment by examining how the treatment and comparison groups recidivate over time. We use the Cox proportional hazards regression model to examine how the risk of recidivism changes over time. Table 4.5 exhibits the effect of covariates on the hazard of re-arrest (failure rates) on the matched case-control sample.

First, the parameter of primary interest is the effect of MHC participation. The estimated hazard ratio of 0.686 in Model 1 indicates that the MHC treatment group has a 31 percent smaller hazard of recidivism than the comparison group.[90] This effect size remains stable and statistically significant even after demographic and case characteristics are included in the model. The estimated hazard of recidivism for the MHC treatment group is 36 percent smaller than that of the comparison group (Model 2). Again, a marginal change in the size of treatment effects between Models 1 and 2 suggests that the matched case-control sample is well-balanced between the treatment and comparison groups.

Second, all other covariates yielded similar results as shown in the logistic regression models. Each additional year of age at arrest is associated with the reduced hazard of recidivism. The younger the age of offenders at the time of arrest, the higher the risk of recidivism. Those who are charged with drug offenses or have prior drug charges show a greater risk of recidivism than those do not.

Figure 4.2 plots the survivor function for the MHC treatment and comparison groups. While controlling for all other covariates, the MHC treatment group shows a higher survival rate than the comparison group.[91] The survivor function declines fairly quickly in the first year, but overall both groups show a gradual decay over time. Further, it is worth pointing out that throughout the entire analysis time, the treatment group outperforms the comparison group in terms of the estimated survival rate, and the gap between the two groups widens as time elapses.

[90] Cox proportional hazard models assume that the relative hazard of an event (i.e., re-arrest in our evaluation) is fixed over time. In other words, if the hazard of recidivism for the MHC treatment group is 50 percent lower than that of the comparison group, this ratio should hold up at one year, at two years, or at any point on the time scale. We tested the violations of the proportional hazard assumption on the basis of Schoenfeld residuals (Grambsch and Therneau 1994) and found no evidence indicating that the proportional-hazards assumption has been violated for MHC treatment.

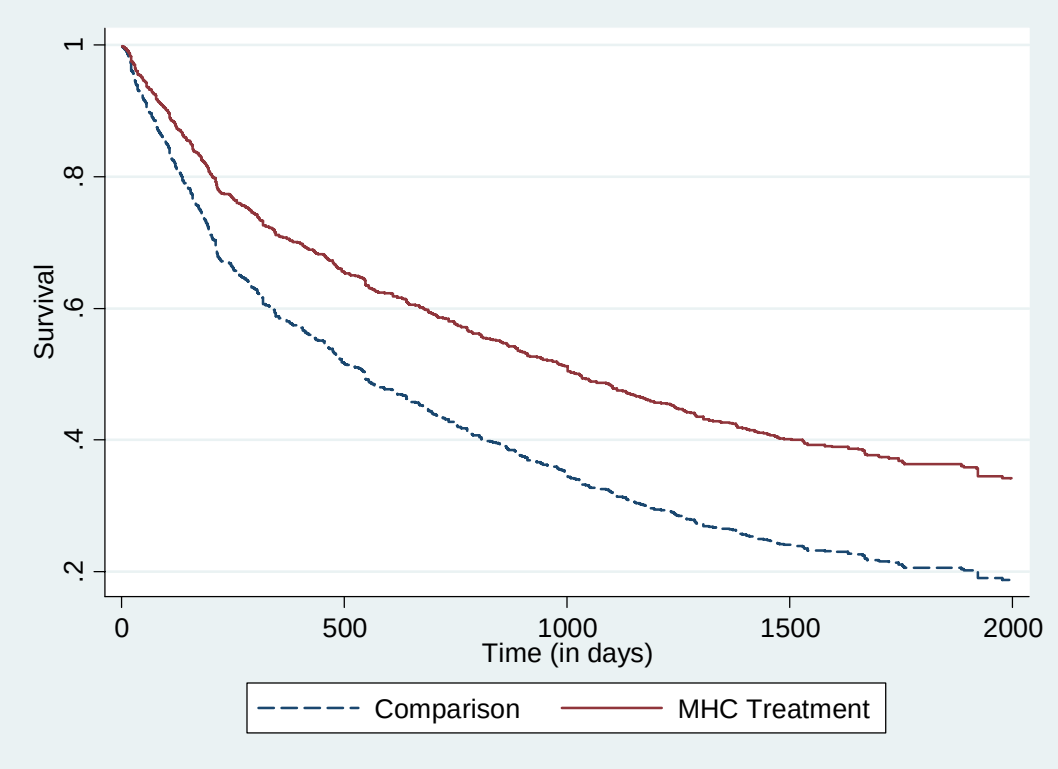
[91] The MHC treatment group had a much longer exposure to the risk of recidivism than the comparison group. As such, we limited the analysis time to 2000 days (more than five years), by which time the last re-arrest event for the comparison group was observed.

Table 4.5. Survival Analysis Predicting the Hazard of Re-Arrest (N=1,128)

Bronx	**Model (1)**	**Model (2)**
	Hazard Ratio	**Hazard Ratio**
MHC Treatment	0.686** (-5.24)	0.641** (-6.04)
Black		0.984 (-0.04)
White		0.649 (-1.07)
Hispanic		0.910 (-0.25)
Male		1.025 (0.31)
Age		0.976** (-6.00)
Bronx (Arrest Location)		2.109** (3.80)
Instant Offense: Violent		1.159+ (1.79)
Instant Offense: Property		0.855 (-1.00)
Instant Offense: Drug		1.881** (3.61)
Substance Use (Hard Drugs)		0.938 (-0.65)
Number of Prior Arrests with Violent Felony Charge		0.944* (-2.30)
Number of Prior Arrests with Property Offense Charge		1.035** (5.67)
Number of Prior Arrests with Drug Offense Charge		1.027** (3.31)
Number of Prior Arrests with Public Disturbance Charge		0.990 (-0.98)
Offense Variety Score		1.052* (2.33)
AIC	10467.0	10366.3
BIC	10472.1	10446.8
Log Likelihood	-5232.5	-5167.2
Chi-squared	27.55	158.3

Exponentiated coefficients; *t* statistics in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Figure 4.2. Time to Re-Arrest by Treatment Condition



Results from the Brooklyn Mental Health Court

Development of Comparison Groups

The development of a comparison group for Brooklyn MHC follows the same procedures as those used for Bronx MHC. Due to the difference in data availability and characteristics between Bronx and Brooklyn MHCs, however, a moderately different set of covariates were used in the impact analysis for Brooklyn MHC. In particular, Axis I diagnoses were available for those who participated in Brooklyn MHC, as well as those diagnosed with mental disorder in jail. We matched the Brooklyn sample to the DOHMH sample on mental health conditions, as well as criminal history and other individual characteristics.

Another noteworthy difference in the Brooklyn evaluation is that the donor pool from which to develop an equivalent comparison unit is slightly different than that of the Bronx evaluation. Due to available and complete data, the Brooklyn evaluation relies on a slightly different set of DOHMH arrestees, as well as a moderately different combination of covariates in the propensity score estimation. There were 316 participants in the Brooklyn MHC program eligible for the impact analysis. The DOHMH sample for the Brooklyn impact analysis consists of 5,110 arrestees with mental disorders from which a matched comparison is withdrawn.

Based on a 1-to-1 match, the propensity score matching procedure yielded 303 matched pairs. Those unmatched cases (n=13) from the MHC sample had too high a propensity score that could not be supported by the DOHMH sample. The average probability of receiving treatment among the unmatched cases is 0.996. Data loss due to unmatched cases is trivial (less than 5 percent of the MHC sample), posing no critical threat to our analyses. However, we should note that the removed cases tend to be older and have a longer criminal history than the matched cases.

Table 4.6 reports descriptive statistics of key measures before and after matching. There are still a few covariates that differ significantly between the treatment and comparison groups after matching. For example, treatment subjects are on average 1.5 years younger than comparison subjects at the time of the first arrest. There are also slightly more subjects in the treatment group who were arrested for drug crimes (24 percent) than in the comparison group (21 percent). Despite these subtle differences, the MHC and DOHMH samples became markedly similar to each other after matching. The overall balance between the treatment and comparison groups is excellent.[92] The average propensity score of the treatment group (=.41) is indistinguishable from that of the comparison group.

Also noteworthy is that there were substantial differences between the MHC and DOHMH samples in terms of mental health conditions, but PSM achieved a significant reduction in such differences. For instance, the DOHMH sample has a substantially higher prevalence rate for adjustment disorder (16 percent) and a substantially lower prevalence rate for psychotic disorder (13 percent) than the Brooklyn MHC participants (1 percent and 37percent, respectively). These differences have been completely balanced after matching. The proportion of the subjects diagnosed with those disorders is practically the same for the treatment and comparison groups after matching.

These observations on the compatibility between the treatment and comparison groups are well-supported in Figure 4.3. The boxplots of estimated propensity scores present an almost identical overlap between the treatment and comparison groups. The distribution of logged propensity scores also confirms that the Brooklyn and the comparison samples share great resemblance with each other.

Despite the remarkable performance of propensity score matching, it is important to point out a few potential shortcomings. First, similar to the Bronx evaluation, a few cases from the Brooklyn sample had a propensity score too high to be matched. Such cases could not be matched to a reasonably equivalent comparison unit and were therefore removed from analysis. It is important to acknowledge that estimating the effect of treatment in a subpopulation that would always receive treatment is not plausible through propensity score matching (Rosenbaum 2009). Second, the propensity score is the coarsest function of all the covariates as a whole. Although the overall performance of matching was

[92] PSM reduced the extent of standardized bias across all covariates used in PSM by nearly 80 percent. The difference between treatment and comparison groups, measured as defined in Rosenbaum and Rubin (1985), diminished from 25.4 to 6.0 after matching.

exceptional, the balance between the treatment and comparison groups on a few covariates requires further improvement. These are minor qualifications of our evaluation that need to be recognized in the later analysis examining treatment impact.

Table 4.6 Descriptive Statistics of Key Measures

Variable	Sample	Treated	Comparison	T	p>|t|
Black	Unmatched	0.58	0.59	-0.41	0.68
	Matched	0.58	0.55	0.66	0.51
White	Unmatched	0.38	0.18	8.76	0.00
	Matched	0.38	0.41	-0.83	0.41
Hispanic	Unmatched	0.20	0.38	-6.38	0.00
	Matched	0.20	0.22	-0.40	0.69
Male	Unmatched	0.75	0.67	3.21	0.00
	Matched	0.76	0.78	-0.48	0.63
Age at Arrest	Unmatched	34.98	34.78	0.33	0.74
	Matched	34.80	35.40	-0.63	0.53
Number of Prior Arrests	Unmatched	22.12	16.61	5.76	0.00
	Matched	20.03	18.80	0.62	0.54
Age at 1st Arrest	Unmatched	24.16	21.56	5.78	0.00
	Matched	24.32	25.80	-1.62	0.11
N of Any Violent Felony Offenses	Unmatched	4.33	2.42	10.52	0.00
	Matched	3.82	3.42	0.94	0.35
N of Firearm-related Offenses	Unmatched	0.68	0.42	5.00	0.00
	Matched	0.65	0.56	0.82	0.41
N of Drug-related Offenses	Unmatched	6.36	5.99	0.94	0.35
	Matched	5.95	6.20	-0.32	0.75
N of Property Offenses	Unmatched	6.19	4.40	3.64	0.00
	Matched	5.31	4.07	1.58	0.12

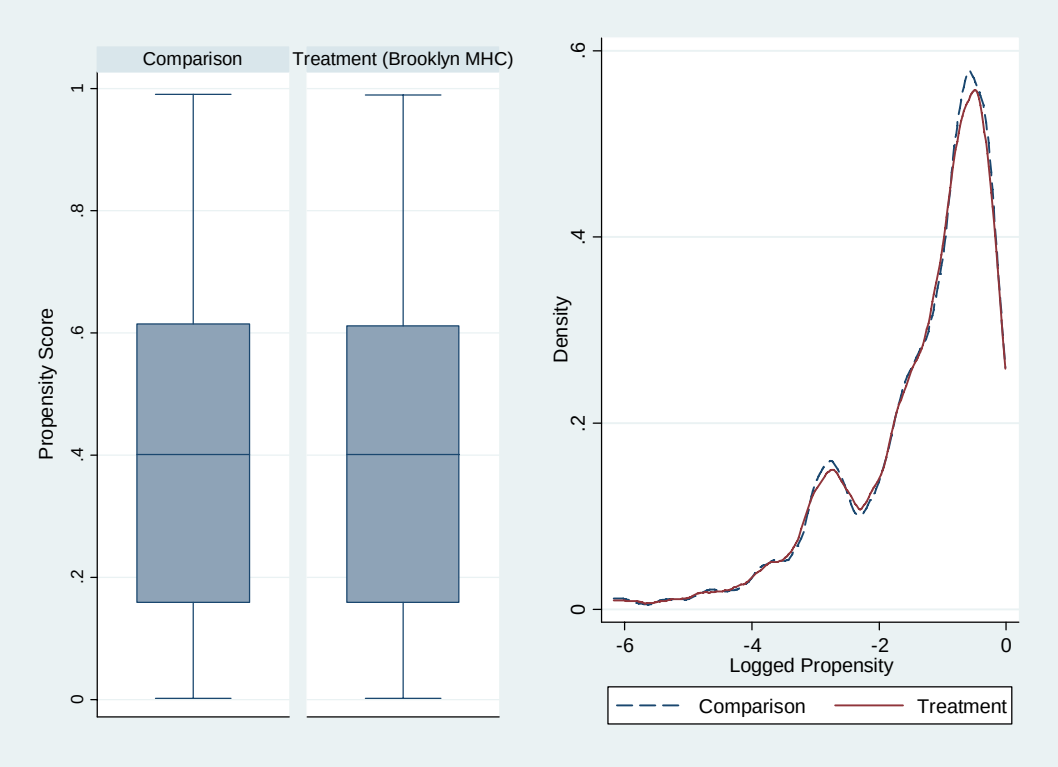
Table 4.6 Descriptive Statistics of Key Measures (cont.)

Variable	Sample	Treated	Comparison	T	p>|t|
N of Public Order Offenses	Unmatched	7.74	4.71	8.51	0.00
	Matched	6.95	7.11	-0.19	0.85
1st Offense as Robbery	Unmatched	0.15	0.16	-0.90	0.37
	Matched	0.14	0.11	1.23	0.22
1st Offense as Burglary	Unmatched	0.10	0.10	0.07	0.94
	Matched	0.10	0.10	0.00	1.00
1st Offense as Assault	Unmatched	0.24	0.12	6.30	0.00
	Matched	0.23	0.25	-0.57	0.57
1st Offense as Drug Sale	Unmatched	0.04	0.06	-1.64	0.10
	Matched	0.04	0.05	-0.39	0.70
AXIS I diagnosis:	Unmatched	0.01	0.16	-7.30	0.00
Adjustment disorder	Matched	0.01	0.01	-0.45	0.65
AXIS I diagnosis:	Unmatched	0.55	0.39	5.53	0.00
Mood disorder	Matched	0.56	0.51	1.06	0.29
AXIS I diagnosis:	Unmatched	0.37	0.13	12.40	0.00
Psychotic disorder	Matched	0.37	0.37	-0.08	0.93
AXIS I diagnosis:	Unmatched	0.03	0.24	-8.90	0.00
Substance-related disorder	Matched	0.03	0.05	-1.67	0.10
Alcohol Use	Unmatched	0.08	0.06	1.76	0.08
	Matched	0.08	0.05	1.46	0.15
Cocaine Use	Unmatched	0.04	0.10	-3.37	0.00
	Matched	0.04	0.04	0.21	0.83
Heroin Use	Unmatched	0.02	0.12	-5.50	0.00
	Matched	0.02	0.00	1.64	0.10
Marijuana Use	Unmatched	0.07	0.06	0.23	0.82
	Matched	0.07	0.08	-0.31	0.76

Table 4.6 Descriptive Statistics of Key Measures (cont.)

Variable	Sample	Treated	Comparison	T	p>|t|
Instant Offense: Violent Felony	Unmatched	0.31	0.23	3.25	0.00
	Matched	0.31	0.33	-0.44	0.66
Instant Offense: Firearm-related	Unmatched	0.07	0.06	0.84	0.40
	Matched	0.07	0.06	0.67	0.50
Instant Offense: Drug-related	Unmatched	0.24	0.40	-5.68	0.00
	Matched	0.24	0.21	0.97	0.33
Offense Variety Score	Unmatched	4.63	5.38	-5.50	0.00
	Matched	4.51	4.25	1.17	0.24
Propensity Score	Unmatched	0.43	0.04	59.90	0.00
	Matched	0.41	0.41	0.01	0.99

Figure 4.3. Propensity Scores, by Brooklyn Mental Health Court and Comparison Groups



Does Mental Health Court Reduce Recidivism?

Table 4.7 displays the results from propensity score matching analysis. The average recidivism rates were estimated for the Brooklyn treatment and comparison groups after matching on a wide array of covariates, including mental health conditions, criminal history, and demographic characteristics of study subjects. The long-term follow-up on MHC participants indicates that the average re-arrest rates are approximately 60 percent for the treatment group and 68 percent for the comparison group. Had the Brooklyn MHC participants not been admitted to MHC, their re-arrest rate would have been higher by approximately 8 percentage points. Similarly, MHC participation resulted in a reduction of 17 percentage points in re-conviction.[93] The average re-conviction rate for the MHC treatment group is 40 percent as opposed to 56 percent for the comparison group. The treatment group is significantly less likely to be re-convicted than the comparison group.

Table 4.7. Average Treatment Effect of Mental Health Court on Recidivism

Variable	Brooklyn Treatment	Comparison	Difference	S.E.	T
Re-arrest	0.60	0.68	-0.08	0.05	-1.51*
Re-conviction	0.40	0.56	-0.17	0.05	-3.20**

Note. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

The type of offense for which recidivists were re-arrested is summarized in Table 4.8. Findings are generally consistent with the results from the Bronx evaluation. There is no overall association between treatment assignment and the type of offense ($\chi^2 = 5.88$, p=0.117). The proportion of re-arrests for violent and property crimes is relatively similar across the treatment and comparison groups (15 percent versus 17 percent and 16 percent versus 16 percent, respectively). However, the proportion of drug crimes is larger in the comparison sample (35 percent) than in the treatment sample (25 percent).

What Explains Recidivism in Brooklyn Mental Health Court?

The results from logistic regressions predicting the chance of re-arrest and re-conviction are shown in Table 4.9. By examining (controlling for) the effect of other predictors of recidivism, these models complement the PSM analysis estimating the average treatment effect of Brooklyn MHC. Based on the matched-case control data, the models include an indicator for treatment assignment, demographic characteristics, county of arrest as a geographic control, the type of instant offense, and other criminal history factors.

[93] The difference was calculated with rounding.

Table 4.8. Offense Type for Re-Arrest by Treatment and Comparison Groups

	Re-Arrest		
Offense Type	**Comparison**	**Brooklyn MHC**	**Total**
Violent	31 15.05%	31 16.94%	62 15.94%
Property	32 15.53%	29 15.85%	61 15.68%
Drug	73 35.44%	45 24.59%	118 30.33%
Other	70 33.98%	78 42.62%	148 38.05%
Total	206 100%	183 100%	389 100%

Pearson's $\chi^2 = 5.88$ with df (3)

Consistent with the earlier analysis, MHC participation lowers the chance of recidivism. The odds of being re-arrested are 46 percent lower for the Brooklyn MHC treatment groups than the comparison group. Similarly, having participated in the Brooklyn MHC treatment lowers the chance of re-conviction. For an average study participant, the chance of being re-arrested was 57 percent in the treatment group and 69 percent in the comparison group. The difference of 12 percentage points is statistically significant after additional covariate adjustments in Model 1, reaffirming the earlier results from the PSM analysis. It is also notable that additional covariate adjustment moderately reduced the effect of MHC participation on re-arrest. The inclusion of covariates in Model 2 appears to be useful in refining the estimated effect of the Brooklyn MHC program.[94]

A few other predictors, such as prior involvement in violent crime and offense variety score show statistical significance in predicting recidivism. These findings on criminal history-related factors are consistent with the results from the Bronx evaluation. Violent offenders who participated in the MHC program were much less likely to recidivate than other offenders in the MHC program. A national recidivism study on prisoners indicates that violent offenders tend to have a lower re-arrest rate than property or drug offenders and a similar re-arrest rate as public-order crime such as driving while intoxicated, weapon-related offenses, traffic offenses, and obstruction of justice (Langan and Levin 2002). Since violent offenders were considerably less likely to recidivate than any other offenders in the Brooklyn evaluation, it seems salient to hypothesize that MHC programs

[94] As discussed above, the propensity score is the coarsest function of all the covariates as a whole. It is therefore possible that additional covariate adjustments can result in a non-negligible change even when the overall balance between treatment and comparison groups is great.

