



NEW YORK STATE ASSISTED OUTPATIENT TREATMENT PROGRAM EVALUATION



Submitted under Contract with the New York State Office of Mental Health



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Foreword

Acknowledgements

We gratefully acknowledge the contribution of numerous individuals in collecting, synthesizing, and reporting the data for this effort.

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Finally, although the findings of the study are solely our responsibility, we gratefully acknowledge the valuable involvement of our project liaison Steven Huz, Ph.D. and the support and assistance of the New York State Office of Mental Health in completing the report including: Michael F. Hogan, Ph.D., Bruce E. Feig; Susan Shilling, Esq., L.C.S.W; Lloyd I. Sederer, M.D., Peter Lannon; and Qingxian Chen.

Executive Summary

Introduction

In 1999, New York State created a program authorizing court-ordered treatment in the community for people with severe mental illness at risk of relapse or deterioration absent voluntarily compliance with prescribed treatment. To be eligible for this Assisted Outpatient Treatment (AOT) Program—popularly known as “Kendra’s Law,” named after Kendra Webdale, a young woman who was killed by a person with untreated mental illness—individuals must be at least 18 years of age, diagnosed with mental illness and assessed to be unlikely to live safely in the community without supervision. In addition, recipients must have a history of treatment noncompliance that has resulted in (1) psychiatric hospitalization or incarceration at least twice in the past 36 months, or (2) committing serious acts or threats of violence to self or others in the past 48 months. Finally, these individuals must be found, as a result of their mental illness, to be unlikely to voluntarily participate in treatment and to be in need of AOT to prevent deterioration that would likely result in harm to themselves or others. Once an AOT order is finalized by a court, recipients are engaged in a comprehensive community-based treatment plan and extensively monitored for adherence to the plan.

The 2005 reauthorization of the AOT Program required an independent evaluation of its implementation and effectiveness, specifically addressing several areas of investigation. The New York State Office of Mental Health issued a competitive Request for Proposals, and the contract for the evaluation was awarded to the Services Effectiveness Research Program in the Department of Psychiatry and Behavioral Sciences at Duke University Medical Center with a subcontract to the

Policy Research Associates, Inc. of Delmar, NY, and with additional support from the John D. and Catherine T. MacArthur Foundation Research Network on Mandated Community Treatment.

The contract requires study and reporting on the following areas:

Description of AOT Program and regional variations: Are there regional and cultural differences across the state in AOT programs and their implementation?

Service engagement: What is the level of service engagement of recipients of mental health services during AOT?

Recipient outcomes: What are the outcomes for people with mental illness who are mandated into AOT versus those who receive voluntary enhanced outpatient services?

Recipient perceptions of AOT: What are the opinions of a representative sample of AOT recipients regarding their experiences with AOT?

Service engagement and outcomes after AOT ends: What is the level of service engagement of recipients of mental health services post-AOT?

The impact of AOT on New York’s public mental health system: What is the impact of AOT programs on the availability of resources for individuals with mental illness and perceived barriers to care?

To address these areas of investigation we studied existing records from several extensive data sources, described in the appendices, including: AOT Program administrative data, New York State Office of Mental Health client profile surveys, hospital admissions records, case manager

reports on AOT recipients and Assertive Community Treatment recipients, Medicaid claims, arrest records, U.S. Census, and Mental Health Needs Estimation Project data. In addition, we conducted statewide in-person interviews among key stakeholders to gain insight into the operation of the AOT Program and interviewed service recipients in six counties to assess attitudes about treatment, treatment experiences, and treatment outcomes.

Findings

Description of the New York AOT Program and Its Regional Variations

The introduction of New York's AOT Program was accompanied by a significant infusion of new service dollars and currently features more comprehensive implementation, infrastructure and oversight of the AOT process than any other comparable program in the United States. It is, therefore, a critical test of how a comprehensively implemented and well-funded program of assisted outpatient treatment *can* perform. However, because New York's program design is unique, these evaluation findings may not generalize to other states, especially where new service dollars are not available. This report addresses whether AOT can be effective and under what circumstances, not whether it will always be effective wherever or however implemented.

As designed, AOT can be used to prevent relapse or deterioration before hospitalization is needed. However, in nearly three-quarters of all cases, it is actually used as a discharge planning tool for hospitalized patients. Thus, AOT is largely used as a transition plan to improve the effectiveness of treatment following a hospitalization and as a method to reduce hospital recidivism.

Most of New York State's experience with AOT originates in the New York City region

where approximately 70% of all AOT cases are found. AOT was systematically implemented citywide in New York City with well-delineated city-wide policies and procedures. In the remainder of the state, AOT was implemented and utilized at the discretion of counties. In some counties AOT has been rarely used; in several it has not been used at all.

Based on key stakeholder and recipient interviews and on AOT Program data, we found considerable variability in how AOT is implemented across the state, but strong uniformity in how it is implemented in New York City. One important difference among regions was the use of enhanced voluntary service (EVS) agreements (sometimes referred to as "enhanced services") in lieu of a formal AOT court order. (Note that the term "enhanced voluntary services" or 'EVS' was developed to describe these agreements and is not an official designation.) Under a voluntary agreement, the recipient signs a statement that he or she will adhere to a prescribed community treatment plan. In the New York City region, voluntary agreements are usually implemented following a period of AOT when a recipient is judged to be ready to transition from an AOT order to voluntary treatment; we refer to this as the "AOT First" model. In other counties, largely outside of New York City, voluntary agreements are more frequently used as trial periods before initiating a formal AOT order; we refer to this pattern as the "EVS First" model. If the trial period proves unsuccessful, an AOT proceeding is then initiated. Across the state, AOT First is used far more frequently than EVS First since the majority of AOT orders occur in New York City.

Racial Disparities in AOT: Are They Real?

An April 2005 report on statewide demographic data from the New York Lawyers for the Public Interest found that African Americans were overrepresented in the AOT Program. Whether this over-

representation is discriminatory rests, in part, on whether AOT is generally seen as beneficial or detrimental to recipients and whether AOT is viewed as a positive mechanism to reduce involuntary hospitalization and improve access to community treatment for an under-served population, or as a program that merely subjects an already-disadvantaged group to a further loss of civil liberties.

We find that the overrepresentation of African Americans in the AOT Program is a function of African Americans' higher likelihood of being poor, higher likelihood of being uninsured, higher likelihood of being treated by the public mental health system (rather than by private mental health professionals), and higher likelihood of having a history of psychiatric hospitalization. The underlying reasons for these differences in the status of African Americans are beyond the scope of this report. We find no evidence that the AOT Program is disproportionately selecting African Americans for court orders, nor is there evidence of a disproportionate effect on other minority populations. Our interviews with key stakeholders across the state corroborate these findings.

Service Engagement

A key goal of the AOT Program is to motivate consumers to actively engage in treatment during and after their involvement with the program. We find that during the first six months on AOT, service engagement was comparable to service engagement of voluntary patients not on AOT. After 12 months or more on AOT, service engagement increased such that AOT recipients were judged to be more engaged than voluntary patients. This suggests that after 12 months or more, when combined with intensive services, AOT increases service engagement compared to voluntary treatment alone.

Recipient Outcomes

We find consistent evidence that during AOT there is a substantial reduction in the number of psychiatric hospitalizations and in days in the hospital if a person is hospitalized. We also find moderately strong evidence from lifetime arrest records of AOT and EVS recipients from the NYS Division of Criminal Justice Services that AOT reduces the likelihood of being arrested. We find substantial increases in receipt of intensive case management services during AOT. We also find that AOT recipients are far more likely to consistently receive psychotropic medications appropriate to their psychiatric conditions. Case managers of AOT recipients also report subjective improvements in many areas of personal functioning, such as managing appointments, medications, and self-care tasks.

Recipient Perceptions of AOT

Participants were assessed on scales measuring a wide range of AOT-related attitudes and treatment experiences, including: their understanding of AOT; whether they believe it beneficial or harmful; whether they find it stigmatizing; whether it affects their sense of autonomy or empowerment; satisfaction with treatment, perceived coercion related to treatment; perceived pressures to engage in treatment; whether it increases perceived barriers to treatment; and how it affects their sense of being treated fairly.

On the whole, AOT recipients and non-AOT recipients report remarkably similar attitudes and treatment experiences. That is, despite being under a court order to participate in treatment, current AOT recipients feel neither more positive nor more negative about their mental health treatment experiences than comparable individuals who are not under AOT. This suggests that positive and negative attitudes about treatment during AOT are more strongly influenced by other experiences with mental illness and treatment than by recent experiences with AOT itself.

Service Utilization and Outcomes After AOT Ends

We examined whether selected gains made during AOT are sustained over time by examining two key outcomes that improved during AOT: reduced rates of hospitalization and increased receipt of psychotropic medications appropriate to the individual's diagnosis. We find that sustained improvement after AOT ends varies according to the length of time the recipient spends under the AOT order. If AOT is discontinued after six months, these decreased rates of hospitalization and improved receipt of psychotropic medications are sustained only if recipients continue to receive intensive case management services. However, if AOT continues for longer than 6 months, reduced rates of hospitalization and improved receipt of medications are sustained whether or not intensive case management services are continued after AOT is discontinued. Thus, it appears that improvements are more likely to be sustained if AOT continues for longer than 6 months.

Impact of AOT on New York's Public Mental Health System

It is unclear whether resources have been diverted away from other adults with severe mental illness as a consequence of AOT implementation. We examined the impact of AOT Programs on the availability of resources for all adult individuals with severe mental illness by focusing on access to high intensity case management services.

The implementation of AOT was accompanied by a large increase in funding for mental health services, which over time increased the availability of intensive services for all service recipients, even those who never got AOT. In the first several years of the AOT Program, between 1999 and 2003, preference for intensive case management services was given to AOT cases, a finding corroborated by our

key stakeholder interviews. This meant that in the first several years of the AOT Program, non-AOT recipients were less likely to receive intensive case management services than their AOT counterparts, especially outside of New York City. This may have been because the treatment capacity was greater in New York City, and thus it was able to absorb a greater volume of new AOT cases with less impact on other service recipients with severe mental illness.

After 2003 new AOT orders leveled off in the state and then declined. The new treatment capacity that accompanied the implementation of AOT was apparently then available to other individuals who needed these services, irrespective of AOT status. Thus, following the initial ramp-up of the AOT Programs throughout the state, intensive community-based services increased for individuals on AOT and those not on AOT alike. Because the new service capacity created during the implementation of the AOT Program is now fully utilized, competition for services in the near future may intensify, with unknown effects on AOT relative to non-AOT recipients. Because the implementation of the AOT Program in New York was accompanied by an infusion of new services, it is impossible to generalize these findings to states where services do not simultaneously increase.

Summary

We find that New York State's AOT Program improves a range of important outcomes for its recipients, apparently without feared negative consequences to recipients. The increased services available under AOT clearly improve recipient outcomes, however, the AOT court order, itself, and its monitoring do appear to offer *additional benefits* in improving outcomes. It is also important to recognize that the AOT order exerts a critical effect on service providers stimulating their efforts to prioritize care for AOT recipients.

Available data allow only a limited assessment of whether voluntary agreements are effective alternatives to initiating or continuing AOT. There are relatively few voluntary agreements and they typically occur in counties that use the "EVS First" model. However, we found some evidence that AOT recipients are at lower risk of arrest than their counterparts in enhanced voluntary services. We also found evidence in the case manager data that receiving AOT combined with ACT services substantially lowers risk of hospitalization compared to receiving ACT alone.

Recipients appear to fare better during and after AOT if the AOT order lasts for six months or more. Once AOT recipients leave the program, improvements are more likely sustained among those who continue to receive intensive treatment services or received longer periods of AOT.

Perceptions of the AOT Program, experiences of stigma, coercion, and treatment satisfaction appear to be largely unaffected by participation in the program and are likely more strongly shaped by other experiences with mental illness and treatment.

In its early years, the AOT Program did appear to reduce access to services for non-AOT recipients. However, in recent years the reduction in new AOT cases has attenuated this effect. Lack of continued growth of new service dollars will likely increase competition for access to services once again.

Introduction

The New York State Legislature in 1999 enacted the state's involuntary outpatient commitment statute, named "Kendra's Law" in memory of a young woman killed by a man with untreated mental illness.¹ Beyond passing a new law to address a perceived public safety need, the Legislature funded a new statewide program – Assisted Outpatient Treatment (AOT) – designed to ensure that people with severe mental illness receive the array of services they need in the community.

Kendra's Law was seen as a legislative model for involuntary outpatient commitment in the United States. The intent of the statute was not simply to authorize court-ordered community treatment but to also provide the resources and oversight necessary for a viable, less restrictive alternative to involuntary hospitalization. The goal was to provide a definitive remedy for the costly "revolving door syndrome."

Whether Kendra's Law and the AOT Program have succeeded in these terms – and at what cost to the liberty of AOT recipients and the public resources they consume – is a matter of ongoing debate.

Kendra's Law was initially authorized for a period of five years with continuation made contingent on an internal evaluation of the AOT Program. The Mental Health Commissioner and New York State Office of Mental Health (OMH) submitted reports on the implementation and status of the AOT Program. The Interim Report (2003) and Final Report (2005) highlighted encouraging evidence of AOT's effectiveness,² and the

Legislature reauthorized AOT for a second five-year period.

The 2005 reauthorization of Kendra's Law required an independent evaluation of the implementation and effectiveness of the AOT Program, specifically addressing several areas of investigation. Beginning in 2006, the Commissioner was also to issue both an annual fiscal and descriptive AOT Program report.

OMH issued a competitive Request for Proposal, and the contract was awarded to the Services Effectiveness Research Program (SERP) in the Department of Psychiatry and Behavioral Sciences at Duke University Medical Center (DUMC) with a subcontract to Policy Research Associates, Inc. (PRA) of Delmar, NY. This project also received funding from the John D. and Catherine T. MacArthur Foundation Research Network on Mandated Community Treatment. This evaluation team is led by Principal Investigators Marvin Swartz, M.D., and Jeffrey Swanson, Ph.D., of DUMC and Henry Steadman, Ph.D., and Pamela Clark Robbins of PRA.

The evaluation team analyzed AOT administrative records and clinical services data spanning nearly a decade (1999 – 2007). The team also collected and analyzed new data from key informant interviews throughout the state, and from structured interviews with a new sample of AOT and voluntary service recipients in six selected counties. This report presents the findings from these analyses, following an overview of the AOT Program and study methods.

¹ [Appendix A](#) contains an overview of Kendra's Law and the statute.

² OMH's Interim Report on Kendra's Law is available on the OMH Web site at http://www.omh.state.ny.us/omhweb/Kendra_web/interimreport/ and the Final Report is at http://www.omh.state.ny.us/omhweb/Kendra_web/finalreport/index.htm

Overview of Evaluation Report

The New York State Legislature's authorization of Kendra's Law and the accompanying AOT Program is contingent on the evaluation of its effectiveness. The following specific research questions were posed in the evaluation solicitation:

- 1. Description of AOT Program.** The process by which AOT is implemented across the state is characterized and described, and fundamental questions of the fairness of the AOT program are investigated. Specifically, are there regional and cultural differences across the state in AOT programs and their implementation?
- 2. Service engagement.** One of the primary aims of AOT is to encourage recipients to engage in community treatment so as to avoid treatment in the more restrictive inpatient setting. What is the level of service engagement of consumers in mental health services during AOT, and does the duration of AOT influence engagement?
- 3. Recipient outcomes.** The effectiveness of AOT is examined. What are the outcomes for people with mental illness who receive enhanced outpatient services versus those who are in AOT?
- 4. Recipient perceptions of AOT.** What are the opinions of a representative sample of AOT recipients regarding their experiences with AOT?
- 5. Post-AOT service utilization and outcomes.** The purpose of AOT, and

the optimal duration of AOT to achieve a given purpose, likely varies across recipients. AOT may be used to link some people into treatment that they will, once stabilized, accept voluntarily. For others, AOT is an ongoing tool of leverage intended to maintain treatment adherence in persons who, due to the nature of their illness, are otherwise unwilling or unable to participate consistently in mental health services. What is the level of service utilization of AOT recipients following the termination of the court order, and how does utilization vary as a function of AOT duration and recipient characteristics?

- 6. Impact of AOT on service system.** An impressive amount of resources have been allocated to support the AOT Program, and individuals under AOT are assured access to services. It is uncertain whether, as a consequence of AOT implementation, resources have been diverted from other adults with severe mental illness in need of treatment. What is the impact of AOT Programs on the availability of resources for individuals with mental illness, and what are the perceived barriers to care?

Summary

An independent evaluation of New York State's AOT Program was a stipulation of the 2005 reauthorization of Kendra's Law. This report presents the findings of the evaluation, which examined nearly a decade of administrative and service data as well as newly collected interview data. The report is organized around the six areas of investigation that were outlined in the evaluation request.

Chapter 1: What Does the Implementation of the Assisted Outpatient Treatment (AOT) Program Look Like, and Are There Regional and Cultural Differences Across the State in AOT Programs and Their Implementation?

In this chapter we describe the volume and distribution of AOT orders across New York State and discuss the variations in AOT across local programs, regions, and target populations. In addition to quantitative analysis of administrative data collected by OMH, we present qualitative data gathered in our interviews with key stakeholders. A major finding of our research is that implementation and operations of the AOT Program are not uniform across the state; two discrete programs emerge in different parts of the state. In addition, some counties do not have an AOT Program at all.

Implementation of the AOT Program

A total of 8,752 initial AOT orders and 5,684 renewals were granted from the inception of the AOT program in 1999 through midyear 2007.³ AOT recipients represent a small proportion of the total OMH adult service population. For example, in 2005, of the 138,602 OMH adult service recipients with severe mental illness, only 2,420 (1.7 %) were AOT recipients. And yet, despite their small numbers, persons under AOT receive disproportionate attention, given their serious needs, high cost to the service system, and the public's concern about the target population for Kendra's Law.

Under Kendra's Law, a local AOT Program was to be created to monitor and oversee AOT implementation for each county and New York City. In our interviews with key stakeholders, we found that some counties have an AOT Program but never use it. Instead, these counties use their local Single Point of Access (SPOA) program to

coordinate services for high need populations. We also found that some counties have no AOT Program at all. Among the common reasons cited for not utilizing AOT are the lack of infrastructure to support court orders in smaller counties; the belief that mental health problems should not be dealt with by the legal system; and the position that court orders are for the benefit of providers rather than clients. These quotes from key informant administrators in counties that do not routinely use AOT demonstrate various local views on the use of AOT:

AOT is a reactionary approach to a high publicity incident.

The law is implemented—we just don't let it get to court.

I don't think anybody would benefit from AOT. If I thought it would make a difference, I would do it. I've gotten close.

All counties receive AOT Program funding and service dollars, regardless of whether they actually have an AOT Program in place. Although some counties do not use the money for AOT recipients, they may use these funds to serve high-risk clients in other ways. Our interviews of county officials indicate that AOT Program funding is very important to the local service system but yield no specific information about how county-level AOT dollars are spent.

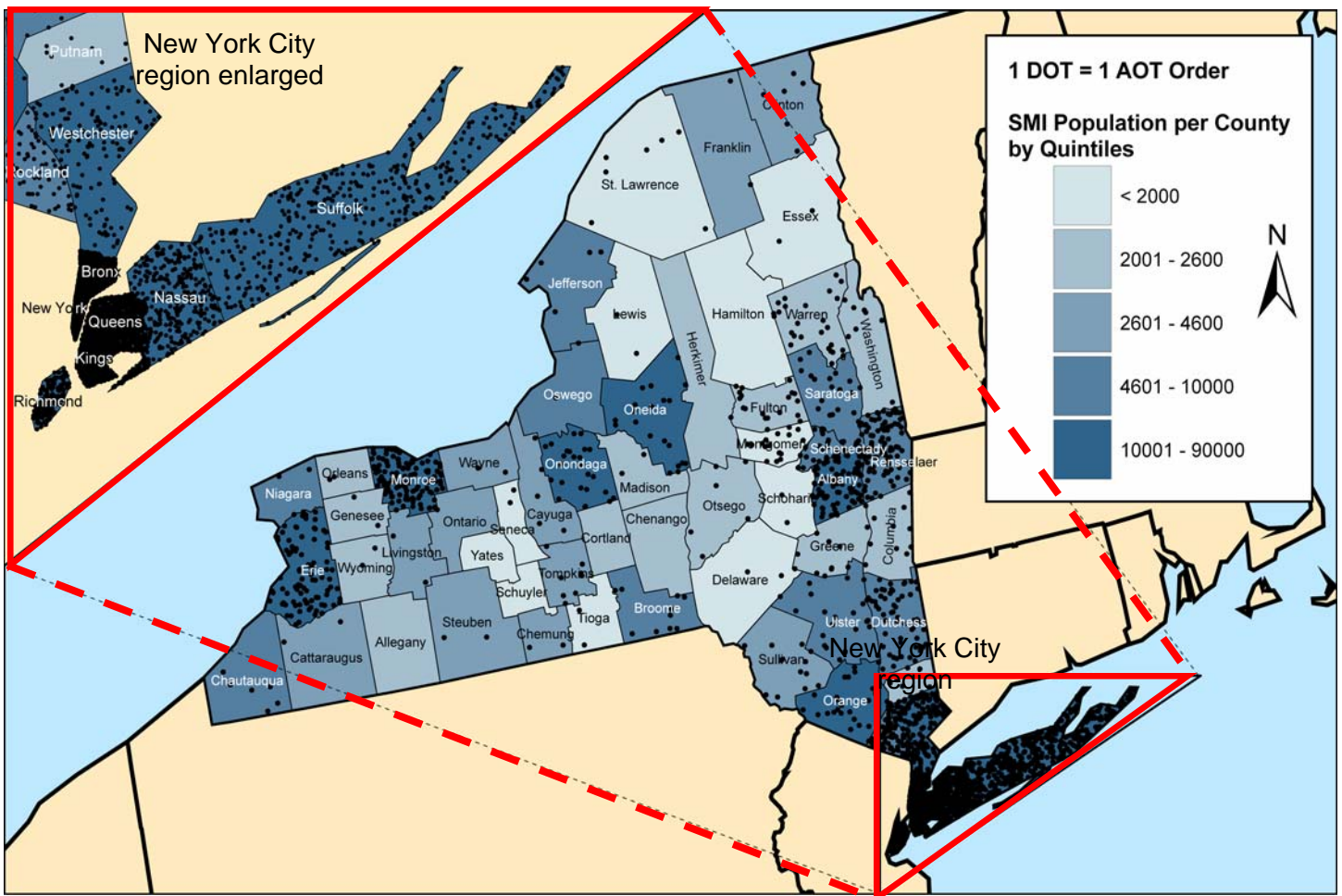
Exhibit 1.1 displays the distribution of 2005 AOT orders by county, with counties shaded

³ Throughout this report, unless specified otherwise, our data analysis goes through midyear 2007. While OMH continues to collect AOT program data and publishes updated program statistics on its website, our formal evaluation required a cut-off point to standardize the period of observation across datasets and to allow time to complete the extensive analyses presented herein.

according to the size of the population of individuals with serious mental illness (SMI). It is evident that a higher proportion of individuals with SMI are located in New York City and the surrounding counties, along with the upstate metropolitan areas. Likewise, there is a higher density of AOT recipients in these areas. However, there

are some areas where the number of AOT orders is inconsistent with the SMI population density, which suggests other sources of variation. Regional differences emerged when we examined how AOT is applied, the duration of the court order, and the origination of petitions.

Exhibit 1.1 AOT Order Density and Estimated Serious Mental Illness Population



Source: Combined analysis of data from OMH, the U.S. Census, and estimates from epidemiological surveys.

Regional variation in AOT

Which Comes First, Court-Mandated AOT or Enhanced Voluntary Services (EVS)?

For AOT to be ordered, individual candidates who are petitioned for AOT must meet legal eligibility criteria, and AOT must be deemed the least restrictive alternative. However, for some petitioned individuals, an alternative plan may be drafted in which the individual agrees to receive Enhanced Voluntary Services (EVS); in most cases, this plan includes being assigned to intensive case management (ICM) or assertive community treatment (ACT). Although voluntary, the agreement may have conditions of treatment participation designed to avoid a court order for AOT.

The process for initiating voluntary agreements and drafting enhanced service plans are not statutory elements of Kendra's Law. However, they are used by many county AOT Programs either prior to initiating AOT or after a period of AOT. Some counties instituted formal procedures for voluntary agreements (i.e., legal documents), and other counties use less formal written or verbal agreements. While counties do not report to OMH the individual or identifying data on persons served under these voluntary agreements, the number of voluntary agreements has been acknowledged and reported in earlier program reports.

EVS First is primarily used in upstate counties and is thought to satisfy the least restrictive alternative requirement.

The extent to which EVS agreements were used varied across counties, and varied in the timing of the order. Some county AOT Programs seek the court mandate before moving towards a voluntary agreement after some success under the mandate (i.e., AOT First); these programs use voluntary agreements as a path out of AOT. Other

county AOT Programs first elicit voluntary participation in enhanced services before resorting to the court mandate. They seek a court order only if the individual does not comply with the treatment specified in the voluntary agreement (EVS First). A psychiatrist from an upstate county discussed this approach to providing EVS First in the following way:

We don't do it like downstate or like OMH wants. We use the voluntary order first. We don't approach it in an adversarial way.

But a psychiatrist working with a downstate AOT program took a much different view.

If you meet criteria it would be foolish to do less [than a court order].

We found notable regional differences in the use of these two distinct models of AOT. EVS First is primarily used in upstate counties and is thought to satisfy the least restrictive alternative requirement (inpatient psychiatric hospitalization being the most restrictive). AOT First is the predominant model downstate where court orders are usually given prior to discharge from an inpatient setting. Liability concerns are generally cited as the rationale for this model; that is, the hospital is more comfortable discharging the patient knowing that an AOT court order is in place. However, limited service slots and housing availability are also influential in the decision to use this model as court-ordered individuals are given priority for these scarce resources.