Table 4.9. Logistic Regressions Predicting Re-Arrest and Re-Conviction (N=606)

Brooklyn	**Model (1)** Re-Arrest	**Model (2)** Re-Conviction
	Odds Ratio	**Odds Ratio**
MHC Treatment	0.540* (-2.43)	0.378** (-4.31)
Black	2.207+ (1.85)	1.211 (0.43)
White	1.002 (0.00)	0.715 (-0.75)
Hispanic	1.359 (0.94)	1.207 (0.59)
Male	1.053 (0.18)	0.791 (-0.81)
Age	0.961** (-3.49)	0.971** (-2.69)
Kings (Arrest Location)	0.385* (-2.17)	0.744 (-0.91)
Instant Offense: Violent	0.820 (-0.63)	0.720 (-1.09)
Instant Offense: Property	1.205 (0.47)	1.015 (0.04)
Instant Offense: Drug	1.896+ (1.66)	1.220 (0.60)
Substance Use (Hard Drugs)	1.305 (0.60)	1.282 (0.53)
Number of Prior Arrests with Violent Felony Charge	0.931* (-1.97)	0.947+ (-1.65)
Number of Prior Arrests with Property Offense Charge	1.011 (0.55)	1.043* (2.33)
Number of Prior Arrests with Drug Offense Charge	0.982 (-0.91)	0.999 (-0.05)
Number of Prior Arrests with Public Disturbance Charge	1.048+ (1.72)	1.001 (0.05)
Offense Variety Score	1.518** (4.56)	1.380** (4.44)
AIC	663.3	748.4
BIC	738.2	823.3
Log Likelihood	-314.7	-357.2
Chi-squared	71.22	76.51

Exponentiated coefficients; *t* statistics in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

might be better suited to address criminogenic factors for violent offenders than for other types of offenders.[95]

Most other covariates, including gender and age, yielded a null effect on recidivism. Although not presented in Table 4.9, mental health conditions such as Axis I diagnosis with adjustment disorder, mood disorder, psychotic disorder, or substance-related disorder also resulted in a null effect on recidivism.

How Soon to Re-Offend?

This section presents results from survival analysis, which takes into consideration that the amount of time at risk of recidivism varies across study subjects. We first employed the Cox proportional hazards regression model to estimate the effect of MHC participation on the hazard of re-arrest (failure rates). The fundamental assumption in this approach is that the relative hazard of recidivism for MHC treatment is stable over time. Unlike the Bronx evaluation, the matched case-control data from the Brooklyn MHC does not satisfy this assumption. We thus specified models in such a way that relaxes the proportional hazard assumption.[96] The results from these models are reported in Table 4.10. Several observations are worth highlighting.

First, the MHC participation has a highly significant, negative effect on the hazard of re-arrest. The estimated hazard ratio of 0.509 in Model 1 indicates that the MHC treatment group has a 49 percent smaller hazard of recidivism than the comparison group. This effect size remains stable and statistically significant even after other covariates are introduced in the model (Model 2). This marginal change in the size of treatment effects between Models 1 and 2 implies that the performance of PSM is robust to additional controls.

Second, all other covariates yielded similar results as shown in the logistic regression models. The age at arrest is associated with the reduced hazard of recidivism. For each additional four years of age at the time of arrest, the hazard of recidivism decreases by approximately 10 percent. The younger the age of offenders at the time of arrest, the higher the risk of recidivism. The factors associated with an increased hazard of recidivism are substance use, the number of prior property offenses, and the offense variety score. Especially, the offense variety score, measured by the number of different types of offenses one has committed in the past, moderates the effect of the MHC participation. Although not reported in Table 4.10, the interaction term of the offense variety score and the MHC participation is moderately positive (exp(b)=1.074, p=0.057), indicating that MHC treatment would not be beneficial to offenders who have a variety of prior offending experience.

---

[95] The interaction effect of violent offense and treatment participation was tested in a variety of model specifications. The results were consistent across different models that violent offenders who participated in the Brooklyn MHC program were less likely to recidivate, but statistical significance was not achieved.

[96] Following Lambert and Royston (2009), we used restricted cubic spline functions to model the baseline cumulative hazards and baseline cumulative odds of survival in Cox models. These models enable proportional hazards to be fit but can be extended to model time-dependent effects.

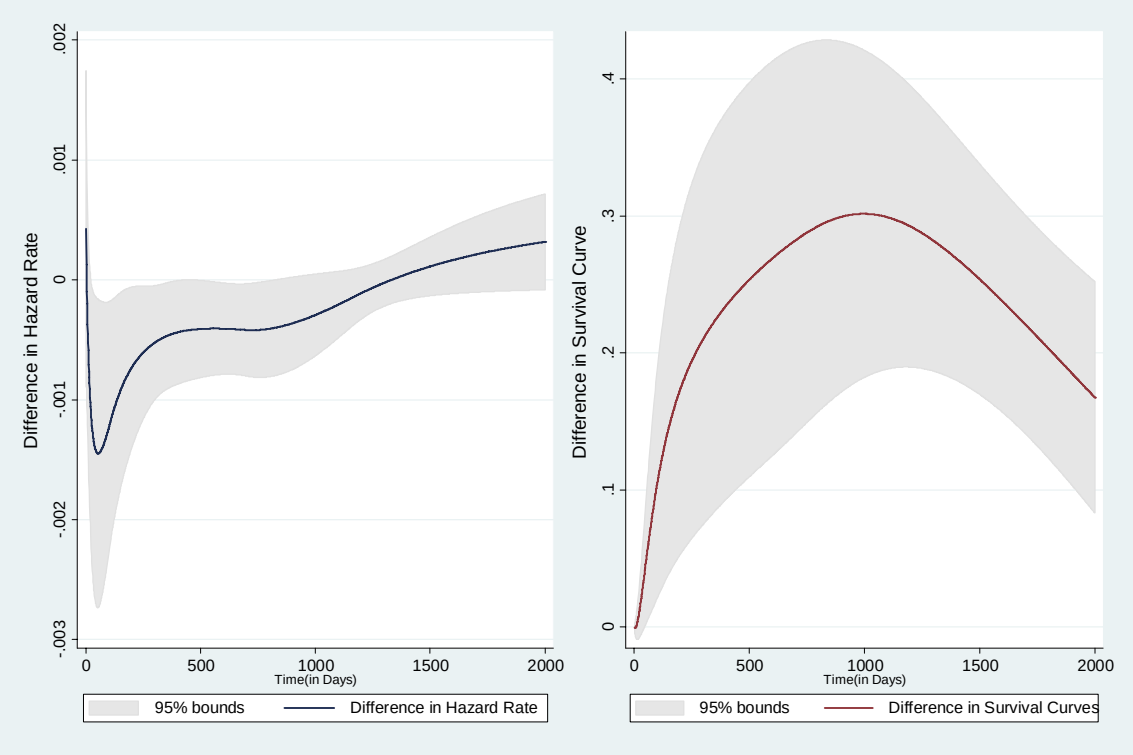
Table 4.10. Survival Analysis Predicting the Hazard of Re-Arrest (N=606)

Brooklyn	**Model (1)**	**Model (2)**
	Hazard Ratio	**Hazard Ratio**
MHC Treatment	0.509** (-5.62)	0.448** (-6.58)
Black		1.591 (1.53)
White		0.973 (-0.09)
Hispanic		1.255 (1.61)
Male		0.969 (-0.22)
Age		0.975** (-4.78)
Kings (Arrest Location)		0.804 (-1.45)
Instant Offense: Violent		1.115 (0.44)
Instant Offense: Property		0.964 (-0.27)
Instant Offense: Drug		1.221 (1.27)
Substance Use (Hard Drugs)		1.572** (2.87)
Number of Prior Arrests with Violent Felony Charge		0.962** (-2.84)
Number of Prior Arrests with Property Offense Charge		1.013* (2.20)
Number of Prior Arrests with Drug Offense Charge		0.998 (-0.25)
Number of Prior Arrests with Public Disturbance Charge		1.010+ (1.80)
Offense Variety Score		1.181** (6.23)
AIC *BIC* Log Likelihood	1882.5 1935.3 -929.3	1784.1 1902.9 -865.0

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Figure 4.4 demonstrates the difference in the risk of recidivism between the treatment and comparison groups over time. As mentioned above, the hazard ratio of recidivism for the Brooklyn MHC treatment and comparison groups is not constant over time, which is illustrated in the graph on the left. It is notable that after roughly one year of follow-up, the difference in the hazard rate approaches zero, suggesting that the rate at which the MHC participants perform better than their counterparts would be stable over time. The 95 percent confidence intervals also include zero approximately after one year of follow-up. However, during the first year of observation, especially immediately after completion of the MHC program, the rate at which MHC participants refrain from crime is much higher than that of the comparison group. This dynamic change in the hazard rate of recidivism is translated into an inverted U-shaped pattern of the difference in survival curves between the treatment and comparison groups.

Figure 4.4. Difference between Treatment and Comparison Groups over Time



From the regression models, it is clear that the MHC treatment group performs better than the comparison group in terms of refraining from recidivism. The difference in survival curves can therefore be considered as indicative of the extent of program effectiveness over time. The wider the difference between the MHC treatment and comparison groups, the higher the survival rate for the MHC relative to the comparison group. The graph on the right indicates that program effectiveness would increase until approximately three years of follow-up and decline thereafter. The MHC treatment group would still have a higher survival rate than the comparison group after three years, but it

is important to acknowledge that such a crime control effect of the Brooklyn MHC would not last persistently over three years.

Limitations

Although PSM provides a reasonably robust analytic framework to study the causal effect of treatment, and our results yielded fairly successful performance in achieving balance between the treatment and comparison groups, the traditional caution against observational, retrospective research applies here. As with all studies relying on PSM to identify the causal impact of program participation, the robustness of our estimated treatment effect depends on the assumptions that 1) the treated and untreated are balanced on observed covariates and 2) there are no unobserved systematic differences between MHC participants and their comparison groups. As shown in this chapter, PSM was able to obtain reasonable balance on observable characteristics. However, as with all quasi-experimental program evaluation, it is possible that important unobservable characteristics might distinguish the treatment and comparison groups and have a meaningful impact on the likelihood of recidivism in some way that was not accounted for in our analyses.

Appendix H presents a sensitivity analysis, exploring how such an unobservable bias might affect results. The results show that unobservable characteristics increasing the likelihood of participation among MHC participants have little impact on the results. However, if unobservable characteristics decrease the likelihood (the likely type of unobservable bias), our results may turn statistically insignificant (again, see Appendix H for details). In an effort to avoid this unobservable bias, we restricted our focus to examine only MHC participants with strong matches in the comparison group (those with a propensity score within the region of common support and the caliper of 0.05). In doing so, our analyses estimated the treatment effect with higher methodological rigor. However, our findings cannot be generalized to offenders whose propensity to receive treatment was too high to be included in our analyses (subjects who were most likely to participate).

Finally, although it would be constructive to compare the results between the Bronx and Brooklyn courts, such a comparison from our data would not be meaningful. The study participants in the two programs differ significantly in their characteristics, including demographics, criminal history, and drug use history. In this sense, the courts were serving different types of individuals in different types of communities and contexts, and therefore results are not comparable. Further, due to data limitations across the two study sites (identical data could not be collected from the program sites), propensity score estimation procedures were implemented on a different set of covariates for each evaluation.[97] Pooling data from the two courts would restrict the data to common

[97] Even if we followed the exact same procedures and developed the exact same comparison group for both Bronx and Brooklyn MHC, a direct comparison of the results from both evaluations would be statistically unsupported without further adjustments. Unlike linear models, estimates from binary models (such as our outcome model predicting recidivism) are confounded with residual variance. Therefore, a comparison of coefficients from different samples can be misleading as residual variances differ across the samples (Allison 1999, Williams 2009).

measures, which would inescapably diminish the quality of propensity score matching. That said, one should bear in mind these limitations (the possibility of important unobserved covariates, the restricted sub-sample used in analysis, and the differences between the evaluations of the two courts) while interpreting the results from our evaluations.

Summary

In this chapter, we report the results from impact analyses, assessing the effectiveness of both mental health courts in reducing recidivism. Propensity score matching was implemented in the impact analyses to pair up MHC participants with compatible nonparticipants. The re-arrest and re-conviction rates were then developed for the treatment groups and their matched comparison groups.

Guided by conventional strategies in PSM, we have estimated propensity scores in multiple ways with varying configurations and arrived at substantively consistent results as to the effectiveness of MHCs. The PSM analyses reported in this study indicate that MHC participation was effective at reducing recidivism in both Bronx and Brooklyn although the extent of a reduction in recidivism rates differs across the programs. Those who participated in the MHC programs had significantly lower recidivism rates than nonparticipants by 6 to 17 percentage points.

We conclude this chapter by elaborating on the strengths and shortcomings of our impact analyses. Some of the advantages of propensity score matching methods have already been discussed earlier, but it is of crucial importance to note that limited data availability and retrospective data analysis confined analytic options in developing robust estimates for program effectiveness. The matching approach, which forced us to examine the alternative distributions of covariates across MHC participants and nonparticipants diagnosed with mental disorders, yielded reasonably consistent, robust performance in terms of balancing the treatment and comparison groups. By limiting the scope of our examination to the region of common support, our analyses estimated the treatment effect with higher methodological rigor.

However, this also concerns one of the qualifications in our analyses that our findings cannot be generalized to such offenders whose propensity to receive treatment was too high to be included in our analyses. We were unable to estimate the treatment effect for offenders with the highest propensity scores. Similarly, it is important to acknowledge that a direct comparison between the results from Bronx and Brooklyn evaluations is not meaningful. Above all, the study participants in both programs differ significantly in their characteristics, including demographics, criminal history, and drug use history. Due to data availability across the two study sites, propensity score estimation procedures were also implemented on a different set of covariates for each evaluation.[98] Further, as

[98] Even if we followed the exact same procedures and developed the exact same comparison group for both Bronx and Brooklyn MHC, a direct comparison of the results from both evaluations would be statistically unsupported without further adjustments. Unlike linear models, estimates from binary models (such as our

demonstrated in the survival models, the Bronx and Brooklyn MHC treatment groups differ in some fundamental ways that result in the different patterns of recidivism risk over time.

Last, the robustness of our estimated treatment effect depends on the assumption that the treated and untreated are balanced on observed covariates, and there are no unobserved systematic differences between MHC participants and their comparison groups. If there was an unknown bias that decreases the odds of participating in MHC programs for the treated, our estimated treatment effect would be likely to turn statistically insignificant (see Appendix H for sensitivity analysis). Although our estimated treatment effects for both Bronx and Brooklyn MHCs are not sensitive to a hidden bias that affects the odds of program participation in the opposite direction (that is, the odds of receiving MHC treatment are greater for the treated than for the untreated), it is important to remain cognizant of the possibility of such unknown bias.

---

outcome model predicting recidivism) are confounded with residual variance. Therefore, a comparison of coefficients from different samples can be misleading as residual variances differ across the samples (Alison 1999, Williams, 2009).

CHAPTER 5. COST-BENEFIT ANALYSIS

Cost-Benefit Analysis as Part of the Mental Health Court Evaluation

The UI research team had proposed to conduct a full cost-benefit analysis as part of this evaluation. Unfortunately, this was not possible for a variety of reasons. Generally speaking, we encountered four primary challenges: 1) each MHC program involved a large number of agencies, 2) data systems and electronic record keeping were not designed for the task, 3) each program worked with many mental health treatment providers, and 4) program funding and payment methods were varied and decentralized. Each of these challenges is reviewed in greater detail, below, after which we discuss their implications for research and practice.

Importantly, we supplement this discussion with a detailed outline of the data, along with the methods that we perceive are necessary to conduct rigorous cost-benefit analyses. We hope that this information will be of use to jurisdictions that are currently operating mental health court programs, or those that are planning to implement these models in the future. Additionally, we hope the provision of this information will provide a solid foundation for advancing future research on mental health courts.

Challenges in Conducting a Cost-Benefit Analysis

The first challenge that we encountered in conducting the cost-benefit analyses (CBA) of the two MHC programs evaluated in this study is that they span a range of criminal justice agencies. An appropriate cost-benefit analysis would account for the total resources used in processing and treating mental health court cases, as well as comparison cases, to estimate the marginal resources used as a result of the mental health court across all affected agencies. This presented a problem for the current study.

The selected MHC programs had significant involvement from Prosecutor's Offices, Public Defender's Offices, the Courts, Treatment Alternatives for Safe Communities (TASC), and the Center for Court Innovation (CCI). In initial interviews with program managers, it quickly became clear that, despite close involvement in processing cases and dealing with issues as they arise, no single agency possessed all relevant information about the other agencies. For example, an appropriate cost-benefit analysis would account for the amount of time spent by lead prosecutors on the cases, and also by prosecutorial staff. Unlike many drug courts the research team has encountered (the most obvious model on which to base a mental health court cost-benefit analysis), prosecutorial involvement in MHC appears to substantially exceed time spent in the courtroom. While important case information (e.g., mental health assessments, case files) is readily shared among those involved, information on day-to-day operations—such as the total number of staff involved, the time spent by each on mental health court cases, and the salaries of involved staff—is not available in a centralized location. In other words, only information necessary for

case processing and client treatment is centralized, while much of the information needed for a CBA is not.

Another challenge we encountered was the format in which recorded data were kept. The electronic data systems used include some information about mental health conditions and general information about treatment referrals. They did not, however, include information about sanctions or treatment received. Cost-benefit analyses of drug courts (see, for example, Downey and Roman 2011), as well as the process evaluation performed as part of this study, indicate that treatment is likely to be the largest cost to society of MHC programs. With information only about the types of treatment deemed necessary (such as counseling or housing), however, it is impossible to responsibly estimate the costs incurred as a result of treatment *actually received*.

The third challenge was the sheer number of treatment providers used. Without centralized program records on treatment received, it is possible to work directly with the providers, themselves, to identify the intensity and length of each client's treatment. However, the mental health court programs' primary goal is to ensure that all clients get the treatment they need in a timely and consistent manner. As such, the MHCs work with many providers with different specialties and capacities. The Brooklyn MHC, for example, reported working with nearly 100 different providers, a figure that is similar to the set of providers used by the Bronx MHC. This practice makes data collection directly from treatment providers largely infeasible due to the twin difficulties of 1) having sufficient resources for such a labor-intensive data collection effort and 2) obtaining cooperation from so many treatment providers, who are, themselves, under-resourced and overburdened with demands on their time.

Finally, funding for court operations and treatment came from a wide variety of sources. If each of the MHC programs had been funded through a single grant, it likely would have been possible to use their respective blocks of funding to roughly estimate their programs' operational costs, as has been done in past research (Harrell et al. 2003). Similarly, if all of the treatment was paid by one means, it could have served as a centralized source of treatment costs. However, this is not the reality. The MHC operations were funded through a number of grants and funding streams, some designated specifically for MHC funding, and some for which MHC was only one part of funded activities. Similarly, case managers' work with clients to ensure that as many sources as possible are used to fund needed treatment.

As a result, it was prohibitively difficult to estimate the costs of regular MHC operations and impossible to estimate the social costs of sanctions and treatment (although no treatment costs were incurred to involved agencies because outside funding was always used). In addition, it was not feasible to collect costs of processing these cases according to traditional means (in the absence of the mental health court) because of the large number of alternate channels the cases could have gone through and the lack of available data.

Implications for Practice

The challenges identified here should not be construed to mean that the evaluated MHC programs are not effective or well-organized. It is simply the case that the institutional and data collection structures are not designed to support cost-benefit analyses, nor were they ever intended to do so. As discussed above, the courts effectively share data about client assessments and needs. The fact that they do not share data about the total staff hours involved in dealing with cases or the salaries of those staff members simply reflects that that information is not crucial for serving clients. Likewise, both courts have effective record keeping on client treatment received and client difficulties in that treatment. This information is simply maintained in client case files, rather than in central electronic data systems.

The key implication is that it is difficult to comprehensively access systematically recorded information about a large number of clients. However, for staff dealing directly with individual clients, as is necessary for the program, this is not a limitation. Similarly, the fact that the programs use various treatment providers and funding sources potentially constitutes service delivery strength, rather than weakness (despite the difficulties it poses for CBA). Case managers are resourceful in ensuring that clients are able to afford the treatment they need and able to access the most effective services for them. Operations staff uses a variety of funding sources to maximize the resources available to the court to serve clients.

Another important implication of this is that our understanding of MHC operations is severely limited. Relatively little research is available about the mental health court model to guide assumptions of staff involvement, time spent, and programmatic operations. Program staff repeatedly stressed that they operate differently than a drug court because the population is different and has different needs. This highlights the dearth of practice-oriented guides for mental health courts, particularly when contrasted with the wealth of information available on drug courts (consider, for instance, the National Association of Drug Court Professionals). This lack of research inhibited our ability to make informed assumptions about practice in the wide range of agencies involved. More importantly, it inhibits information available to jurisdictions considering starting their own mental health courts. The process evaluation included in this evaluation is an important early step towards building a strong knowledge base on mental health court models and operations.

Suggested Strategy for Conducting a Mental Health Court Cost-Benefit Analysis

In lieu of conducting a full cost-benefit analysis as part of this project, we lay out here the approach that we would followed had we been able to complete this component of the research as envisioned. Our objective, here, is to provide guidance to practitioners on what data should be collected and how to use this data to conduct future cost-benefit analyses. We focus mostly on recommendations for data collection (with illustrations of the purpose of collecting each piece) because the analytic methods likely will vary with the research design used for the underlying impact evaluation. *We emphasize here that cost-benefit analyses are not valuable in*

the absence of rigorous impact evaluation. Thus, our guidance is mostly aimed at practitioners who seek to build the capacity, particularly with regard to data collection, that will enable them to support future cost-benefit analyses. There are a number of domains for which data would likely be collected separately and for which costs are usually estimated separately. We discuss each in turn.

Staff Costs

One major program cost is staff costs. The goal is to estimate how much staff time that would not have been used otherwise (across all agencies) is devoted to these cases. The new time that staff spends on these cases as a result of the MHC program is referred to as a *marginal cost*. Marginal costs in staff time should be collected even if no new staff members are added as a result of the court. Even if the cases are divided among the same number of staff, any additional time spent on the cases as a result of the mental health court means that less time is spent on other activities, which is a cost that should be accounted for.

Data Collection

The easiest way to gather these data is to survey all involved staff for the amount of time spent on the cases under the traditional system and the amount of time spent on cases within the mental health court. Time spent on the cases includes preparation for and attendance at hearings, periodic staff meetings, one-on-one meetings with clients, and any other activities dealing with the cases or clients. Thus, four quantities should be collected. For each staff member who works on relevant cases *either* with or without the mental health court, the program should collect:

- Average number of new cases per week.
- Average number of weeks required to process each case.
- Total number of hours per week spent on relevant cases.
- Fully loaded (including benefits) salaries of staff members.

Analysis

Table 5.1 provides an example, summarizing the data and methods used to calculate staff costs. Data should be collected for columns B (new cases per week), C (average time for each case), E (staff involvement in cases), and H (staff salaries). The other columns are calculated from these columns.

In the example provided, the cost of processing each case through the MHC is $764. Of this, $308 dollars per case were being spent anyway using traditional case processing methods. Therefore, the marginal staff costs of processing each MHC case are $764 - $308 = $456 per case.

Table 5.1. Sample of How Staff Costs Would Be Calculated

A. Staff person	B. New cases per week	C. Weeks of processing per case	D. Number of ongoing cases at a time	E. Hours per week spent on mental health cases	F. Hours per week per case	G. Hours per case total	H. Salary (and wage)	I. Cost per case
Details of Calculations								
Calculations	n new cases per week	W weeks per case on average	N = n x W cases at a time	H hours per week	h = H/N hrs. per week per case	T = h x W hrs. per case overall	$D per yr. ($d = D/(52x40) per hr.)	T x d = total cost per case
Without Mental Health Court								
Prosecutor	4 new cases	2 weeks	8 total cases	8 hrs/wk	1 hr/wk per case	2 hrs/case	$120,000 ($58 per hr.)	$116 per case
Defense Attorney	4 new cases	2 weeks	8 total cases	16 hrs/wk	2 hrs/wk per case	4 hrs/case	$100,000 ($48 per hr.)	$192 per case
Program Manager	4 new cases	2 weeks	8 total cases	0 hrs/wk	0 hrs/wk per case	0 hrs/case	$70,000 ($34 per hr.)	$0 per case
Total								$308 per case
With Mental Health Court								
Prosecutor	4 new cases	40 weeks	160 total cases	16	0.1 hr/wk per case	4 hrs/case	$120,000 ($58 per hr.)	$232 per case
Defense Attorney	4 new cases	40 weeks	160 total cases	16	0.1 hr/wk per case	4 hrs/case	$100,000 ($48 per hr.)	$192 per case
Program Manager	4 new cases	40 weeks	160 total cases	40	0.25 hr/wk per case	10 hrs/case	$70,000 ($34 per hr.)	$340 per case
Total								$764 per case

Treatment Costs

Another important type of cost is treatment costs. Treatment costs must be accounted for even if the court does not pay for the treatment because someone else does. Whether treatment costs are paid by government support, private health insurance, the clients' families or friends, or donated by treatment providers, someone still bears the costs of treatment and, therefore, these represent some cost to society. The terminology "cost to society" does not ignore the fact that treatment has benefits. The benefits are accounted for in any measured impacts (including reduced criminal activity, reduced re-arrest, improved employment outcomes, etc.).

Data Collection

The ideal way for treatment data to be collected is at the individual-level. This provides a more detailed understanding of how treatment varies across individuals, how different types of treatment complement one another, and who gets what type of treatment. The important information is the total number of sessions of each type of treatment each individual received. Therefore, both the length of time or duration (e.g., number of months) during which treatment was received and the intensity of the treatment (e.g., four sessions per month) are important to record, separately for each treatment modality. This should be recorded even if the treatment is provided by the MHC or court staff directly, although care should be taken to ensure that staff time devoted to providing treatment is not double counted as a treatment cost *and* a staff cost.

This information is useful programmatically, and therefore it likely makes the most sense to keep it in an electronic version of client case files. Ideal data would reflect how often clients *attended* treatment, rather than how often they were referred. Table 5.2 is one example of how the requisite treatment data could be kept.

In addition to being essential for cost-benefit or cost-effectiveness analysis, the example in Table 5.2 provides important and detailed understanding of a client's experience. This client appears to have started with a regular regimen, which was ramped up in March. In late April, the client entered residential treatment for almost two months. When leaving residential treatment s/he returned to the previous treatment schedule, but also was enrolled in life skills courses. During the next two to four months, the intensity of mental health treatment was scaled back, and the client began a job readiness course. This is a detailed understanding of the client's experience, from which client success and struggles can be inferred, and which can provide invaluable understanding of the process.

Table 5.2. Sample of Treatment Records for Client A

	Sessions or Days of Treatment per Month												
Modality	**Jan.**	**Feb.**	**Mar.**	**Apr.**	**May**	**June**	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Dec.**	**Total**
Outpatient individual counseling	4	4	8	6	0	4	4	4	2	2	2	2	42 sessions
Outpatient group counseling	8	8	8	6	0	4	8	8	8	8	4	4	72 sessions
Residential treatment	0	0	0	7	30	15	0	0	0	0	0	0	52 days
Drug abuse treatment	4	4	8	6	0	4	4	4	4	4	2	0	44 sessions
Job readiness class	0	0	0	0	0	0	0	0	0	2	4	4	10 sessions
Life skills class	0	0	0	0	0	0	4	4	4	4	0	0	16 sessions

Analysis

Importantly, some of the treatment received by MHC clients would have been received even in the absence of the mental health court. Therefore, it is critical to estimate the marginal treatment costs, rather than the absolute costs. For this reason, it is important to collect the same information for the comparison group. If the treatment costs for the comparison group are not calculated in the same way as MHC clients, there is a significant risk of overestimating the costs of mental health court.

When possible, it is preferable to use the prices of treatment (e.g., cost per session) of the actual treatment provider(s) who delivered the client-specific services. Most of the time, this information can be made available to MHC case managers who already have a relationship with the treatment provider. In the absence of available prices specific to the treatment providers used, one can approximate that information from past published research estimates. Large data collection efforts have been undertaken in the past specifically to estimate national prices for various treatment types. Alternatively, individual cost-benefit analyses can be used for the less common treatment modalities.

Once prices for each modality are obtained and the total amount of treatment received by each client (for each modality) is obtained, these can simply be multiplied to estimate each client's treatment costs, as demonstrated in Table 5.3.

Table 5.3. Sample Treatment Costs for Client A

Modality	Treatment Received	Price	Cost
Outpatient individual counseling	42 sessions	$80 per session	$3,360
Outpatient group counseling	72 sessions	$10 per session	$720
Residential treatment	52 days	$180 per day	$9,360
Drug abuse treatment	44 sessions	$50 per session	$2,200
Job readiness class	10 sessions	$40 per session	$400
Life skills class	16 sessions	$30 per session	$480
Total			$16,520

Client A incurred significant treatment costs in the year of data collection ($16,520). Clearly, this is driven by nearly two months in residential treatment. This illustrates the importance of collecting equally accurate costs for the comparison group. For instance, if the comparison individual (who is not a mental health court participant) matched to Client A received just as much residential treatment, half as much group counseling and drug abuse treatment, and no individual counseling, job readiness class, or life skills class, the treatment costs of that individual would be $10,820. In this case, the marginal treatment costs of mental health court participation would only be $5,700 = $16,520 - $10,820.

Criminal Justice Costs

Criminal justice costs are broadly defined to be all costs incurred by justice agencies (such as the police, courts, jails, probation, and prisons). Many analysts consider these costs the most important, since they are the potential savings that lead state and local criminal justice agencies to invest in programs such as mental health courts.

Data Collection

The data collection is straightforward and is often performed using official records. Days spent in jail and prison, and days on probation, are normally reasonably accurately recorded in existing data systems maintained by state and local departments of corrections. Similarly, arrests—the main cost to police—are normally accurately recorded. Like staff costs and treatment costs, an accurate estimate of the marginal costs of MHCs requires that these data be collected for both MHC participants and the well-defined comparison group.

The collection of these data from official agencies depends on the structure of the research project, but is typically done by the researchers, rather than the programs.

Time spent in court, however, is more complicated. These data are usually not electronically recorded. Therefore, one way that a mental health court can build capacity to enable a cost-benefit analysis is by keeping records on either:

- Client-level information on the number of hearings of each type that each client had.

- Aggregate information on the total number of clients who had each type of hearing (and how many they had).

It is important to collect this information on different types of hearings (e.g., regularly scheduled MHC status updates, violation hearings, criminal incident hearings) because these carry different costs.

Analysis

There are three major sources to estimate the prices of these events: 1) agency budgets, 2) past published research, and 3) original data collection. The cost per day, month, or year of jail, probation, and prison are usually available from annual financial reports of the relevant agencies or can be estimated using the information contained there. With respect to arrests, it is standard practice to use results from some of the few research projects that have estimated such quantities. Table 5.4 presents those estimates; it also demonstrates major savings are realized by preventing serious crimes, whereas relatively petty crimes produce small savings.

Table 5.4. Commonly Used Costs of Arrest (Dollars in 2005)

Crime	Cost of Arrest	Source	Crime	Cost of Arrest	Source
Homicide	$10,614	Cohen, 1998	Forgery	$264	Cohen, 1998
Rape	$4,636	Cohen, 1998	Drugs	$25	Rajkumar and French, 1997
Arson	$1,352	Miller, et al., 1996	Gambling	$20	Bierie, 2009
Robbery	$869	Cohen, 1998	DUI/DWI	$54	Miller, et al., 1996
Aggravated assault	$354	Cohen, 1998	Vandalism	$75	Austin, 1986
Burglary	$747	Cohen, 1998	Traffic	$57	Austin, 1986
Larceny/theft	$264	Cohen, 1998	Disorderly conduct	$57	Austin, 1986
Motor vehicle theft	$756	Cohen, 1998	Weapon	$20	Bierie, 2009

Source: Bierie 2009

Again, court hearings are more complicated. These should be handled on a case-by-case basis. The estimated cost of a hearing depends on the length of that hearing, the number of people involved, and the time spent by all parties preparing for that hearing. Because most of the costs of a hearing involve the time of involved parties (such as lawyers, judges, etc.), it is essential to ensure that these costs are not being double counted in staff time. Whether to include them as staff costs or criminal justice costs is largely trivial and depends on the details of data collection and staffing structure; however, one must thoughtfully ensure that staff time is never included as both. If the mental health court has positive impacts such as reducing re-arrest, these benefits will usually manifest as reduced criminal justice costs.

Conclusions

Here we have discussed the data collection infrastructure that mental health courts would need to seek to set up in order to enable a cost-benefit analysis to complement an impact evaluation. We reiterate that a cost-benefit analysis should not be undertaken without a strong impact analysis. We have sought to illustrate how these data would be analyzed in order to provide context to our data collection recommendations.

The previously discussed steps can be used to generate a cost-effectiveness analysis or a cost-benefit analysis. In the presence of a cost-benefit analysis, however, it is important to note that what is listed above (reductions in costs to criminal justice agencies) is only one source of benefits. Various researchers have different stances on what other benefits to include. We believe that all social benefits should be included just like all social costs should be included. This would require estimates (at a minimum) of criminal acts committed, which can be estimated from arrest records or self-reports, and ideally also would include data on government welfare receipt, employment outcomes, hospitalizations, and any other important outcomes that carry social costs.

Again, these considerations should be handled on a case-by-case basis. Ideally, the program would track these outcomes at the individual-level, although we recognize that this is often difficult or impossible for programs with limited resources. The information discussed in the previous sections, then, is the minimum amount of data necessary to responsibly conduct a cost-benefit or cost-effectiveness analysis. It is our hope that this chapter will enable future research on mental health courts and help contribute to what will eventually be a strong body of research on their effectiveness, operational processes, and best practices.

CHAPTER 6. WHAT HAVE WE LEARNED FROM THE *EVALUATION OF CRIMINAL JUSTICE INTERVENTIONS FOR OFFENDERS WITH MENTAL ILLNESS*? IMPLICATIONS FOR POLICY, PRACTICE, AND FUTURE RESEARCH

Mental health courts seek to reduce recidivism among offenders with mental illness and to improve public safety by linking offenders with serious and persistent mental illness to long-term, community-based treatment in lieu of incarceration. Despite the steady growth of mental health courts across the nation, research on MHC outcomes is relatively limited and findings are mixed (Wolff et al. 2011).

With funding from the NIJ, UI researchers conducted separate process and impact evaluations of the Bronx and Brooklyn MHCs. The **process evaluation** documented MHC operations compared to business-as-usual (i.e., conventional court processing), including the key characteristics of these problem-solving courts, the provision of mental health services (e.g., issues surrounding diagnosis, access, availability, retention), and overall court processing (e.g., issues surrounding competency and access to appropriate services). The **impact analysis** assessed the extent to which MHC participation reduced re-arrest and re-conviction among participants compared to other defendants with mental disorders whose cases were processed as usual by the criminal justice system between 2002 and 2006. Propensity score matching techniques were used to construct equivalent comparison groups.

Major findings from the process and impact evaluation are summarized below, beginning with substantive results on program effects. Limitations of the analysis also are discussed. The chapter ends by identifying the implications for future research.

Summary Findings

Findings from the **process evaluation** indicate there are key differences in the problem-solving characteristics and orientation of the two mental health courts that could affect participant outcomes, including:

- **Judicial Interaction and Courtroom Dynamics.** Most notably, although both courts self-identify as operating under a dedicated docket, we observed that the Bronx MHC court docket typically included a mix of cases (close to one-third non-MHC cases compared to 18 percent in Brooklyn, of the hearings observed). In contrast, the Brooklyn MHC set aside the court's Tuesday docket exclusively for mental health court cases, but reserved Thursdays for a mix of "spillover cases," including drug court cases. Both courts required defendants to arrive at the start of court and wait together as a group for their case to be called; participants could leave, however, once their hearing was over. Unlike drug courts in which cases are placed on the docket in specific order to facilitate program strategies about using rewards, sanctions, and using the "courtroom as theater" (e.g., hearing meritorious cases first to reward such individuals by permitting them to leave court in the shortest time, or alternatively, hearing sanctioned cases first so that

everyone in the program will be exposed to the courtroom admonishments as a learning device and to deter future misbehavior), dockets in both MHC programs were not ordered in any strategic manner. The Brooklyn MHC, however, expressed a clear rationale for calling participants to court together—namely, to build a sense of community and reduce stigma.

Further, the Bronx MHC was marked by more formality than the Brooklyn program and less direct participant-court interaction (e.g., about one-quarter of Bronx defendants spoke in court compared to 92 percent of Brooklyn MHC defendants) consistent with the program's philosophy that the treatment arranged by the court is the primary mode of intervention and that the courtroom, itself, is not the central experience driving individual psychological and behavioral changes. In contrast, the Brooklyn MHC program viewed judicial-participant interaction as a key component of the mental health court intervention and operated the courtroom in a visibly "client-centric" manner. These differences in judicial philosophy and style also played out in courtroom operations. We observed an emphasis on judge-participant interaction in the Brooklyn court characterized by a conversational style in addressing defendants; Brooklyn participants frequently participated in bench discussions and were engaged in more direct contact by the judge (again, defendants spoke in court 92 percent of the time). These observations are consistent with earlier process evaluations of the Brooklyn MHC (O'Keefe 2006). As noted above, the more traditional courtroom dynamics observed in the Bronx court were also characterized by limited defendant participation during MHC hearings.

The drug court literature suggests that judge-participant interaction characterized by direct conversation and eye contact can be a motivating factor for participants because it conveys both care for the participant and interest in their progress (see, for example, Volume 3 of Rossman, Roman, et al. 2011). The duration of status hearings in both courts, however, was relatively brief, lasting between one and two minutes, which begs the question of how meaningful the judicial status hearing, itself, is to the participant experience. By comparison, in the recently completed NIJ-funded *Multi-Site Adult Drug Court Evaluation,* Rossman and colleagues (2011) found that drug court status hearings lasted a little longer than three minutes on average (the range was one to eight minutes).

Additionally, it is interesting to note that the Brooklyn MHC judge sometimes visits participants in their community-based treatment settings, which does not appear to be typical of judicial activity in most problem-solving court programs.

- **Participation in Judicial Hearings.** We also observed variation in the involvement of other courtroom actors. Defense attorneys had a stronger presence in the Brooklyn MHC (i.e., participated in 37 percent of hearings), while case managers played a more prominent role in the Bronx (participated in 69 percent of hearings, compared to 21 percent in Brooklyn) consistent with that program's operating philosophy. By way of comparison, recent drug court research findings

indicate that other than the drug court judge, participants spoke most often (92 percent) in proceedings followed by the drug court coordinator (31 percent); defense and prosecution spoke in about one quarter of status hearings while case managers did so for about 12 percent (Rossman, Roman, et al. 2011). This point of comparison indicates that defense attorneys and prosecutors, as well as case managers in these two mental health courts play a more active role in the courtroom process than their drug court counterparts. Although a hallmark of problem-solving courts is a non-adversarial focus, this comparison suggests a relatively more robust collaborative approach in play at the two mental health courts studied here. Stakeholders in both MHCs reported that the adversarial nature of courtroom dynamics typically ends once pleas are accepted.

- **Monitoring and Testing.** Status hearings are held more frequently in the Brooklyn MHC; likewise, defendants meet with their assigned forensic coordinator prior to each status hearing to discuss progress, address any treatment issues, and submit to random drug tests. In the Bronx MHC, participants meet weekly with their TASC case manager at which time drug tests are administered. Some treatment providers also tested MHC clients for drug use.

- **Clinical Assessment.** Although both court programs conduct two-part assessments (psychosocial assessments performed by clinical staff, and psychiatric evaluations performed by psychiatrists) to determine mental health eligibility, the Bronx TASC staff assessments incorporated a number of structured assessment instruments (as noted in Appendix B) in the process. While both clinical teams meet to discuss cases, the Bronx MHC clinical team meetings were characterized by a greater degree of mutual decision-making with regard to treatment issues and client progress. In Brooklyn, clinical decisions were more centralized and rested with the MHC's clinical director. Lastly, the TASC clinical team is housed in a separate and neutral entity from the Bronx MHC; in Brooklyn, the clinical team is based within the court.

- **Treatment Provider Networks.** Unlike most drug courts (the generic model adapted by MHCs) that typically rely on less-than-a-handful of substance abuse treatment providers, these two courts used extensive numbers of different treatment providers (e.g., 100 or more) to provide both community-based and residential treatment that met the needs of their participants. One of the courts had a policy of not using a provider unless at least two participants simultaneously could be enrolled in treatment; this practice was intended to ensure that participants could have a "natural support group" of other MHC persons as they moved through their treatment experiences.