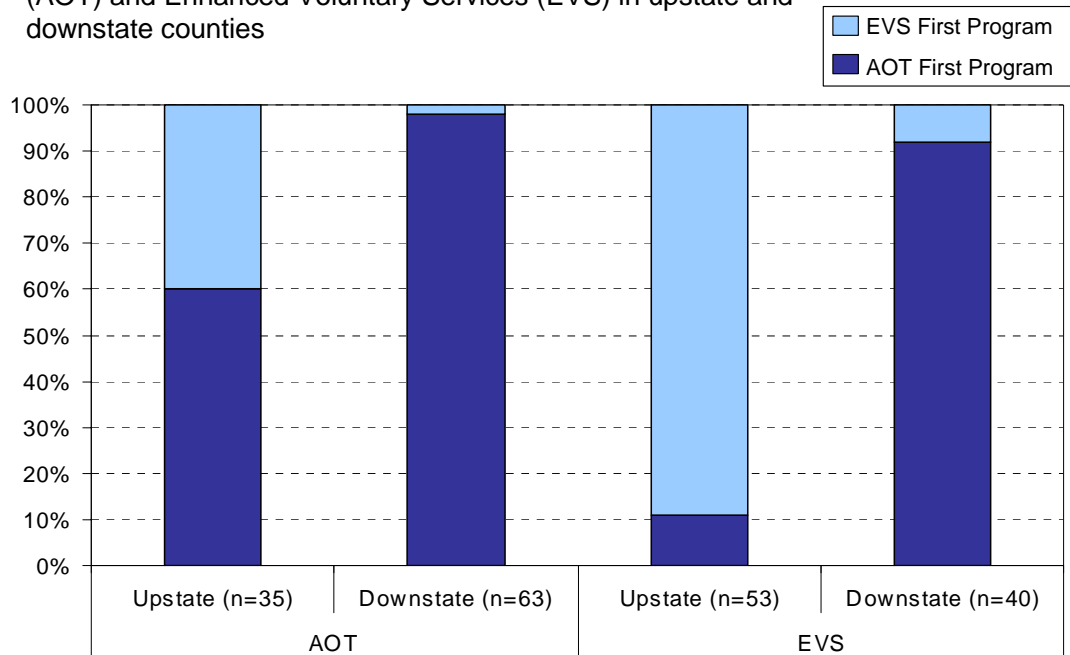
AOT First is the predominant model downstate where court orders are usually given prior to discharge from an inpatient setting.

We examined patterns of AOT among service recipients interviewed in six selected counties. As seen in Exhibit 1.2, the EVS First pattern was extremely rare in the downstate counties of New York, Queens,

and Nassau. In contrast, this pattern was quite frequent in two of the upstate counties (Erie and Monroe). The majority of current AOT recipients started the program under a court order (AOT First). However, while 40% of recipients in the upstate AOT Programs began with a voluntary agreement (EVS First), only one individual

in the downstate programs followed this pattern. Similarly, of those interviewed who were currently under an EVS agreement, 89% located upstate had started out on the voluntary agreement, whereas only 7% of downstate EVS participants had started on a voluntary agreement.

Exhibit 1.2. Program type by Assisted Outpatient Treatment (AOT) and Enhanced Voluntary Services (EVS) in upstate and downstate counties



Source: 6-county interviews

How Long Does An AOT Order Last?

Statewide, 32% of AOT orders last 6 months or less, while 68% last longer than 6 months. A small minority of orders—14%—are kept in place for longer than 30 months. Regions vary to some extent in the duration of AOT recipients' orders, for example, with the Central Region tending to terminate orders sooner (48% end at 6 months), and Long Island extending orders longer (81% last longer than 6 months).

Where Do AOT Petitions Originate?

The vast majority (84%) of petitions are filed while the subject of the petition (the AOT

respondent) is an inpatient at a psychiatric hospital. A small proportion of petitions (13%) are filed while the respondent is in the community, and an even smaller proportion (3%) are filed by correctional facilities. The proportion of AOT orders originating in hospitals, prisons/jails, or communities has varied over time, with a slight increase in the proportion of orders originating in jail or prison since the beginning of the program. As shown in Exhibit 1.3, there is notable regional variation in the source of petitions. The Central Region had proportionately more AOT orders originating in jails or prisons (21%), while the Western Region had

proportionately more orders originating in the community (43%).

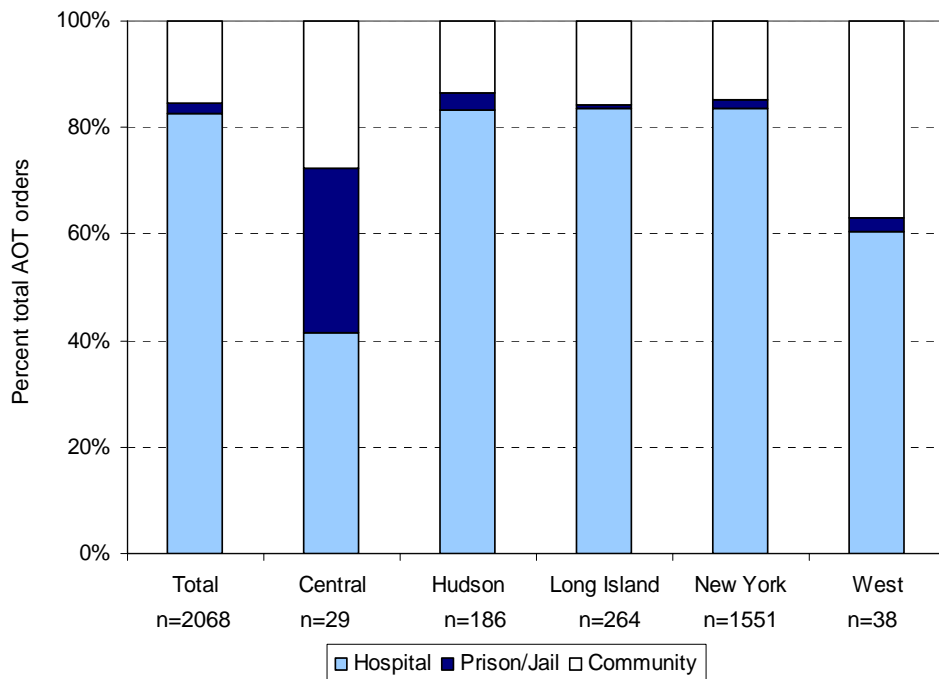
Interviews with key informants provided several reasons for variation in the source of AOT petitions—several driving factors may vary by region and from case to case. One important factor is regional differences in rates of involuntary hospitalization and incarceration due to bed capacity and location of facilities in large metropolitan areas. In some regions, a greater proportion of the AOT target population may be hospitalized, and thus, more accessible to the AOT initiation process. Second, the cost of petitioning for AOT can be prohibitive for smaller hospitals and individuals (i.e., family members). Third, inpatient doctors in some facilities tend to use AOT more routinely as part of a discharge plan and as a form of risk management, although several key informants doubted AOT was an effective risk management strategy. For example:

AOT has some carrot—not the teeth.

The fact is this statute has no teeth and adversarial situations don't work with no teeth. 9.60 (AOT) is gums but no teeth.

Fourth, family members may not wish to initiate the petition, fearing that it will disrupt their relationship with their loved one, and prefer instead to wait until a petition follows from a hospitalization. Fifth, petitions from jail can be problematic given the uncertainty of inmate release times.

Exhibit 1.3. Origin of AOT orders, 2002-2007, for various regions of New York.



Source: Tracking for AOT Cases and Treatments

Other Regional Variations in AOT Implementation

We found many other differences in how the AOT Program is implemented. Some counties integrated AOT with Single Point of Access (SPOA) to facilitate the process and provide highly coordinated services. One key informant noted:

Central point of access for care coordination is key.

Other counties established formal administrative procedures, including standardized forms and reporting policies to expedite administration of the law. In the New York City boroughs, there is a formal pick-up procedure when individuals are noncompliant with the court order, making it easier to execute a Removal Order for someone under AOT who becomes noncompliant with services. Other variations in AOT Program implementation stem from the court proceedings themselves such as the continuity and interest of the presiding judge and the attitudes of the Mental Hygiene Legal Service (MHLS) attorneys.

First, counties vary in whether they have a single judge appointed to preside over all AOT hearings or whether this position is rotated among several judges. Judges' interest in mental health law also varies. Second, MHLS attorneys' attitudes regarding the AOT Program varied across regions.

In some MHLS departments, lawyers tended to view AOT as the least restrictive alternative to hospitalization and as a gateway to receiving needed community services. These lawyers were likely to foster a collaborative, and whenever possible, a non-adversarial relationship with the hospitals' clinical staff – working together in using AOT as a tool to obtain early discharge for patients who had been involuntarily committed to longer stays in psychiatric facilities.

In other MHLS departments, lawyers were likely to view their legal role as appropriately adversarial with respect to the AOT petitioners, representing their client's own wishes rather than “best interest” *per se* defined by clinicians' or family members.

These divergent views from MHLS attorneys are illustrative:

We see AOT as a way for some clients to get what they need. They are severely mentally ill and need good follow-up treatment in the community. This is a way for them to get out of the hospital much sooner.

The job of MHLS is to just give clients the facts—their rights. We are not best interest advocates. If they want a hearing, so be it.

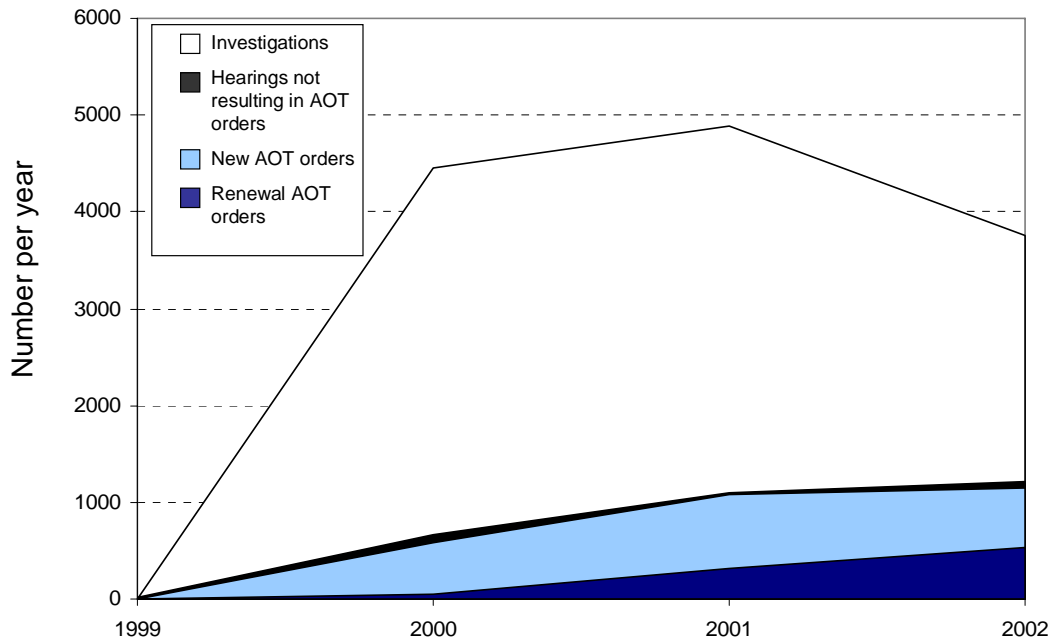
A judge in one area where MHLS attorneys were known to hold the latter view noted how their advocacy was a major strength of the program.

Trends in the Use of AOT

At the beginning of the AOT Program in 1999, the number of AOT investigations accelerated rapidly and remained much higher than the number of resulting petitions and court orders (see Exhibit 1.4).⁴ However, the number of investigations began declining after 2001 as more eligible referrals were made to the AOT Program. Over time, program administrators and service providers developed a keener ability to identify candidates likely to meet the legal eligibility requirements for AOT.

⁴ Data on the number of investigations was only recorded and reported to OMH until 2003.

Exhibit 1.4. AOT investigations, petitions, hearings, and orders during the initial years of the program

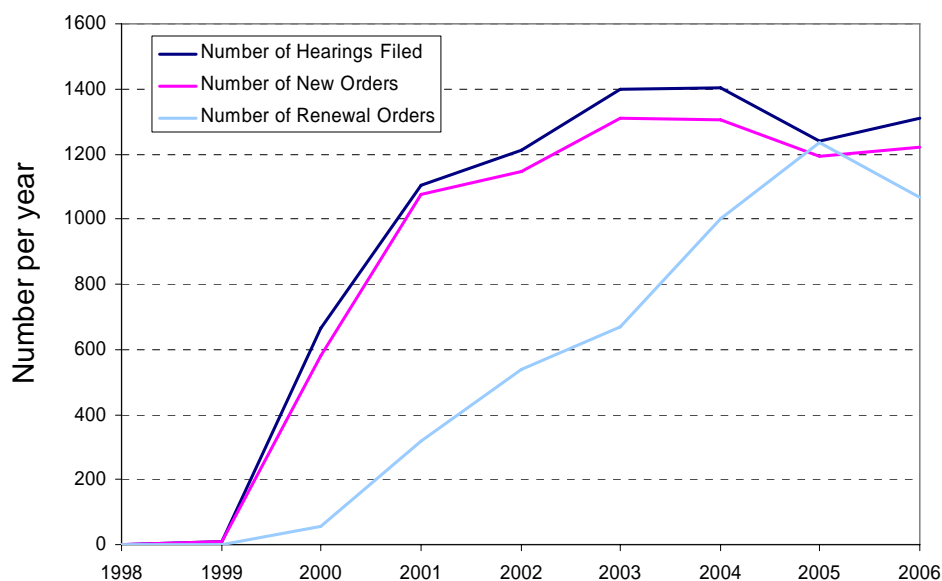


Source: Tracking for AOT Cases and Treatments and AOT Evaluation database

If an investigation does reach court, it is very likely to result in an AOT order; out of 9,307 AOT hearings held, 8,752 (94%) resulted in a court order. Thus, it appears that ineligible AOT requests are largely screened out before investigations reach court. Exhibit 1.5 shows a steep start-up curve in AOT hearings, orders, and renewals from 1999 to 2002. After that,

however, the volume of AOT cases leveled off as counties refined policy and procedures. Also, as more people were placed on AOT over time, and as more AOT orders were renewed, the remaining pool of AOT-eligible individuals shrank. Meanwhile, AOT renewal orders increased and reached a peak in 2005 with 1,236 renewal orders.

Exhibit 1.5 AOT hearings, orders, and renewals, 1999 to 2006



Source: OMH evaluation database.

The volume of AOT orders and renewals is inevitably affected by local service capacity, which is more limited in rural areas. For example, many AOT treatment plans specify ACT as the appropriate service modality for the AOT recipient. However, smaller programs may not have ACT teams or may have no available caseload openings on existing teams; ACT caseloads are capped at 48 or 68 clients. Because of limited service capacity, scarce resources are selectively used for individuals most in need, often defined as those at highest risk for violent behavior. Most of the county program personnel we interviewed indicated that their AOT Programs had reached capacity. They were now faced with deciding which individuals would be most appropriately served in the limited number of slots made available through attrition or “graduation” from AOT. Comments from an AOT Director and ICM provider illustrate the problem:

There have been (AOT) capacity issues for some time now.

AOT really does work—but sometimes people get stuck in AOT longer than need to be—almost punishing them.

Some programs indicated that when individuals meet AOT criteria but are not deemed “high risk,” they do not receive AOT until another recipient graduates from AOT.

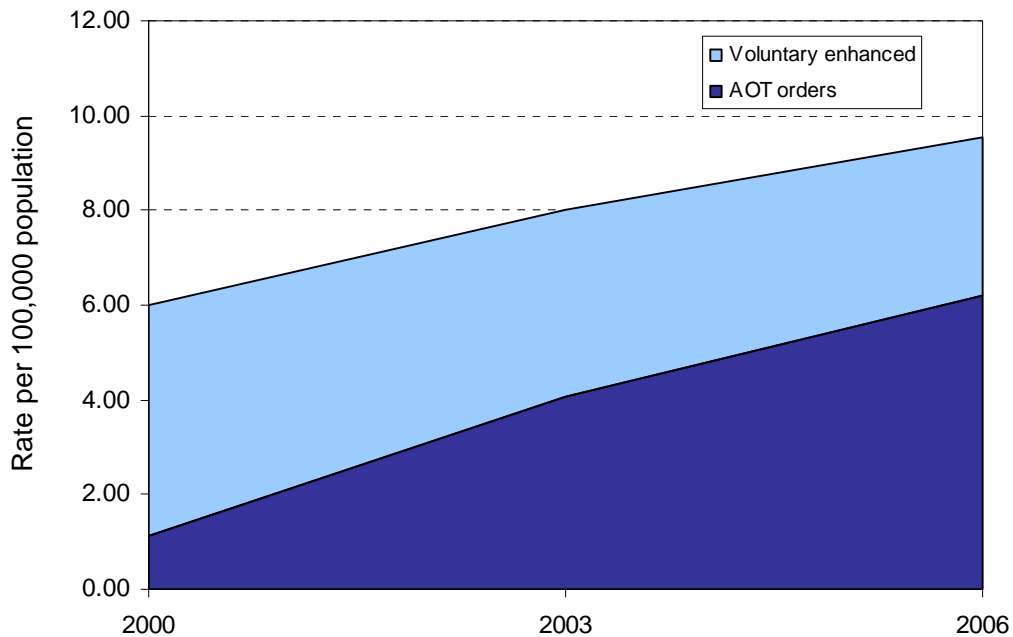
According to aggregate data provided by the counties, the rate per 100,000 of EVS agreements initially was much higher than the rate of AOT orders, as shown in Exhibit 1.6. However, AOT orders eventually outpaced EVS orders—especially in downstate counties—so that by 2006 the rate of AOT orders was much higher than that for EVS orders.

One important difference between AOT and EVS that emerged in our key informant interviews is that EVS recipients are very

rarely renewed in their voluntary agreements. It is highly unlikely, particularly downstate, that a client would remain on a voluntary agreement for longer than six months. In the AOT First model, AOT court-ordered individuals are moved to a voluntary agreement when they transition from AOT, maintaining the same level of en-

hanced service for 6 months, and then are entirely moved off the formal AOT Program (though they may continue to receive case management and other services as needed). This then makes some room for new AOT court orders.

Exhibit 1.6 Trends in rates of Assisted Outpatient Treatment (AOT) orders and Enhanced Voluntary Services (EVS) agreements across New York counties



Source: OMH administrative data on AOT program

Enhanced Services: ACT and ICM

Kendra's Law requires that the written treatment plan include case management services, typically ICM or ACT services, while the individual is under the court order. These enhanced services are also provided to individuals on EVS agreements. ACT teams and intensive case management services are the cornerstones of the AOT treatment plan and have received the

majority of the AOT ancillary funding statewide. A look at the distribution of treatment type among all individuals who received AOT orders between 1999 and mid-year 2007 (N=14,127) shows 20% of cases received ACT and 74% received ICM. The remaining 6% may have also received ICM within the context of a blended case management team⁵ or may have received the less intensive supportive case management.

⁵ Blended case management programs comprise both intensive case managers, who carry a smaller client caseload, and supportive case managers.

Demographic Profile of AOT Recipients

A demographic description of all AOT recipients⁶ is provided in Exhibit 1.7.⁷ The most typical AOT recipient is a 38-year-old single male in New York City who is diagnosed with schizophrenia and living with others or in a supervised residence.

Nearly half (47%) of AOT recipients also have a co-occurring substance use disorder. Equal proportions (34%) of AOT recipients are white and black, meaning that African Americans are overrepresented in AOT from a population perspective. This racial disproportionality is investigated below.

Exhibit 1.7. AOT recipient characteristics

All AOT orders from 1999 to January 22, 2009 (n=7,368)	
Age in years	
Mean	38 years
Gender	
Male	67%
Race/ethnicity	
White	34%
Black	34%
Hispanic	30%
Other	2%
Marital status	
Single	76%
Divorced	8%
Married	16%
Living situation	
Alone	14%
With others	38%
Supervised setting	36%
Psychiatric diagnosis	
Schizophrenia	73%
Bipolar	18%
Co-occurring substance use	47%
Region	
Central	2%
New York City	71%
Hudson	10%
Long Island	11%
Western	4%

Source: AOT Evaluation database

⁶ Although NY OMH systematically collects data on individuals on a court order, they do not collect data on individuals who receive EVS. Descriptive information for a subsample of individuals receiving EVS is presented in Chapter 4.

⁷ The most up-to-date demographic data were derived for the OMH AOT website.

Racial Disparities in AOT: Are They Real?

Since 1999 about 34% of AOT recipients have been African Americans who make up only 17% of the state's population, while 34% of the people on AOT have been whites, who make up 61% of the population.⁸ Thus, overall, African Americans are more likely than whites to receive AOT. However, candidates for AOT are largely drawn from a population where blacks are overrepresented: psychiatric patients with multiple involuntary hospitalizations in public facilities. The answer to the question of whether AOT is being applied fairly must take into account all of the available data.⁹

To answer this question, we estimated and compared rates of AOT for black and white individuals using several alternative

denominators. These denominators can be thought of as a series of concentric circles encompassing relevant target populations, from the broadest to the narrowest definitions of who is “at risk” for receiving AOT.¹⁰ We then conducted a multivariable, longitudinal analysis of the association between race and AOT at the county level to see whether the relationship may be accounted for by other underlying factors that co-vary with race and AOT. Details regarding methodology and statistical analysis can be found in Appendix B.

Exhibit 1.8 displays the results graphically for six counties and the state total.¹¹ This analysis shows that in the total population, AOT affects African Americans 3 to 8 times more frequently than whites – about 5 times more frequently on average statewide.

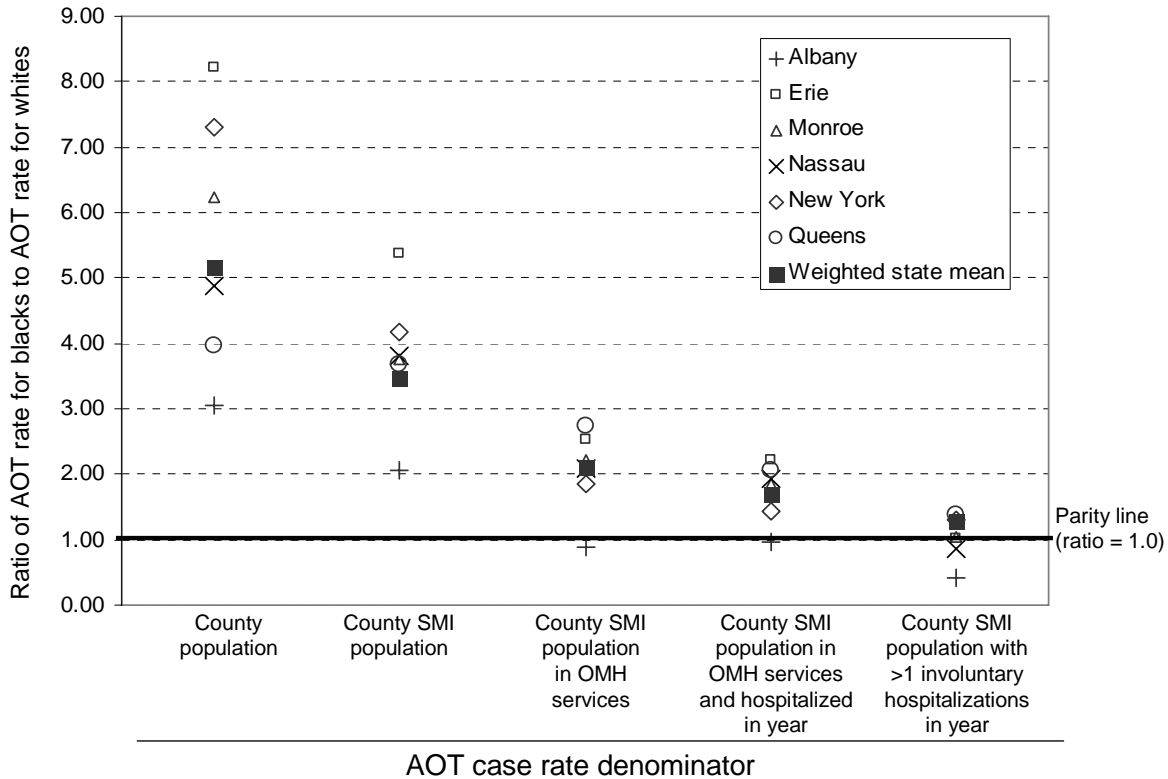
⁸ Data updated from M. Cooper, “Racial Disproportion Seen in Applying ‘Kendra’s Law’,” *New York Times*, 7 April 2005.

⁹ Our investigation of this question involved multiple data sets including: OMH administrative and clinical records on persons receiving AOT; OMH data on all service recipients’ characteristics and hospital admissions; U.S. Census estimates of county population by race and poverty status; county estimates of the prevalence of severe mental illness, applying epidemiological survey data to the demographic profile of each county.

¹⁰ Relevant populations used as denominators included: 1) the general population; 2) those with severe mental illness (SMI) in the community; 3) people with SMI receiving mental health services; 4) the public mental health system’s adult services recipient population; 5) people with SMI who have been hospitalized during a given year; 6) those who have been involuntarily committed to inpatient facilities more than once in the previous year.

¹¹ State totals were weighted by region.

Exhibit 1.8 AOT racial parity indices in 6 representative New York counties and statewide: Black to white ratios of AOT case rates (2003 period-prevalence) using selected alternative denominators



* Source: AOT Evaluation database, Tracking for AOT Cases and Treatments, US Census, Mental Health Needs Assessment Project, OMH Patient Characteristics Survey, OMH hospital admissions data.

However, the analysis also shows that these differences are dependent on context. When the most relevant target populations for AOT are considered, this ratio moves closer to 1 leaving no appreciable racial disparities in selection to AOT. The ratio is reduced substantially when the denominators used are the numbers of black and white individuals who are estimated to have SMI. These county SMI estimates incorporate poverty status, which is statistically associated both with SMI and with African American racial background.¹²

This ratio declines even further when public-sector service recipients are considered as

the denominator. Finally, there is no difference in black and white rates of AOT among those who have been involuntarily hospitalized at least twice. Parallel analyses for Hispanics and other minority populations show this same pattern and no appreciable racial disparities are evident in selection of these groups for AOT.

This analysis implies that the AOT rate is influenced by a number of “upstream” social and systemic variables such as poverty that may correlate with race. However, we find no evidence suggesting racial bias in the application of AOT to individuals. Defining

¹² E. Silver et al., “Neighborhood structural characteristics and mental disorder: Faris and Dunham revisited.” *Social Science and Medicine*. 55 (2002): 1457-1470. C.E. Holzer et al., “Ethnicity, Social Status and Psychiatric Disorder: Evidence from the Epidemiologic Catchment Area Survey.” In R. Price, B. Shea, & H. Mookherjee (Eds.) *Social Psychiatry Across Perspectives*. (New York: Plenum, 1995): 93-104.

We find no evidence suggesting racial bias in the application of AOT to individuals.

the target population as public mental health system clients with multiple hospitalizations, the rate of application of AOT to white, black and other minority recipients approaches parity.

Summary

AOT court orders rapidly increased since the program's inception but appear to be leveling off in recent years. This trend may be due to filled capacity in AOT Programs and lack of new program funding. Across the state, the highest number of AOT orders tends to be found in areas with a greater concentration of adults with severe mental illness; New York City and surrounding areas represent the majority of AOT orders

in the state. We found regional differences across several elements of AOT implementation and administration, including upstate New York's more prominent use of EVS First model before resorting to court-mandated AOT. Downstate New York programs use AOT First almost exclusively, only rarely using voluntary agreements as a transition from AOT. Although a large proportion of AOT recipients are black, there is no apparent racial bias in the program when target population factors are taken into account.

Chapter 2. Engagement in Assisted Outpatient Treatment (AOT): What is the Level of Engagement in Mental Health Services Among AOT Recipients?

Introduction

A key goal of the AOT Program is to motivate service recipients to actively engage in their treatment during and after their involvement with AOT. “*Engagement*” here means motivation to actively participate in regular community-based treatment and services. As part of their assessment of AOT recipients every six months, case managers are asked to rate the recipients’ level of engagement in services on a scale ranging from “*not at all engaged in services*” to “*independently and appropriately uses services.*” For the purposes of our data analysis, recipients were considered to be positively engaged in services if rated either “*good—able to partner and can use resources independently*” or “*excellent—independently and appropriately uses services.*”

Findings

Case Manager Ratings of Service Engagement

At entry into the AOT Program, case managers rated 33% of AOT recipients to have positive service engagement, as defined above. Rates of engagement modestly improved over time on AOT: by six months in the AOT Program, 45% were rated as having positive engagement. Similarly, among recipients with 12 months of AOT or more, 46% were rated as positively engaged. However, unless we compare AOT recipients to similarly situated individuals who did not receive AOT, it is difficult to assess whether the court order was a key ingredient in promoting engagement or whether comparable gains in engagement would have occurred over time with voluntary treatment alone.

Comparing Case Manager Ratings of Service Engagement for AOT and Assertive Community Treatment (ACT) Recipients

Most consumers in the AOT Program receive one of two forms of case management; ICM (74% of AOT recipients) or ACT (20% of recipients). ACT is an evidence-based treatment delivery model designed to provide intensive community-based services to persons with severe mental illness who are difficult to serve in conventional outpatient mental health programs. While ACT is regarded by many experts as an appropriate treatment alternative to the use of AOT, it is also used in conjunction with AOT for some recipients. Hence, in New York the OMH case managers systematically collect comparable outcome data for all AOT and ACT recipients but not for voluntary ICM recipients.

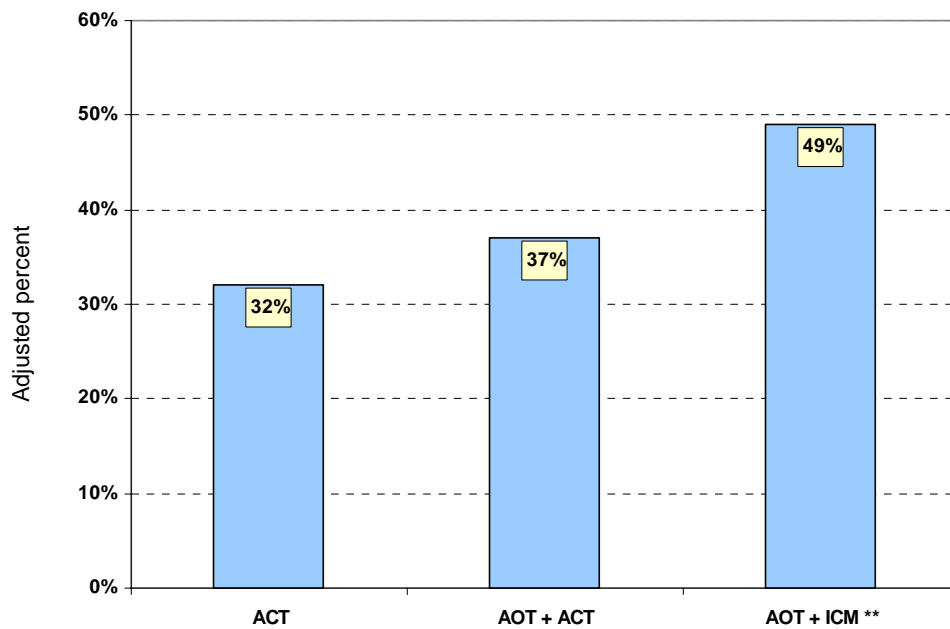
It is thus possible to compare levels of engagement among consumers who receive ACT alone, AOT plus ACT, or AOT plus ICM. This comparison allows us to examine whether AOT adds any benefit in engaging recipients in services when compared to voluntary treatment with ACT alone. Unfortunately, there is no voluntary ICM group for comparison in this data source and thus, no rigorous method to compare voluntary versus court-ordered ICM. In addition, recipients who receive ACT versus ICM and the case managers who assess them may not be comparable, even when statistical adjustments to improve their comparability are attempted. Comparisons should not be made between ACT and ICM outcomes in these analyses.

We compared levels of engagement across these groups using multivariable analyses

with statistical controls for potential underlying differences that might have been independently associated with higher engagement. Exhibit 2.1 displays the results of this analysis. For recipients receiving six months or more of treatment, AOT with ACT

offers no additional benefit in service engagement compared to ACT alone (37% versus 32% respectively). Recipients receiving AOT with ICM demonstrate higher levels of engagement (49%) compared to ACT alone.

Exhibit 2.1. Adjusted* percent with “good” or “excellent” service engagement by treatment and legal status. Results contain all observations for 6 or more months of treatment

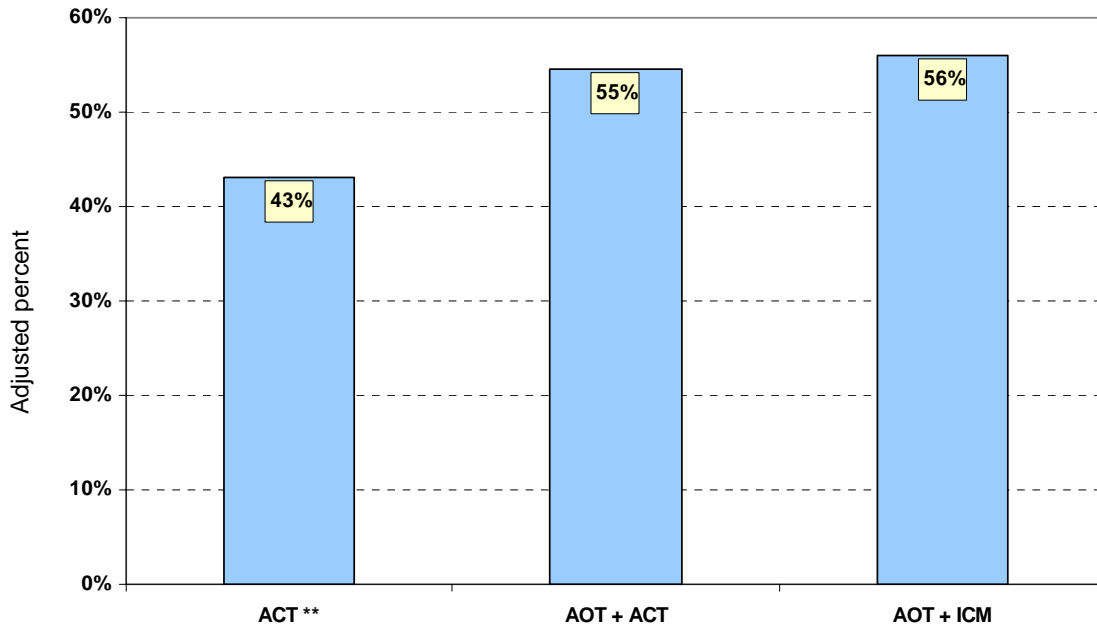


*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, baseline hospitalizations, baseline service engagement, education level, marital status, substance use, medication adherence, and GAF. Statistical models used multiple imputation of missing data.
** Odds are less than 1 in 1000 that the difference between AOT + ICM and the other groups would occur by chance.
Sources = AOT Evaluation database and Child and Adolescent Integrated Reporting System

However, AOT of longer duration is associated with modestly higher rates of engagement. Exhibit 2.2 shows these results for the subgroup of recipients with AOT lasting at least 12 months. Over this longer time period, a higher proportion of

recipients were rated with positive engagement in the AOT with ACT group, and in the AOT with ICM group, than in the ACT-alone group (55%, 56% and 43% respectively).

Exhibit 2.2. Adjusted* percent with “good” or “excellent” service engagement by treatment and legal status. Results contain observations for 12 or more months of treatment only



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, baseline hospitalizations, baseline service engagement, education level, marital status, substance use, medication adherence, and GAF. Statistical models used multiple imputation of missing data.
** Odds are less than 1 in 1000 that the difference between ACT and the other groups would occur by chance. Data Source = AOT Evaluation database and Child and Adolescent Integrated Reporting System

Summary

Over all, when short-term AOT was included in the analysis, we find that service engagement was comparable for AOT and non-AOT recipients on ACT teams. However, after 12 months or more on AOT,

a higher proportion of AOT recipients in an ACT program were judged to be positively engaged than voluntary recipients of ACT services. This suggests that longer-term AOT combined with intensive treatment increases service engagement compared to voluntary treatment alone.

Chapter 3. Recipient Outcomes: What are the Outcomes for People with Mental Illness who are Mandated into Assisted Outpatient Treatment (AOT) Versus Those who Receive Enhanced Voluntary Services (EVS)?

Introduction

Comparing AOT to EVS

An important question in evaluating AOT is whether court-ordered treatment with enhanced services is more effective than EVS. Some candidates for AOT are given the opportunity to avoid a court order by signing a voluntary agreement to participate in EVS. Do AOT recipients experience better outcomes than their counterparts being served under EVS? As detailed in Chapter 1, we found that EVS agreements were relatively uncommon. Nonetheless, where possible, we have drawn comparisons between outcomes under EVS versus AOT court orders. Arrest is one important outcome where a direct comparison was possible, due to the availability of lifetime arrest records for individuals enrolled in the study from six counties.

As noted previously, most recipients in the AOT Program receive one of two forms of case management: Intensive Case Management (ICM) or Assertive Community Treatment (ACT). A natural comparison can be made between AOT and ACT, in particular, because ACT is considered a less coercive alternative to AOT for persons with severe mental illness who need intensive outpatient services. Because case managers collect data using a common form for AOT and ACT recipients (but not for voluntary ICM recipients), it is possible to compare case manager assessments of outcomes among three groups of service recipients: (1) ACT alone, (2) AOT plus ACT, and (3) AOT plus ICM. These comparisons allow us to address whether AOT is more effective than a voluntary intensive treatment program (ACT) for similarly situated individuals with

severe mental illness. Moreover, these data allow comparison of AOT implementation in conjunction between two different models of intensive case coordination: AOT with ACT, compared to AOT with ICM. Unfortunately there is no voluntary ICM group for comparison in this data source and thus no rigorous method to compare voluntary versus court-ordered ICM. In addition, recipients who receive ACT versus ICM and the case managers who assess them may not be comparable, even when statistical adjustments to improve their comparability are attempted. Comparisons should not be made between ACT and ICM outcomes in these analyses.

We first present an analysis of selected recipient outcomes using data from 211 interviews with individuals in six selected counties. For self-reported outcomes such as violence, suicidality, and homelessness, we compare individuals currently receiving AOT to those who never had AOT or had it longer ago than six months. For arrest, we use official records of lifetime arrests to conduct a more powerful longitudinal analysis, comparing AOT recipients to EVS recipients in the six counties. For these arrest analysis, we used data from 181 individuals and 9,229 person-month observations.

Second, using case manager ratings for 5,634 AOT recipients, we also present descriptive data comparing pre-AOT and during-AOT periods regarding services utilization, functioning, and selected negative outcome events.

Using case manager ratings for AOT and ACT recipients, we conducted a more detailed statistical analysis of selected outcomes in which we compared three service conditions: voluntary ACT alone,

ACT plus AOT, and AOT plus ICM. Analyses of the effects after 6 months used data from 3,073 individuals with 7,611 person-period observations. Analyses of effects after 12 months used data from 2,325 individuals with 5,581 person-period observations. As explained in Appendix B, we also used multiple imputation techniques to handle missing data.

Third, using Medicaid claims data and other OMH records, we assess important outcomes including hospitalization, receipt of medications, and receipt of case management. These analyses examine outcomes for AOT recipients prior to and during their AOT experience. The final Medicaid analyses were conducted on a sample of 2,839 AOT recipients with 84,089 person-months of data. (The method of analysis is explained in Appendix B.)

Findings

Client Outcomes From Direct Recipient Interviews in Six Counties

Structured interviews regarding AOT and related treatment experiences, attitudes, and outcomes were conducted in a sample of 211 persons with severe mental illness in

six counties: Albany, Erie, Monroe, Nassau, New York, and Queens. A total of 277 interviews were conducted with three groups of these service recipients: 115 individuals currently on AOT; 134 comparable individuals who had never received AOT or received it more than six months ago; and 28 individuals who had completed a period of AOT six months ago. About one third of the sample entered the study in one group, thus later became eligible for the second group; therefore, they were interviewed more than once.

The main descriptive results of the six-county interview study are presented in Chapter 4. Here we examine some selected outcomes for the 115 recipients who were currently on AOT, compared to the 134 recipients with no recent AOT.

Exhibit 3.1 shows that current AOT recipients and those with no recent AOT report comparable rates of violence, suicidality, homelessness, involuntary commitment, and being picked up by police for transport to mental health treatment. However, a slightly lower percentage of current AOT recipients report these negative outcome events.

Exhibit 3.1. Six-county study sample recipient characteristics

Outcome events (past six months)	No current or recent AOT (n=134)		Current AOT (n=115)	
	N	%	N	%
Violent behavior*	21	(15.7)	12	(10.4)
Suicidal thoughts or attempts	22	(16.4)	17	(14.8)
Homelessness	13	(9.7)	6	(5.2)
Involuntary commitment	54	(43.2)	46	(41.4)
Mental health pick-up/removal	25	(18.7)	16	(13.9)

* As defined by the MacArthur Community Violence Interview. See Appendix B for description of instruments. Source: 6-county interviews.

Arrest Outcomes Comparing Current AOT and Current EVS Recipients In Six Counties

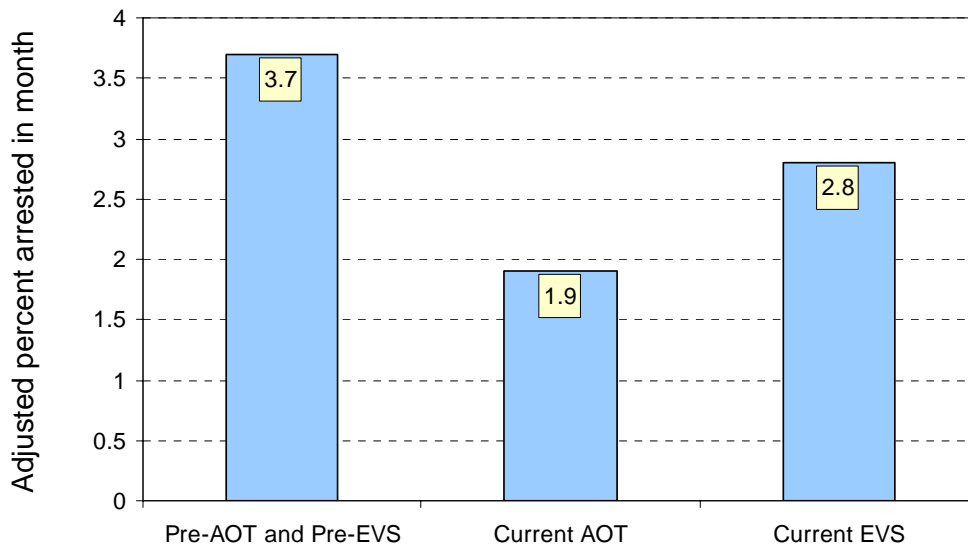
Lifetime arrest records were obtained for 181 individuals who either received AOT or EVS in six counties. The AOT Programs identified the individuals receiving EVS through their programs and specified the periods during which they were receiving EVS. Recipients of EVS are persons who would have qualified for AOT orders but signed voluntary agreements to receive intensive services as an alternative to a court order.

Using EVS and AOT tracking information combined with arrest records, we examined longitudinally whether people had been arrested in a given month, by period: pre-

AOT/pre-EVS, current AOT, and current EVS (results for post-AOT and post-EVS are presented in Chapter 5--Exhibit 5.5). A total of 9,225 person-month observations were available for the multivariable time-series analysis.

Exhibit 3.2 summarizes the results for current AOT and current EVS compared to pre-AOT/pre-EVS. Moving into the current AOT period from the pre-AOT/pre-EVS period, the likelihood of arrest in any given month is reduced from 3.7 to 1.9 percent per month. This result is statistically significant; it would have occurred less than 5 times in 100 by chance alone. The effect for current EVS was not statistically significant, although there was a clear trend toward reduction of arrests during EVS.

Exhibit 3.2. Adjusted* percent arrested in month by current receipt of AOT and EVS



*Adjusted arrest rate estimates were produced using multivariable time-series regression analysis, controlling for time, region, age, sex, race, education, and diagnosis. Months spent in hospital are excluded from analysis.

Source: 6-county interviews and Division of Criminal Justice Services.

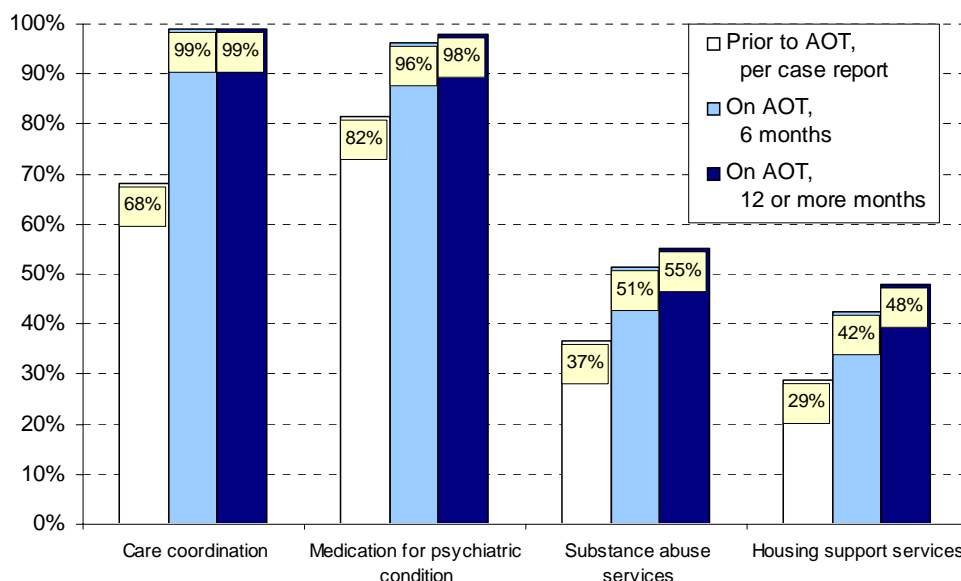
Client Outcomes from Case Manager Reports

Treatment Planning: Care Coordination, Medication Management, Substance Abuse Services, and Housing Support Services

Case managers were asked to report all services that were explicitly identified in AOT recipients' treatment plans before and after initiation of AOT orders. Because AOT often started a new case management relationship, many case managers had

limited knowledge of recipients' status and service history *before* AOT began; thus, some of the information in the case managers' baseline reports should be qualified as uncertain. With that caveat, however, services included in recipients' treatment plans appear to have increased after initiation of AOT (Exhibit 3.3). In particular, care coordination and psychiatric medication management were included in treatment plans for virtually all AOT recipients after six months (99% and 96%, respectively.) About half of AOT treatment plans addressed substance abuse and housing support services.

Exhibit 3.3. Service components of treatment plan prior to and during AOT order, 1999 – 2007, n = 5634 recipients



Percents are unadjusted and based on case manager report at 6-month intervals.

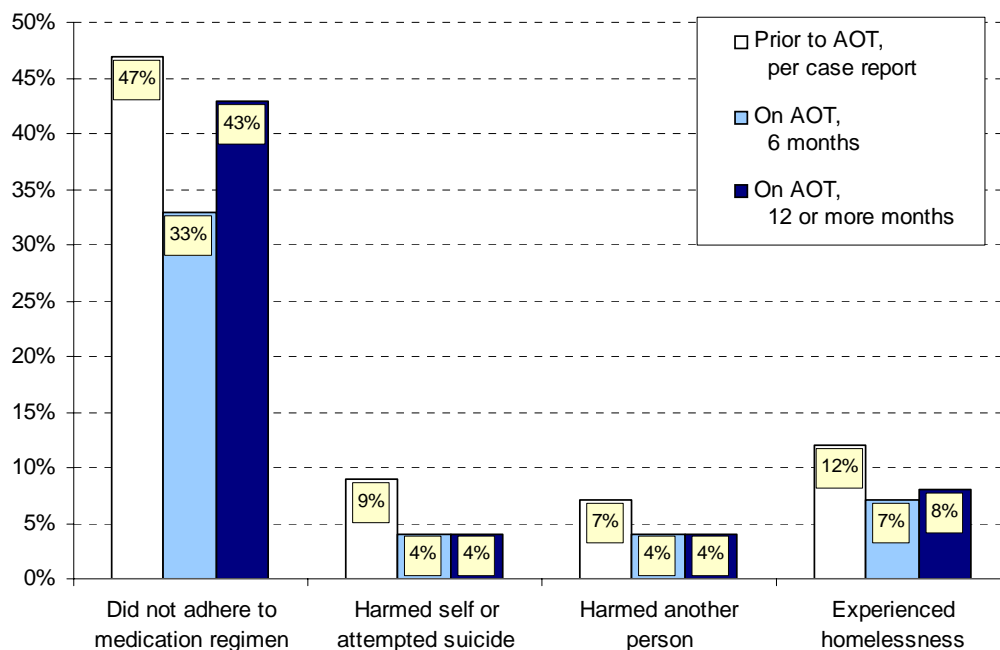
Source: Child and Adolescent Integrated Reporting System and AOT Evaluation database

Recipient Functioning: Adverse Events and Behaviors

Case managers reported a slight decrease in adverse events after six or more months of AOT (Exhibit 3.4). Self-harm decreased from 9% to 4% and harm to others decreased from 7% to 4%. The proportion of individuals reporting at least one night of homelessness also decreased from 12% to 7-8%. Because of the low incidence of these events in general and the difficulty case managers may have had in estimating the frequency of events prior to AOT, conclusions are limited from these data regarding the effect of AOT in reducing adverse events.

There was a more notable decrease in case managers' appraisal of recipients' non-adherence to medications – from 47% to 33% after six months of AOT. However, non-adherence increased again to 43% in the group of individuals who had been on AOT 12 months or more. This could reflect a retention bias in which individuals who were less adherent were more likely to have their AOT order renewed. Indeed, in the Medicaid data analysis, we found that individuals with lower medication possession rates and higher hospitalization rates during their initial AOT period were significantly more likely to have their AOT orders renewed.