- **Treatment Placement.** Both court programs placed participants into community-based treatment. However, in Brooklyn, the decision to accept a client was contingent upon securing treatment. Clients did not enter a guilty plea to the program until the clinical team had identified and "locked in" a treatment slot. As a result, all persons accepted to the Brooklyn MHC had access to treatment. By

contrast, the Bronx program operated under an intent-to-treat model. Clients pled into the program first, often before the clinical team had located a treatment placement. The vast majority of Bronx MHC participants were successfully placed into treatment within one to two months, but roughly one-fifth were not.

- **Referral Mechanisms.** Both courts accepted clients through a variety of referral sources, including prosecutors, defense attorneys, and other judges or court parts. Prosecutors were often the "official" referral source into both mental health courts, through whom defense referrals were often made. However, the two programs differed with respect to certain systematic referral mechanisms. The Narcotics Bureau of the Bronx DA's office routinely used a mental health checklist to screen for potential referrals to the mental health court; this likely contributed a greater share of participants with co-occurring disorders. Also, in the Bronx, approximately one-third of participants had initially been enrolled in their drug court, then transferred to mental health court, suggesting a need for additional screening of drug court participants. In Brooklyn, by contrast, cases referred for competency proceedings were routinely calendared to the mental health court for consideration once a defendant was restored to fitness; this likely added more severely mentally ill participants to the Brooklyn caseload.

- **Use of Rewards and Sanctions.** Both the Bronx and Brooklyn MHCs employed rewards and sanctions, but the Brooklyn MHC used a greater variety of rewards, such as verbal recognition from the judge, certificates for phase advancement, and small gifts at graduation. In contrast, the Bronx MHC did not mark treatment progress, citing that the objective of mental health courts is not to cure participants' mental health.

  Not only does this perspective seems to recognize that improvement in mental health conditions is not always linear, it also seems to tacitly recognize a key difference between participants in mental health courts and those in drug court programs. The primary treatment issue in drug courts is substance abuse, which is not only a health issue, but also a justice issue as substance use is illegal. By contrast, mental illness is not, in and of itself, illegal behavior, although those who suffer from mental illness and find themselves in a mental health court have committed other infractions that brought them to the attention of the court.

  In turn, stakeholders in MHCs reported that compliance was addressed on a case-by-case basis and that participants received frequent second chances. In contrast to many drug courts, remand to jail was typically a last resort for the two mental health courts in this study.

The extent to which the observed differences in judicial-participant interaction and courtroom dynamics affect participant outcomes is unclear. Two aspects of mental health courts are theorized to promote beneficial therapeutic outcomes: mental health treatment and ongoing judicial monitoring. The latter is hypothesized to promote treatment adherence, thereby improving mental health outcomes and reducing criminal behavior.

While Brooklyn participants fared slightly better than Bronx participants with respect to criminal justice outcomes, both groups had significantly better outcomes than their matched comparisons subjected to "business-as-usual," suggesting that *regular and frequent monitoring of offenders with mental illness—rather than the type of therapeutic courtroom model— may be the critical factors in participant success.* In either case, the outcomes from the analysis of systematic courtroom observations suggest that additional research is warranted to explore which aspects of courtroom dynamics and interactions have the most impact on long-term defendant outcomes.

In addition to documenting the courts' problem-solving characteristics and orientation, the study also catalogued the key components of each court program to describe core operations and identified factors that impeded or facilitated program operations. Appendix B lists the key components of the two court programs. As documented through the process evaluation, both courts perform evaluations and assessments to determine defendants' mental health needs, develop plans for community-based treatment, and link defendants to treatment providers in relatively similar ways.

While both MHC programs work with relatively extensive service provider networks, stakeholders in each court nonetheless identified a *lack of community-based treatment options as a key challenge* to program operations. As a consequence, both programs place participants with providers in other boroughs and outside of New York State to address treatment needs. Common placement issues included 1) a general lack of programs, 2) too few programs providing housing accessible to criminal justice populations with mental disorders, as well as 3) a dearth of programs to meet the special needs of other sub-groups in the MHC programs (e.g., Spanish-speakers, adolescent MICA clients, adult clients with dependent children). The latter was a particular challenge for the Bronx, which served a higher concentration of Spanish-only speakers and a community where poverty and substance abuse were more entrenched. Compounding this challenge is the time it takes to secure open treatment slots that can accommodate defendants in need of community-based services. Stakeholders expressed concern that clients awaiting placement remain in jail, where they often deteriorate due either to a lack of treatment or the stressful experience of incarceration.

Lastly, several stakeholders identified the *consistent, stable participation across key courtroom actors* as a strong feature of their respective programs and a critical factor that facilitates program operations along with the *problem-solving team approach*. At the time of our study, both programs had the same judge, DA, and clinical operations (same lead agency in Bronx, same clinical director in Brooklyn) since their programs' inception. No doubt this stability facilitates a shared understanding of policies, procedures, and philosophy that also promotes continuity in approach.

Stakeholders also felt the team approach employed by problem-solving courts was beneficial, if not critical, to effectively working with offenders with mental illness. Compared to drug courts, however, much of the shared decision-making and substantive interaction among criminal justice and community partners takes place early in the mental health treatment process, largely around eligibility determination. Once a decision

is made to accept or decline a case, much of the team work appears to occur between the clinical team and mental health court judge (i.e., in the form of pre-court participant progress updates and recommendations from the clinical team). This is in contrast to the regular drug court case staffings in which the team (which may include law enforcement representatives, prosecutors, public defense attorneys, as well as treatment staff) gathers to discuss client progress and weigh in on case advancement and sanctioning decisions. Regardless, the benefits of the team approach in the MHC programs studied here may simply be the shared sense of responsibility and commitment to these cases that mental health court fostered across normally adversarial criminal justice actors.

Findings from the **impact analysis** indicate that *mental health court participants are significantly less likely to recidivate, as compared to similar offenders with mental illness who experience business-as-usual court processing*, although the extent of the impact differs across the two programs.

- **Re-arrest.** The matched case-control analysis showed that the *re-arrest* rate was 69 percent for the Bronx MHC participants and 75 percent for the comparison group in the Bronx impact evaluation. The difference of six percentage points is marginally significant, suggesting that MHC participation reduced the chance of being re-arrested. Similarly, the *re-arrest rate* for Brooklyn MHC participants was approximately 60 percent, as compared to 68 percent for the comparison group, a significant difference at the .05 level.

- **Re-conviction.** Although the effect of Bronx MHC participation was in the expected direction, we failed to observe a meaningful difference between the treatment and comparison groups: 62 percent were re-convicted in both groups. In Brooklyn, MHC participation resulted in a reduction of nearly 17 percentage points in re-conviction. The average re-conviction rate for the MHC treatment group was 40 percent, as compared to 56 percent for the comparison group, statistically significant at the .01 level.

These findings are consistent with the extant outcome and impact research on mental health courts, as discussed in Chapter 1.

Additionally, individuals who recidivated were more likely to commit drug crimes than violent or property crimes.[99] The overall breakdown of offense type was nonetheless fairly similar between the treatment and comparison groups. Based on χ^2 statistic at the 0.05 level, there was no meaningful association between the treatment assignment and offense type for re-arrest.[100]

[99] This analysis categorized offenses in approximately the same way as UCR classification. All controlled substance offenses are classified as *drug crime*s. *Violent crime* refers to murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault. *Property crime* includes burglary, larceny, motor vehicle theft, and arson.

[100] The official statistics on the three-year follow-up recidivism rates for offenders who were convicted of felony and misdemeanor offenses in New York City and sentenced to probation afterwards indicate that the probability of being re-arrested for a violent felony offense is similar to the probability of being re-arrested for a drug offense in the probationer population (approximately 12 to 13 percent in the mid-2000s). It is

With respect to the offender characteristics explaining recidivism, age was a significant predictor of recidivism in both evaluations. The recidivism rate was significantly higher for younger offenders. Other predictors of recidivism worth noting are the use of hard drugs, the number of prior property offenses, and offense variety score. In Bronx, hard drug users and offenders with extensive property offending histories were significantly more likely to recidivate (odds ratios 2.1 and 1.2, respectively). In Brooklyn, those who had engaged in a variety of offenses were more likely to recidivate than those had not.

Finally, survival analysis yielded similar findings. In both evaluations, the treatment group had a better chance of refraining from recidivism and took longer than the comparison group to recidivate.

Limitations

Despite the promising findings of the impact analysis, there are several important limitations that should be considered in interpreting these results

Outcomes Limited to Recidivism

As discussed in earlier sections of this report, the study's original design sought to answer several key questions about the impact of MHCs, including the extent to which mental health court:

- Decreased the use of criminal justice resources (particularly the use jail or prison beds either pre-trial or post-adjudication).
- Increased access to, participation in, or retention in mental health treatment.
- Reduced subsequent criminal justice involvement.
- Proved to be cost-effective.

In the end, only one outcome—recidivism—could be examined given the limited program and administrative records available to the study. As discussed in Chapter 2, efforts to access post-release service use data from the New York State Department of Health (DOH) Office of Medicaid Management, which contains service data (provider, type of service, recipient, dates of service) for all services paid by Medicaid, were unsuccessful. Without post-detention service information for both the treatment and comparison groups, the impact evaluation was limited to criminal justice outcomes only. Although both the Bronx and Brooklyn MHC programs provided client-level records to UI, neither had sufficiently detailed information to support a more extensive descriptive analysis of the treatment groups' post-release services utilization. Without these data,

---

clear that the study sample examined in this evaluation is quite different from a larger offender population in New York City in that the majority of recidivists in our study sample were re-arrested for drug crimes (NYS DCJS 2011).

neither analyses of mental health treatment and outcomes, nor a meaningful cost analysis could be conducted. Further, the data necessary to assess any potential reduction in the use of criminal justice resources (the use of jail beds pre- or post-trial) attributable to mental health court participation also could not be obtained. These limitations appear to be directly attributable to 1) the recent economic downturn and 2) the project hiatus that occurred when it became necessary to replace one of the two original sites intended for study: e.g., although UI had previously negotiated an agreement to obtain local custody data, the agency that was the data repository presumably did not have the capacity to respond to UI's data request when the project was finally in a position to move forward.

Limiting the assessment of the relative success of multi-faceted interventions like mental health courts to just one outcome dimension is less than ideal. Other key research questions surrounding important areas of interest—such as access to and engagement in mental health treatment and other services, use of criminal justice resources, client experiences and satisfaction with mental health court, client motivation—remain unexplored. Future research, for example, might address participants' levels of satisfaction with their mental health court experiences and measure their activities while in the mental health court program to examine how these dimensions affect program completion, recidivism, and other psychosocial outcomes.

Analysis Limited to Program Impacts

While this study contributes to the field by providing additional evidence that mental health courts positively impact participants' criminal justice outcomes, it does little to address how or why mental health courts "work," for whom they work best, or whether they are more cost-effective than traditional court processing. Addressing the former fell outside the scope of the original study. Limited data precluded the latter.

Important dimensions of mental health court performance need to be explored with respect to how these programs function and which elements of performance are most critical to achieving participant outcomes. These answers are particularly relevant to policy, practice, and replication. Although the current study sought to conduct a robust process evaluation that chronicled the key "problem-solving characteristics" of the two court programs and to explore courtroom dynamics through structured courtroom observation, time and resources constraints ultimately precluded a truly deep exploration of each court program.[101] While the findings from the process evaluation offer clues about the potential influence each program may have on participant outcomes, additional research should be considered.

Potential Sample Bias

Project researchers employed propensity score matching (PSM), as discussed in Chapter 4, to address the threats of potential bias. Although we were guided by conventional

[101] Less than one year in the study period remained when evaluation activities resumed after the original Florida site was replaced with the second New York site, resources had been dissipated in administrative activities never envisioned as part of the study work plan, and much of the research team's effort had to be devoted to obtaining official records data for the impact evaluation.

strategies in our use of PSM, the traditional caution against observational, retrospective research applies here.

As with all studies relying on PSM to identify the causal impact of program participation, the robustness of our estimated treatment effect depends on the assumptions that 1) the treated and untreated are balanced on observed covariates and 2) there are no unobserved systematic differences between MHC participants and their comparison groups. As displayed in Tables 4.1 and 4.6 (found in Chapter 4), PSM was able to generate reasonable balance on observable characteristics. However, as with all quasi-experimental program evaluations, it remains possible that important unobservable characteristics distinguish the treatment and comparison groups, and had an important impact on the likelihood of recidivism.

A sensitivity analysis (again, see Appendix H for results), exploring how such an unobservable bias might affect results, showed that unobservable characteristics had little impact on the results. In an effort to avoid this unobservable bias, we restricted our focus to examine only MHC participants with strong matches in the comparison group (those with a propensity score within the region of common support and the caliper of 0.05). In doing so, our analyses estimated the treatment effect with higher methodological rigor. However, our findings cannot be generalized to offenders whose propensity to receive treatment was too high to be included in our analyses (participants who were most likely to participate).

Despite these limitations, we believe that the present study uses appropriate methods to identify the impact of mental health court on recidivism outcomes.

Motivation and Other Potential Source of Bias

Likewise, participant motivation is not controlled for in the current analyses, which is a critical consideration for future research (Wolff et. al 2011). More extensive, primary data collection, including participant self-reported measures, was beyond the scope of the current study and outside the sphere of the original award. In any case, it is unclear how personal motivation may factor into program success (i.e., completion). For example, were mental health court participants more motivated for treatment than nonparticipants? Did the incentive of reduced charges provide a compelling legal motivation that overrode any treatment reluctance as suggested by Wolff and her colleagues (2011: 5)? Were program completers more motivated than non-completers?

Descriptive analyses for the current study found that between 20 (Bronx MHC) and 37 (Brooklyn MHC) percent of individuals referred to the two MHCs did not participate (see Appendix F for results). Although the Bronx MHC had a lower percentage of nonparticipants, roughly equally shares (22 to 24 percent) of each program's nonparticipants either refused or withdrew their application from consideration. Likewise, 34 to 39 percent of nonparticipants did not meet the programs' mental health eligibility criteria—these individuals were either too ill (17 percent in the Bronx; 15 percent in Brooklyn) or did not have an acceptable mental health diagnosis (17 percent in the Bronx; 24 percent in Brooklyn). In Brooklyn, MHC nonparticipants had more

extensive criminal histories, more serious instant offenses, or more complicated cases from a criminal justice perspective. While Wolff et al. (2011) posit that felony offenders may have more legal motivation to participate in mental health courts, this does not appear to be the case in the Brooklyn MHC. There, roughly 99 percent of nonparticipants had felony charges at referral. Creaming, however, might be a potential threat, in Brooklyn where analysis suggests that nonparticipants had more severe mental health diagnoses than participants. In the Bronx, mental health status was similar for both groups. Additionally, in Brooklyn, referrals to the program were not accepted to participate if program staff could not secure a treatment placement for them. The Bronx, by contrast, used an intent-to-treat model, under which a fraction of accepted clients were not successfully placed into treatment. Regardless, future research should explore the considerations raised by Wolff and her colleagues.

Future evaluations of mental health courts programs also should prioritize measuring motivation as a key factor in any type of outcome or impact evaluation.

Implications for Policymakers, Practitioners, and Researchers

Although mental health court participants in this study had better criminal justice outcomes than offenders with mental illness in the matched comparison groups, recidivism is still high. As noted in Chapter 1, many researchers and advocates assert that individuals with mental illness are trapped in a "revolving door" of the criminal justice system, cycling in and out of correctional facilities due to their mental illness and lack of treatment. Yet others claim that mental health has little relation to criminal behavior and vice versa, citing the fact that the majority of individuals with mental illness do not commit crimes. Regardless, incarcerated individuals with mental health problems have more extensive criminal histories (James and Glaze 2006) and higher levels of criminal activity post-release (Baillargeon, Binswanger, et al. 2009; CSG Undated; Mallik-Kane and Visher 2008). The relatively high recidivism rates for both of the study's treatment groups may lend additional credence to the assertions of Skeem and her colleagues (2009) that the majority of offenders with mental illness come in contact with the legal system for the same reason as other non-mentally ill offenders: criminogenic needs.[102] In essence, Skeem and colleagues contend that individuals with mental illness are at higher risk for these criminogenic needs, which would explain the disproportionately high rates of mental illness among the incarcerated population. In support of this model, two studies (Girard and Wormith 2004, Skeem et al. 2009) found that offenders with mental illness score higher on the Levels of Service Inventory/Case Management Instrument (LS/CMI), an assessment tool used to assess risk and criminogenic needs, compared to offenders without mental illness. This suggests that mental health court participants would benefit from the kind of cognitive behavioral programming that addresses criminogenic (criminal) thinking. Although the Brooklyn MHC assessed for criminogenic risks and needs, it is unclear what role cognitive behavioral therapies played in the court's

[102] Criminogenic needs are dynamic risk factors predictive of criminal activity that can be targeted in rehabilitative treatment. For example, the "Central Eight" criminogenic needs include: substance abuse, history of antisocial behavior, personality, cognition, peers, and circumstances regarding family/marriage, school/work, and recreation (Andrews and Bonta 2010).

treatment regimen. A growing literature on evidence-based practice suggests that cognitive behavioral therapies are critical in mitigating future offending among offenders with high criminogenic risk-needs.

Policymaker support for and interest in criminal justice alternatives for mentally ill offenders is strong and the number of mental health courts is growing. Although the field has not yet produced as many studies documenting the effectiveness of mental health courts as exist for drug courts, there is a growing body of research which consistently provides empirical support that mental health courts are effective in reducing recidivism and positively impacting participant functioning. The findings of this study only further reinforce this trend. Therefore, it may well be prudent to fund additional studies that support cross-site evaluation of multiple jurisdictions with their different policies and practices to extend our knowledge of mental health court effectiveness.

Beyond outcomes, however, little research has been conducted on questions of mental health court efficiency and cost. One study (Ridgeley et al. 2007) investigated costs for a mental health court in Allegheny County. This study found that the jurisdiction's mental health court costs were similar to those of the traditional court system. The authors speculated that it was likely that the mental health court might become less costly over time.

Future work can build upon this promising research base. Methodological weaknesses of individual studies (e.g., sole reliance on self-reported outcomes, lack of random assignment, and short-term follow-up) make it difficult to reach confident conclusions. Most outcome studies examine individual courts, which may account for conflicting findings across studies; however, existing meta-analyses help provide overall estimates of mental health courts' effectiveness. Nevertheless, it is still important for researchers in the field to expand the evidence base with strong research designs in multisite studies. Outcome studies also should include process components so that researchers can isolate possible causes of differing outcomes and levels of success. With modest graduation rates in some courts (e.g., Hiday and colleagues [2005] found a little more than half of MHC participants graduated from the court in their study), it also is important to evaluate the relative outcomes of program graduates versus those who fail to complete the program. While future work should continue to examine important criminal justice *and* mental health outcomes, researchers also should begin to explore some additional issues, such as:

- Cost-effectiveness of mental health courts.

- Identification of mental health court best practices including essential program components, in keeping with the growing emphasis on implementation of evidence-based practices. Future research should focus on identifying precisely which MHC policies and practices generate high performance in terms of recidivism and improved mental health status

- Development of research-driven standards to guide MHC court practices. The drug court field has received considerably more attention than MHCs and has matured to a state where researchers can say with a fair degree of confidence what works best to achieve reductions in crime and drug use among substance-using offenders in these programs. If evidenced-based standards of practice can be identified, there is the potential to systematically introduce improvements across current and future MHC programs by developing an accreditation program.

- Effectiveness of mental health courts for sub-populations (e.g. first-time offenders vs. offenders with extensive criminal histories; individuals with more or less severe psychopathologies).

- The relative value of various features or components of the mental health court model, or of differing models.

- Causes of program failure by individuals and ways to retain participants.

- Longer term impacts.

- Client perspectives.

- Public opinion of mental health courts.

As noted in Chapter 1, continuing to describe and evaluate mental health courts will assist in the improvement of existing courts and help practitioners and policymakers to design and implement future programs with evidence-based practices. Findings from the current study support this objective by contributing additional findings to the field through a multi-site process and outcome evaluation of mental health courts in New York City, using sophisticated analytic techniques to control for selection bias, the largest methodological threat to mental health court evaluation research.

Conclusions

Current analyses provide additional evidence that both the Bronx and Brooklyn MHC programs positively impact participants' criminal justice outcomes. It also identifies characteristics of the two courts that may contribute to these outcomes. Several avenues for future research have been identified that will address key gaps in the extant research and ideally advance both policy and practice, in the process.

REFERENCES

Abram K.M., L.A. Teplin, and G.M. McClelland. (2003). Comorbidity of Severe Psychiatric Disorders and Substance Use Disorders Among Women in Jail. American Journal of Psychiatry. 160(5): 1007-1010.

Akers, R.L. and C. S. Sellers. (2008). Criminological Theories: Introduction, Evaluation, and Application. New York: Oxford University Press.

Allison P. (1999). Comparing Logit and Probit Coefficients Across Groups. Sociological Methods and Research. 28(2): 186-208.

Almquist L. and E. Dogg. (2009). Mental Health Courts: A Guide to Research-Informed Policy and Practice. New York: Council of State Governments Justice Center.

American Psychiatric Association. (APA 2000). Diagnostic and Statistical Manual of Mental Disorders (Revised 4th Edition). Washington, DC: American Pyschiatric Association.

America's Law Enforcement and Mental Health Project, Pub. L. No 106-515 (2000).

Andenaes J. (1974). Punishment and Deterrence. Ann Arbor: University of Michigan Press.

Andrews D.A. and J. Bonta. (2010). The Psychology of Criminal Conduct (5th Edition). New Providence, NJ: LexisNexis.

Anglin M.D., M.L. Brecht, and E. Maddahian. (1990). Pre-Treatment Characteristics and Treatment Performance of Legally Coerced Versus Voluntary Methadone Maintenance Admissions. Criminology. 27: 537-57.

Baillargeon J., I.A. Binswanger, J.V. Penn, B.A. Williams, and O.J. Murray, O.J. (2009). Psychiatric Disorders and Repeat Incarcerations: The Revolving Prison Door. American Journal of Psychiatry. 166: 103-109.

Belenko S. (1999). Research on Drug Courts: A Critical Review 1999 Update. National Drug Court Institute Review. II (2): 1-58.

Berman G. and J. Feinblatt. (2005). Good Courts: The Case for Problem-Solving Justice. New York: The New Press.

Bierie D. (2009). Cost Matters: A Randomized Experiment Comparing Recidivism Between Two Styles of Prison." Journal of Experimental Criminology. 5(4).

Bureau of Justice Assistance. (Undated). Mental Health Court Grantees. BJA Programs. Accessed April 19, 2011: **http://www.ojp.usdoj.gov/BJA/pdf/MHC_Grantees.pdf.**

Boothroyd R., N. Poythress, A. McGaha, and J. Petrila. (2005). The Broward Mental Health Court: Process, Outcomes and Service Utilization. International Journal of Law and Psychiatry. 26, 55-71.

Casey P. and D. Rottman. (2003). Problem-Solving Courts: Models and Trends. Williamsburg, VA: National Center for State Courts. Online: http://www.ncsconline.org/WC/Publications/COMM_SpeProProbSolvCtsPub.pdf

Casper J.D., T. Tyler, and B. Fisher. (1988). Procedural Justice in Felony Cases. Law and Society Review. 22:483-507.

Center for Court Innovation (Undated). Brooklyn Mental Health Court Project Description. New York: Center for Court Innovation.

Christy A., N. Poythress, R. Boothroyd, J. Petrila, and S. Mehra. (2005). Evaluating the Efficiency and Community Safety Goals of the Broward County Mental Health Court. Behavioral Sciences and the Law. 23: 227–243.

Cochran W. (1968). The Effectiveness of Adjustment by Subclassification in Removing Bias in Observational Studies. Biometrics. 24: 295-314.

Collins J.J. and M. Allison. (1983). Legal Coercion and Retention in Drug Abuse Treatment. Hosp Community Psychiatry. 34(12):1145-9.

Cosden M., J. Ellens, J. Schnell, Y. Yamini-Diouf, and M. Wolfe. (2003). Evaluation of a Mental Health Treatment Court with Assertive Community Treatment. Behavioral Sciences and the Law. 21: 415–427.

Council of State Governments. No date listed. *Fact Sheet: Mental Illness and Jail.* New York City: Council of State Governments.

Council of State Governments. (2002). Criminal Justice / Mental Health Consensus Project Report. Lexington, KY: Council of State Governments.

Council of State Governments. (2005a). Mental Health Courts: A National Snapshot. Online: http://www.csgeast.org/pdfs/Consensus%20Project/MHC_National%20Snapshot.pdf

Council of State Governments. (2005b). A Guide to Mental Health Court Design and Implementation. New York, NY: Council of State Governments.

Council of State Governments. (2008). Mental Health Courts: A Primer for Policymakers and Practitioners. Washington, DC: The Department of Justice, Bureau of Justice Assistance. Online: http://consensusproject.org/mhcp/mhc-primer.pdf

Dehejia R.H. and S. Wahba. (1999) Causal Effects in Nonexperimental Studies: Reevaluating the Evaluation of Training Programs. Journal of the American Statistical Association. 94(448), 1053–1062.

De Leon G. (1988a). Legal Pressure in Therapeutic Communities. Journal of Drug Issues. 18: 625-640.

DeLeon G. (1988b). Legal Pressure in Therapeutic Communities. In C. G. Leukfield and F. M. Tims (Eds.), Compulsory Treatment of Drug Abuse: Research and Clinical Practice (NIDA Research Monograph 86, DHHS Publication No. ADM 88-1578, Rockville, MD: National Institute on Drug Abuse, 160-177.

Denckla D. and G. Berman. (2001). Rethinking the Revolving Door: A Look at Mental Illness in the Courts. New York: Center for Court Innovation.

Diamond, A. and Sekhon, J.S. (2010). Generic Matching for Estimating Causal Effects: A General Multivariate Matching Method for Achieving Balance in Observational Studies. Working Paper. Available at: http://sekhon.berkeley.edu/papers/GenMatch.pdf

Downey P.M. and J.K. Roman. (201). Chapter 9. Cost-Benefit Analyses. In S.B. Rossman, J.K. Roman, J. Zweig, M. Rempel, and C. Lindquist (Ed). Final Report of The Multi-Site Adult Drug Court Evaluation. Volume Four: The Impact of Drug Courts. Washington, DC: The Urban Institute.

Elbogen E.B. and S.C. Johnson. (2009). The Intricate Link Between Violence and Mental Disorder. Archives of General Psychiatry. 66(2): 152-161.

Elbogen E.B., R.A. Van Dorn, J.W. Swanson, M.S. Swartz, and J. Monahan. (2006). Treatment Engagement and Violence Risk in Mental Disorders. British Journal of Psychiatry, 189: 354-360.

Farole D.J., N. Puffett, M.Rempel, and F. Byrne (2005). Applying the Problem-Solving Model Outside of Problem-Solving Courts. Judicature. 89 (1): 40-42.

Fazel S., G. Gulati, L. Linsell, J.R. Geddes, and M. Grann. (2009). Schizophrenia and Violence: Systematic Review and Meta-Analysis. PLoS Medicine. 6(8): 1000120.

Fisher W.H., E. Silver, and N. Wolff. (2006). Beyond Criminalization: Toward a Criminologically Informed Framework for Mental Health Policy and Services Research. Administration and Policy in Mental Health and Mental Health Services Research. 33: 544-557.

Folger R. (1977). Distributive and Procedural Justice: Combined Impact of 'Voice' and Improvement on Experienced Inequity. Journal of Personality and Social Psychology. 35: 108-119.

GAINS Center (undated). Developing a Comprehensive Plan for Mental Health and Criminal Justice Collaboration: The Sequential Intercept Model. Online: http://gains.prainc.com/pdfs/integrating/GAINS_Sequential_Intercept.pdf

Grambsch, P. M., and T. M. Therneau. 1994. Proportional hazards tests and diagnostics based on weighted residuals. Biometrika 81: 515–526.

Gibbs J.P. (1975). Crime, Punishment, and Deterrence. Amsterdam, The Netherlands: Elsevier Scientific Publishing Co.

Girard L. and J. Wormith. (2004). The Predictive Validity of the Level of Service Inventory-Ontario Revision on General and Violent Recidivism Among Various Offender Groups. Criminal Justice and Behavior. 31: 150–181.

Goldkamp J.S., and C. Irons-Guynn, C. (2000). Emerging Judicial Strategies for the Mentally Ill in the Criminal Caseload: Mental Health Courts in Fort Lauderdale, Seattle, San Bernardino, and Anchorage. Washington, DC: US Department of Justice, Bureau of Justice Assistance.

Gottfredson D.C., B.W. Kearley, S.S. Najaka, and C.M. Rocha. (2007). How Drug Treatment Courts Work: An Analysis of Mediators. Journal of Research in Crime and Delinquency, 44(1): 3-35.

Griffin P.A., H.J. Steadman, and J. Petrila. (2002). The Use of Criminal Charges and Sanctions in Mental Health Courts. Psychiatric Services. 53: 1285-1289.

Harrell A., O. Mitchell, J. Merrill, and D. Marlowe. (2003). Evaluation of Breaking the Cycle. Washington, DC: The Urban Institute.

Herinckx H.A., S.C. Swart, S.M. Ama, C.D. Dolezal, and S. King, S. (2005). Rearrest and Linkage to Mental Health Services Among Clients of the Clark County Mental Health Court Program. Psychiatric Services. 56: 853-857.

Hiday V.A., M.E. Moore, M. Lamoureaux, and J. de Magistris, J. (2005). North Carolina's Mental Health Court. Popular Government. Spring/Summer volume: 24-30.

Hills H.A. (2000). Creating Effective Treatment Programs for Persons With Co-Occurring Disorders in the Justice System. Online: http://gains.prainc.com/pdfs/disorders/Creating_Effective_TX_Prog.pdf

Hubbard R.L., M.E. Marsden, J.V. Rachal, H.J. Harwood, E.R. Cavanagh, and H.M. Ginzburg. (1989). Drug Abuse Treatment: A National Study of Effectiveness. Chapel Hill, NC: University of North Carolina Press.

James, D.J., and Glaze, L.E. (2006). *Mental Health Problems of Prison and Jail Inmates.* Washington, DC: U.S. Department of Justice Office of Justice Programs, Bureau of Justice Statistics.

Lamb H.R., and L.E. Weinberger. (1998). Persons with Severe Mental Illness in Jails and Prisons: A Review. Psychiatric Services. 49: 483-492.

Lambert, P.C. & Royston, P. (2009). Further development of flexible parametric models for survival analysis. The Stata Journal 9: 265-290.

Langan P. and D. Levin. (2002). Recidivism in Prisoners Released in 1994. Washington, DC: Bureau of Justice Statistics.

Lawental E., A.T. McClellan, G.R. Grissom, P. Brill, and C. O'Brien. (1996). Coerced Treatment for Substance Abuse Problems Detected Through Workplace Urine Surveillance: Is It Effective? Journal of Substance Abuse. 8, 1: 115-128.

Leuven E. and B. Sianesi. (2003). PSMATCH2: Stata module to perform full Mahalanobis and propensity score matching, common support graphing, and covariate imbalance testing. Online: http://ideas.repec.org/c/boc/bocode/s432001.html.

Lind E.A. (1982). The Psychology of Courtroom Procedure, in N.L. Kerr and R.M. Bray, eds., The Psychology of the Courtroom. New York: Academic Press.

Lind E.A., R. Kanfer, and P.C. Earley. (1990). Voice, Control, and Procedural Justice: Instrumental and Noninstrumental Concerns in Fairness Judgments. Journal of Personality and Social Psychology. 59: 952-959.

Lind E.A. and T. Tyler. (1988). The Social Psychology of Procedural Justice. New York: Plenum Publishing.

Mallik-Kane K. and C.A. Visher, C.A. (2008). Health and Prisoner Reentry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration. Washington, D.C..: The Urban Institute.

Marlowe D.B., D.S. Festinger, C. Foltz, P.A. Lee, and N.S. Patapis. (2005). Perceived Deterrrence and Outcomes in Drug Court. Behavioral Sciences and the Law. 23(2): 183-198. Mentally Ill Offender Treatment and Crime Reduction Act of 2003, Pub. L. No 108-414, 2003.

McNeil D. and R. Binder. (2007). Effectiveness of a Mental Health Court in Reducing Criminal Recidivism and Violence. American Journal of Psychiatry. 164; 1395–1403.

Moore M.E., and V.A. Hiday. (2006). Mental Health Court Outcomes: A Comparison of Re-Arrest and Re-Arrest Severity Between Mental Health Court and Traditional Court Participants. Law and Human Behavior. 30: 659-674.

Munetz M.R. and P.A. Griffin (2006). Use of the Sequential Intercept Model as an Approach to Decriminalization of People With Serious Mental Illness. Psychiatric Services. 57 (4): 544.

NYS Division of Criminal Justice Services. (2011). Probationer Felony Re-Arrest Rates Following Sentence to Probation, Albany. NY. Available at http://www.dpca.state.ny.us/pdfs/probationerfelonyarrestsbkmk5apr11.pdf

Office of Justice Programs and National Association of Drug Court Professionals. (OJP/NADCP 1997). Defining Drug Courts: The Key Components**.** Washington, DC: U.S. Department of Justice.

O'Keefe K. (2006). The Brooklyn Mental Health Court Evaluation: Planning, Implementation, Courtroom Dynamics, and Participant Outcomes. NY: Center for Court Innovation.

Paternoster R. (1987). The Deterrent Effect of the Perceived Certainty and Severity of Punishment: A Review of Evidence and Issues. Justice Quarterly. 4: 173-217.

Pearl J. (2009). On a Class of Bias-Amplifying Covariates That Endanger Effect Estimates. Tech. Rep. R-356, University of California, Los Angeles, CA. Available at: **http://ftp.cs.ucla.edu/pub/stat ser/r356.pdf**.

Petrila J., N.G. Poythress, A. McGaha, and R.A. Boothroyd. (2001). Preliminary Observations from an Evaluation of the Broward County Mental Health Court. Court Review. 37(4): 14-22.

Pogrebin M.R. and E.D. Poole (1987). Deinstitutionalization and Increased Arrest Rates Among the Mentally Disordered. The Journal of Psychiatry and Law. 15: 117-127.

Poythress N.G., J. Petrila, A. McGaha, A., and R. Boothroyd. (2002). Perceived Coercion and Procedural Justice in the Broward Mental Health Court. International Journal of Law and Psychiatry. 25: 517-533.

Prins S.J. and L. Draper. (2009). Improving Outcomes for People with Mental Illness Under Community Corrections Supervision: A Guide to Research-Informed Policy and Practice. New York, NY: Council of State Governments.

Redlich A.D., S. Hoover, A. Summers, and H.J. Steadman. (2010). Enrollment in Mental Health Courts: Voluntariness, Knowingness, and Adjudicative Competence. Law and Human Behavior. 34(2): 91-104.

Redlich A., H. Steadman, L. Callahan, P. Robbins, R. Vessilinov, and A. Ozdogru. (2010). The Use of Mental Health Court Appearances in Supervision. International Journal of Law and Psychiatry. 33: 272-277.

Redlich A.D., H.J. Steadman, J. Petrila, J.,Monahan, and P.A. Griffin, P.A. (2005). The Second Generation of Mental Health Courts. Psychology, Public Policy, and Law. 11: 527-538.

Redlich A., H.J. Steadman, J. Monahan, P.C. Robbins, and J. Petrila. (2006). Patterns of Practice in Mental Health Courts: A National Survey. Law and Human Behavior. 30: 347-362.

Ridgeley M.S., J. Engberg, M.D. Greenberg, S. Turner, C. DeMartini, and J.W. Dembosky. (2007). Justice Treatment and Cost: An Evaluation of the Fiscal Impact of Allegheny County Mental Health Court (technical report). Santa Monica, CA: Rand Corporation.

Roman J.K., S.B. Rossman, and M. Rempel. (2011). Chapter 2. Review of the Literature. In S.B. Rossman, J.K. Roman, J. Zweig, M. Rempel, and C. Lindquist (Eds). Final Report of The Multi-Site Adult Drug Court Evaluation. Volume One: Study Overview and Design. Washington, DC: The Urban Institute.

Rosenbaum P. R. (2002). Observational Studies. New York: Springer-Verlag 2nd edition.

Rosenbaum P.R. (2009). Design of Observational Studies. New York: Springer.

Rosenbaum P. R. and D.B. Rubin. (1983). The Central Role of the Propensity Score in Observational Studies for Causal Effects. Biometrika. 70 (1), 41-55.

Rosenbaum P. R. and D.B. Rubin. (1984). Reducing Bias in Observational Studies Using Subclassification on the Propensity Score. Journal of the American Statistical Association. 79 (387). 516-524

Rossman S.B. (2011). Chapter 1. Introduction: Study Context and Objectives. In S.B. Rossman, J. Roman, J. Zweig, M. Rempel, and C. Lindquist (Eds). (2011). Final Report of The Multi-Site Adult Drug Court Evaluation. Volume One: Study Overview and Design. Washington, DC: The Urban Institute.

Rossman, S. B., J.K. Roman, J. Zweig, M. Rempel, and C. Lindquist (Eds). (2011). Final Report of The Multi-Site Adult Drug Court Evaluation. Executive Summary and Volumes 1-4**.** Washington, DC: The Urban Institute.

Rottman D. and P. Casey. (1999). Therapeutic Jurisprudence and the Emergence of Problem-Solving Courts. National Institute of Justice Journal. Summer,

Sarteschi C.M., M.G. Vaughn, and K. Kim. (2011). Assessing the Effectiveness of Mental Health Courts: A Quantitative Analysis. Journal of Criminal Justice. 39: 12-20. doi: 10.1016/j.jcrimjus.2010.11.003.

Satel S. (1998). Observational Study of Courtroom Dynamics in Selected Drug Courts. National Drug Court Institute Review. 1:43-72.

Sekhon J.S. (Forthcoming). Multivariate and Propensity Score Matching Software with Automated Balance Optimization: The Matching package for R. Journal of Statistical Software.

Scheider M. (2001). Deterrence and the Base Rate Fallacy: An Examination of Perceived Certainty. Justice Quarterly. 18: 63-86.

Siddall J.W. and G.L. Conway. (1988). Interactional Variables Associated with Retention and Success in Residential Drug Treatment. International Journal of the Addictions. 23, 12: 1241-1254.

Skeem J., J. Eno Louden, S. Manchak, S. Vidal, and E. Haddad. (2009). Social Networks and Social Control of Probationers with Co-Occurring Mental and Substance Abuse Problems. Law and Human Behavior. 33, 122–135.

Skeem J.L., S. Manchak, and J.K. Peterson. (2010). Correctional Policy for Offenders with Mental Illness: Creating a New Paradigm for Recidivism Reduction. Law and Human Behavior.

Steadman H.J., E.P. Mulvey, J. Monahan, P.C. Robbins, P.S. Appelbaum, T. Grisso, L.H. Roth, and E. Silver, E. (1998). Violence by People Discharged from Acute Psychiatric Inpatient Facilities and by Others in the Same Neighborhoods. Archives of General Psychiatry. 55: 393-401.

Steadman H.J., F.C. Osher, P.C. Robbins, B. Case, and S. Samuels. (2009). Prevalence of Serious Mental Illness Among Jail Inmates. Psychiatric Services. 60: 761-765.

Steadman H.J., A.D. Redlich, P.A. Griffin, J. Petrila, and J. Monahan. (2005). From Referral to Disposition: Case Processing in Seven Mental Health Courts. Behavioral Sciences and the Law. 23: 215-226.

Steadman H.J., A. Redlich, L. Callahan, P.C. Robbins, and R. Vesselinov. (2011). Effect of Mental Health Courts on Arrest and Jail Days. Archives of General Psychiatry. 68(2): 167-172.

Teplin, L.A. (1984). Criminalizing Mental Disorder: The Comparative Arrest Rate of the Mentally Ill. American Psychologist. 39(7): 794-803.

Teplin, L.A. (1994). Psychiatric and Substance Abuse Disorders Among Male Urban Jail Detainees. American Journal of Public Health. 84: 290-293.

Thibaut J. and L. Walker. (1975). Procedural Justice: A Psychological Analysis. Hillsdale, NJ: Erlbaum.

Thompson M., F. Osher, and D. Tomasini-Joshi. (2008). Improving Responses to People with Mental Illnesses: The Essential Elements of a Mental Health Court. New York: Council of State Governments Justice Center.

Torrey E.F., A.D. Kennard, D. Eslinger, R. Lamb, and J. Pavle. (2010). More Mentally Ill Persons are in Jails and Prisons than Hospitals: A Survey of the States. VA: National Sheriffs Association and Treatment Advocacy Center.

Trone J. and D. Young. (1996). Bridging Drug Treatment and Criminal Justice. Vera Institute Program Brief. New York: Vera Institute of Justice.