Exhibit 3.4. Adverse events or behaviors prior to and during AOT order, 1999 – 2007, n = 5634 recipients



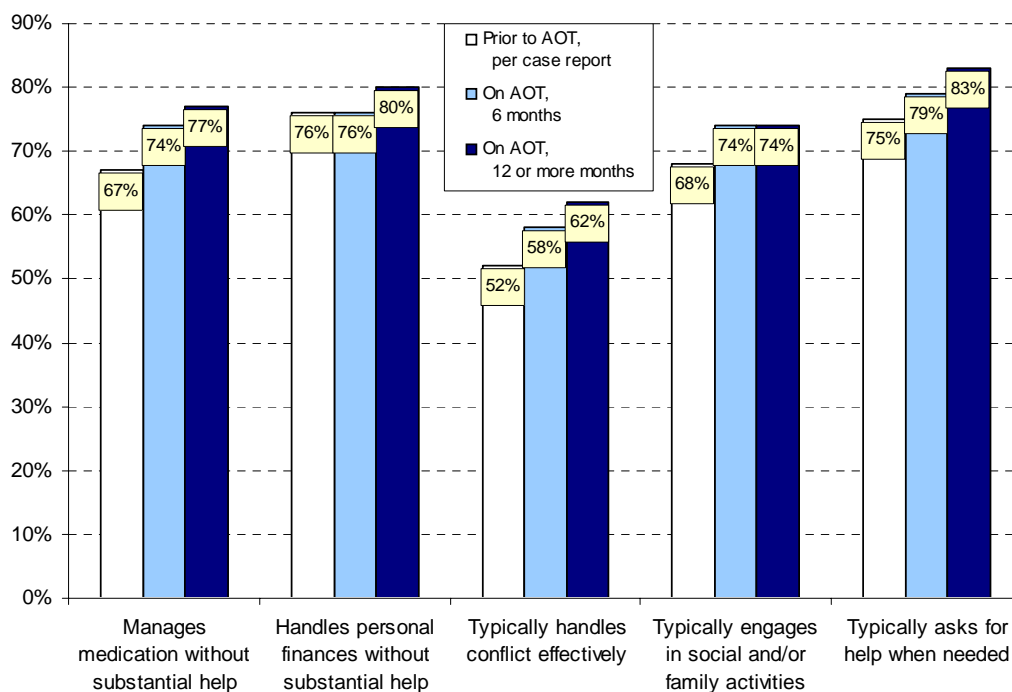
Percents are unadjusted and based on case manager report at 6 month intervals. Non-adherence was defined as a score of 1 or 2 on a 4 point scale, where 1=rarely or never takes medication as prescribed and 4=takes medication exactly as prescribed. Experiencing homelessness was defined as being homeless for at least one night in the past 6 months. Source: Child and Adolescent Integrated Reporting System and AOT Evaluation database.

Recipient Functioning: Life Management Skills

Recipients showed modest improvements in a variety of life skills after at least six months of AOT, as assessed by case managers (Exhibit 3.5). Case managers reported as much as a 10% increase in the proportion of individuals able to manage their medications and personal finances

without substantial help. Case managers likewise reported as much as a 10% increase in individuals who typically engaged in pro-social behaviors such as effectively handling conflict, engaging in social activities, and asking for help when needed.

Exhibit 3.5. Recipient functioning prior to and during AOT order, 1999 – 2007, n = 5634 recipients



Percents are unadjusted and based on case manager report at 6 month intervals. All ratings are based on a 5 point scale.

Source: Child and Adolescent Integrated Reporting System and AOT Evaluation database.

Comparing AOT to Voluntary Intensive Treatment Alternatives

Psychiatric Hospitalization Rates from Case Manager Reports

As mentioned in Chapter 2, individuals under AOT typically receive one of two forms of case management: ICM (74% of AOT recipients) or ACT (20% of recipients). Case managers systematically collect

comparable outcome data for all AOT and ACT recipients, but not for voluntary ICM recipients. Thus, it is possible to compare reported outcomes for recipients of ACT alone, AOT plus ACT, or AOT plus ICM.

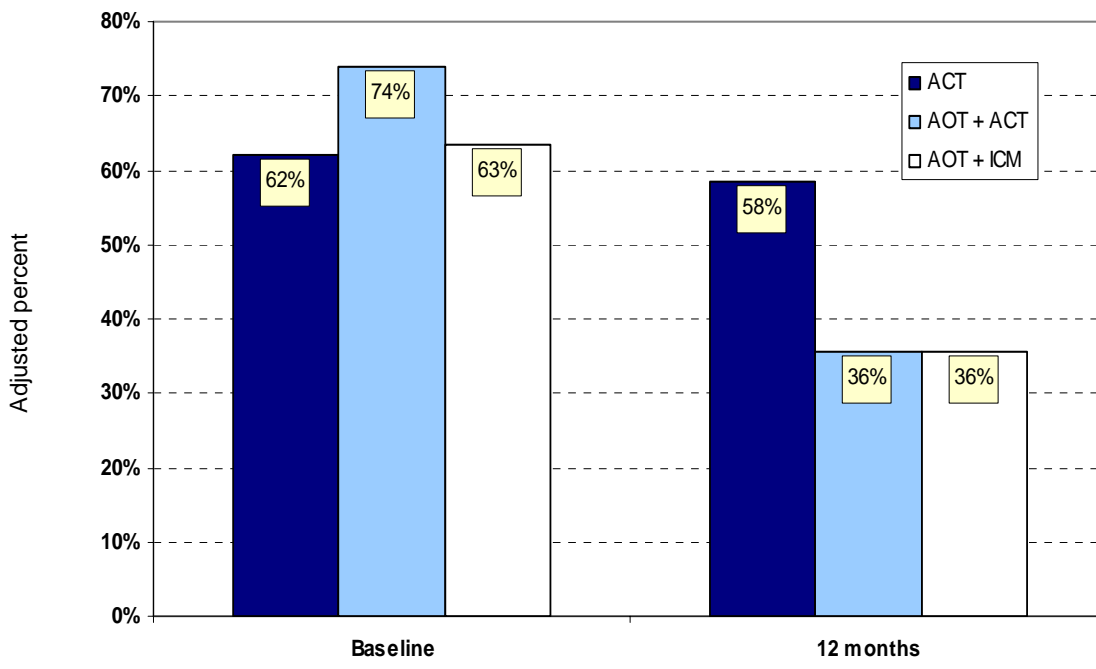
To examine hospitalization outcomes with these case manager data, we conducted a multivariable repeated-measures analysis, controlling for a range of underlying variables that could have affected hospitali-

zation independently of AOT. As shown in Exhibit 3.6 below, hospitalizations were reduced by about one half among individuals who received 12 months or more of AOT (combined with either ACT or ICM), compared to their baseline hospitalization rate. Also, the chance of hospital admission was substantially reduced — from about 58% to 36% — among these AOT recipients with either ACT or ICM, compared to those receiving only ACT without AOT.

we find highly statistically significant differences in the likelihood of hospital readmission; the odds are less than 1 in 1000 that these results would occur by chance. A limitation of these results is that hospitalizations here are reported by case managers and are not independently verified. (Results using hospital records will be reported later in this chapter.)

Thus, whether we compare AOT recipients at two points in time (baseline and 12 months), or compare AOT-plus-ACT recipients to those receiving ACT alone,

Exhibit 3.6. Adjusted* percent hospitalized per 6 months, by AOT status at baseline and after 12 months of treatment



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, baseline hospitalizations, baseline arrests, living situation, education level, presence of dependent children, marital status, substance use, service engagement, medication adherence, and Global Assessment of Functioning (GAF). Statistical models used multiple imputation of missing data.

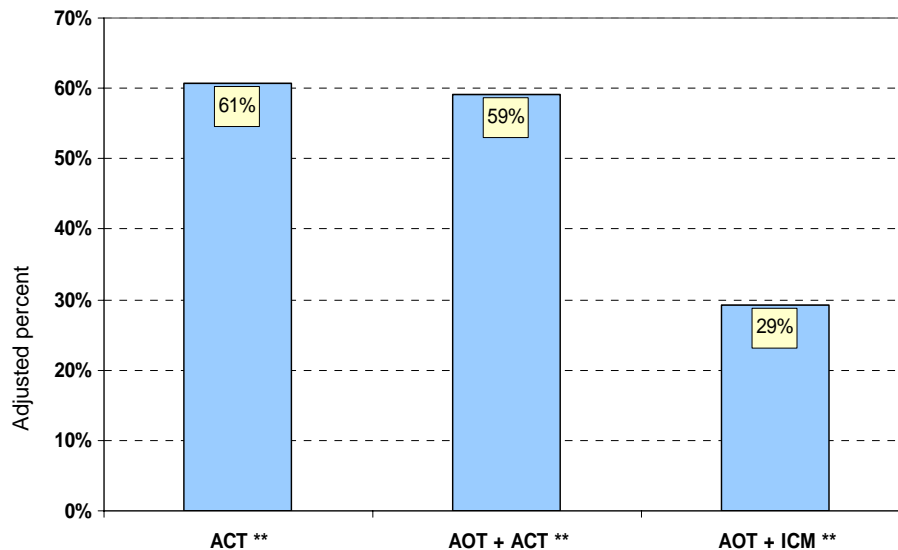
Source: Child and Adolescent Integrated Reporting System and AOT Evaluation database.

Substance Abuse Rates From Case Manager Reports

For individuals receiving six months or more of treatment, substance use rates were much lower for individuals receiving AOT plus ICM (29%) compared to those receiving AOT plus ACT (59%) or

voluntary ACT alone (61%). These results should be viewed with caution; differences in identifying and treating substance use in ACT and ICM programs could account for these differences.

Exhibit 3.7. Adjusted* percent using substances in last 6 months, by treatment and legal status. Results contain all observations for 6 or more months of treatment.



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, baseline hospitalizations, baseline service engagement, education level, marital status, substance use, medication adherence, and GAF. Statistical models used multiple imputation of missing data.

**Odds are less than 1 in 100 that the difference between the AOT + ICM and the AOT + ACT groups, or between the AOT + ICM and the ACT groups, is due to chance.

Source: Child and Adolescent Integrated Reporting System and AOT Evaluation database.

For recipients who underwent 12 months or more of AOT, substance use outcomes were very similar to those reported for six months or more of treatment.

Outcomes Analysis Using Medicaid and OMH Records

Using Medicaid and OMH records, we are able to assess three important outcomes for AOT recipients: psychiatric hospital admissions, receipt of psychotropic medications, and receipt of case management

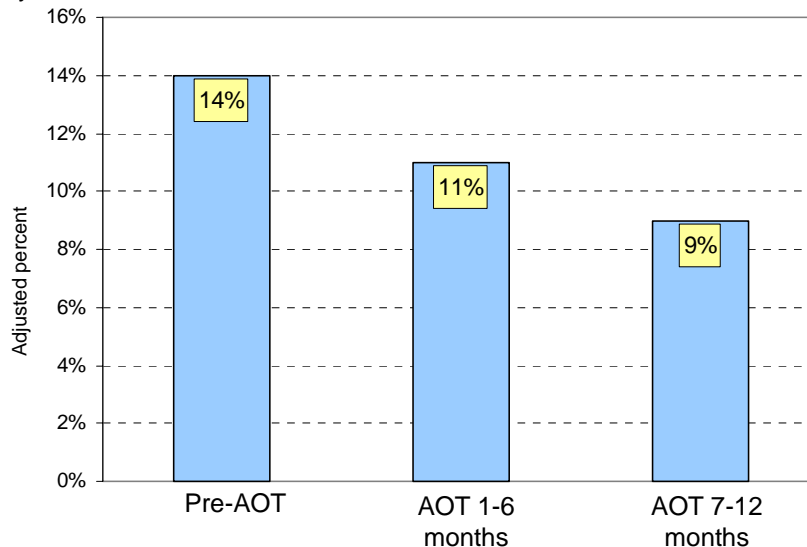
services. These analyses compared outcomes for AOT recipients *before and during their AOT experience, and for short-term AOT (one to six months) and longer-term AOT (12 months or more.)* Findings are based on repeated measures multivariable analyses, with statistical controls for potential underlying differences between individuals in these different groups. The Medicaid analyses were conducted on a sample of 2,839 AOT recipients with 84,089 person-months of data. (The method of analysis is explained in the Appendix B.)

Psychiatric Hospitalization Rates and Days in Hospital from Medicaid and OMH Records

Compared to the pre-AOT monthly hospitalization rate of 14%, the probability of hospital admission was reduced to 11% per month during the first six months of AOT and to 9% during the 7-12 month period of AOT. Exhibit 3.8 displays these results. While this decrease in hospital utilization

might appear modest, it would represent substantial reductions in hospitalizations for AOT recipients statewide. Regarding statistical significance, these differences between the pre-AOT state and each of the other two periods of AOT experience would have occurred less than one time in 1000 by chance alone.

Exhibit 3.8. Adjusted* percent with psychiatric inpatient treatment in month, by AOT status

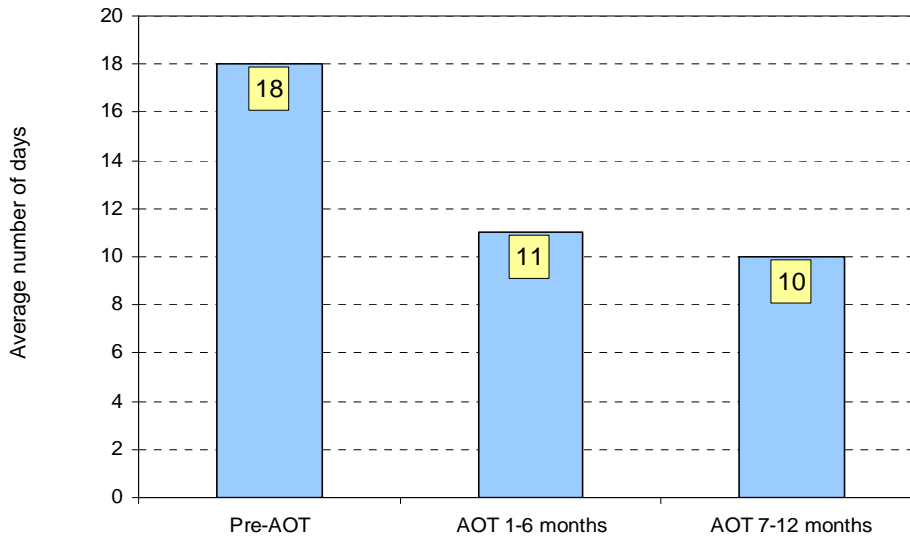


*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.
Source: Medicaid claims and OMH admissions database

Exhibit 3.9 presents comparable results for the average number of days hospitalized per six month period. During the period prior to AOT, recipients on average experienced 18 days of hospitalization over the course of six months, excluding the hospitalization when AOT was initiated. In contrast, during AOT, recipients spent 11

days in the hospital during the first six months of AOT and 10 days during the 7-12 month period of AOT. While this decrease in hospital days per six month period might appear modest, it would again represent substantial reductions in hospital days statewide.

Exhibit 3.9. Adjusted* average inpatient days during any 6 month period, by AOT status



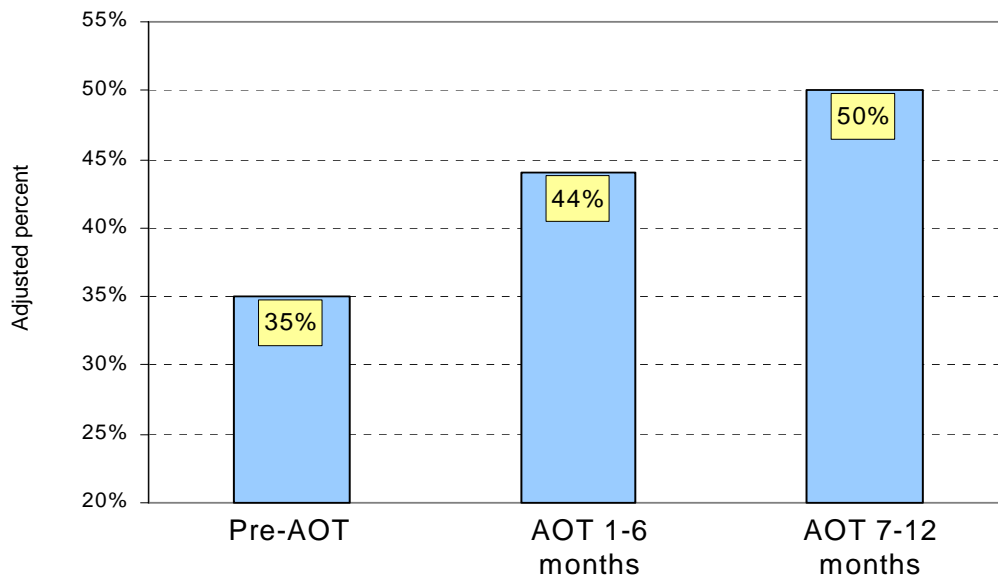
*Adjusted mean estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT. Source: Medicaid claims and AOT Evaluation database.

Receipt of Psychotropic Medications from Medicaid and OMH Records

We also used Medicaid claims data to examine changes in receipt of psychotropic medication under AOT. Medication receipt was defined as having filled a prescription for a medication appropriate to the diag-

nosed psychiatric condition and having a sufficient supply during 80% or more of the days in a given month. As shown in Exhibit 3.10, medication receipt (so defined) increased from 35% per month prior to AOT, to 44% during the first six months of AOT, to 50% during the 7-12 month period.

Exhibit 3.10. Adjusted percent* with at least 80% medication possession in month by AOT status



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.

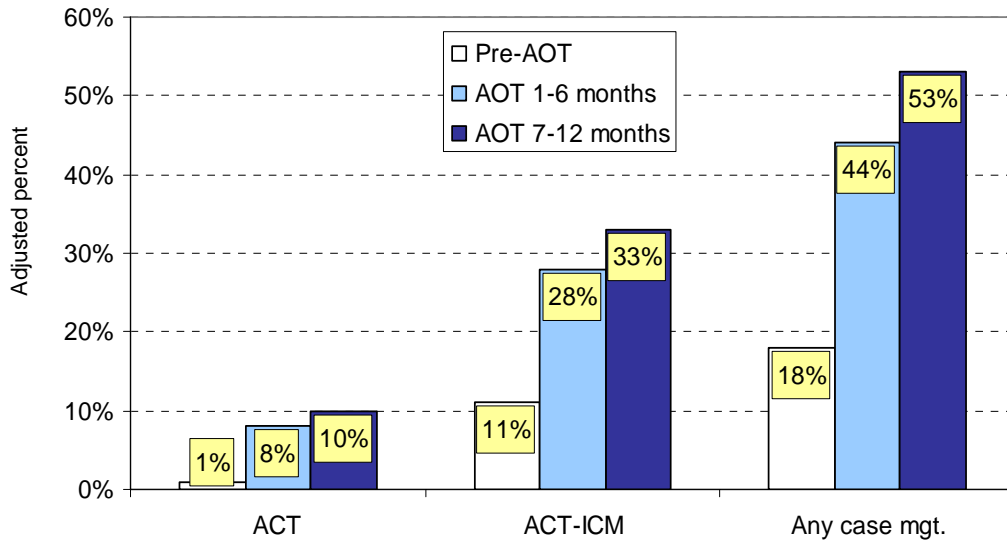
Source: Medicaid claims and AOT Evaluation database.

Receipt of Case Management from Medicaid and OMH Records

Finally, we used Medicaid data to examine monthly receipt of intensive case management services (ACT and ICM) during AOT. These results are shown in Exhibit 3.11. Monthly receipt of ACT services increased from 1% in the pre-AOT period to 8% in the first six months of AOT

and 10% during the 7-12 month period. Receipt of ACT or ICM services increased from 11% in the pre-AOT period to 28% in the first six months and 33% during the 7-12 month period. Receipt of any case management services increased from 18% in the pre-AOT period to 44% in the first six months and 53% during the 7-12 month period.

Exhibit 3.11 Adjusted* percent receiving case management services in month by AOT status



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.

Source: Medicaid claims and AOT Evaluation database.

Summary

The outcomes detailed heretofore should be understood and interpreted in the context of other findings in the remaining chapters. For example, elsewhere we examine how recipients fare when AOT ends and how AOT affects the treatment experiences of recipients. These and other results are synthesized in the Executive Summary and the final chapter of the report.

During AOT there is a substantial reduction in the number of psychiatric hospitalizations and in days spent in the hospital if a person is hospitalized. We also find moderately strong evidence from lifetime arrest records of AOT and Enhanced Voluntary Services

recipients that AOT reduces the likelihood of being arrested. In addition, we find substantial increases in receipt of intensive case management services during AOT. Compared to their experiences prior to AOT recipients are far more likely to receive intensive forms of case management under AOT. We also find that AOT recipients are far more likely to consistently receive psychotropic medications appropriate to their psychiatric conditions compared to their experiences pre-AOT. Case Managers of AOT recipients also report subjective improvements in many areas of personal functioning, such as managing appointments medications and self-care tasks.

Chapter 4. Participants' Perceptions of Assisted Outpatient Treatment (AOT) and Related Treatment Experience and Attitudes

This chapter presents survey results regarding recipients' perceptions of AOT, treatment experiences, and related attitudes in a sample of 211 persons with severe mental illness in six counties including Albany, Erie, Monroe, Nassau, New York, and Queens. Structured interviews were conducted with three groups of service recipients:

- **Current AOT:** (n=115) consists of individuals currently on AOT or receiving AOT during the previous six months (the interview reporting period).
- **No recent AOT:** (n=134) consists of comparable individuals who had not received AOT in the past or had AOT that ended longer ago than six months. This group included some individuals who were about to embark on a new period of AOT but had not been on AOT

during the previous six months, i.e., the interview reporting period. Of those with any AOT history in this group, nearly 80% had not had AOT in at least 12 months.

- **AOT in the recent past:** (n=28) consists of individuals who had completed a period of AOT six months ago but were not on AOT during the immediately preceding six months leading up to the interview.

Sample selection in the six counties was designed to obtain information about the AOT experience throughout the state. However, the sample does not reflect the actual regional distribution of AOT cases. Exhibit 4.1 presents descriptive characteristics of these sample groups.

Exhibit 4.1. Six-county interviews sample characteristics

	No current or recent past AOT (n=134)		Current AOT (n=115)		Recent past AOT (n=28)	
Age						
Age in years at index hospitalization	mean: 38.8	(sd: 11.3)	mean: 39.4	(sd: 11.6)	mean: 41.6	(sd: 13.2)
	n	%	N	%	n	%
Sex						
Male	80	50.7	76	66.1	18	64.3
Female	54	49.3	39	33.9	10	35.7
Race/Ethnicity						
White	67	50.0	52	45.2	16	57.1
Black	59	44.0	50	43.5	11	39.3
Hispanic	17	12.7	10	8.7	0	0.0
Asian	6	4.5	2	1.74	1	3.6
Other	9	6.7	18	15.6	2	7.1
Education						
Completed high school	100	74.6	90	78.9	23	82.1
Employment						
Worked for pay	25	18.7	20	17.4	6	21.4
Clinical characteristics						
Schizophrenia	103	77.4	84	73.0	21	75.0
Affective disorder	31	22.6	31	27.0	7	25.0
Any substance abuse	36	26.9	32	27.8	5	17.9
County						
Albany	13	9.7	13	11.3	4	14.3
New York	22	16.4	31	27.0	5	17.9
Nassau	19	14.2	32	27.8	11	39.3
Queens	11	8.2	12	10.4	1	3.6
Erie	43	32.1	8	7.0	1	3.6
Monroe	26	19.4	19	16.5	6	21.4

Source: Interviews with AOT program recipients in six selected counties

The three groups were similar in their demographic and clinical characteristics. The majority were male; about half were white;¹³ about three quarters had completed high school; and less than one in five was employed even part time (any paid work). About three-quarters of the sample had a diagnosis of schizophrenia or other psychotic disorder; about one quarter had a co-occurring substance abuse problem, i.e., reported symptoms of alcohol use disorder and/or were using illicit drugs. (Case manager assessments of substance abuse comorbidity in this population are higher – around 40%; see Chapter 3.)

Exhibit 4.2 displays mean item scores across a range of attitudinal scales for the three subsamples. These scales are meant to capture subjective perceptions of AOT and comparable treatment experiences for people with SMI in New York. The scales are grouped into areas: (1) *AOT understanding, perceived benefits, and stigma*; (2) *personal autonomy, treatment relationships, and satisfaction*; and (3) *coercion, pressures, barriers to treatment, and procedural justice*.¹⁴

¹³ The proportion of whites is higher in this sample than the statewide AOT sample because of the incorporation of several upstate counties.

¹⁴ Specific information about the measures used is provided in Appendix B.

Exhibit 4.2. AOT recipients' attitudes and experience by AOT period

	No current or recent AOT (n=134) ¹		Current AOT (n=115)		Recent past AOT (n=28)	
	Item Mean	St. Dev.	Item Mean	St. Dev.	Item Mean	St. Dev.
AOT beliefs and attitudes						
AOT understanding	0.89	0.29	0.97	0.05	0.97	0.05
AOT stigma	0.19	0.40	0.26	0.44	0.07	0.26
AOT perceived effectiveness	0.60	0.46	0.81	0.31	0.90	0.25
Treatment autonomy, relationships and satisfaction						
Empowerment	3.70	0.43	3.66	0.43	3.70	0.31
Working alliance	4.06	0.79	3.99	0.79	4.16	0.55
Treatment satisfaction	3.90	0.74	3.74	0.84	4.17	0.47
Attitudes about taking medication	0.74	0.21	0.72	0.20	0.78	0.17
Life satisfaction	4.81	1.51	4.84	1.71	4.57	1.32
Coercion, pressures, and barriers						
Coercion	2.76	0.96	2.97	1.15	2.76	0.90
General pressures to adhere to treatment	0.30	0.15	0.31	0.16	0.22	0.12
Pressures-warnings	0.35	0.18	0.36	0.20	0.28	0.17
Pressures-sanctions	0.15	0.19	0.16	0.18	0.05	0.09
Pressures-med oversight	0.48	0.39	0.48	0.38	0.36	0.36
Pressures-commitment	0.27	0.33	0.28	0.33	0.09	0.24
Perceived effectiveness/fairness of pressures	2.68	0.56	2.79	0.57	2.40	0.34
Procedural justice	1.80	0.65	1.96	0.32	2.02	0.29
Mandate-related treatment barriers	0.28	0.31	0.28	0.33	0.17	0.27
Nonmandate-related treatment barriers	0.42	0.34	0.33	0.32	0.30	0.33
Fear of commitment	0.37	0.48	0.37	0.49	0.36	0.49

¹ group n=110 for AOT understanding and procedural justice

Source: Interviews with AOT program recipients in six selected counties

AOT Beliefs and Attitudes

Knowledge and understanding of AOT provisions—what AOT legally requires—was measured with 12 true/false items. Mean item scores ranged from 0 (none correct) to 1 (all correct), with higher scores indicating more accurate understanding of legal requirements under AOT. A sample item included: “*When they have an AOT order, people are required to go to mental health treatment appointments that are part of the treatment plan [true].*” Among current and recent past AOT participants, mean item scores approached 1 for this 12-item scale, indicating a high percentage of correct answers and a good understanding of AOT across groups. The mean score was also high (0.89) for participants with no recent AOT experience.