Trupin E. and H. Richards. (2003). Seattle's Mental Health Courts: Early Indicators of Effectiveness. International Journal of Law and Psychiatry. 26: 33-53.

Tyler T. (1984). The Role of Perceived Injustice in Defendant's Evaluation of Their Courtroom Experience. Law and Society,.18: 51-74.

Tyler T. (1990). Why People Obey the Law. New Haven, CT: Yale University Press.

Tyler T. (2003). Procedural Justice, Legitimacy, and the Effective Rule of Law. Crime and Justice. 30: 283-357.

U.S. Department of Health and Human Services (DHHS, 1999). Mental Health: A Report of the Surgeon General—Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health. **http://www.surgeongeneral.gov/library/mentalhealth/home.html**

Wales H.W., V.A. Hiday, and B. Ray. (2010). Procedural Justice and the Mental Health Court Judge's Role in Reducing Recidivism. International Journal of Law and Psychiatry. 33(4): 265-271.

Watson A., P. Hanrahan, D. Luchins, and A. Lurigio. (2001). Mental Health Courts and the Complex Issue of Mentally Ill Offenders. Psychiatric Services. 52: 477-481.

Wexler D.B. and B.J. Winick. (1996). Law in a Therapeutic Key. Durham: University of Carolina Press.

Williams R. (2009). Using Heterogeneous Choice Models To Compare Logit and Probit Coefficients Across Groups, Sociological Methods and Research. 37(4): 531-559

Wolff N., N. Fabrikant, and S. Belenko. (2011). Mental Health Courts and Their Selection Processes: Modeling Variation for Consistency. New Brunswick, NJ: Center for Behavioral Health Services and Criminal Justice Research.

Wolfgang M.E., R.M. Figlio, and T. Sellin. (1972). Delinquency in a Birth Cohort. Chicago, IL: University of Chicago Press.

Appendix A – Study Design Modifications, 2005-2008 (New York Only)

Study Design Modifications, 2005-2008 (New York Only)

	Proposed, 8/2005	Approved, 1/2006	Current/ Modified Design, 8/2008
Process Component, *to document program logic, philosophy, operations, and processes including coordination across multiple systems.*	• **Logic model/ case flow diagrams development** • **Site Visits** – annual • **Semi-structured interviews with program staff** • **Semi-structured Interviews with stakeholders** (jail, court, and mental health) not involved in intervention • **Court observations** (both BMHC and business-as-usual) • **Focus groups** (both BMHC participants & comparison group) • **Review program records** (inputs, activities, outputs, and outcomes • **Network Analysis** of boundary spanners *DROPPED*	• **Logic model/ case flow diagrams development** • **Site Visits** – annual • **Semi-structured interviews with program staff** • **Semi-structured Interviews with stakeholders** (jail, court, and mental health) not involved in intervention • **Court observations** (both BMHC and business-as-usual) *DROPPED BAU element* • **Focus groups** (both BMHC participants & comparison group) *DROPPED* • **Review program records** (inputs, activities, outputs, and outcomes	• **Case flow diagrams development** ***(logic had been document by local evaluators)*** • **Site Visits** – 3 trips in 10 months. • **Semi-structured interviews with program staff** • **Semi-structured Interviews with stakeholders** (jail, court, and mental health) not involved in intervention to document BAU. • **Court observations** (MHCs only) – 2 sessions/ court • **Review program records** (inputs, activities, outputs, and outcomes
Impact Component, *to measure improvement beyond BAU in offender criminal justice and service delivery outcomes*	• **Retrospective sample** drawn from administrative records; minimum 24-month follow up period o BMHC drawn from 2/02-12/05 o CG drawn from 1/05-12/05 • **Data Sources** o BMHC program records o DOHMH records (MH) o NYC DOC (local custody) o NYS OCA (trx) o NYS DCJS (CHI)	• **Retrospective sample** drawn from administrative records; minimum 24-month follow up period (12/31/2007) o BMHC drawn from 2/02-12/05 o CG drawn from 1/02-12/05 • **Data Sources** o BMHC program records o DOHMH records (MH) o NYC DOC (local custody) o NYS DCJS (CHI) **DROPPED SERVICE DATA; COULD NOT GAIN ACCESS*	• **Retrospective sample** drawn from administrative records; minimum 24-month follow up period (12/31/2008) o BMHC, 3/1/02-12/31/06 o BxMHC, 1/1/02 -12/31/06 o CG, 1/1/2005-12/31/06 • **Data Sources** o BMHC program records o BxMHC program records o DOHMH records (MH) o NYS DCJS (CHI) * *COULD NOT OBTAIN NYC DOC DATA*
Cost Effectiveness Analysis, *to determine the cost and benefits of each model as compared to BAU*	• Calculate per unit cost of each program input • Calculate per person (per service) quantity • Examine criminal justice costs	• Calculate per unit cost of each program input • Calculate per person (per service) quantity • Examine criminal justice costs	• Develop cost analysis primer to guide future data collection and analyses.
Transferability, *to document legal and administrative factors necessary for replication and to suggestion one model over the other.*	• Program documentation of key components (staffing requirements, training, policies and procedures) • Review legal requirements, legislative stipulations.	• Program documentation of key components (staffing requirements, training, policies and procedures) • Review legal requirements, legislative stipulations.	• DROPPED from evaluation design but key components incorporated into process evaluation.

Appendix B – Bronx and Brooklyn MHC Court Characteristics

Evaluation of Criminal Justice Interventions with Mentally Ill Offenders
Bronx and Brooklyn Mental Health Court Program Matrix At-A-Glance

	Bronx Mental Health Court	Brooklyn Mental Health Court
Year Established	• February 2001 officially started taking cases; grew from 1999 pilot program	• March 2002
Origins	• Committee of 41 agencies convened; program developed through consensus process • Eligibility: Began by accepting felony offenders; later received grant to include misdemeanants	• Developed by New York State Office of Court Administration (OCA) and Center for Court Innovation (CCI) after publication of white paper "The Revolving Door;" NY State Office of MH is a collaborative partner • Eligibility: Began by accepting nonviolent felony offenders, but progressed to accepting those with chronic misdemeanors; some violent criminal offenders taken on case-by-case basis.
MHC Team	The Bronx MHC team includes: • Dedicated judge • Coordinating staff: project director, two co-directors; medical director also works as part-time psychiatrist • Clinical team: clinical director, 12 case managers, and 3 part-time psychiatrists; • Prosecuting attorneys: based in Narcotics Bureau of the Bronx District Attorney's Office; rotating Assistant D.A.s (ADA) handle cases; Bureau chief serves as court liaison. • Defense counsel: rotating court-assigned indigent defense counsel (18B attorneys, Legal Aid Society, Bronx Defenders) or private counsel	Brooklyn MHC is a component of the Kings County Supreme Court; the clinical team is based in the court. The Brooklyn MHC team includes: • Dedicated judge • Project director/clinical director (dedicated) • Clinical team: dedicated senior social worker and 3 forensic counselors (BMHC employees), consulting psychiatrists – rotating • ADA prosecutor (dedicated) • Defense counsel: attorneys rotate, but one Legal Aid attorney handles the majority of MHC cases

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
Target Population	• Felony (first time and predicate) and misdemeanor offenders with severe and persistent mental illnesses (SPMIs), as indicated by Axis I diagnoses, or substantial history of hospitalization or poor functioning; co-occurring substance use is prevalent among clients • 93 % are felony offenders (UI analysis 2011)	• Felony (first time and predicate) and chronic misdemeanor offenders, with SPMI/AXIS 1 diagnoses, where mental illness contributed to criminal activity; assessment must indicate that treatment may help the offender lead a crime-free life in the community • 80% are felony offenders (UI analysis 2011)
Eligibility Requirements	• Misdemeanor and felony offenders, aged 16 and older, who are eligible for jail diversion • Clinical eligibility determined by TASC (Axis 1 disorder, SPMI) • Excludes: murder, sex offenses, and arson ; other violent offenses considered on case-by-case basis • DA has discretion to refuse participation • Participation is voluntary; clients enter guilty plea to begin program • Client must be stable and competent to stand trial • Client must not have participated in and successfully completed MHC program in past	• Misdemeanor and felony offenders, aged18 years and older; youth aged 16-17 are considered on case-by-case basis (began in 2003-2004) • Clinical eligibility determined by court clinical team psychiatrist (Axis 1 disorder, SPMI - schizophrenia, bipolar disorder, major depression, schizoaffective disorder) • Mental illness contributed to criminal activity; willingness to enter treatment • Excludes murder and rape as "charge rule-outs"; other violent offenses considered on case-by-case basis • DA has discretion to deny case participation • Participation is voluntary; clients enter guilty plea to begin program • Defendant must be stable and competent to stand trial • Client may have participated in MHC program in past
Program Duration	• 6-12 months for misdemeanor offenders, generally • 18-24 months for felony offenders, generally	• 12 months (minimum) for misdemeanor offenders • 12-18 months for 1st time felony offenders • 18-24 months for 1st time violent or predicate felony offenders

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
Case Flow/ Referral Sources	• 225 participants under MHC supervision on any given day; • Caseflow: Cases identified pre-arraignment and before plea/trial; referred to MHC through various sources (see above); Project Director processes referrals and assigns pre-placement case manager; individual is screened for mental illness by TASC case manager; judge gives final approval based on recommendation of TASC MHC Team, DA, and defense attorney; participation is voluntary, but must enter guilty plea; individual participates in treatment; individual graduates when court feels treatment plan goals are achieved. • Referral sources include: DA (especially Narcotics Bureau an estimated 85-90% of cases come from narcotics), defense attorneys; criminal court; criminal court MH unit; 730 hearings on competency to stand trial; Bronx TASC (e.g., TASC team for drug court); felony and general arraignment screening assessment; community providers; jail MH staff; probation; ATI/case management programs; family; self (clients may self-refer)	• Approximately. 10 cases referred/month; 29 per quarter; ~275 graduates at 1/2009. at any point in time, there are about 135 people in treatment in the community and 20 people in Rikers Island awaiting placement and about 30 on remand • As of October 2005, Brooklyn MHC had received 439 referrals, accepted 217 cases, and graduated 76 clients (113 were active, 20 had been closed for a variety of reasons) • Referral sources include: DA, defense attorneys, "730" competency proceedings (all 730 returns are referred to BMHC), judges, other specialized courts • Clinical director gives final approval of mental health eligibility based on clinical team psychosocial assessment and psychiatric evaluation • Judge gives final approval for court participation based on DA, defense attorney, and clinical team input

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
Referral Process/ Screening Procedures	• TASC screens individuals for clinical eligibility (bio-psychosocial assessment, clinical interview, standardized risk assessment tools, MH/Substance use/Health/Social functioning/Criminal Justice measures); however, additional screening is often done by referral sources (the DA's office pre-screens all trial and narcotics cases with a 7 question screening form developed by BMHC, correctional referrals often undergo full assessment). Also need Rikers Island medical records before clinical assessment to obtain a complete picture of illness and to ensure individuals are on appropriate medications • Approximately 2/3rds of clients are in custody when diverted to the Bronx MHC (they remain in custody until placed)	• Cases referred by judge, defense attorney, or prosecutor (referrals usually occur after indictment, and median time from arrest to referral is roughly 5 months. • Clinical assessment occurs after the client's first MHC appearance; the MHC social worker conducts the psychosocial assessments and a consulting psychiatrist conducts the psychiatric evaluations; MH eligibility determined by court's clinical director, a licensed social worker. Treatment plans developed. • Assesses for risk of re-offending and violence; treatment plan is designed to mitigate risk of violence. MHC will decline cases if offender is deemed a community safety risks. • Defendant must voluntarily choose to participate in program; give guilty plea (although all charges can reduced or dismissed after treatment); and sign a MHC contract. Defendant participates in treatment.

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
MH court dispositions/treatment	• TASC DOES NOT provide treatment, only case mgmt. services. • Use network of community agencies in greater metropolitan area, including intermediate, residential, outpatient, and hospital care for mental health, substance abuse, medical, educational, and vocational needs. • Client generally pays for treatment through SSI or Medicaid (treatment provider may help them sign up for these) • TASC Mental Health Court Unit directly contacts community providers to link clients to appropriate services; clients have weekly appointments at TASC office or TASC team visits client if in inpatient care; • Individual needs to be stabilized before can be placed so may be sent to Bellevue (males) or Elmhurst (females) or treated at Rikers; also need to be "sober" for certain amount of time before residential placements will accept • Time from referral to placement is about 4-6 weeks	• Clinical court team design (based within court); forensic coordinators monitor treatment progress; conduct random drug tests; operate family education groups and run Remand Intervention group (new in 2008; senior forensic coordinator only) • Treatment is community-based and typically includes MH treatment, substance abuse treatment, community-based case management, supportive housing services and vocational/ educational services. Will place participants in services outside of borough and even in different state if necessary to ensure best match. • Outpatient is primary treatment modality although residential substance abuse treatment is available; will place in housing if homeless. • About 100 treatment providers

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
Court Process and Monitoring	• Court is held twice/week (T/TH) as needed; mix of cases heard • Court status hearings every 3 months; court atmosphere; Court tries to be flexible and understanding; willing to give multiple "second chances" • Have weekly meetings with TASC (eventually reduced to bimonthly, if doing well); TASC meets regularly with participants in community if they are in residential treatment; • Weekly or biweekly drug testing (not random); many treatment providers also do drug testing • TASC meets weekly to review all/problematic cases	• Dedicated court docket (Tuesday 10:00-2:00; Thursday is spillover day) • Participants appear in court weekly in beginning, every two weeks for first three months, and monthly for rest of duration (more frequent court appearances can be required for noncompliant clients). • All non-incarcerated participants must show up at 10:00; the program believes this creates a sense of community and reduces stigma because participants see each other on Tuesdays and they all have the same judge. The judge talks directly to clients, and they usually approach the bench along with the clinical director, defense attorney(s), and prosecution • Sometimes use brief period of jail time as sanction; can be rewarded with reduced court appearances, certificates for phase completion; other rewards. • Use team modality model – all staff are familiar with all clients and meet with various clients; clients meet with assigned forensic coordinator before each court appearances • Medical model: all clients meet with psychiatrist • Clinical team meets weekly to discuss cases

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

	Bronx Mental Health Court	Brooklyn Mental Health Court
Exit/Graduation criteria	No treatment phases or stages to define success; feel that success could not be defined with concrete goals and instead must be client-centric; more interested in insight and treatment compliance than actual reduction of symptoms When treatment plan goals are achieved; decision made by court-TASC Mental Health Court Unit, judge, DA, and defense attorney. For certain cases, charges may be reduced or dismissed upon successful completion. Client receives certificate for graduation; program staff take pictures of clients with certificates and put on bulletin board in TASC office If client successfully completes, they cannot work with the MHC again in future if they receive another charge	Define success as no rearrests, cessation of drug use, program participation, adherence to treatment, other subjective measures based on client and case (individual measures of success) Phased approach: 1. Adjustment (e.g., keep appointments, show up to group)-typically awarded around 90 days, 2. Engagement (e.g., doing something in treatment), 3. Progress, 4. Preparing to Graduate → Graduation Receive phase certificates along the way to mark progress; first certificate is awarded at completion of Phase I, usually at first 90 days. Participant complies with treatment mandate and does not commit new offenses. After graduation, misdemeanants and first-time nonviolent felony offenders have guilty pleas vacated and charges dismissed. Predicate felons and first-time violent felony offenders have charges reduced to misdemeanor plea, and violent offenders are put on probation. If participant does not graduate, s/he may have to return to jail or prison depending on terms of plea.
Instruments/ Measures in Use	Screening: TASC screening packet, seven-item screening, client case information form, MHC diversion accepted/rejected form, TASC intake memo, baseline interview (see site visit notes 1/09 for caveats to using) Follow-up: Post-Acceptance Follow-Up Form, 6-month interview, 12-month interview MH/Substance use/Health/Social Functioning/Criminal Justice/insight & treatment adherence/violence/risk behaviors/satisfaction with court program/social desirability measures given at screening, 6 mos. out, 12 mos. out- some only baseline, others at all 3 time points (have list of 30+ measures used at various time periods)	Psychosocial assessment focuses on the client's psychiatric, medical substance abuse, housing, employment, education, and social history. Psychiatric assessment conducted to obtain mental health diagnosis; informs treatment recommendations. Violence risk assessment; program also assesses criminogenic risk of re-offending.

Note: Information for this matrix was drawn from two sources: Bronx program materials dated December 2004, and interviews
UI conducted with the Brooklyn mental health court in October 2005. This matrix was developed in January 2009 for internal purposes. Information was updated in April of 2009 based on new information obtained from January 2009 site visits.

Appendix C – Courtroom Observation Instruments

MHC Observation – Individual Appearance

Complete one form for each defendant appearance

Date: _____ **Site**: Brooklyn Bronx **Judge:** _____

Appearance start time: _____ **Observer:** _____

Defendant gender: M F **Appearance type** *(circle one)*:

Defendant incarcerated at start? Y N Pre-MHC or Plea MHC status hearing

If yes, handcuffs and/or other restraints used? Non-MHC (describe No-show / non-appearance

Describe:_____ _____)

Court participants

CHECK all parties present,
CIRCLE whether each spoke (beyond stating name or a greeting)
Also CIRCLE the person judge spoke to first.

Present	Spoke?		Addressed
❑ Judge	Y	N	by judge
❑ Case manager	Y	N	1st
❑ Resource coordinator	Y	N	1st
❑ District attorney	Y	N	1st
❑ Defense counsel	Y	N	1st
❑ Defendant	Y	N	1st
❑ Community Tx Provider	Y	N	1st
❑ Other (e.g., D family, victim)	Y	N	1st

(Who? _____)

Judge's interaction with defendant *(check all that apply)*

- ❑ Eye contact with D (for most of the appearance)
- ❑ Talked directly to D (as opposed to through attorney)
- ❑ Asked non-probing Qs (Y/N or other one-word answers)
- ❑ Asked probing questions
- ❑ Imparted instructions or advice
- ❑ Explained consequences of future compliance (e.g., phase advancement, graduation, etc.)
- ❑ Explained consequences of future noncompliance (e.g., jail or other legal consequences)
- ❑ Directed comments to audience (e.g., using the current case as an example)
- ❑ Spoke off-record to D (i.e., not transcribed)
- ❑ Touched or shook hands with D
- ❑ D asked questions or made statements
- ❑ D displayed art/talent (e.g., told story, sang, etc.)

Other notes/impressions of the judicial interaction:

_____

_____

_____

Defendant's overall demeanor seemed…
(circle all that apply)

Happy/satisfied Forthcoming
Intimidated Confused
Angry Upset Resentful

Compliance Status (circle only one): Good report Bad report *Circle "bad report" if <u>any</u> noncompliance noted.*

Achievements recognized (*check all that apply*)

- ❑ Treatment attendance/participation
- ❑ Drug-free days: How many? _____
- ❑ Phase advancement
- ❑ Job/school event
- ❑ Eligible for graduation
- ❑ Other (describe:_____)

Any rewards administered? (*check all that apply*)

- ❑ Courtroom applause
- ❑ Shook hands with judge
- ❑ Praise from judge
- ❑ Praise from other staff (Who? _____)
- ❑ Deceased court appearances
- ❑ Other (describe _____)

If bad report,

a) Noncompliance was *(circle all that apply)*

Treatment absence(s) Missed court date(s)

Positive drug test(s) Re-arrest

Returned on warrant Violated rules at treatment

Poor attitude

Other (describe: _____)

b) Court's response was (check all that apply.)

- ❑ None
- ❑ Adjustment to tx plan (how? _____)
- ❑ Admonishment from judge
- ❑ Admonishment from other staff (Who?_____)
- ❑ Jail time
- ❑ Defendant failed MHC (Indicate sentence or other consequence _____)
- ❑ Other (describe_____)

c) Judge raised his/her voice while responding? Y N

After the hearing,
<u>the defendant:</u>

- ❑ Was put in custody
- ❑ Left the courtroom
- ❑ Remained in court (where? _____)

After the hearing,
<u>defense counsel</u> appeared:

Satisfied: not at all somewhat very
Upset: not at all somewhat very

Additional notes & impressions:

_____

_____

_____

Appearance end time: _____ **Duration of appearance:** _____ minutes (rounded)

BROOKLYN -- Judge _____
Tuesday, _____

Observer: _____

Appearance start time: _____

Appearance end time: _____

Appearance type
- ❑ MHC status hearing
- ❑ MHC graduation / sentencing
- ❑ Pre-MHC or plea
- ❑ Non-MHC (describe _____)
- ❑ No-show or non-appearance
- ❑ Other/unknown (describe _____)

Defendant gender
- ❑ Male
- ❑ Female

Defendant race
- ❑ White
- ❑ Black
- ❑ Other (describe_____)

Defendant incarcerated at start?
- ❑ No
- ❑ Yes

Notes

COURTROOM DYNAMICS

COURT PARTICIPANTS

-CHECK all parties present.
-CIRCLE whether each spoke (beyond stating name or a greeting) and
-CIRCLE the person the judge spoke to first.