Perceived AOT stigma was measured with a single yes/no question: “*When people are under AOT, do you think that most other people think less of them?*” Fewer than 1 in 4 participants answered this question affirmatively. However, endorsement was slightly higher among current AOT participants than non-AOT or post-AOT participants.

AOT perceived effectiveness was measured with three yes/no items. Item means ranged from 0 (all no) to 1 (all yes), with higher scores indicating greater agreement that AOT was effective in helping people keep scheduled outpatient treatment appointments, take prescribed medication, and remain in the community without being hospitalized. Findings for this scale showed

a mixed response for non-AOT respondents and a higher, more positive response among current AOT recipients compared to those with no recent AOT (mean=0.60 vs. 0.81.). The highest mean item score was found for the recent AOT graduates (mean=0.90).

Personal Empowerment, Treatment Relationships, and Satisfaction

Empowerment was measured with a 15-item standardized scale, with mean item scores ranging from 1 to 5, from “strongly disagree” to “strongly agree.” A sample item included: “*When I make plans, I am almost certain to make them work.*” All three sample subgroups scored in the positive middle range—above neutral but not agreeing strongly with these items. There were no differences between samples (mean=3.7 in each group).

Working alliance is a construct that captures the quality and strength of the therapeutic relationship between the service recipient and case manager. The *Working Alliance Inventory* (short version) was administered as an 8-item standardized instrument, with responses ranging from 1 to 5, from “strongly disagree” to “strongly agree.” A sample item included: “[Case manager] and I are working toward mutually agreed upon goals.” All three groups scored on average about 4 out of a possible 5 on these items, indicating positive perceived working alliance, with little or no differences between groups.

Treatment satisfaction was measured using a 9-item standardized scale, with mean item scores ranging from 1 to 5 from “strongly disagree” to “strongly agree.” A sample item included: “*I liked the services that I have received in the past six months.*” Findings on this scale indicate similarly positive levels of satisfaction with treatment across all three subsamples—close to 4 out of 5 on average.

Attitudes and experience with taking medication for mental health problems was captured with the *Drug Attitudes Inventory* (DAI-modified), a standardized 18-item scale (the original had 10 items), with mean item scores ranging from 0 (no items endorsed) to 1 (all items endorsed). Higher scores indicated more positive attitudes towards medication, higher perceived effectiveness of medication, and fewer problems with side effects. A sample item included: “*By staying on medications, I can prevent getting sick.*” Scores on the DAI across the three subsamples averaged about 0.75 on the 0 to 1 mean item scale, indicating similar and mostly positive attitudes about taking medication for mental health problems.

Life satisfaction or subjective quality of life was measured with a single item—“*How do you feel about your life as a whole?*”—on a 7-point scale from “terrible=1” to “delighted=7.” Mean scores on this item varied little across all three subsamples—from 4.6 to 4.8—indicating moderately positive perceived quality of life in each group.

Coercion, Pressures, Barriers to Treatment, and Procedural Justice

Perceived coercion was measured with a 5-item standardized scale, with mean item scores ranging on a scale of 1 to 5 from “strongly agree” to “strongly disagree.” A sample item included: “*I felt free to do what I wanted about getting treatment.*” Strong disagreement with this and similar items indicated greater perceived coercion. Findings on this scale showed moderate levels of coercion—just under 4 out of a possible 5—across all three subsamples.

General pressures to adhere to treatment were measured with a 33-item standardized scale of yes/no questions. Mean item scores ranged from 0 (all no) to 1 (all yes), with 1 indicating more pressure being exerted. The scale also included 4 subscales: *warnings, sanctions, medication*

oversight, and commitment pressure. Sample items included: “*Did anyone tell you that you may lose your housing if you don’t follow your treatment plan?*” [warnings]; “*Did anyone report on your behavior to a probation/parole officer?*” [sanctions]; “*Did anyone watch you take your medication to make sure you took it regularly?*” [oversight]; and “*Did anyone try to commit you to a hospital against your will?*” [commitment pressure]. The pattern of responses on these subscales again showed no differences between subsamples. Across all groups, similarly low levels of pressures were reported, with the highest being for “oversight” pressure.

Perceived effectiveness and fairness of pressures to adhere to treatment was measured with a 9-item standardized scale, with mean item scores ranging on a scale of 1 to 5 from “strongly agree” to “strongly disagree,” lower scores indicating greater perceived effectiveness and fairness regarding pressures to adhere to treatment. A sample items included: “*Overall, the pressures or things people have done were for my own good.*” Findings on this scale across all three groups were in the positive-neutral range, between 2.4 and 2.8 on the 1 to 5 mean item scale, indicating similarly mixed views within each group about whether pressures to adhere to treatment were effective and fair.

Procedural justice was measured on a six-item standardized scale. Mean item scores varied on a scale from 1 to 3, from “not at all” to “somewhat” to “definitely.” A sample item included: “*When you received the AOT court order, did they treat you respectfully?*” Results for this scale showed some difference between groups, with current AOT recipients reporting higher perceived procedural justice than their counterparts who had not recently experienced AOT (1.96 vs. 1.80).

Barriers to treatment were measured with six true/false items. Item mean scores could vary from 0 (all false—no barriers

reported) to 1 (all true—all barriers reported); higher scores, closer to 1, indicated more barriers. The items were divided into mandate-related and non-mandate related barriers. Sample items included: “*Did you delay getting help because you think that if you went for treatment you might be forced to take some medicine or treatment that you don’t want?*” [mandate-related barrier]; and “*Did you delay getting help because you...*” [non mandate-related barrier such as believing not in need]. Current AOT recipients were less likely to report non-mandate related barriers than those with no recent AOT (mean=0.33 vs. 0.42).

Current AOT participants apparently did not experience more adverse subjective conditions around mental health treatment than comparable individuals who were not under AOT.

Participants were also asked a single yes/no question about *fear of involuntary commitment* and treatment seeking. “*Has fear of being involuntarily committed ever caused you to avoid treatment for mental health?*” The mean score could vary from 0 (if everyone had answered “no”) to 1 (if everyone had answered “yes”). The mean score for this variable in Exhibit 4.2 is the same as the percentage of the sample who answered “yes” – approximately one third of participants in each subsample.

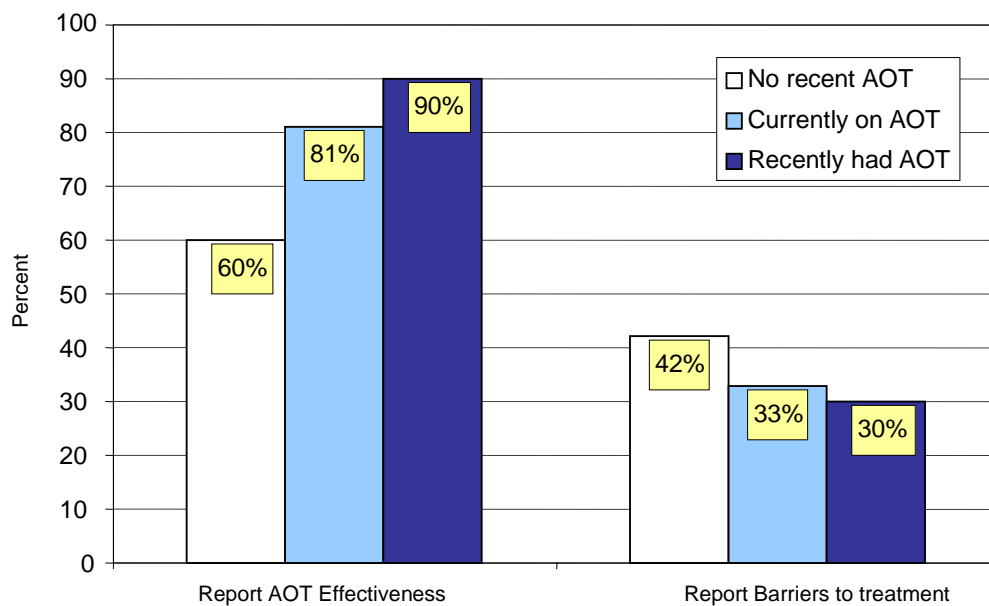
Summary

Face-to-face, structured interviews were conducted with 277 persons with severe mental illness in six counties in New York: 115 current AOT recipients, 134 persons with no recent AOT, and 28 persons with recent AOT experience. Participants were assessed on standardized scales measuring a wide range of AOT-related attitudes and treatment experiences in three general areas: (1) AOT understanding, perceived effectiveness, and stigma; (2) personal empowerment, treatment

relationships, and satisfaction; and (3) coercion, pressures, barriers to treatment, and procedural justice. For the most part, no differences were found among groups; findings were remarkably similar irrespective of AOT status. However, current AOT participants reported lower levels of non-mandate related treatment barriers and greater perceived effectiveness of AOT, as summarized in Exhibit 4.3. Previous studies of coercion have found that when recipients have had an opportunity to voice their concerns about

involuntary treatment and have their concerns heard, it attenuates their feeling of being coerced and this may bear on these findings wherein recipients have their “day in court.” The overall importance of the six-county survey findings is that, despite being under a court order for treatment, current AOT participants apparently did not experience more adverse subjective conditions around mental health treatment than comparable individuals who were not under AOT.

Exhibit 4.3. Perceived AOT effectiveness and treatment barriers by AOT Status



Source: 6-county interviews.

Chapter 5. Service Engagement and Outcomes After Assisted Outpatient Treatment (AOT) Ends: What are the Levels of Service Engagement and Outcomes for Post-AOT Recipients?

Introduction

An additional important area of investigation is what happens to AOT recipients after they leave the program. Past research provides little information about post-AOT outcomes. If consumers do make gains during AOT, are these gains sustained over time?

To address this question we used two sources of data: direct interviews with post-AOT recipients and Medicaid claims data. Our sample of post-AOT recipients is quite small (N=28), and therefore, these results are descriptive in nature. In contrast, results reported from Medicaid data contain a large number of recipients and allow a rigorous evaluation of key post-AOT outcomes.

Findings

Post-AOT Outcomes: Direct Recipient Interviews

As presented in Chapter 4, direct in-person interviews regarding AOT and related treatment experiences and attitudes were conducted with 115 individuals currently on AOT; 134 comparable individuals who had never received AOT, or had it longer ago than 12 months; and 28 individuals who had completed a period of AOT within the previous twelve months. Here we compare the interview results for the 28 recipients who had recently completed a period of AOT to the other two sample groups.

We find that recipients report few differences in treatment experiences and attitudes in the post-AOT period. Compared to recipients currently on AOT (see Exhibit 4.2), there were few differences in a wide range of AOT-related attitudes and treatment experiences after AOT ended. These post-AOT recipients resembled those

on AOT in their understanding of AOT, their perceptions of AOT effectiveness, and their awareness of social stigma associated with AOT. Post-AOT recipients also did not differ in their sense of personal empowerment, satisfaction with treatment, perceived coercion related to treatment, or perceived informal pressures to engage in treatment. Finally, they did not differ in their reported barriers to treatment and their sense of being fairly treated.

In the post-AOT period recipients reported appointment and medication adherence comparable to adherence during AOT. Community functioning and level of symptomatology were relatively similar as well. Other areas unchanged in the post-AOT period were self-report of substance abuse, violence, suicidality, homelessness, and arrests.

Post-AOT Psychiatric Hospitalization Rates and Days in Hospital from Medicaid and OMH Records

Using Medicaid and OMH records, we assessed recipient outcomes such as hospitalization, receipt of medications, and utilization of case management. These analyses compare outcomes for AOT recipients before, during, and after their AOT experience. We also compare post-AOT outcomes for recipients who had short-term AOT (one to six months) versus longer-term AOT (7 to 12 months), and between those who continued to receive Assertive Community Treatment (ACT) or intensive case management (ICM) services after their AOT order ended and with those who did not continue to receive these services.

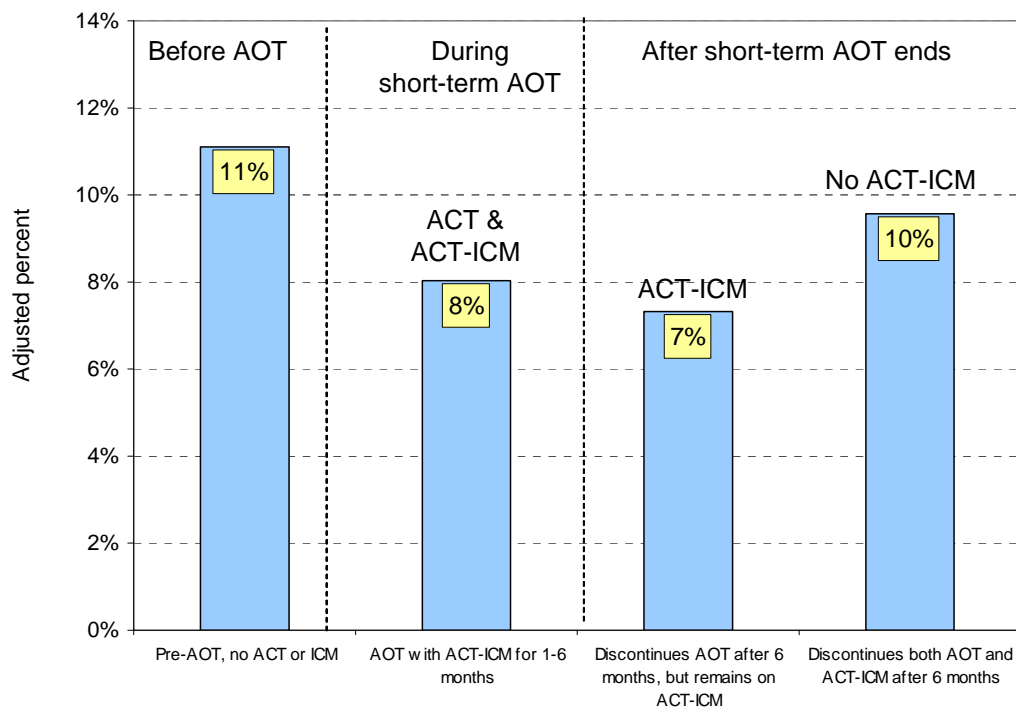
Findings in Chapter 3 detailed reductions in rates of psychiatric hospitalization during

AOT. Here we explore whether these reductions in rates of psychiatric hospitalization persist once AOT is terminated. Findings are based on multivariable analyses with statistical controls for potential underlying differences among recipients across these different groups.

For individuals who receive AOT for a period of six months or less, we find that the likelihood of subsequent hospitalization depends on whether intensive outpatient services utilization continues after the AOT order ends. If the recipient continues to

receive post-AOT intensive case coordination services in the form of ACT or ICM, the predicted probability of hospitalization within any post-AOT month is substantially reduced relative to the pre-AOT period (7% vs. 11% per month). However, if ACT or ICM is also discontinued when AOT ends, the predicted probability of post-AOT hospitalization rises to 10% per month, which is comparable to the pre-AOT hospitalization rate. These results are displayed in Exhibit 5.1.

Exhibit 5.1. Adjusted* percent with psychiatric inpatient treatment in any given month over short-term** AOT course



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status.

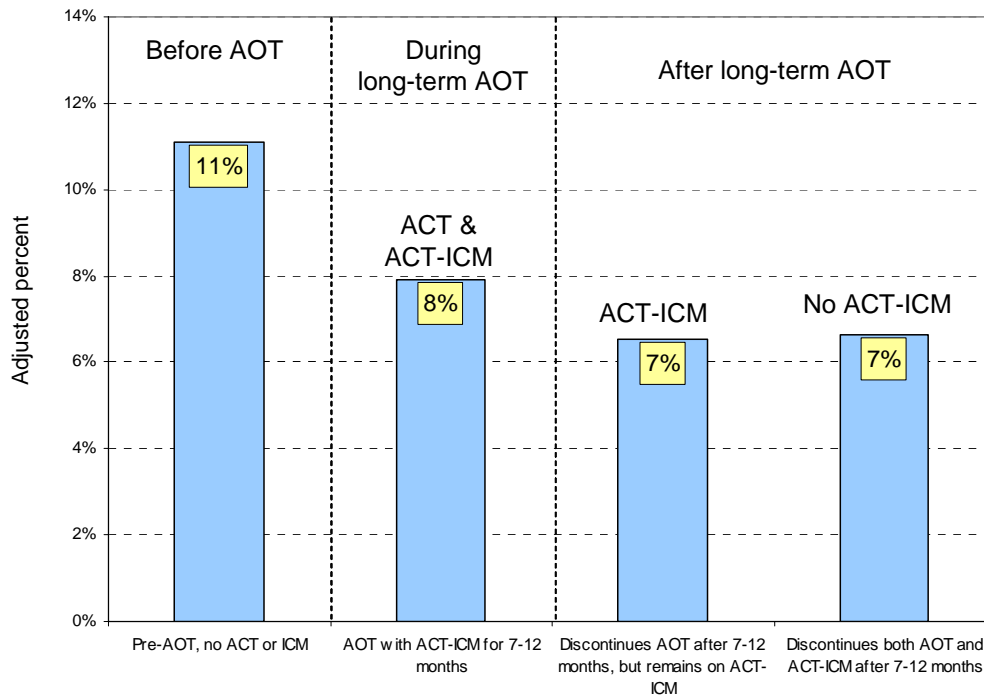
** Short-term AOT defined as receiving a total of 6 months or less.

Source: Medicaid claims and AOT Evaluation database.

In contrast, we find (as seen in Exhibit 5.2 below) that if the initial period of AOT is longer than six months, reduction in hospitalization in the post-AOT period is sustained whether or not the recipient continues to receive intensive treatment in the form of ACT or ICM. For these longer-

term AOT recipients, the predicted probability of post-AOT hospitalization remains at substantially reduced level relative to the pre-AOT period, even without continued ACT or ICM services utilization (7% compared to 11%).

Exhibit 5.2. Adjusted* percent with psychiatric inpatient treatment in month over long-term** AOT course



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status.

** Long-term AOT defined as receiving AOT for > 6 months. Source: Medicaid claims and AOT Evaluation database.

Post-AOT Receipt of Case Management Services from Medicaid and OMH Records

Receipt of intensive case management in the form of ACT or ICM rose from 5% prior to AOT to 45% during AOT. These rates declined modestly when AOT was discontinued: after six months or more of AOT, 28% of recipients continued to receive ACT or ICM. However, after 12 months or more of AOT, 35% of recipients continued to receive ACT or ICM services.

Post-AOT Receipt of Psychotropic Medications from Medicaid and OMH Records

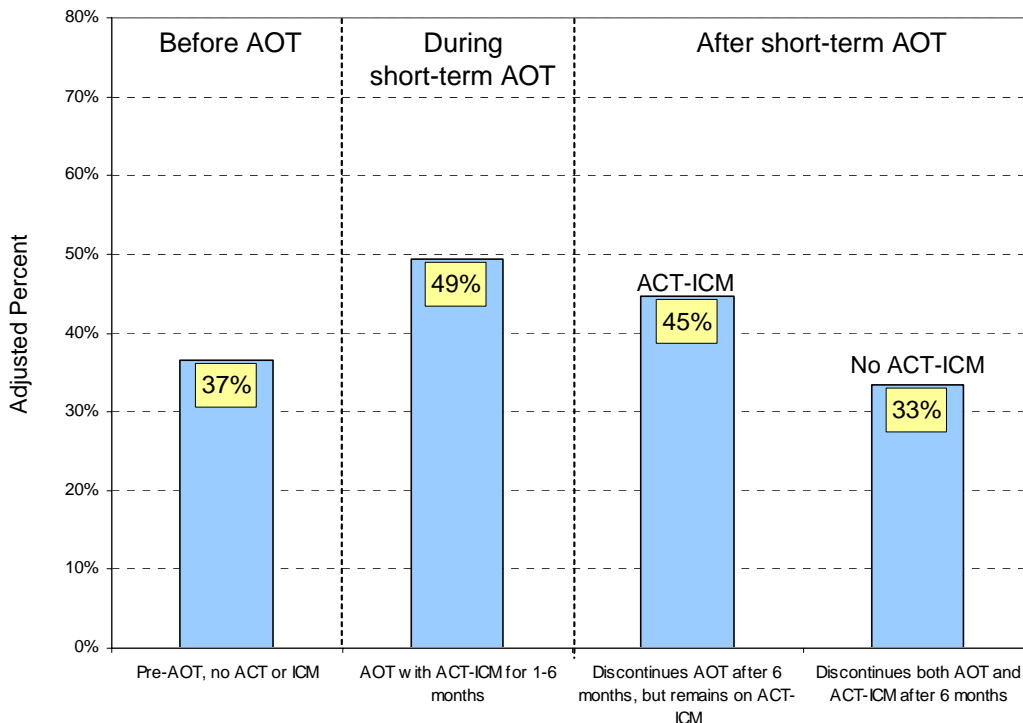
Findings in Chapter 3 also detail improvement in rates of receipt of appropriate psychotropic medications during AOT. Do these improved rates of receipt of psychiatric medications persist once AOT is terminated?

For individuals who receive AOT for a period of six months or less, we find that the likelihood of receiving medications consistent with their diagnosis depends on whether intensive outpatient services

utilization is also continued after the AOT order ends. If the recipient continues to receive post-AOT intensive case coordination services in the form of ACT or ICM, the predicted probability of appropriate medication possession within

any post-AOT month remains improved relative to the pre-AOT period (45% vs. 37%). However, if ACT or ICM is also discontinued when AOT ends, the predicted probability of post-AOT medication possession declines to 33%, which is comparable to the pre-AOT level. These results are displayed in Exhibit 5.3.

Exhibit 5.3. Adjusted* percent with at least 80% medication possession in any given month over short-term AOT course

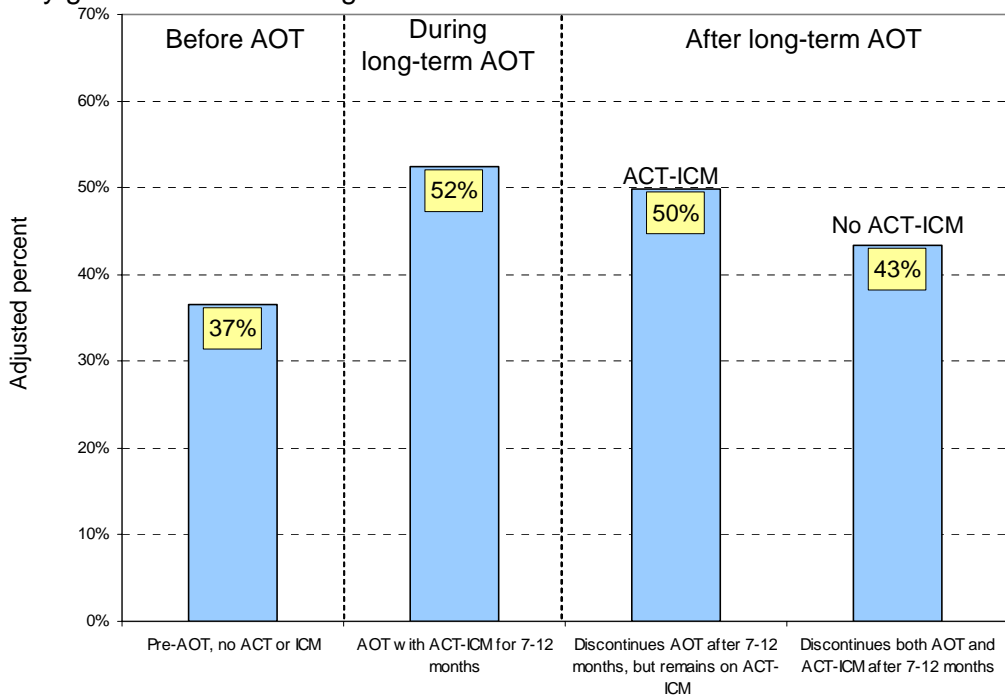


*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status.
Source: Medicaid claims and AOT Evaluation database.

In contrast, we find (as seen in Exhibit 5.4 below) that if the initial period of AOT is longer than six months, improvement in rates of receipt of appropriate psychotropic medications in the post-AOT period are sustained whether or not the recipient continues to receive intensive treatment in the form of ACT or ICM. For these longer-term AOT recipients, the predicted probability of post-AOT medication

possession remains at a substantially improved level relative to the pre-AOT period, even without continued ACT or ICM services utilization (50% compared to 37%.) If ACT or ICM is also discontinued when long-term AOT ends, the predicted probability of receiving appropriate psychotropic medications declines to 43%, which is still an improvement over the pre-AOT rate.

Exhibit 5.4. Adjusted* percent with at least 80% medication possession in any given month over long-term AOT course



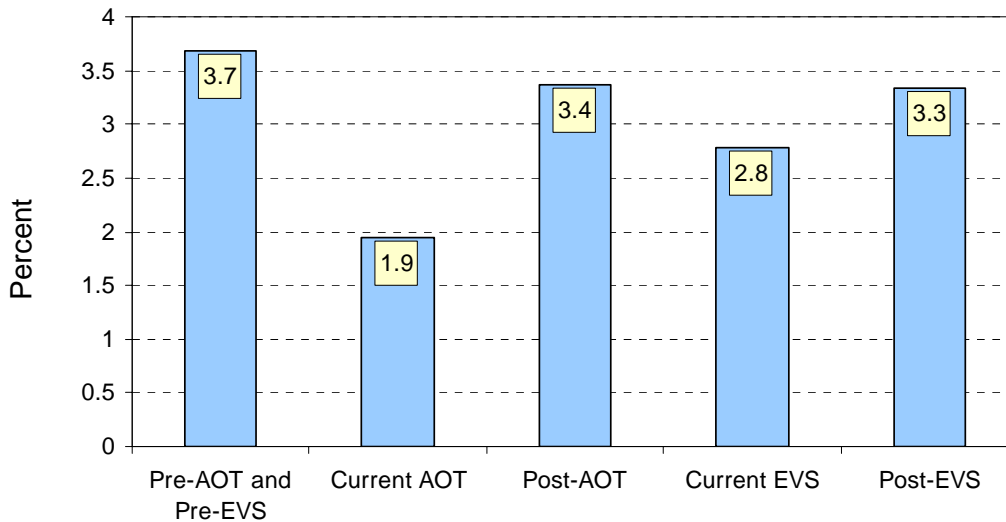
*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status.
Source: Medicaid claims and AOT Evaluation database.

Arrest Outcomes Comparing Post AOT and Post EVS Recipients In Six Counties

Findings in Chapter 3 reported significant reductions in arrest rates while recipients were on AOT compared to their pre-AOT/EVS period of observation. (Current EVS status was not significantly associated with reduced rates of arrest although there was a clear trend toward reduction of arrests during this period.) Exhibit 5.5

shows that the post-AOT and post-EVS conditions were not significantly associated with lowered probabilities of arrest compared to the pre-AOT/EVS period (current AOT and current EVS periods are included for reference).

Exhibit 5.5 Adjusted percent arrested in month by receipt of AOT and Enhanced Voluntary Services



Number of individuals=181; Number of person-month observations=9,229. Adjusted arrest rate estimates were produced using multivariable time-series regression analysis, controlling for time, region, age, sex, race, education, and diagnosis. Months spent in hospital are excluded from analysis.

Source: 6-county interviews and Division of Criminal Justice Services

Summary

We examined whether selected gains made during AOT are sustained over time, continuing into the post-AOT period. We examined three key outcomes that improved during AOT: reduced rates of hospitalization, increased receipt of psychotropic medications appropriate to the individual's diagnosis, and reduced likelihood of arrest. For the hospitalization and medication outcomes, which were assessed via the Statewide Medicaid data, we find that sustained improvement after AOT ends varies according to the length of time the recipient spends under the AOT

order. If AOT is discontinued after six months, these decreased rates of hospitalization and improved receipt of psychotropic medications are only sustained if recipients also continue to receive intensive services after AOT is discontinued. However, if AOT continues for 12 months or longer, reduced rates of hospitalization and improved receipt of medications are sustained whether or not intensive services are continued after AOT is discontinued. Thus, it appears that improvements in hospitalization and medication outcomes are more likely to be sustained if AOT continues for longer than 12 months. However, the post-AOT group did not maintain their reduced rate of arrest that was evident during AOT.

Chapter 6. Impact of Assisted Outpatient Treatment (AOT) on New York State's Public Mental Health Service System

This chapter describes the impact of the AOT Program on the public mental health system in New York State. Clearly, AOT had some direct effects on the several thousand individuals who received court orders, as discussed in previous chapters. However, key features of the system of care in which AOT has been implemented—its capacity, resource allocation, and patterns of service utilization—were altered by AOT in ways that may have indirectly affected other persons with severe mental illness (SMI) who were *not* candidates for AOT.

We examine potential system effects of AOT by addressing three questions:

- (1) Did AOT increase service capacity for all recipients?
- (2) Did AOT offset, or divert, intensive services from other SMI individuals who would not qualify for AOT?
- (3) How did the impact of AOT on system

resources vary over time and by region during the years since AOT was initiated?

We examine these questions by focusing on trends in Medicaid claims for Intensive Case Management (ICM) and Assertive Community Treatment (ACT). These two modes of service operationally define a key requirement for intensive case coordination that underlies AOT court-ordered treatment plans; they also function as indicators of met need for service among comparable individuals with SMI who do *not* receive AOT orders.

To put AOT in a system perspective, recipients of AOT include only a small proportion—about 2%—of the service population with severe mental illness in New York. However, AOT recipients account for about one quarter of those receiving ACT or ICM services as shown in Exhibit 6.1.

Exhibit 6.1 Putting AOT in Population Perspective: 2005 snapshot

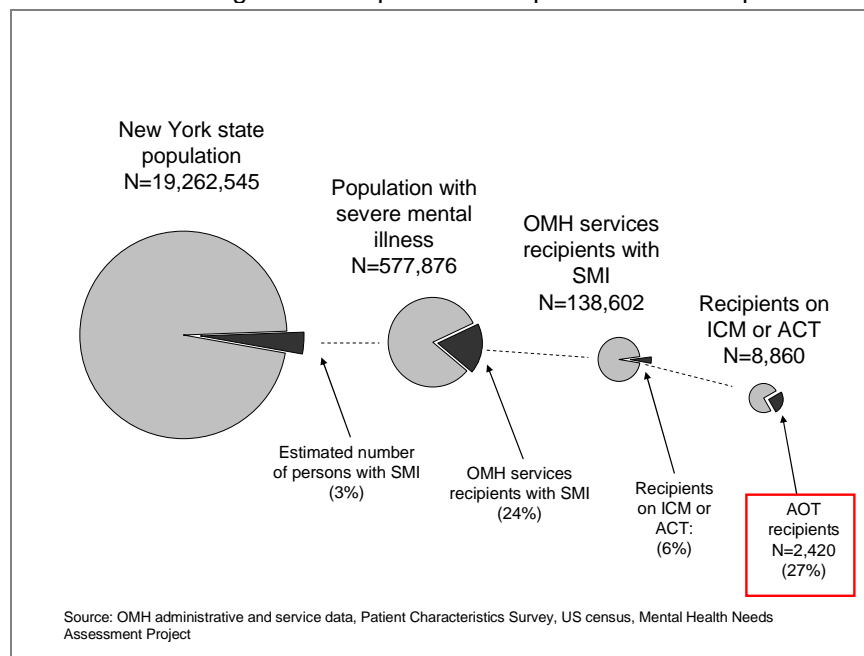
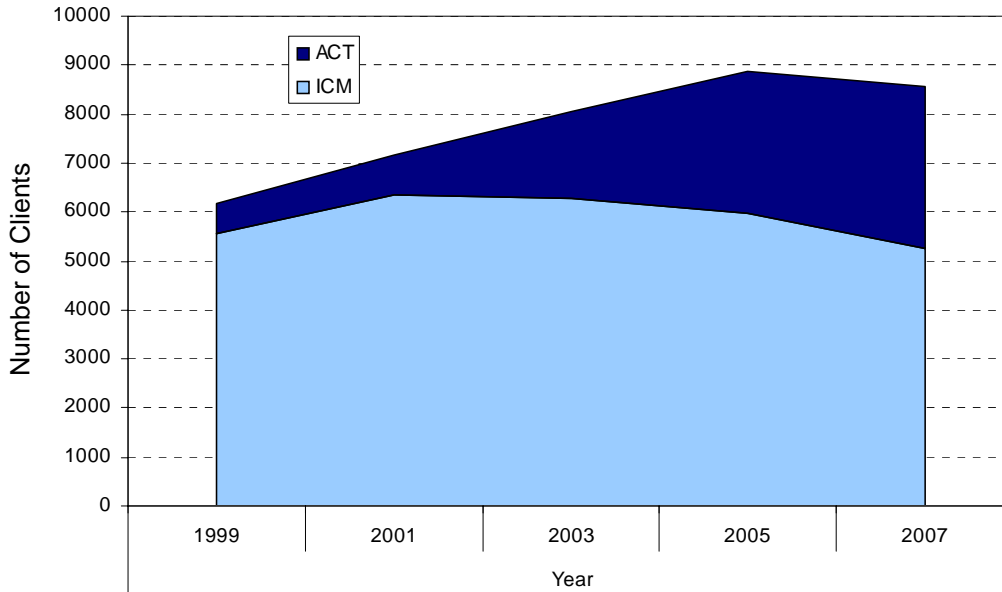


Exhibit 6.2 Number of clients being served on ACT and ICM by year:
New York State Office of Mental Health Patient Characteristics Surveys



Source: Medicaid claims and OMH administrative data.

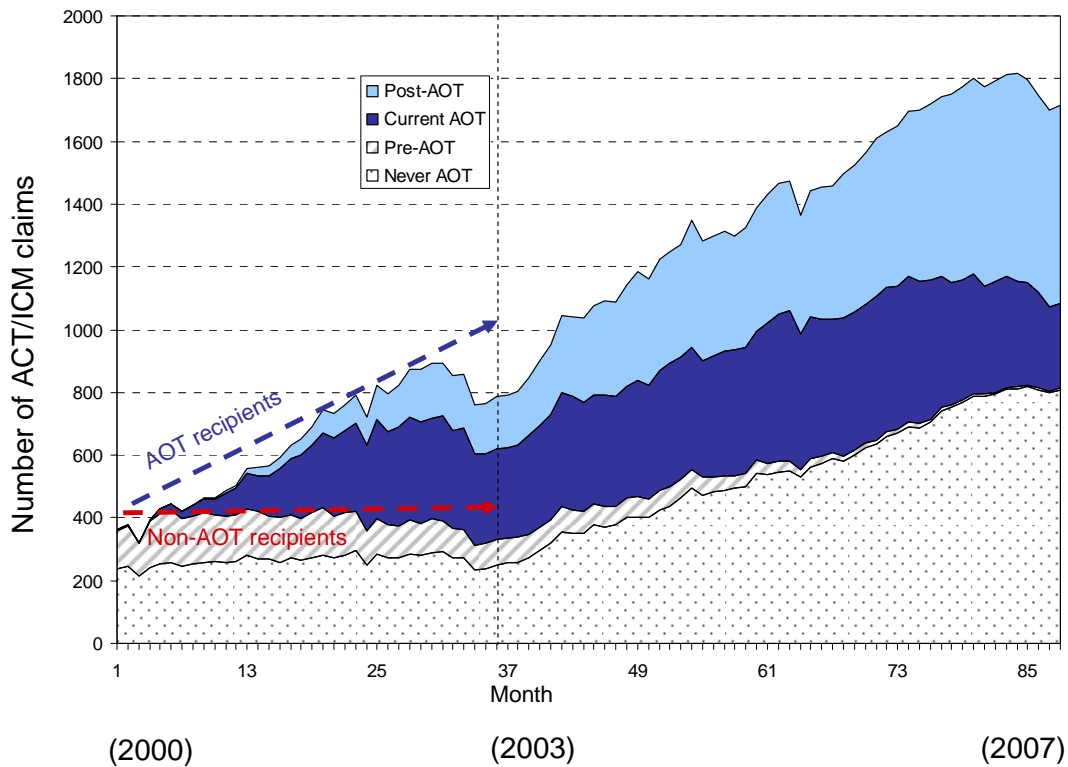
New York State provided substantial new funding to implement AOT Programs statewide and to build service capacity in the public mental health system over the past decade. An annual total of \$32 million was appropriated for direct support of AOT Programs. This appropriation included \$9.55 million per year to fund new case management slots anticipated for by AOT recipients. The new funding also included \$15 million for a medication grant program; \$4.4 million for prison and jail discharge managers; \$2.4 million for oversight programs; and \$0.65 million for drug monitoring.

In addition, and in tandem with the AOT Program, the state allocated \$125 million yearly for enhanced community services; these funds were used to develop a Single Point of Access Program (SPOA) and to increase ACT and ICM capacity. Exhibit 6.2 illustrates the increase in volume of ACT and ICM service delivery during the years following the start of AOT in 1999. Clearly, ACT teams have been on the increase, effectively replacing ICM for many recipients after 2001. For purposes of this chapter, we combined ACT and ICM into one category of intensive case coordination services.

Exhibit 6.3 illustrates the impact of these new resources on service utilization for AOT recipients and a comparable population of non-AOT service recipients.¹⁵ The overall increase in services is seen in the upward trend in the total number of monthly paid Medicaid claims for ACT or ICM: the

volume of these services increased 400% between 2000 and 2007. However, important differences in the trend emerge in the comparison of time periods for AOT recipients (before, during, and after AOT), and in the quite different pattern for ACT-ICM recipients who did not receive AOT.

Exhibit 6.3 Distribution of ACT/ICM services by month and AOT status



Source: Medicaid claims and OMH administrative data.

¹⁵ Selection criteria for comparison group: OMH service recipients with history of 2 or more psychiatric admissions in any year since 1999; schizophrenia or affective disorder as billing diagnosis for inpatient admission; total of 14 or more inpatient days in any single year; did not receive AOT but received ACT or ICM services at any time since 1999.

ACT-ICM services doubled in the first three years after AOT began (2000-2003), but all of that increase went to AOT recipients. *There was no increase in ACT-ICM services to non-AOT recipients as a group during the first three years of AOT implementation.* However, between 2003 and 2007, the trend shifted as non-AOT recipients saw an increase in ACT-ICM services that paralleled that for AOT recipients.

After the first three years of AOT implementation, ACT-ICM services increased both for post-AOT recipients and

those who never received AOT. As a result, by 2007 ACT-ICM monthly claims were almost evenly distributed between post-AOT and non-AOT participants with a small and diminishing share of the services going to current AOT participants.

Exhibit 6.4 displays the effect of this pattern in terms of the “non-AOT share” of ACT-ICM claims. Specifically, this is the trend in the proportion of monthly claims for services that went to individuals who were *not* on AOT orders.

Exhibit 6.4. Non-AOT share of ACT-ICM services by month



Source: Medicaid claims and AOT Evaluation database.

Between 2000 and 2003, the non-AOT share of monthly Medicaid claims for ACT-ICM services was cut in half—from 100% to less than 50%. After that, however, the decline in non-AOT share stabilized and gradually reversed. By 2007, three-quarters of ACT-ICM services were going to non-AOT recipients—the same proportion as in 2001. The increase in ACT-ICM services to non-AOT recipients coincided with the

decrease in new AOT orders (as described in Chapter 1.)

To examine at the individual level whether the AOT Program in effect *diverted* services from non-AOT recipients, we conducted multivariable time-series analyses of factors affecting receipt of ACT-ICM in any given month for non-AOT recipients. The sample for the analyses consisted of 3,170 persons with SMI who never received AOT, but

received ACT-ICM during some period between 2000 and 2007 as indicated by paid Medicaid claims. The time series analysis included 66,833 person-month observations for these individuals.

By 2007 ACT-ICM monthly claims were almost evenly distributed between post-AOT and non-AOT participants with a small and diminishing share of the services going to current AOT participants.

The first outcome in the analysis was whether, in any given month, the non-AOT individual *initiated* ACT-ICM, not having received these services previously. The second outcome was whether a non-AOT individual *discontinued* ACT-ICM—or was no longer receiving these services in a given month—after having received them previously. Control variables included time (year), region, age, sex, race, diagnosis, and co-insurance status.

In the first analysis, we found that *increasing* the number of AOT orders in the system was significantly associated with a *decreasing* chance that non-AOT individuals would initiate receipt of ACT or ICM. Specifically, during months when the number of AOT orders exceeded 200, the odds were approximately cut in half that a non-AOT individual would initiate ACT-ICM services.¹⁶

In the second analysis, we found that increasing AOT orders in the system significantly increased the odds of non-AOT recipients discontinuing of ACT-ICM.

Specifically, during months when the number of AOT exceeded 200, the odds of non-AOT individuals discontinuing ACT-ICM were increased by about 50% compared to months with fewer AOT orders in the system.¹⁷ When the number of AOT orders in the system exceeded 400 in a given month, the odds of discontinued ACT-ICM for non-AOT recipients doubled.¹⁸

Finally, we examined whether the impact of AOT varied by region, comparing the New York City region to other regions in the state. We found a similar pattern in New York City and in other regions with two exceptions. First, the effect of discontinuing ACT-ICM for non-AOT recipients occurred more slowly in New York City. Specifically, outside of New York City a significant increase in ACT-ICM discontinuation was seen among non-AOT recipients in the third year after AOT started. In New York City a significant increase in discontinuation for ICM-ACT among non-AOT recipients was not seen until the sixth year following AOT. Second, increasing AOT had a sharper impact on discontinuing ACT-ICM for non-AOT individuals in the non-NYC regions compared to the New York City Region.¹⁹ Exhibit 6.5 displays adjusted percents from these analyses.

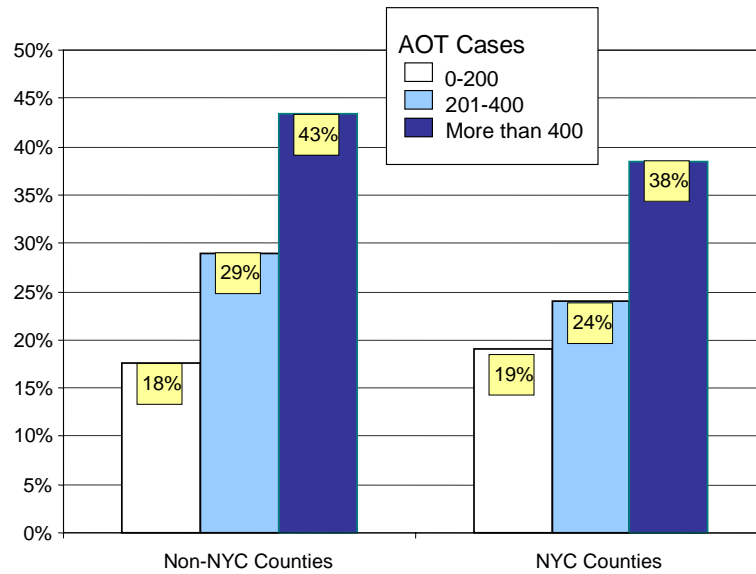
¹⁶ Adjusted Odds Ratio = 0.50; 95% confidence interval = 0.43 - 0.57.

¹⁷ Adjusted Odds Ratio = 1.45; 95% confidence interval = 1.18 - 1.78.

¹⁸ Adjusted Odds Ratio = 2.22; 95% confidence interval = 1.76 - 2.79.

¹⁹ Adjusted odds ratio = 1.67 vs. 1.36 when monthly AOT orders in the system were between 201 and 400, compared to between 0 and 200.

Exhibit 6.5. Adjusted* percent of non-AOT recipients discontinuing ACT-ICM in any given month, by system AOT volume and region



*Adjusted probability estimates were generated from repeated measures regression models controlled for time, race, age, sex, diagnosis, and co-insurance status.
 Source: Patient Characteristics Survey, US Census, Mental Health Needs Assessment Project, AOT Evaluation database.

Summary

The implementation of AOT coincided with a large increase in mental health services through OMH, which eventually increased the availability of ACT teams and ICM for all service recipients with SMI—even those who never received AOT. In the process of implementing the AOT Program, preference was initially given to new AOT cases in allocation of ACT and ICM. This meant that, even accounting for overall time-trend, region, patient demographics and diagnosis, the increasing number of AOT cases in the system significantly affected ACT-ICM service delivery to non-AOT recipients. Specifically, when AOT cases increased, non-AOT recipients had a significantly lower chance of initiating ACT-ICM services and a significantly higher chance of discontinuing these services if they were previously receiving them. These indirect consequences of the AOT Program occurred more slowly and were not as

pronounced in the New York City region compared to other regions of the state; perhaps because the service volume and system capacity was greater in the New York City Region, and thus, it was able to absorb a greater volume of new AOT cases with less impact on other service recipients with SMI. Also, the apparent impact of AOT in diverting services from non-AOT service recipients was concentrated mostly in the first three years of AOT implementation, between 2000 and 2003. During those years, there was essentially no growth in ACT-ICM services to non-AOT individuals; however, following 2003, as the number of new AOT orders stabilized and then declined, the new service capacity that accompanied the implementation of AOT was apparently available to other individuals who needed these services, irrespective of AOT status. Thus, following the initial ramp-up of the AOT Programs throughout the state, intensive community-based services increased for SMI individuals on AOT and non-AOT individuals alike.

Summary and Conclusions

To address the six areas of investigation requested, we studied existing records from several extensive data sources described in Appendix B including: AOT Program, New York State Office of Mental Health hospitalization, Medicaid claims, U.S. Census, and Mental Health Needs Estimation Project data. In addition, we conducted statewide in-person interviews with key stakeholders to gain insight into the operation of the AOT Program and interviewed service recipients to assess attitudes about treatment, treatment experiences, and treatment outcomes.

Limitations

While this evaluation approach has substantial strengths because of its reliance on multiple sources of data, each data source also has limitations. Case managers provide extensive data about recipient functioning captured in the Child and Adult Integrated Reporting System (CAIRS). However, given heavy clinical and administrative demands on case managers and limited time for training on completing the CAIRS, reporting on this instrument may be inconsistent. Because CAIRS has variable amounts of missing data, we only utilized CAIRS when the level of missing data was acceptable. Case managers may also have unknown biases in reporting of outcomes of recipients in their respective programs. Reliance on Medicaid claims data also has limitations in that Medicaid eligibility may fluctuate, claims may be inconsistently submitted, and Medicaid-ineligible recipients may be different in ways we can not measure. Our analysis approach limits analyses to periods of Medicaid eligibility and may fail to detect differences in outcomes for recipients who are Medicaid ineligible. Wherever possible we have carefully drawn matched comparison groups to examine whether AOT differentially affects outcomes when compared to

recipients receiving voluntary treatment. Given a number of alternative data sources, the large volume of data, and careful use of statistical approaches, these analytic approaches have substantial strengths, but these analytic approaches are not as definitive as a rigorously conducted randomized controlled trial.

New York's AOT Program features more comprehensive implementation, infrastructure and oversight of the AOT process than any other comparable program in the United States.

We summarize findings and conclusions from each area or investigation below. In addition, we provide a summary table indicating the sources and strengths of findings in each area of investigation.

Summary and Conclusions

Description of the New York AOT Program and Regional Variations

The introduction of New York's AOT Program was accompanied by a significant infusion of new service dollars and currently features more comprehensive implementation, infrastructure and oversight of the AOT process than any other comparable program in the United States. It is, therefore, a critical test of how a comprehensively implemented and well-funded program of assisted outpatient treatment *can* perform. However, because New York's program design is unique, these evaluation findings may not generalize to other states, especially where new service dollars are not available. This report addresses whether AOT can be effective and under what circumstances, not whether it will always be effective.

As designed, the AOT statute can be used to prevent relapse or deterioration before hospitalization is needed. However, in nearly three-quarters of all cases, it is actually used as a discharge planning tool for hospitalized patients. Thus, AOT is largely used as a transition plan to improve the effectiveness of treatment following a hospitalization and as a method to reduce

AOT is largely used as a transition plan to improve the effectiveness of treatment following a hospitalization and as a method to reduce hospital recidivism.

hospital recidivism. To quote one Mental Health Legal Service (MHLS) attorney on his view of AOT:

We see AOT as a way for some clients to get what they need. They are severely mentally ill and need good follow-up treatment in the community. This is a way for them to get out of the hospital much sooner.

Most of New York State's experience with AOT originates in the New York City region where approximately 70% of all AOT cases are found. AOT was systematically implemented citywide in New York City with well-delineated citywide policies and procedures. In the remainder of the state, AOT was implemented and utilized at the discretion of counties. In some counties AOT has been used rarely; in several it has not been used at all.

Based on our key stakeholder and recipient interviews and on AOT Program data, we found considerable variability in how AOT is implemented across the state but strong uniformity in how it is implemented in New York City. One important difference among regions was the use of voluntary agreements (sometimes referred to as EVS) in lieu of a formal AOT court order. Under a voluntary agreement, the recipient signs a statement that he or she will adhere to a prescribed community treatment plan. In the

One important difference among regions was the use of voluntary agreements in lieu of a formal AOT court order.

New York City Region, an AOT court order almost always precedes an agreement for EVS. Voluntary agreements are usually implemented following a period of AOT as a "step-down" arrangement when a recipient is judged to be ready to transition from an AOT order to voluntary treatment, usually with the same enhanced service package. In one of the key informant interviews, an AOT Program staff remarked:

Voluntary agreements are used (in New York City) as part of the clinical "step-down" process.

In other counties, largely outside of New York City, voluntary agreements are more frequently used before an AOT court order as trial periods before initiating a formal AOT order. If the trial period proves unsuccessful, an AOT proceeding is then initiated. A psychiatrist from an upstate county discussed this approach to providing EVS in the following way:

We don't do it like downstate or like OMH wants. We use the voluntary order first. We don't approach it in any way.

Statewide, use of EVS First is far less common because the majority of AOT orders occur in New York City where voluntary agreements typically come as a trial AOT termination. Because the regions in which these two very different approaches to voluntary agreements occur differ so much in population characteristics and in the availability of treatment services, it is not possible to directly compare their relative effectiveness.