Present	***Spoke?***		***Addressed 1st by Judge***
❑ Judge	Y	N	
❑ Case manager	Y	N	1st
❑ Resource Coord.	Y	N	1st
❑ District attorney	Y	N	1st
❑ Defense counsel	Y	N	1st
❑ Defendant	Y	N	1st
❑ Treatment Provider	Y	N	1st
❑ Other (e.g., D family, victim, who?)	Y	N	1st

JUDGE'S INTERACTION w/ DEFENDANT

Check all that apply

- ❑ Eye contact w/ D (*for most of appearance)*
- ❑ Asked non-probing Qs, Y/N or other one-word answers *(talked directly to D, not through attorney)*
- ❑ Asked probing Qs *(talked directly to D, not through attorney)*
- ❑ Imparted instructions or advice *(e.g., consequences of compliance/noncompliance)*
- ❑ Directed comments to audience *(e.g., using current case as example)*
- ❑ D approached bench
- ❑ Spoke off-record to D *(i.e., not transcribed)*
- ❑ Touched or shook hands with D
- ❑ D asked questions or made statements
- ❑ D displayed art/talent *(e.g., told story, sang)*

Describe J demeanor:

COMPLIANCE STATUS: Good, bad, mixed?

❑ **Good report—*recognized ANY compliance***
Details of achievements

*Check all **rewards** administered*
- ❑ None
- ❑ Courtroom applause
- ❑ Praise/recognition from Judge
- ❑ Decreased court appearances
- ❑ Phase certificate
- ❑ Graduation (alt. sentence? _____)
- ❑ Any other notes

❑ **Bad report—*noted ANY noncompliance***
Details of noncompliance

*Check all **sanctions** administered*
- ❑ None
- ❑ Adjustment to treatment plan
- ❑ Admonishment/recognition from Judge
- ❑ Increased court appearances
- ❑ Remand to jail
- ❑ Failed MHC (sentence? _____)
- ❑ Any other notes

Defendant satisfaction with hearing
- ❑ Visibly happy/satisfied
- ❑ Neutral
- ❑ Visibly unhappy/upset/dissatisfied
- ❑ Other (describe _____)

DA or Defense Attorney reaction, if notable

Appendix D – Administrative Data Variable Inventory

Concept	DOHMH (Comparison Group)- Variables Received	Brooklyn Program Data Files- Variables Received	Bronx Program Data Files- Variables Received
VARIABLES FOR USE IN IMPACT EVALUATION			
Person identifier	X	X	X
DEMOGRAPHICS			
Sex	X	X	X
Race & ethnicity	X	X	X
Age	X	X	X
SOCIOECONOMIC STATUS			
Language	X		
Homelessness	X	X	X
Residence		X	X
Education		X	X
Marital status		X	
Has children		X	
Employment & Income			X
Veteran Status			X
CRIMINAL HISTORY			
			X
MENTAL HEALTH STATUS			
MH History		X	
Current MH Status	X	X	X
MH TREATMENT			
Services received	X	X	X

Concept	DOHMH (Comparison Group)- Variables Received	Brooklyn Program Data Files- Variables Received	Bronx Program Data Files- Variables Received
Duration of service provision	X	X	X
SUBSTANCE ABUSE STATUS & TREATMENT			
Substance abuse status	X	X	X
Substance abuse treatment		X	X
HEALTH			
Health insurance			
Health status			X
REFERRAL, ELIGIBILITY & PROGRAM PARTICIPATION			
Referral Source		X	X
Time to referral		X	X
First referral to MHC?		X	X
Eligibility Decision		X	X
Time to eligibility decision		X	
Participation Decision		X	X
Time to participation decision		X	X
Pretrial incarceration		X	X
CASE PROCESSING & OUTCOMES			
Time from arrest to program start		X	X
Total time in MHC		X	X
Legal representation			X
Concurrent CJ involvement			X
Legal status			X

Concept	DOHMH (Comparison Group)- Variables Received	Brooklyn Program Data Files- Variables Received	Bronx Program Data Files- Variables Received
Initial charge		X	X
Initial plea offer		X	X
Intermediate compliance outcomes			X
Case outcome: success or failure		X	X
Final sentence		X	X
Subsequent participation in MHC		X	X

Appendix E – MHC and DOHMH Screening Instruments

Bronx Mental Health Court
Bronx TASC Mental Health Diversion Service Referral Form (as of 6/2004)

Name: _____ Date: _____

NYSID #: _____ Ind. #: _____ Court Part: _____

Hi. I'm from the office of the District Attorney. You are being screened as a potential candidate for diversion into a treatment program and we're trying to make sure that you receive the appropriate services. I am here to ask you specifically about your mental health history.

1. Do you have a psychiatric or emotional problem? ___Yes/ ___No

2. Has anyone ever told you that you have a psychiatric or mental health diagnosis? ____Yes/ ___No

   If yes, what diagnoses do you have or have you been given? _____

3. Have you ever been hospitalized for psychiatric or mental health problems? ____Yes/ ___No

   If yes, were these ____inpatient hospitalizations, _____Psychiatric Emergency Room (ER) visits

   _____ both inpatient hospitalizations and psychiatric ER visits?

   Which hospitals, if known? _____

4. What, if any medications, are you currently taking for psychiatric or mental health problems?

   ___N/A Medications: _____

   What medications, if any have you taken in the past for psychiatric or mental health problems

   ___N/A Medications: _____

5. Are you in psychiatric or mental health treatment now? (circle all that apply)

   None. Outpatient clinic. Day Treatment. Residential. Jail Medication/counseling

   Where, if known? _____

6. What psychiatric treatment have you received in the past? (circle all that apply)

   None. Outpatient clinic. Day Treatment. Residential. Jail Medication/counseling

   Where, if known? _____

7. Have you ever been in Substance Abuse treatment? (circle all that apply)

   None. Outpatient clinic. Day Treatment. Residential. Detoxification

   Where, if known? _____

_____ Not MICA _____ Possible MICA

Completed by _____ Bronx DA Bureau _____

State of New York
COMMISSION OF CORRECTION
Office of Mental Health

INSTRUCTIONS FOR COMPLETING SUICIDE PREVENTION SCREENING GUIDELINES–FORM 330 ADM

GENERAL INFORMATION

It is recommended that the form be completed in triplicate for all detainees prior to cell assignment and be distributed as follows: top copy in inmate's file, second copy to medical or mental health personnel at referral, and the third copy for use according to facility's procedures.

Comment Column: All "YES" responses require note to document:
1. information about the inmate that officer feels is relevant and important;
2. information specifically requested in questions;
3. information regarding inmate's refusal or inability to answer questions.

Inmate's Name: Enter inmate's first and last name and middle initial.

Sex: Enter male (m) or female (f).

Date of birth: Enter month, day and year.

Most Serious Charge(s): Enter the most serious charge or charges (no more than two (2)) from this arrest.

Date: Enter month, day and year form was completed.

Time: Enter the time of day the form was completed.

Name of Facility: Enter name of jail or lock-up.

Name of Screening Officer: Print name of officer completing form. Enter NYSID & B&C #.

Psychiatric Problems During Prior Incarceration: The screening officer should ask the inmate whether he/she has attempted suicide in the past.

INSTRUCTIONS FOR ITEMS 1-16

General Instructions

Check the appropriate YES or NO for items 1-16.

If information required to complete these questions is unknown to screening officer, such information should be obtained by asking inmate to answer questions. However, inmate has the right to refuse to answer.

If inmate refuses to answer questions 2-12, enter RTA (refused to answer) in the Comment Column next to each question. In addition, complete the YES or NO boxes only if information is known to you.

If during an otherwise cooperative interview, inmate refuses to answer one or two question: Check YES in the box(es) next to the unanswered question(s) and enter RTA in the comment box next to each unanswered question.

If inmate is unable to answer all questions 2-12, enter UTA (unable to answer) in the Comment Column next to each question. Also enter reason (e.g., not English speaking) for not answering these questions in the Comment Column next to Question 2. In addition, complete the YES or NO boxes only if information is known to you.

Observation of Transporting Officer

ITEM (1) Check YES or NO based upon the written/verbal report of the arresting/transporting officer or upon the screening form completed by the arresting agency. If YES, notify supervisor.

NOTE: The following questions and observations should not be read word for word but restated in your words.

Personal Data Questions

ITEM (2) Family/friends: Check NO if someone other than a lawyer or bondsman would (1) be willing to post inmate's bail, (2) visit inmate while he/she is incarcerated, or (3) accept a collect call from inmate.

ITEM (3) Significant loss: Ask all three components to this question-loss of job, loss of relationship and death of close friend or family member.

ITEM (4) Worried about problems: Ask about such problems as financial, medical condition or fear of losing job. Check YES if inmate answers YES to any of these.

ITEM (5) Family/significant other attempted suicide: Significant other is defined as someone who has an important emotional relationship with inmate.

ITEM (6) Alcohol or drug history: Check YES if inmate has had prior treatment for alcohol/drug abuse or if prior arrests were alcohol/drug related.

ITEM (7) History of counseling or mental health evaluation/treatment: Check Yes if inmate (1) has ever had psychiatric hospitalization, (2) is currently on psychotropic medication, or (3) has been in outpatient psychotherapy during past six months. Note current psychotropic medication and name of most recent treatment agency.

ITEM (8) Check YES if inmate expresses extreme shame as result of arrest or feels that arrest/detention will cause humiliation to self/significant others.

ITEM (9) Suicidal: Check YES if inmate makes suicidal statement or responds YES to direct question, "Are you thinking about killing yourself?" If YES,notify supervisor.

ITEM (10) Previous attempt: Check YES if inmate states he has attempted suicide. If YES or NO, explore method and note scars. Obtain as much information as possible re method and time of attempt.

ITEM (11) Hopeless: Check YES if inmate states feeling hopeless, that he has given up, that he feels helpless to make his life better. If YES to both items 10 and 11, notify supervisor.

ITEM (12) Criminal History: Ask inmate or check files to determine if this is inmate's first incarceration.

Behavior/Appearance Observations

YES or NO must always be checked for each of these items. They are observations made by the screening officer. They are not questions.

ITEM (13) Depression: Indicators include behavior such as crying, emotional flatness, apathy, lethargy, extreme sadness, unusually slow reactions.

ITEM (14) Overly anxious, afraid, panicked, or angry: Indicators include behavior such as handwringing, pacing, excessive fidgeting, profuse sweating, cursing, physical violence, etc.

ITEM (15) Acting in strange manner: Check YES if you observe unusual behavior such as hallucinations, severe mood swings, disorientation, withdrawal, etc. If inmate is hearing voices telling him to harm himself, make an immediate referral to mental health services.

ITEM (16a) Under influence: Check YES if inmate is apparently intoxicated on drugs or alcohol.

ITEM (16b) Incoherence, withdrawal, or mental illness: Means physical withdrawal from substance. If YES to both a & b, notify supervisor.

COMMENTS / IMPRESSIONS: Note any "gut" feelings or impression re suicide risk.

SCORING

Count all checks in Column A. Enter total. Notify supervisor if (1) total is 8 or more, (2) any shaded area is checked, (3) if you feel notification is appropriate.

BOOKING OFFICER SIGNATURE AND SHIELD NUMBER

Sign form and enter shield number.

DISPOSITION

Corrections Personnel: Supervisor notified: check YES or No. Notification should be made prior to cell assignment.
Note if constant supervision instituted.
Note emergency/non-emergency referral to medical and/or mental health personnel.

Medical/Mental Health Personnel: Medical/mental health staff should note recommendations and actions taken.

Form 330 ADM (CC) (1/00)

State of New York
COMMISSION OF CORRECTION
Office of Mental Health

SUICIDE PREVENTION SCREENING GUIDELINES

INMATE'S NAME	SEX	DATE OF BIRTH	MOST SERIOUS CHARGE(S)	DATE	TIME

NAME OF FACILITY	NAME OF SCREENING OFFICER	*Inmate showed serious psychiatric problems during prior incarceration* YES ____ NO ____

Check appropriate column for each question

NYSID & B&C #	Column A **YES**	Column B **NO**	General Comments/Observations All "YES" Responses Require Note to Document
OBSERVATIONS OF POLICE/TRANSPORTING OFFICER			
1. Police or transporting officer believes that inmate may be a suicide risk. **If YES, notify supervisor.**			
PERSONAL DATA	No Family Friends		
2. Inmate lacks support of family or friends in the community.			
3. Inmate has experienced a significant loss within the last six months (e.g., loss of job, loss of relationship, death of close family member).			
4. Inmate is very worried about major problems other than legal situation (e.g., serious financial or family problems, a medical condition or fear of losing job).			
5. Inmate's family member or significant other (spouse, parent, close friend, lover) has attempted or committed suicide.			
6. Inmate has history of drug or alcohol abuse. (Note drug and when last used).			
7. Inmate has history of counseling or mental health evaluation\treatment. (Note current psychotropic medications and name of most recent treatment agency).			
8. Inmate expresses extreme embarrassment, shame, or feelings of humiliation as result of charge/incarceration (consider inmate's position in community and shocking nature of crime.)			
9. Inmate is thinking about killing himself. **If YES, notify supervisor.**			
10a. Inmate has previous suicide attempt. (Explore method and check for scars).			
b. Attempt occurred within last month.			
11. Inmate is expressing feelings of hopelessness (nothing to look forward to).			
12. This is inmate's first incarceration in lockup/jail.			
BEHAVIOR/APPEARANCE			
13. Inmate shows signs of depression (e.g., crying, emotional flatness).			
14. Inmate appears overly anxious, panicked, afraid or angry.			
15. Inmate is acting and / or talking in a strange manner (e.g., cannot focus attention; hearing or seeing things which are not there).			
16a. Inmate is apparently under the influence of alcohol or drugs.			
b. If **YES,** is inmate incoherent, or showing signs of withdrawal or mental illness? **If YES to both a & b, notify supervisor.**			

TOTAL Column A _____

Officer's Comments / Impressions

ACTION

If total checks in Column A are 8 or more, or any shaded box is checked, or if you feel it is necessary, notify supervisor and institute constant watch.

Supervisor Notified: YES _____ NO _____

Constant Supervision Instituted: YES _____ NO _____ Supervisor's Signature _____

Inmate Referred to Medical / Mental Health: YES _____ NO _____

If YES:

	EMERGENCY	**NON-EMERGENCY**
medical	_____	_____
mental health	_____	_____

Signature and Shield Number of Screening Officer: _____

Medical/Mental Health Personnel Actions: (To be completed by medical/MH staff)

Over

Appendix F – Bivariate Analysis of MHC Participants and Nonparticipants

Bivariate Analysis of MHC Participants and Nonparticipants

Although the primary objective of the current study focused on assessing the impact of mental health court participation on criminal justice outcomes, additional analyses[1] were conducted on datasets from both the Bronx and Brooklyn mental health court (MHC) programs to identify and examine potential differences between MHC participants and nonparticipants. T-tests were performed on each dataset to examine bivariate differences between MHC participants and individuals who were referred to the mental health court but, for a variety of reasons, did not participate (findings of statistical significance are reported at the .05 level). The results of these analyses are presented in this appendix.

Comparison of Participants and Nonparticipants in the Bronx Mental Health Court

A total of 815 individuals were referred to the Bronx MHC between 2002 and 2006, of whom 648 (80%) participated. The remaining 167 (20%) did not enter a plea into the mental health court. As Table 1 indicates, participants and nonparticipants in the Bronx MHC differed on many demographic characteristics.[2] Participants were significantly older, more likely to be female, more likely to be Hispanic, and less likely to be Black, when compared to nonparticipants. The time from arrest to screening was longer for participants than it was for nonparticipants. Additionally participants were less likely than nonparticipants to have been incarcerated pretrial.

Table 1. Comparison of Bronx MHC Participant and Nonparticipant Referrals

Comparison of Bronx MHC Participants and Nonparticipant Referrals (N=815)		
	Participants (N=648)	**Non-participants (N=167)**
Age at arrest*	37.3 years	35.3 years
Male**	62%	71%
White, non-Hispanic	7%	5%
Black, non-Hispanic**	34%	43%
Hispanic*	58%	50%
Other race or ethnicity	1%	2%
Incarcerated at the time of MHC screening*	59%	66%
Total number of MHC referrals per person in 2002-06**	1.1	1.0
Days from arrest to initial TASC screening (mean)**	266.0	197.1
Days from arrest to initial TASC screening (median)	148.5	107
Case transferred to MHC from drug court	37%	n/a
Days in drug court before transfer to MHC (mean)	226.6	n/a
Days in drug court before transfer to MHC (median)	77.5	n/a

* p<.10
** p<.05

[1] T-tests were performed to examine bivariate differences between BMHC participants (N=327) and the remaining 192 individuals who were referred to the Brooklyn mental health court but, for a variety of reasons, did not participate.
[2] Findings reported here are statistically significant at the p<.10 level.

The program database suggests that nonparticipants in the mental health court may have been more severely ill than participants. Although diagnostic information was not available for 2002-2006, staff assign a "program code" to classify cases as "more" or "less" severely mentally ill. Four in 10 participants were described as more severely ill, whereas one-half of non-participants were described as such.

Unfortunately, data on mental health diagnoses were not captured in the program database during the 2002-06 study period. However, a subset of individuals who were referred to the mental health court appeared in the DOHMH data from 2005-06. This included 153 participants and 50 individuals who were referred but did not participate. The DOHMH data on this subset of persons referred to the Bronx mental health court suggest that participants and nonparticipants were similar with respect to the types of diagnoses they had. However, we observed that nonparticipants had twice the length of stay in jail that participants did (mean of 167 days compared to 77).

Table 2. Comparison Mental Health Status in a Subset of Bronx Court Participants and Nonparticipants Who Received Jail-based Mental Health Services

Comparison Mental Health Status in a Subset of Bronx Court Participants and Nonparticipants Who Received Jail-based Mental Health Services		
	Participants (n=153)	**Non-participants (n=50)**
Assessed as SPMI	75%	64%
Received medication in jail	96%	94%
Housed in Mental Observation Unit	13%	14%
Global Assessment of Functioning Score	54	56
Axis I Adjustment Disorder	2%	7%
Axis I Mood Disorder	40%	43%
Axis I Psychotic Disorder	23%	21%
Axis I Substance-related Disorder	29%	29%
Axis II Adjustment Disorder	0%	0%
Axis II Mood Disorder	19%	22%
Axis II Psychotic Disorder	5%	5%
Axis II Substance-related Disorder	66%	65%
Substance use on either Axis I or Axis II	66%	79%
Length of stay in jail	77 days	167 days

Source: Urban Institute analysis of DOHMH data.

The top reason for nonparticipation was that clients withdrew themselves from consideration (24%). Following withdrawals, nearly 1 in 5 nonparticipants did not have a qualifying mental health condition, and 10 percent of nonparticipants were excluded from the program because of criminal justice objections from either judges or prosecutors.

Table 3. Reasons for Non-participation in the Bronx MHC

Reasons for Non-participation in the Bronx MHC (N=166)	
Client withdrew application	24%
No mental illness, transferred to another program	17%
Other	17%
Client ineligible (pre-placement) due to psychiatric reason	14%
Criminal justice system opposition (e.g., Judge, DA)	10%
Client failed/ineligible during screening, before treatment placement	7%
Client sentenced to incarceration prior to treatment*	5%
Client left treatment after placement	2%
Client rearrested, warranted, or committed violation	1%
Probation to supervise or other non-incarcerative sentence	1%
Client ineligible (pre-placement) due to medical reason or death	1%
Client failed to report to treatment placement	1%
Client sentenced to incarceration after treatment placement*	1%

* This may have resulted from another case the defendant was involved in.

Comparison of Participants and Nonparticipants in the Brooklyn Mental Health Court

A total of 519 individuals[3] were referred to the Brooklyn MHC between March 1, 2002 and December 31, 2006 (the parameters for the current study), of whom 327 participated (63 percent) in the program.