The other major difference across the state lies in the consistency of the AOT court process. There was widespread agreement that judges hearing AOT cases could

benefit from additional mental health and AOT training, especially in counties where many judges rotate in these courts. In some counties hearings may be waived, or the client may waive his or her appearance. In uncontested hearings there may be no perceived need to have a doctor present at the hearing because the facts are stipulated and the outcome agreed upon. This results in some significant procedural variations across courts. To quote several judges:

In a situation where the patient agrees with the plan, no doctor is needed. If the plan is contested — that's different. You can always waive a hearing.

Even in the counties that mandated appearances by the physician, almost all agreed that not having a physician appear would reduce costs and scheduling difficulties, particularly for the smaller counties that contract for physician services. Most counties were in favor of increasing the availability of stipulations in the AOT process, especially for renewals. This would reduce the court burden and costs and would reduce some of the hearing logistics and transportation burdens.

Not having a physician appear would reduce costs and scheduling difficulties, particularly for the smaller counties.

In some counties the programs were small enough such that the level of service coordination was maximized with everyone “at the table” working on the AOT treatment plan. Some of the county differences we observed may be due to the fact that some counties are structured differently in their service delivery approach. To quote one Director of County Services:

A big piece of how it works or does not work across New York State is the county structure — are they a service providing department or contracting agency?

Racial Disparities in AOT: Are They Real?

An April 2005 report on statewide demographic data from the New York Lawyers for the Public Interest found that African Americans were overrepresented in the AOT Program. Whether this overrepresentation is discriminatory rests, in part, on whether AOT is generally seen as beneficial or detrimental to recipients and whether AOT is viewed as a positive mechanism to reduce involuntary hospitalization and improve access to

We find no evidence that the AOT Program is disproportionately selecting African Americans for court orders.

community treatment for an under-served population, or as a program that merely subjects an already-disadvantaged group to a further loss of civil liberties.

We find that the overrepresentation of African Americans in the AOT Program is a function of African Americans' higher likelihood of being poor, uninsured, higher likelihood of being treated by the public mental health system (rather than by private mental health professionals), and higher likelihood of having a history of psychiatric hospitalization. The underlying reasons for these differences in the status of African Americans are beyond the scope of this report. We find no evidence that the AOT Program is disproportionately selecting African Americans for court orders, nor is there evidence of a disproportionate effect on other minority populations. Our interviews with key stakeholders across the state corroborate these findings.

Service Engagement

A key goal of the AOT Program is to motivate consumers to actively engage in treatment during and after their involvement with the program. We find that during the first six months on AOT, service

engagement was comparable to service engagement of voluntary patients not on AOT. After 12 months or more on AOT, service engagement increased such that AOT recipients were judged to be more engaged than voluntary patients. This suggests that after 12 months or more, when combined with intensive services, AOT increases service engagement compared to voluntary treatment alone.

Clearly one of the reported strengths of the AOT Program, evidenced in our key informant interviews, was improved recipient access to needed services. Even key informants who had been initially opposed to AOT have come to realize that the additional service dollars associated with the AOT Program provide needed services, although respondents report that the paucity of integrated co-occurring substance abuse services is still problematic. Nonetheless, some respondents still feel that if adequate consumer-driven services were available, there would no need to engage recipients through the mechanism of the AOT process. Comment by a psychiatrist and peer advocate illustrate this:

Kendra's law commits the individual to treatment and commits treatment providers to treating the individual.

AOT would not be needed if services were compassionate and coordinated. Consumers would come.

Recipient Outcomes

We find consistent evidence that during AOT there is a substantial reduction in the number of psychiatric hospitalizations and in days in the hospital if a person is hospitalized. We also find moderately strong evidence from lifetime arrest records of AOT and EVS recipients from the Division of

During AOT there is a substantial reduction in the number of psychiatric hospitalizations and in days in the hospital if a person is hospitalized.

Criminal Justice Services that AOT reduces the likelihood of being arrested. We find substantial increases in receipt of intensive case management services during AOT. We also find that, under AOT, recipients are far more likely to consistently receive psychotropic medications appropriate to their psychiatric conditions. Case managers of AOT recipients also report subjective improvements in many areas of personal functioning such as managing appointments, medications, and self-care tasks.

Selection of recipients for the AOT Program was a source of considerable discussion among key informants who suggested that particular kinds of recipients may or may not benefit from the AOT Program. Most key informants felt that the majority of AOT recipients were appropriate for the program,

AOT reduces the likelihood of being arrested.

but they agreed that many who might benefit were never referred. They felt that the recipients' deference to the authority of the judge might significantly affect the success of the order. Many respondents believe that recipients with substance abuse, personality disorders, or extensive criminal histories were the least likely to be successful in the program. They suggested this might be due to the scarcity of

appropriate services for these conditions, or in the case of substance abuse, the perceived lack of enforceability of nonadherence to substance abuse treatment. Comments by a psychiatrist and AOT coordinator illustrate this:

I don't know that AOT doesn't work for substance abusers- it might be more that appropriate services are not always available.

AOT doesn't work well with the seriously drug involved because it's hard to make the case manager connection and with people with antisocial personality, because the court scene doesn't affect them. —

Recipient Perceptions of AOT

Participants were assessed on scales measuring a wide range of AOT-related attitudes and treatment experiences, including their understanding of AOT; whether they believe it beneficial or harmful; whether they find it stigmatizing; whether it affects their sense of autonomy or empowerment; satisfaction with treatment; perceived coercion related to treatment; perceived pressures to engage in treatment; whether it increases perceived barriers to

Positive and negative attitudes about treatment during AOT are more strongly influenced by other experiences with mental illness and treatment than by recent experiences with AOT itself.

treatment; and how it affects their sense of being fairly treated. On the whole, AOT recipients and non-AOT recipients have remarkably similar attitudes and treatment experiences. That is, despite being under a court order to participate in treatment, current AOT recipients feel neither more positive nor more negative about their mental health treatment experiences than comparable individuals who are not under AOT. This suggests that positive and negative attitudes about treatment during

AOT are more strongly influenced by other experiences with mental illness and treatment than by recent experiences with AOT itself.

Service Utilization and Outcomes After AOT Ends

We examined whether selected gains made during AOT are sustained over time by examining two key outcomes that improved during AOT reduced rates of hospitalization and increased receipt of psychotropic medications appropriate to the individual's diagnosis. We find that sustained improvement after AOT ends varies according to the length of time the recipient spends under the AOT order. If AOT is

Sustained improvement after AOT ends varies according to the length of time the recipient spends under the AOT

discontinued after six months, these decreased rates of hospitalization and improved receipt of psychotropic medications are sustained only if recipients continue to receive intensive case management services. However, if AOT continues for 12 months or longer, reduced rates of hospitalization and improved receipt of medications are sustained whether or not intensive case management services are continued after AOT is discontinued. Thus, it appears that improvements are more likely to be sustained if AOT continues at least 12 months.

Impact of AOT on New York's Public Mental Health System

It is uncertain whether, as a consequence of AOT implementation, resources have been diverted away from other adults with severe mental illness. We examined the impact of AOT Programs on the availability of resources for all adults with severe mental illness. We focused on access to high intensity case management services.

The introduction of AOT was accompanied by a large increase in funding for mental health services, which, over time, increased the availability of intensive services for all service recipients, even those who never got AOT. In the first several years of the AOT Program, between 1999 and 2003, preference for intensive case management services was given to AOT cases—a finding corroborated by our key stakeholder interviews. In fact, some respondents stated that service and housing providers were more likely to accept clients with an AOT court order and all confirmed that AOT recipients were given priority access. An AOT coordinator made this observation:

AOT doesn't make a big difference in some people's compliance, but does help with community mental health providers' willingness to provide services to people.

This meant that in the first several years of the AOT Program, non-AOT recipients were less likely to receive intensive case management services than their AOT counterparts. These indirect consequences of the AOT Program occurred more slowly and were not as pronounced in New York City compared to other regions of the state. This may have been because the treatment capacity was greater in New York City, and thus it was able to absorb a greater volume of new AOT cases with less impact on other service recipients with severe mental illness.

After 2003, new AOT orders leveled off in the state and then declined. The new treatment capacity that accompanied the implementation of AOT was apparently then available to other individuals who needed these services, irrespective of AOT status. Thus, following the initial ramp-up of the AOT Programs throughout the state, intensive community-based services increased for individuals on AOT and those not on AOT alike. However, because the new service capacity created during the introduction of the AOT Program is now fully

utilized, competition for services in the near future may intensify, with unknown effects on AOT relative to non-AOT recipients.

Several key informant respondents commented on the lack of new resources for the AOT Program and treatment services. They were concerned about the relatively flat funding for the AOT Program since its inception. And while some service dollars may have increased in categories not directly designated as AOT, the program administration dollars have not changed according to these respondents. These points are emphasized by two AOT personnel:

Money has been consistent over time—to the same counties—even those without AOT.

You can not expect people to be paid the same amount of money seven years later.

Because the implementation of the AOT Program in New York was accompanied by an infusion of new services, it is impossible to generalize the findings of this Report to states where services do not simultaneously increase.

Other Issues to Consider

Key stakeholders we interviewed suggested the state should consider how much consistency it wishes to see in the AOT Program. While the entire state may not opt to adopt policies and procedures used in New York City, common statewide procedures could be more fully developed, while still allowing local flexibility. For example, court procedures across the state could be more uniformly standardized. Some courts allow greater leeway in stipulations, some hearings are waived, and occasionally physicians/examiners are not required to testify in person. These variations in court procedures, if deemed appropriate, could be used to streamline court procedures and reduce court

expenses. Standardization should be considered for forms used throughout the AOT process and the issuance of removal orders and the access to certified records could be made more efficient. In addition, there are frequent problems with inter-county transfers and jurisdiction over AOT cases that could be addressed. Key stakeholders also suggested the state consider the status of voluntary agreements, which are not codified in the AOT statute or regulation. They feel that the state should consider whether it wishes to create formal voluntary agreement options.

Overall Summary and Conclusions

We find that New York State's AOT Program improves a range of important outcomes for its recipients, apparently without feared negative consequences to recipients. The increased services available under AOT clearly improve recipient outcomes, however, the AOT court order and its monitoring do appear to offer *additional benefits* in improving outcomes. It is also important to recognize that the AOT order exerts a critical effect on service providers, stimulating their efforts to prioritize care for AOT recipients.

Available data allow only a limited assessment of whether voluntary agreements are effective alternatives to initiating or continuing AOT. There are relatively few voluntary agreements and they typically occur in counties that use the "EVS First" model. However, we found

some evidence that AOT recipients are at lower risk of arrest than their counterparts in enhanced voluntary services. We also found evidence in the case manager data that receiving AOT combined with ACT services substantially lowers risk of hospitalization compared to receiving ACT alone.

Recipients appear to fare better during and after AOT if the AOT order lasts for six months or more. Once AOT recipients leave the program, improvements are more likely sustained among those who continue to receive intensive treatment services or have longer periods of AOT.

Perceptions of the AOT Program, experiences of stigma, coercion, and treatment satisfaction appear to be largely unaffected by participation in the program and are likely more strongly shaped by other experiences with mental illness and treatment.

In its early years, the AOT Program did appear to reduce access to services for non-AOT recipients. However, in recent years the reduction in new AOT cases has attenuated this effect. Lack of continued growth of new service dollars will likely increase competition for access to services once again.

If New York extends the AOT Program, consideration should be given to further strengthening statewide policies and procedures to achieve a more consistent program.

AOT Report: Summary and Strength of Findings						
Data Source & Analysis Approach						
	Summary: Combined Measures ¹	Key Informant Interviews	Recipient Interviews, Chart Reviews and Arrest Records	Case Manager Reports (CAIRS)	Case Manager Reports: Controlled Statistical Analyses	Medicaid and OMH Data: Controlled Statistical Analyses
Area and Finding						
Description of AOT Program						
Regional differences in AOT Program	+++	+++	+++	na	na	+++
Absence of racial disparities in AOT Program administration	+++	+++	na	na	na	+++
Positive service engagement of AOT recipients	+++	na	+/-	+++	+++	na
Recipient Outcomes						
Reduced hospitalization	+++	++	+/-	+++	+++	+++
Increased receipt of medication	+++	na	na	na	na	+++
Increased receipt of case management	+++	+++	na	+++	na	+++
Improved functioning	+	na	+/-	+	na	na
Decreased arrests	++	na	++	+/-	+/-	na
Recipient Perceptions of AOT						
Improved autonomy	+/-	na	+/-	na	na	na
Improved treatment satisfaction	+/-	na	+/-	na	na	na
Increased coercion	+/-	na	+/-	na	na	na
Service Utilization and Outcomes Post-AOT						
Reduced hospitalization	+++	+++	+/-	+++	na	+++
Increased receipt of medication	+++	na	na	++	na	+++
Increased receipt of case management	+++	+++	na	+++	na	+++
Impact of AOT on Service System						
Increased receipt of case management for AOT recipients	+++	+++	na	+++	na	+++
Decreased receipt of case management for non-AOT recipients	+/-	++	na	na	na	+/-

¹ Key

- +++ very strong evidence
- ++ moderately strong evidence
- + some evidence
- +/- equivocal findings
- na Not applicable, no evidence for or against

Appendix A Kendra's Law Overview and Statute

[full text of Mental Hygiene Law * § 9.60 is appended at the end of Appendix A]

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New York State Office of Mental Health

(Brennan, K. J. (2009). *Kendra's Law: Assisted Outpatient Treatment in New York*. Unpublished revision of Brennan, K. J. (2005). *Kendra's Law: Final Report on the Status of Assisted Outpatient Treatment Appendix 2.*)

Introduction

On January 3, 1999, an event occurred which galvanized the mental health community, and served as a catalyst for an effort to identify and address the needs of the small population of persons who respond well to treatment when hospitalized, but who have trouble maintaining their recovery once back in the community. On that date, Andrew Goldstein, a man with a history of mental illness and hospitalizations, pushed Kendra Webdale onto the subway tracks in a tunnel beneath the streets of Manhattan. Ms. Webdale lost her life as a result. What followed was a bi-partisan effort, led by Governor George Pataki, to create a resource delivery system for this population, who, in view of their treatment history and present circumstances, are likely to have difficulty living safely in the community.¹ Kendra's Law was scheduled to sunset, or expire, on June 30, 2005, absent legislative action to extend the law in its original or amended form. Shortly before the law expired, the legislature re-enacted the law. The statutory scheme is largely unchanged, but there were a few substantive changes, which are incorporated into the discussion of the appropriate statutory provisions.²

On August 9, 1999, Governor Pataki signed Kendra's Law, creating a statutory framework for court-ordered assisted outpatient treatment ("AOT"), to ensure that individuals with mental illness, and a history of hospitalizations or violence, participate in community-based services appropriate to their needs.³ The law became effective in November of 1999. Since that time, 7624 court orders have been issued for AOT statewide, together with 4189 renewal orders.⁴ The majority of orders and renewals have been issued in New York City.

The statute creates a petition process, found in Mental Hygiene Law ("M.H.L.") section 9.60, designed to identify those persons who may not be able to survive safely in the community without greater supervision and assistance than historically has been available. A description of many aspects of the petition process follows, and is in turn followed by a review of some of the more important court decisions concerning Kendra's Law.

Filing the Petition

Kendra's Law establishes a procedure for obtaining court orders for certain patients to receive and accept outpatient treatment.⁵ The prescribed treatment is set forth in a written treatment plan prepared by a physician who has examined the individual.⁶ The procedure involves a hearing in which all the evidence, including testimony from the examining physician, and, if

desired, from the person alleged to need treatment, is presented to the court.⁷ If the court determines that the individual meets the criteria for assisted outpatient treatment ("AOT"), an order is issued to either the director of a hospital licensed or operated by the Office of Mental Health ("OMH"), or a director of community services who oversees the mental health program of a locality (i.e., the county or the City of New York mental health director). The initial order is effective for up to six months⁸ and can be extended for successive periods of up to one year.⁹ Kendra's Law also provides a procedure for the removal of a patient subject to a court order to a hospital for evaluation and observation, in cases where the patient fails to comply with the ordered treatment and poses a risk of harm.¹⁰

The process for issuance of AOT orders begins with the filing of a petition in the supreme or county court where the person alleged to be mentally ill and in need of AOT is present (or is believed to be present). The following may act as petitioners:¹¹

- 1.) an adult (18 years or older) roommate of the person;
- 2.) a parent, spouse, adult child or adult sibling of the person;
- 3.) the director of a hospital where the person is hospitalized;
- 4.) the director of a public or charitable organization, agency or home that provides mental health services and in whose institution the person resides;
- 5.) a qualified psychiatrist who is either treating the person or supervising the treatment of the person for mental illness;
- 6.) the director of community services, or social services official of the city or county where the person is present or is reasonably believed to be present;
- 7.) a licensed psychologist, or a licensed social worker, who is treating the subject of the petition for a mental illness; or
- 8.) a parole officer or probation officer assigned to supervise the person.¹²

The petition must include the sworn statement of a physician who has examined the person within ten days of the filing of the petition, attesting to the need for AOT.¹³ The examining physician must be appointed by the director of community services, and must develop a written treatment plan, in consultation with such director, which is submitted as part of the petition. All service providers listed in the written treatment plan must receive of their inclusion.

If the examining physician's attempts to examine the subject of the petition are unsuccessful, the affidavit may state that unsuccessful attempts were made in the past ten days to obtain the consent of the person for an examination, and that the physician believes AOT is warranted. If the court finds reasonable cause to believe the allegations in the petition are true, the court may request that the patient submit to an examination by a physician appointed by the court, and ultimately may order peace officers or police officers to take the person into custody for transport to a hospital for examination by a physician. Any such retention shall not exceed twenty-four hours.¹⁴

The petitioner must establish by clear and convincing evidence that the subject of the petition meets all of the following criteria:

- 1.) he or she is at least 18 years old; and
- 2.) is suffering from a mental illness; and
- 3.) is unlikely to survive safely in the community without supervision; and
- 4.) has a history of lack of compliance with treatment for mental illness that has:
 - (a) at least twice within the last 36 months been a significant factor in necessitating hospitalization or receipt of services in a forensic or other mental health unit in a correctional facility or local correctional facility, not including any

current period, or period ending within the last six months, during which the person was or is hospitalized or incarcerated, or

(b) resulted in one or more acts of serious violent behavior toward self or others, or threats of or attempts at serious physical harm to self or others within the last 48 months, not including any current period, or period ending within the last six months, during which the person was or is hospitalized or incarcerated; and

5.) is, as a result of his or her mental illness, unlikely to voluntarily participate in the recommended treatment pursuant to the treatment plan; and

6.) in view of his or her treatment history and current behavior, the person is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm to self or others; and

7.) it is likely that the person will benefit from assisted outpatient treatment; and

8.) if the person has executed a health care proxy, any directions included in such proxy shall be taken into account by the court in determining the written treatment plan.¹⁵

In addition, a court may not issue an AOT order unless it finds that assisted outpatient treatment is the least restrictive alternative available for the person.¹⁶

Notice of the petition must be served on a number of people or entities, including the person, his or her nearest relative, and the Mental Hygiene Legal Service ("MHLS"), among others.¹⁷ The court is required to set a hearing date that is no more than three days after receipt of the petition, although adjournments can be granted for good cause.¹⁸

If the court finds by clear and convincing evidence that the subject of the petition meets each of the criteria and a written treatment plan has been filed, the court may order the subject to receive assisted outpatient treatment. The order must specifically state findings that the proposed treatment is the least restrictive treatment that is appropriate and feasible, must include case management or Assertive Community Team services and must state the other categories of treatment required. The court may not order treatment which is not recommended by the examining physician and included in the treatment plan.¹⁹ Appeals of AOT orders are taken in the same manner as specified in M.H.L. section 9.35 relating to retention orders.²⁰

If in the clinical judgment of a physician the assisted outpatient has failed or refused to comply with the treatment ordered by the court, efforts must be made to achieve compliance. If these efforts fail, and the patient may be in need of involuntary admission to a hospital, the physician may request the director of community services, his designee, or other physician designated under section 9.37 of the M.H.L. to arrange for the transport of the patient to a hospital. If requested, peace officers, police officers or members of an approved mobile crisis outreach team must take the patient into custody for transport to the hospital. An ambulance service may also be used to transport the patient. The patient may be held for up to 72 hours for care, observation and treatment and to permit a physician to determine whether involuntary admission under the standards set forth in Article 9 of the M.H.L. is warranted.²¹ If, during the 72-hours a determination is made that the patient does not meet the standard for inpatient hospitalization, then the patient must be released immediately.

When a patient subject to an AOT order meets the standard for removal from the community for examination under this subdivision, and the director of community services responsible for his or her care and treatment has ordered such removal, but the assisted outpatient has been located in another county, language added by the 2005 legislation authorizes the director of community

services in the county where the assisted outpatient has been located to direct the removal of the patient.

The legislation also provides for the exchange of clinical information pertaining to AOT patients, and that hospitals and local government officials may share confidential patient information, in certain circumstances where such sharing is necessary to facilitate AOT.²²

Subdivision 9.60(k) permits a local Director of Community Services to file petitions for additional periods of treatment under this section.²³ Such petitions must be filed within thirty days prior to the expiration of an order. The filing of such a petition automatically stays the expiration of an order for assisted outpatient treatment. Orders for additional treatment may be for periods up to one year.

Legal Developments

Since the legislation became effective, New York courts have addressed a number of issues related to the statute, and have rendered decisions regarding the constitutionality of the statute, as well as decisions construing statutory provisions concerning the criteria for AOT orders, and the evidentiary standard under the statute.

Constitutional Challenges

Kendra's Law was signed into law by Governor George Pataki on August 9, 1999, and became effective on November 9, 1999. Even before the law was implemented, there emerged a focused debate concerning the issue of whether the law achieved its goal of creating a mechanism to insure that individuals who met the statutory criteria remained treatment compliant while in the community, in a way that was consistent with the Constitutional rights of those individuals.

On one side of the debate, proponents of the law recognized the numerous procedural aspects of the law which were included specifically to meet constitutional standards, many of which were deliberately modeled after other provisions of the Mental Hygiene Law, and which themselves had survived prior judicial scrutiny and had been found to be constitutional. The supporters of the law argued that any compulsion occasioned by the law was justified by the law's important objective of helping individuals with a history of treatment non-compliance resulting in violent acts and/or repeated hospitalization to live safely in the community.

On the other side of the debate, opponents of the law primarily relied upon prior judicial decisions which found that forcible medication over objection required a finding of incapacity. The opponents of the law read into these decisions a much broader proscription of any measures which might influence an individual's decision to comply with treatment, even when those measures fall far short of forcible medication over objection.

This theoretical debate would not be resolved without judicial intervention and inevitably found its way into the courts. In In re Urcuyo,²⁴ the first court challenge to the constitutionality of Kendra's Law, the Mental Hygiene Legal Service ("MHLS") moved for dismissals on behalf of two respondents to Kendra's Law petitions in Supreme Court, Kings County. Respondents argued that Kendra's Law violated the due process and equal protection guarantees of the New York State and the United States Constitutions because the statute did not require a judicial finding of incapacity prior to the issuance of an order requiring the respondent to comply with

the AOT treatment plan. The court rejected all of respondents' arguments, and held that the statute was in each respect constitutional.

The challenge was based largely upon the Court of Appeals decision in Rivers v. Katz.²⁵ The Rivers court acknowledged that all patients have a fundamental right to determine the course of their own treatment, but also that there may be circumstances where it is necessary to administer treatment to a psychiatric inpatient over the patient's objections, pursuant to either the State's police power or *parens patriae* power. Rivers established a procedural due process standard for medication over objection, requiring a judicial finding that the patient lacks the capacity to make competent decisions concerning treatment. This is a judicial determination, not a clinical determination, and recognizes that there is a cognizable deprivation of liberty resulting from a decision to forcibly medicate a person who has been involuntarily committed.

Respondents in Urcuyo urged the court to equate the infringement of a patient's liberty interest as a consequence of an AOT order with the Rivers situation, where a psychiatric inpatient is forcibly medicated against his or her will. Respondents pointed to the compulsive nature of court orders, and reasoned that the threat of removal for observation as a result of non-compliance is so akin to the forcible medication situation in Rivers, that identical due process safeguards are constitutionally required.²⁶

The court answered by stating that AOT patients are not involuntary inpatients, and therefore are not even subject to medication over objection. There is no threat of medication over objection because there is no authorization in the statute for such measures, and that "[e]ven if a patient is eventually retained in a hospital after the seventy-two hour evaluation period [pursuant to 9.60(n)], he or she still cannot be forcibly medicated absent a judicial determination of incapacity or under emergency circumstances."²⁷

With respect to respondents' attempts to draw analogies between forcible administration of medication over objection, and the more remote possibility of clinical intervention in the event of non-compliance, the response was equally succinct:

This court rejects respondents' argument that an assisted outpatient order, while not providing for the forcible administration of medication, unreasonably violates the patients' right to refuse medication by threatening arrest upon non-compliance with the plan. . . . the court does not agree with respondents' argument that a failure to take medication results in the summary arrest of the patient. Rather, the patient's failure to comply with the treatment plan, whose formulation the patient had the opportunity to participate in, leads to the heightened scrutiny of physicians for a 72-hour evaluation period, but only after a physician has determined that the patient may be in need of involuntary admission to a hospital.²⁸

Ultimately, the 72-hour observation period was held to be "a reasonable response to a patient's failure to comply with treatment when it is balanced against the compelling State interests which are involved."²⁹ Furthermore, the removal and 72-hour observation provisions of the statute were held to be in accord with earlier judicial constructions of the dangerousness standard embodied in the M.H.L. provisions concerning involuntary commitment.