Table 4 facilitates closer examination of common Brooklyn MHC referral sources by presenting referral data for both the 519 cases referred to the court program between 2002 and 2006 and the subset of 327 individuals who participated in the Brooklyn court program. As shown in Table 4, defense attorneys are the most common referrals source accounting for over half (55 percent) of all cases referred to BMHC, and more than two-thirds (65 percent) of program participants. In contrast, the District Attorney accounted for just 10 percent BMHC referrals and about 7 percent of referrals were made by judges handling other criminal dockets. About a quarter of all cases were referred through mental competency process (i.e., 730 proceedings), and about 14 percent of BMHC participants. A handful of cases were referred from other sources, including other specialized problem solving courts such as drug courts. A closer look at Table 4 also

[3] Statistics reported through the mental health court program's quarterly reports reflect a higher number of cases in the 2002-2006 period. A number of legitimate methodological differences account for the difference. First, the mental health court program reports on *cases* referred to the program, whereas this study focuses on *persons* referred, some of whom were referred to the court as many as four times during the study period. Second, the mental health program records had to be matched to records in the New York State criminal records repository in order to be included in the study. (Refer to Chapter 2 for additional detail.) The mental health program database included records of 673 referrals to the court, but 104 records (the majority of which did not result in court participation) did not contain sufficient identifying and arrest date information to facilitate a match to the New York State criminal records repository. One other record was excluded from the data provided to the study for indeterminable reasons. As a result, the study was based on 568 case referrals to the mental health court, representing 519 unique individuals who were referred to the mental health court between 2002 and 2006.

Table 4. Referral Mechanisms to Brooklyn MHC for All Cases, 2002-2005

Referral Sources for Brooklyn MHC (N=519)	All (n=519)	Participants (n=327)	Non-Participants (n=192)
730 Return	22.5%	12.5%	39.6%
730 Found Fit	1.7%	1.2%	2.6%
Defense Attorney	54.9%	65.1%	37.5%
District Attorney	10.2%	11.0%	8.9%
Specialized Courts	1.9%	2.1%	1.6%
Other Judge Referrals	7.5%	7.0%	8.3%
Other	1.2%	0.9%	1.6%

indicates that nonparticipants may also have had more serious mental illness than Brooklyn MHC participants: almost 40 percent of nonparticipants were referred to the Brooklyn MHC though the mental competency process compared to 13 percent of program participants and 22 percent of all referrals.

In general, BMHC participants were similar to nonparticipants with respect to demographic characteristics; analyses did not find any statistically significant differences with regard to age, gender, race or ethnicity. In turn, BMHC participants and nonparticipants were similar with respect to homelessness at the time of program referral. However, BMHC participants and nonparticipants varied on severity of their mental illnesses. Nonparticipants included individuals who were disqualified for having insufficiently severe mental health conditions, as well as others whose conditions were too severe to be suitably placed with existing community-based treatment providers. Additionally nonparticipants were often excluded on the basis of their criminal charges, and about one-fifth declined to participate.

As shown in Table 5, defendants' first contact with the Brooklyn MHC generally occurred about 6 months after arrest (the median is 176 days). Those who ultimately participated differed from nonparticipants with respect to the time it took to access the mental health court. For BMC participants, the time from arrest to court contact was about 5 months (median of 149 days), but for those who did not participate, the time to court contact was significantly longer at 7 to 8 months (median is 222 days). As mentioned earlier, 57 percent of BMHC participants had been incarcerated pretrial; by contrast, a much greater share of nonparticipants, 90 percent, had been incarcerated pre-trial. Additionally, nonparticipants nearly always had felony changes (99 percent), whereas 84 percent of participants had felony charges. These differences are statistically significant (at the .05 level); taken together, they suggest that individuals who did not participate in the BMHC had more extensive criminal histories, more serious instant offenses, or more complicated cases from a criminal justice perspective.

Table 5. Comparison of Brooklyn MHC Participants and Nonparticipants

Comparison of Brooklyn MHC Participants and Nonparticipants (N=519)		
	Participants (n=327)	**Non-participants (n=192)**
Time from arrest to first court appearance (mean)	245 days	374 days
Time from arrest to first court appearance (median)	149 days	222 days
Instant offense was a felony	84%	99%
Incarcerated at time of referral	57%	90%
Time from 1st court contact to eligibility determination (mean)	38 days	56 days
Time from 1st court contact to eligibility determination (median)	28 days	30 days
--Days from 1st court contact to 1st appearance (mean)	1 day	0 days
--Percentage who had a psychiatric assessment	97%	46%
Percentage found eligible for MHC	100%	8%
Time from eligibility decision to plea offer, if found eligible (mean)	55 days	49 days
Time from eligibility decision to plea offer, if found eligible (median)	30 days	25 days

Once defendants had been referred to the mental health court, the overall time to eligibility determination was between 1 and 2 months (the mean was 45 days). One-fifth of nonparticipants either declined to proceed or were found to be ineligible immediately after referral; another one-third declined to proceed or were found ineligible at some point before a psychiatric assessment could be completed. Interestingly, despite these early ineligibility decisions, the average time from initial court contact to eligibility determination was significantly longer for nonparticipants than participants.

As Table 6 indicates, the main reasons for nonparticipation were mental health ineligibility, criminal justice ineligibility, and client refusal. Mental health reasons were the most common: 24 percent of nonparticipants did not have qualifying Axis I conditions, while another 15 percent were assessed as too ill for community-based treatment. Comparing participants with the limited set of nonparticipants who completed psychiatric assessments, we found that nonparticipants often had substance induced mental health symptoms. While BMHC participants and nonparticipants were just as likely to have substance abuse problems, about one-third of assessed nonparticipants (i.e., those who had psychiatric assessments) were found to have substance-induced mental health symptoms without other underlying mental health disorders. Additionally there were defendants who were involved in "730" mental competency proceedings, who may not enter a guilty plea to the mental health court if found incompetent to stand trial.

Other common reasons for nonparticipation were criminal justice ineligibility and client refusal. Close to one-third of nonparticipants were disqualified on criminal justice grounds: either the judge or prosecuting attorney felt the defendants' charges or criminal history were too serious to offer an alternative to incarceration. About 20 percent of nonparticipants refused the program. Defendant refusals typically occurred before the psychiatric assessment, but a small share declined to participate after being found eligible. Additionally, a handful of nonparticipants were described as uncooperative or inadequately motivated to participate in treatment. Finally, "other" reasons for nonparticipation were noted in the program database, but without supporting details.

Table 6. Reasons for BMHC Nonparticipation

Reasons for nonparticipation among referrals to the mental health court (n=192)	
Ineligible for Mental Health Reasons	**39%**
No Axis I MH Condition	**24%**
No Axis 1 Diagnosis	19%
Referred to Substance Abuse Treatment	5%
Too unstable or severely ill	**15%**
Too Unstable for Community Treatment	5%
730 Return	9%
Ineligible for Criminal Justice Reasons	**29%**
Rejected on Criminal Justice Grounds	10%
Candidate Rejected by District Attorney	19%
Client Refusal or Noncooperation	**22%**
Refused Before Assessment	11%
Refused Assessment	3%
Refused After Being Found Eligible	6%
Failed to Cooperate	1%
Inadequate Motivation for Treatment	2%
Other	**10%**
Other Kind of Eligible Nonparticipant	2%
Other	8%

Appendix G –List of Covariates

List of Covariates Examined in PSM Analyses

Variable	Description
black	1= black, non-Hispanic, 0 otherwise
white	1 = white, non-Hispanic, 0 otherwise
hispanic	1= Hispanic, 0 otherwise
gender	1 = male, 0 otherwise
agesex	Interaction of age and sex
i_age	Age at instant arrest
i_agesq	Age at instant arrest (Squared)
kings	1 = R arrested in Kings County, 0 otherwise
bronx	1 = R arrested in Bronx County, 0 otherwise
npriorarr	Number of prior arrests
age1starr	Age at first arrest
nanyvfo	Number of prior arrests with any violent felony charge
nfirearm	Number of prior arrests with any firearm charge
nkidsex	Number of prior arrests with child victim sex offense charge
nkidnonsex	Number of prior arrests with child victim non-sex offense charge
ndrug	Number of prior arrests with drug crime charge
nweap	Number of prior arrests with weapons charge
ndwi	Number of prior arrests with DWI charge
nsolfac	Number of prior arrests with solicitation or facilitation charge
nasslt	Number of prior arrests with assault top charge
nhomi	Number of prior arrests with homicide top charge
nsex	Number of prior arrests with sex offense top charge
nkidnap	Number of prior arrests with kidnapping top charge
nburg	Number of prior arrests with burglary top charge
nprop	Number of prior arrests with larceny or other theft top charge
nrobbery	Number of prior arrests with robbery top charge
nfraud	Number of prior arrests with fraud top charge
nmother	Number of prior arrests with miscellaneous other top charge
nfelony	Number of prior arrests with felony top charge
nlesser	Number of prior arrests with non-felony top charge
nfelcon	Number of prior felony conviction
nconvic	Number of prior convictions prior to plea date
ndrugsale	Number of prior arrests with drug sale disposition
npublic	Number of prior arrests with public disorder charges
naddict	Number of prior arrests with illegal substances and gambling charge
nbetwarr	Number of arrests while in custody
nfelconsq	Number of prior felony conviction (squared)

ndrugsalesq	Number of prior arrests with drug sale disposition (squared)
nhomisq	Number of prior arrests with homicide top charge (squared)
nfirearmsq	Number of prior arrests with any firearm charge (squared)
robb1st	1 = R's first crime was robbery, 0 otherwise
burg1st	1 = R's first crime was burglary, 0 otherwise
asslt1st	1 = R's first crime was assault, 0 otherwise
drgsale1st	1 = R's first crime was drug sale, 0 otherwise
anyvfo1st	1 = R's first crime was violent felony offense, 0 otherwise
drug_alc	1 = Self-reported use of alcohol, 0 otherwise
drug_coc	1 = Self-reported use of cocaine (either crack or powder), 0 otherwise
drug_mar	1 = Self-reported use of marijuana, 0 otherwise
drug_her	1 = Self-reported use of heroin, 0 otherwise
drug_oth	1 = Self-reported use of other drug, 0 otherwise
drug_unk	1 = Unidentified use of drug based on AXIS I or II diagnosis, 0 otherwise
i_attempt	1 = R's instant offense involved an attempt charge, 0 otherwise
i_vfo	1 = R's instant offense was violent felony offense, 0 otherwise
i_gun	1= R's instant offense was firearm arrest, 0 otherwise
i_weapon	1= R's instant offense was weapon-related, 0 otherwise
i_child	1= R's instant offense involved a child victim, 0 otherwise
i_dwi	1= R's instant offense was DWI-related, 0 otherwise
i_drug	1 = R's instant offense was drug-related, 0 otherwise
i_rob	1 = R's instant offense was robbery, 0 otherwise
i_aggast	1 = R's instant offense was aggravated assault, 0 otherwise
i_larcn	1 = R's instant offense was larceny, 0 otherwise
variety_all	Number of different types of crime R has committed
variety_sev	Number of different types of serious crime R has committed
recidivism1	1 = R was re-arrested, 0 otherwise
recidivism2	1 = R was re-convicted, 0 otherwise
axis1_adj	1 = R was diagnosed with adjustment disorder (AXIS I), 0 otherwise
axis1_mood	1 = R was diagnosed with mood disorder (AXIS I), 0 otherwise
axis1_psych	1 = R was diagnosed with psychotic disorder (AXIS I), 0 otherwise
axis1_subst	1 = R was diagnosed with substance-related disorder (AXIS I), 0 otherwise

axis1cat (string)	Additional codes Adjustment disorder Anxiety disorder Attention-deficit and disruptive behavior Delirium, dementia, and amnestic Dissociative disorder Impulse-control disorder Learning disorder Mental disorder due to general medical Mental retardation Mood disorder No AXIS I or AXIS II disorder Personality disorder (Axis II) Psychotic disorder Sexual and gender identity disorder Sleep disorder Substance-related disorder Tic disorder

Appendix H – Propensity Score Matching and Sensitivity Analysis

Propensity Score Matching and Sensitivity Analysis

PROPENSITY SCORE MATCHING

It is a challenge to draw a plausible causal claim in observational studies because we can never observe the outcome of a treatment and control condition at the same time for a given individual. In other words, one cannot be in treatment and control conditions at the same time. Propensity score matching methods are frequently used with observational data to answer a counterfactual question; that is, what would have happened to treated cases had they not received treatment? The primary objective of propensity score matching is to identify a set of untreated units that resemble the treatment group in all observable ways possible.

In this study, the propensity score, e(x), can be defined as follows:

$e(x) = P(\text{Mental Health Court Participation} = 1 | X)$

where Mental Health Court Participation indicates the treatment assignment (0, 1), and X represents a vector of observed covariates. If we take individuals with the equivalent propensity score and assign them separately to a treatment and control condition, the treatment and control groups would differ only on their error term in the propensity score equation. Given that the error term is presumably independent of the covariates, the predicted probability of treatment assignment is independent of the outcome – recidivism.

This analytic framework can effectively address selection bias. It is conceivable that those who are motivated for self-improvement would be willing to participate in the mental health court program and would also refrain from recidivism even in the absence of treatment. By balancing such characteristics of treated and untreated individuals, propensity score matching creates an experimental framework by which to draw causal inferences in a reasonably rigorous fashion.

That said, propensity score matching methods require a strong assumption that treatment assignment or outcome measures are not systematically affected by unobserved variables. This is ultimately an untestable assumption, but warrants caution in the application of propensity score matching. For this reason, it is of critical importance to apply propensity score matching strictly to the extent permissible in a given dataset. In particular, while conventionally supported in most regression-based approaches, it is not desirable in propensity score matching to extrapolate inferences outside the range of observed data points.

If treatment and matched comparison cases do not share much commonality, one should remove such cases in the estimation of treatment effect. Similar to experimental designs, the internal validity of findings is usually implied in propensity score matching to be far more critical than the external validity of findings. These careful considerations intrinsic to the implementation of propensity score matching necessitate sensitivity analysis on treatment effect and a careful review on balance between the treatment and comparison

groups. In what follows, we thus report the extent that our outcome analyses are sensitive to hidden bias in propensity score matching.

SENSITIVITY ANALYSIS

Below are the results from a sensitivity analysis of the propensity score estimates of the effect of MHC participation on recidivism. This analysis is recommended by Rosenbaum (2002) and can provide a sense of how reliable the PSM results are. If the probability of receiving treatment (in this case, participation in the mental health court program) is explained completely by observed covariates, the PSM results would be free of any hidden bias. However, this is almost never true in any PSM studies. The sensitivity analysis is thus to test the presence of hidden bias in the PSM results. It assesses the potential impact of hidden bias arising from confounding variables associated with both treatment and outcome variables.

Suppose that all the relevant covariates are included in the propensity score model. The estimated propensity score of a treated subject and control subject with identical characteristics should be equal. If there is an unobserved process that influences treatment assignment, however, treated and control subjects that have identical characteristics can have a different propensity score. As a result, the odds ratio of a matched pair of treated and control subjects with identical characteristics will no longer be equal to one. The larger the effect of an unobserved covariate on treatment assignment, the larger the difference between the odds ratio and one will be. Also, Rosenbaum (2002) demonstrates the odds ratio for matched pairs is bounded by the function of the strength of the effect. The sensitivity test thus estimates the upper and lower bounds of each strength level and their corresponding p-values. If the unobserved covariates affect the treatment assignment and the outcome at a strength level greater than the critical effect strength, the average treatment effect could potentially be indistinguishable from zero. Further details on the procedure employed here can be found in Rosenbaum (2002) and Apel et al. (2010).

1. Bronx

The results of the estimation of ‘‘Rosenbaum bounds’’ on the effect of MHC treatment are shown below. Gamma coefficients (γ) signify the odds ratio for the effect of unobservables on the likelihood of receiving MHC treatment for individuals who actually participated in MHC treatment versus individuals who did not participate.

Table 1. Sensitivity of Treatment Effect Estimates to Hidden Bias (Bronx MHC)

	Re-Arrest				Re-Conviction			
Gamma	Q^{+}_{MH}	Q^{-}_{MH}	P^{+}_{MH}	P^{-}_{MH}	Q^{+}_{MH}	Q^{-}_{MH}	P^{+}_{MH}	P^{-}_{MH}
1.0	1.4921	1.4921	0.0678	0.0678	0.7813	0.7813	0.2173	0.2173
1.1	2.0345	0.9534	0.0209	0.1702	1.3672	0.1972	0.0858	0.4218
1.2	2.5304	0.4613	0.0057	0.3223	1.9023	0.1733	0.0286	0.4312
1.3	2.9882	0.0090	0.0014	0.4964	2.3956	0.6642	0.0083	0.2533
1.4	3.4140	0.2324	0.0003	0.4081	2.8535	1.1189	0.0022	0.1316
1.5	3.8121	0.6220	0.0001	0.2670	3.2808	1.5428	0.0005	0.0614
1.6	4.1862	0.9867	0.0000	0.1619	3.6817	1.9397	0.0001	0.0262
1.7	4.5394	1.3297	0.0000	0.0918	4.0594	2.3132	0.0000	0.0104
1.8	4.8740	1.6536	0.0000	0.0491	4.4166	2.6660	0.0000	0.0038
1.9	5.1921	1.9605	0.0000	0.0250	4.7556	3.0004	0.0000	0.0013
2.0	5.4955	2.2522	0.0000	0.0122	5.0782	3.3183	0.0000	0.0005

The first row of coefficients provides test statistics and corresponding p-values for the scenario of no hidden bias. At γ=1.0, the impact of MHC participation on re-arrest is marginally significant. When hidden bias decreases the odds of receiving MHC treatment for treated cases compared to untreated cases by an additional 10% over and above the estimated propensity score (γ=1.1), the estimated treatment effect is no longer statistical significant for the re-arrest model (Q^{-}_{MH}=0.9534, p=0.1702). However, the negative bias is less likely to occur and therefore less concerning than positive bias in our study. The direction of hidden bias which raises serious concerns about the estimated treatment effect is positive. In other words, the self-selection into MHC programs can lead to positive outcomes even in the absence of MHC treatment.

The effect of positive bias is measured by the Q^{+}_{MH} test statistic. When hidden bias increases the odds of receiving MHC treatment for treated cases by 200% (γ=2.0) relative to untreated cases, after accounting for the propensity score, the impact of MHC participation on re-arrest and re-conviction is highly significant. It is fairly conceivable that the use of limited administrative data in our study may not fully capture the extent that treated cases self-selected into MHC treatment. However, the results from sensitivity analysis suggest that our findings regarding the treatment effect of MHC programs would be relatively tolerable to such bias.

It is also notable in the Bronx evaluation that the re-conviction model is slightly more sensitive to hidden bias than is the re-arrest model. To the extent that unobserved characteristics of program participants self-selected them into treatment, the results reported in this study for the re-conviction outcome are more vulnerable to bias than is the re-arrest outcome.

BROOKLYN EVALUATION

The table below shows the sensitivity of the PSM analysis for Brooklyn MHC. Similar to the Bronx evaluation, the results indicate that our impact analyses are more sensitive to negative hidden bias (P^-_{MH}). Also, the impact of MHC participation remains highly significant even when the presence of hidden bias is highly likely in our analyses. To sum, these results indicate that our estimated effect of MHC programs is reasonably tolerable to positive self-selection bias, which is of main concern in most evaluation studies.

Table 2. Sensitivity of Treatment Effect Estimates to Hidden Bias (Brooklyn MHC)

	Re-Arrest				Re-Conviction			
Gamma	Q^+_{MH}	Q^-_{MH}	P^+_{MH}	P^-_{MH}	Q^+_{MH}	Q^-_{MH}	P^+_{MH}	P^-_{MH}
1.0	1.4586	1.4586	0.0723	0.0723	1.9580	1.9580	0.0251	0.0251
1.1	1.9503	0.9711	0.0256	0.1658	2.4713	1.4501	0.0067	0.0735
1.2	2.3989	0.5252	0.0082	0.2997	2.9392	0.9852	0.0016	0.1623
1.3	2.8129	0.1153	0.0025	0.4541	3.3708	0.5579	0.0004	0.2885
1.4	3.1974	0.0686	0.0007	0.4726	3.7717	0.1625	0.0001	0.4354
1.5	3.5567	0.4216	0.0002	0.3367	4.1460	0.0179	0.0000	0.4929
1.6	3.8939	0.7519	0.0000	0.2260	4.4973	0.3618	0.0000	0.3587
1.7	4.2119	1.0625	0.0000	0.1440	4.8284	0.6851	0.0000	0.2467
1.8	4.5128	1.3555	0.0000	0.0876	5.1415	0.9899	0.0000	0.1611
1.9	4.7985	1.6330	0.0000	0.0512	5.4387	1.2785	0.0000	0.1005
2.0	5.0706	1.8967	0.0000	0.0289	5.7216	1.5525	0.0000	0.0603