One such precedent was Project Release v. Provost,³⁰ which held that M.H.L. provisions authorizing involuntary observation periods of up to 72 hours satisfy constitutional due process

standards. Reference was also made to prior decisions permitting clinicians, and courts, to consider a patient's history of relapse or deterioration in the community, when weighing the appropriateness of an exercise of the police power or the *parens patriae* power. For example, Matter of Seltzer v. Hogue³¹ involved a civilly committed patient whose behavior improved in the hospital, but who would not comply with treatment, and whose condition would deteriorate in the community. The Hogue court considered evidence of the patient's behavior in the community, and pattern of treatment failures, and ordered his continued retention under M.H.L. section 9.33. Relying on Hogue, the Urcuyo court held that it was appropriate to consider the patient's behavior in the community, and any history of treatment failures, when making a determination regarding dangerousness in a proceeding pursuant to Kendra's Law.³²

Reviewing the specific criteria that must be shown by a petitioner, the high evidentiary standard requiring that those criteria be shown by clear and convincing evidence, and the prior judicial acceptance of other Mental Hygiene Law provisions which are analogous to the 72-hour observation provision of Kendra's Law, the court found respondents' constitutional due process rights are sufficiently protected.

Although the constitutional issues considered by the court were sufficiently significant that an appeal of the decision would appear to have been a certainty, the particular facts of the case resulted in a withdrawal of the petition prior to a final decision on the merits. Consequently the parties were deprived of standing to bring the court's decision concerning the issue of the law's constitutionality before the Appellate Division, and thus appellate review of the issue would have to wait for a more suitable case.

It did not take long for such a case to arise for in the wake of the decision in Matter of Urcuyo, the Supreme Court, Queens County, was presented with another constitutional challenge to Kendra's Law. In Matter of K.L.,³³ the MHLS moved for dismissal of a petition on behalf of respondent, arguing that the statute was unconstitutional on two grounds -- that the statute unconstitutionally deprived patients of the fundamental right to determine their own course of treatment, and that the statutory provisions concerning removal for observation following non-compliance with the AOT order are facially unconstitutional. The Attorney General of the State of New York, in his statutory capacity under N.Y. Exec. Law s. 71 intervened to support the constitutionality of the statute. In turn, an *amici* brief was submitted in support of the respondent's constitutional challenge, representing a number of advocate groups.

The first challenge brought by the respondent in Matter of K.L. echoed the constitutional challenge in Matter of Urcuyo, and asked the court to equate AOT with the type and degree of deprivation of liberty implicated in Rivers, which involved the forcible medication of a psychiatric inpatient over the patient's objection.³⁴ Respondent argued that in those cases where the treatment plan included a medication component, the court could avoid finding the statute unconstitutional by construing it to require a judicial finding that the patient lacked the capacity to make reasoned decisions concerning his medical treatment. Respondent offered that the procedural safeguards developed in Rivers could be imported into the AOT procedure, and preserve the patient's right to control his course of treatment.

Respondent's characterization of Kendra's Law orders as tantamount to medication over objection was rejected, and the Rivers facts distinguished from the AOT situation. Notably, Rivers reaffirmed the right of every individual to determine his or her own course of treatment, but also recognized that "this right is not absolute, and must perforce yield to compelling state interests when the state exercises its police power (as when it seeks to protect society), or its

parens patriae power (to provide care for its citizens who are unable to care for themselves because of mental illness).³⁵ The court then rejected the Rivers analogy:

However, there is a fundamental flaw in respondent's position in this regard. Under Kendra's Law, the patient is not required to take any drugs, or submit to any treatment against his will. To the contrary, the patient is invited to participate in the formation of the treatment plan. When released pursuant to an assisted outpatient treatment order, no drugs will be forced upon him if he fails to comply with the treatment plan.³⁶

After dismissing the Rivers analogy, the court went on to analyze whether any deprivation of a patient's liberty interests occasioned by a Kendra's Law order was the result of the constitutional exercise of the State's police or *parens patriae* powers. The court first noted that for the state to exercise the police power where an individual's liberty interest may be infringed, a compelling state interest must be identified. The court found such a compelling state interest:

Certainly, the state has a compelling interest in preventing emergencies and protecting the public health. Thus the objective of Kendra's Law, the outpatient treatment of the mentally ill who, without treatment, "may relapse or become suicidal," may be viewed as a reasonable motive for the exercise of the state's police power.³⁷

The court noted that the statute requires that a history of non-compliance leading to repeated hospitalizations, or serious violent behavior toward the individual himself or others, and that a relapse in the individual's illness would be likely to result in serious harm to the patient or others, and concluded that "[t]hese considerations are not trivial."³⁸ Ultimately, the court found that these considerations demonstrated the appropriateness of the state's exercise of its *parens patriae* powers as well.³⁹

In light of exhaustive legislative findings, and "elaborate procedural safeguards to insure the protection of the patient's rights,"⁴⁰ the court concluded:

Given that the purpose of Kendra's Law is to protect both the mentally disabled individual and the greater interests of society, the statute is narrowly tailored to meet its objective. In view of the significant and compelling state interests involved, the statute is not overly broad, or in any way unrelated to, or excessive in light of those interests.⁴¹

Respondent's second constitutional challenge was based upon the contention that, in order for the removal provision (M.H.L. section 9.60(n)) to pass constitutional muster, the patient must be afforded notice and an opportunity to be heard prior to any removal for observation. Or stated differently, "it is urged that only a court may order such confinement or detention, rather than a physician, as set forth in the statute."⁴² This argument was also rejected.

Contrary to respondent's position that the statute permits summary arrest without any due process, for an AOT order to issue in the first instance there must have been a judicial finding, based on clear and convincing evidence, that in the event of a failure to comply with treatment, the patient will likely present a danger to himself or others. In addition to this prior judicial finding, failure to comply does not automatically result in the immediate confinement of the patient. In fact, the court went to great lengths to articulate the significant procedural requirements which must be met prior to any effort to remove the patient who has failed to comply with his treatment plan:

Before a physician may order [removal] of a patient to a hospital for examination, the following must take place:

1. The physician must be satisfied that efforts were made to solicit the patient's compliance; and
2. In the clinical judgment of the physician, the patient (a) may be in need of involuntary admission to a hospital pursuant to section 9.27 of the mental hygiene law; or (b)"immediate observation, care and treatment of the patient may be necessary pursuant to Mental Hygiene Law sections 9.39 or 9.40."
3. The physician may request "the director," or certain other specific person, to direct the removal of the patient to an appropriate hospital for examination, pursuant to specific standards.
4. The patient may be retained only for a maximum of 72 hours.
5. If at any time during the 72-hour period the patient is found not to meet the involuntary admission and retention provision of the Mental Hygiene Law, he must be released.⁴³

With reference to other provisions of the Mental Hygiene Law which permit the involuntary removal of a person to a hospital, and which have all been constitutionally upheld,⁴⁴ the court noted that the removal provisions in Kendra's Law contemplate even greater procedural protections. For example, removal under Kendra's Law requires a prior judicial finding that removal may be appropriate in the event of failure to comply.

Having had his constitutional challenge to Kendra's Law denied by the supreme court in Queens County, and having had that court also grant the petition for assisted outpatient treatment as to him, the Respondent in Matter of K.L. appealed the decision to the Appellate Division, Second Department. Although the order for assisted outpatient treatment had expired by the time the appeal was heard, the Second Department found that the issues raised justified invocation of an exception to the mootness doctrine.⁴⁵ The Appellate court also rejected arguments by the Attorney General that Respondent lacked standing to challenge the removal provisions of the law, because he had failed to allege that he had actually been removed pursuant to that provision in violation of his constitutional rights.⁴⁶

In an opinion notable for its succinctness, the Second Department also rejected the argument that the additional procedural due process created by Rivers v. Katz applicable to forcible medication over objection also to preclude court-ordered assisted outpatient treatment such as is permitted by Kendra's Law. In a unanimous opinion, the court held:

In contrast to Rivers, however, Kendra's Law is based on a legislative finding [5] that there are some mentally-ill persons who are "capable of living in the community with the help of family, friends and mental health professionals, but who, without routine care and treatment, may relapse and become violent or suicidal, or require hospitalization". . . . Any compulsion that the patient feels to comply with the treatment plan is justified by the court's finding, by clear and convincing evidence, that the patient needs AOT in order to prevent a relapse or deterioration which is likely to cause serious harm to the patient or others (see Mental Hygiene Law § 9.60[c][6]). Under these circumstances, a judicial finding of incapacity is not warranted⁴⁷

The Second Department then identified three separate challenges to the removal provision of Kendra's Law. First, Respondent alleged that the removal provision failed to meet constitutional procedural due process standards, because it did not require a pre-removal judicial hearing. The court applied the test established by the U.S. Supreme Court in Mathews v. Eldridge,⁴⁸

which requires the weighing of three factors: 1.) The private interest that will be affected, 2.) The risk of an erroneous deprivation through current procedures and probable value of substitute procedures, and 3.) The government's interest, including the function involved and the burdens associated with any substitute procedures. Applying this test, the law was found to comport with constitutional due process standards:

Here, the brief detention of a noncompliant assisted outpatient for a psychiatric evaluation does not constitute a substantial deprivation of liberty, and the additional safeguard of a judicial hearing will not significantly reduce the possibility of an erroneous removal decision. Moreover, the government has a strong interest in avoiding time-consuming judicial hearings, which require mental health professionals to defend their clinical decisions and divert scarce resources from the diagnosis and treatment of the mentally ill Also, any detention beyond the initial 72 hours is governed by the statutory provisions for involuntary commitments, which contain sufficient notice and hearing provisions to meet "procedural due process minima" (*Project Release v Prevost*, 722 F.2d 960, 975).⁴⁹

Respondent next challenged the removal provision by arguing that since CPL 330.20(14) provides criminal defendants who are found not guilty by reason of mental disease or defect with the right to a hearing before being recommitted to a secure psychiatric facility, that a person subject to a Kendra's Law order is deprived of their equal protection rights because they do not have a similar right to a hearing. This position was quickly rejected, because the situation of an insanity acquittee is sufficiently distinct from that of an individual subject to civil commitment.⁵⁰

Finally, the argument that removal pursuant to the statute violates the Fourth Amendment to the United States Constitution because it does not require a finding of probable cause was also rejected. The statute requires a physician to make several determinations based upon clinical judgment, mirroring the provisions of M.H.L. 9.13, which in turn contains a "reasonable grounds" standard, and that the assisted outpatient has a documented history of non-compliance leading to violent acts or hospitalizations, concluding ;

Under these circumstances, a physician's clinical judgment based on the statutory criteria is sufficient to justify the removal and detention of a noncompliant assisted outpatient for a 72-hour psychiatric evaluation.⁵¹

Respondent was unsatisfied with the Appellate Division's rejection of his constitutional challenges, and made a final appeal to the New York State Court of Appeals. In February of 2004 in a unanimous opinion written by chief judge Judith Kaye, the highest court, like the trial court and the Appellate Division before it, rejected all of Respondent's challenges and upheld the constitutionality of the statute in all respects.⁵²

Once again, Respondent argued that the law could be saved if the court read into it the requirement that AOT was only permissible if there was a judicial determination that the subject lacked capacity to make treatment decisions. This argument has as its fundamental premise the notion that AOT is in fact a type of medication over objection, and equates the impact of AOT on the subject's liberty interest with the infringement of liberty suffered by a psychiatric inpatient who is subject to forcible medication over objection. In other words, respondent argued that AOT is prohibited by Rivers v. Katz, in the absence of the additional procedural due process mandated by that case.

The Court of Appeals rejected this argument, acknowledging that limiting AOT to those who lacked capacity "would have the effect of eviscerating the legislation," and that "a large number

of patients potentially subject to assisted outpatient treatment would be ineligible for the program if a finding of incapacity were required."⁵³ The very impetus for the law was the finding by the Legislature that many patients are capable of living safely in the community only with the benefit of the structure and supervision of AOT, and to require a finding of incapacity would in essence exclude most of the individuals the Legislature sought to assist.

The Court of Appeals quickly identified the critical flaw in Respondent's reasoning - the failure to recognize that the additional due process required by Rivers is not applicable to AOT simply because medication over objection is not authorized by Kendra's Law:

Since Mental Hygiene Law § 9.60 does not permit forced medical treatment, a showing of incapacity is not required. Rather, if the statute's existing criteria satisfy due process - - as in this case we conclude they do -- then even psychiatric patients capable of making decisions about their treatment may be constitutionally subject to its mandate.

. . . As we made clear in Rivers, the fundamental right of mentally ill persons to refuse treatment may have to yield to compelling state interests (67 NY2d at 495). The state "has authority under its police power to protect the community from the dangerous tendencies of some who are mentally ill" (Addington v Texas, 441 US 418, 426 [1979]). Accordingly, where a patient presents a danger to self or others, the state may be warranted, in the exercise of its police power interest in preventing violence and maintaining order, in mandating treatment over the patient's objection. Additionally, the state may rely on its *parens patriae* power to provide care to its citizens who are unable to care for themselves because of mental illness (see Rivers, 67 NY2d at 495).⁵⁴

Respondent also urged the court to adopt the position that even if Kendra's Law did not permit forcible medication over objection and because AOT subjects are ordered by a judge to take their medication may prompt a subjective response from the individual amounting to coercion which is so substantial as to be considered equivalent to forcible medication. This argument was likewise summarily rejected:

The restriction on a patient's freedom affected by a court order authorizing assisted outpatient treatment is minimal, inasmuch as the coercive force of the order lies solely in the compulsion generally felt by law-abiding citizens to comply with court directives. For although the Legislature has determined that the existence of such an order and its attendant supervision increases the likelihood of voluntary compliance with necessary treatment, a violation of the order, standing alone, ultimately carries no sanction. Rather, the violation, when coupled with a failure of efforts to solicit the assisted outpatient's compliance, simply triggers heightened scrutiny on the part of the physician, who must then determine whether the patient may be in need of involuntary hospitalization.⁵⁵

Considering the high evidentiary burden faced by AOT petitioners, and the detailed criteria in the statute and the considerable and important interests of the state in insuring the safety of the AOT subject as well as others in the community, the court concluded that the individual's right to refuse treatment was not unconstitutionally infringed:

In any event, the assisted outpatient's right to refuse treatment is outweighed by the state's compelling interests in both its police and *parens patriae* powers. Inasmuch as an AOT order requires a specific finding by clear and convincing evidence that the patient is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm to self or others, the state's police power justifies the minimal restriction on the right to refuse treatment inherent in an order that the patient comply as directed. Moreover, the state's interest in the

exercise of its police power is greater here than in Rivers, where the inpatient's confinement in a hospital under close supervision reduced the risk of danger he posed to the community. In addition, the state's *parens patriae* interest in providing care to its citizens who are unable to care for themselves because of mental illness is properly invoked since an AOT order requires findings that the patient is unlikely to survive safely in the community without supervision [and] . . . the patient is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm to the patient or others . . . In requiring that these findings be made by clear and convincing evidence and that the assisted outpatient treatment be the least restrictive alternative, the statute's procedure for obtaining an AOT order provides all the process that is constitutionally due.⁵⁶

The argument that an individual's constitutional equal protection rights are violated in the absence of a finding of incapacity, because persons subject to guardianship proceedings, and involuntarily committed inpatients must be accorded such a hearing prior to medication over objection, was also rejected. Reiterating that Kendra's Law simply does not authorize medication over objection, the court held that "[t]he statute thus in no way treats similarly situated persons differently."⁵⁷

Respondent also challenged the removal provision of Kendra's Law, contending that because the law does not require a pre-removal hearing that the individual's constitutional due process rights are violated. The statute permits the temporary removal of an individual subject to an AOT order, if the individual is non-compliant with treatment, efforts to solicit compliance have failed, and a physician determines that as a result the individual may be in need of inpatient care and treatment. The individual may be retained for up to 72 hours to determine whether he or she meets the standards for further retention found in any of a number of other provisions of the Mental Hygiene Law. If at any time during the 72 hours it is determined that the individual does not meet the standards for further retention, he or she must be released.

The Court of Appeals, like the Appellate Division, applied the balancing test announced in the United States Supreme Court case, Mathews v. Eldridge. The court balanced the interest affected, the risk of deprivation through the procedures in the law and the burden of alternative procedures, and the government's interests served by the law.

Applying the first factor of this test to the removal provision of Kendra's Law, the Court of Appeals voiced disagreement with the Appellate division, and found that the 72 hour retention did constitute a substantial deprivation of liberty. However, the Court of Appeals affirmed the lower court's ultimate conclusion that considering the Mathews factors together, any infringement is outweighed by the considerable procedural safeguards and the very important governmental interest at stake.⁵⁸

With respect to the second factor, the risk of an erroneous deprivation is minimized by the fact that there must be a judicial finding, by clear and convincing evidence that, among other things, "the patient is unlikely to survive safely in the community without supervision; has a history of noncompliance resulting in violence or necessitating hospitalization; and is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm." In addition, the law allows the individual's treating physician to determine the need for observation and inpatient care, which are clinical determinations, and not a judge, as Respondent urged. Considering these features of the law, the court concluded that "[a] pre-removal hearing would therefore not reduce the risk of erroneous deprivation."⁵⁹

Lastly, the governmental interest in reducing the risk of harm to the individual or others in the community was considered to be significant, and the addition of a pre-removal hearing to the already substantial procedural safeguards would have the undesired effect of frustrating that intent:

In addition, the state's interest in immediately removing from the streets noncompliant patients previously found to be, as a result of their noncompliance, at risk of a relapse or deterioration likely to result in serious harm to themselves or others is quite strong. The state has a further interest in warding off the longer periods of hospitalization that, as the Legislature has found, tend to accompany relapse or deterioration. The statute advances this goal by enabling a physician to personally examine the patient at a hospital so as to determine whether the patient, through noncompliance, has created a need for inpatient treatment that the patient cannot himself or herself comprehend. A pre-removal judicial hearing would significantly reduce the speed with which the patient can be evaluated and then receive the care and treatment which physicians have reason to believe that the patient may need. Indeed, absent removal, there is no mechanism by which to force a noncompliant patient to attend a judicial hearing in the first place.⁶⁰

The last argument raised by Respondent alleged that removal pursuant to the law as violated of the fourth amendment prohibition against unreasonable searches and seizures, because the statute does not specify that a physician must have probable cause to believe that an individual meets the criteria for removal. The court in essence concluded that the proper exercise of clinical judgment by the physician implies that such judgments will conform to the reasonableness standard:

It is readily apparent that the requirement that a determination that a patient may need care and treatment must be reached in the "clinical judgment" of a physician necessarily contemplates that the determination will be based on the physician's reasonable belief that the patient is in need of such care.⁶¹

As a result of the Court of Appeals decision, it is now well settled that Kendra's Law is in all respects a constitutional exercise of the states police power, and its *parens patriae* power. Further, the removal provisions of the law have withstood constitutional scrutiny. Because this opinion was rendered by the Court of Appeals, which is the highest court in New York, the doctrine of *stare decisis* should preclude similar facial challenges to the constitutionality of Kendra's Law in the future.

Decisions Construing the Statutory Criteria

In addition to the decisions concerning constitutional issues in Matter of K.L., and Matter of Urcuyo, there is now some guidance from the courts concerning the statutory criteria for Kendra's Law orders, M.H.L. section 9.60(c).

Soon after the statute became effective, an issue arose with respect to the proper construction of the alternative criteria concerning a respondent's prior need for hospitalization, or prior violent acts. Among other criteria, a Kendra's Law petitioner must demonstrate under M.H.L. section 9.60(c)(4):

[that] the patient has a history of lack of compliance with treatment for mental illness that has:

- (i) at least twice within the last thirty-six months been a significant factor in necessitating hospitalization in a hospital, or receipt of services in a forensic or other mental

health unit of a correctional facility or a local correctional facility, not including any period during which the person was hospitalized or incarcerated immediately preceding the filing of the petition or:

- (ii) resulted in one or more acts of serious violent behavior toward self or others or threats of, or attempts at, serious physical harm to self or others within the last forty-eight months, not including any period in which the person was hospitalized or incarcerated immediately preceding the filing of the petition . . .

The Two Hospitalization Criteria

The first prong of 9.60(c)(4) is satisfied when a petitioner demonstrates that a patient has been hospitalized twice, as a result of treatment failures, within the past thirty-six months (referred to as the “two hospitalizations” criterion). The thirty-six month look-back period excludes the duration of any current hospitalization.

In June of 2000, a Kendra’s Law petition was brought in Supreme Court, Richmond County, alleging that the respondent had been hospitalized on two occasions within the statutory look-back period -- within the time period of the current hospitalization plus thirty-six months.

In Matter of Sarkis,⁶² the respondent moved to dismiss the petition, arguing, among other grounds, that the petition was deficient because it counted the current hospitalization as one of the two hospitalizations required to satisfy 9.60(c)(4)(i). Respondent reasoned that the statutory language which excluded the duration of the current hospitalization from the look-back period must also be construed to exclude the current hospitalization from being counted as one of the two hospitalizations required.

The court relied on the specific language of the statute, and rejected respondent’s argument:

[R]espondent’s position is based on a flawed interpretation of the statutory provision, which reads [9.60(c)(4)(i)] as modifying the single word “hospitalization” appearing in the first clause of Mental Hygiene Law 9.60(c)(4), rather than the grammatically more consistent “thirty-six months” period during which the noncompliance resulting in such hospitalizations must occur.⁶³

It is the duration of the current hospitalization which is excluded from the look-back period. In any event, it is the need for hospitalization as a result of noncompliance which is at the bottom of the two hospitalization requirement. “The triggering event for purposes of Mental Hygiene Law 9.60(c)(4)(i) is not the hospital admission but rather the noncompliance with treatment necessitating the hospitalization, and is complete before the hospitalization begins.”⁶⁴

Respondent appealed the denial of his motion to dismiss, and the Appellate Division, Second Department affirmed, writing:

[W]e agree with the Supreme Court’s interpretation of Mental Hygiene Law s. 9.60(c)(4)(i) . . . The appellant interprets this provision as precluding the consideration of his hospitalization immediately preceding the filing of the petition as one of the two required hospitalizations due to noncompliance with treatment within the last 36 months. . . we reject the

appellant's interpretation . . . which would inexplicably require courts to disregard the most recent incident of hospitalization due to noncompliance with treatment in favor of incidents more remote in time.⁶⁵

The decision in Matter of Dailey,⁶⁶ is in accord with Matter of Sarkis. In Dailey, the court rejected an argument identical to that offered by respondent in Sarkis, holding that reading the statutory language, together with the legislative history, leads to the conclusion that the section seeks only to expand the number of months which a petitioner can look back to thirty-six months prior to the current hospitalization and *does not exclude* the acts of non-compliance with treatment and the current hospitalization itself from consideration for an AOT order.⁶⁷

In a decision further clarifying the two hospitalization criteria, Supreme Court, Suffolk County held that in determining whether a particular hospitalization falls within the statutory look back period, a petitioner may rely upon the latest date of the hospitalization, and not the starting date. In Matter of Anthony F., the earlier hospitalization began more than thirty-six months prior to the petition, but ended less than thirty-six months prior to the petition. The court stated that as long as the petitioner can establish a nexus between the continued hospitalization and a lack of compliance with treatment, the "thirty-six month period is to be measured from the final date of the earlier hospitalization."⁶⁸

The Violent Act Criteria

The second prong of 9.60(c)(4) is satisfied when a petitioner establishes that a patient has committed one or more acts of serious violent behavior toward self or others or threats of, or attempts at, serious physical harm to self or others within the last forty-eight months (referred to as the "violent act" criterion). However, in language which is similar to the two hospitalizations requirement discussed above, the forty-eight month look-back period excludes the duration of any current hospitalization or incarceration.

This provision of the statute was the subject of an appeal to the Second Department. In Matter of Hector A.,⁶⁹ the trial court had dismissed the petition because the violent act relied upon to satisfy the statutory criteria occurred while the patient was hospitalized. The respondent stabbed a hospital worker during his current hospitalization, and the outcome of the case hinged on whether the stabbing could be used to satisfy the violent act criterion of 9.60(c)(4). On appeal, petitioner argued that the forty-eight month exclusion applies only to the duration of the look-back period, and should not be read to exclude violent acts occurring during the current hospitalization. The respondent argued that the language excluding the duration of the current hospitalization from the forty-eight month look-back period also required the court to exclude evidence of any violent acts or threats during the current hospitalization. The Second Department reversed the trial court's dismissal, and held that the evidence related to the stabbing was admissible to satisfy the violent act requirement:

There is no merit to the patient's argument that the violent act he committed against a hospital employee must be disregarded under Mental Hygiene Law s. 9.60(c)(4)(ii). This provision simply extends the 48 month period for considering the patient's violent behavior by the duration of his hospitalization or incarceration "immediately preceding the filing of this petition." This provision in no way eliminates from consideration violent acts occurring during the hospitalization or incarceration.⁷⁰

Hector A. cited with approval the rationale articulated in Julio H.,⁷¹ where Respondent sought dismissal of an AOT petition, and argued for a construction of 9.60(c)(4)(ii) which would

exclude violent acts which occur while a person is hospitalized from being used to satisfy the requirements of that section in an AOT petition.

The respondent in Julio H. moved for dismissal of the AOT petition on two grounds: First, he argued that the exclusion of the current hospitalization from the forty-eight month look back period also excludes any violent acts during the current hospitalization. Second, he urged the Court to accept the premise that a person who is currently hospitalized is receiving treatment, is therefore deemed compliant, and thus violent acts occurring during hospitalization could never be the result of non-compliance with treatment.

Both arguments were rejected, with the result that respondent's violent act occurring during his current hospitalization could be used to satisfy the violent act criterion of M.H.L. 9.60(c)(4)(ii). Further, there is no irrebuttable presumption of compliance during hospitalization, and the issue of whether a patient has been non-compliant with treatment while in a psychiatric hospital "is a fact to be determined at the AOT hearing."⁷² This is significant, because the petitioner must establish a nexus between the patient's violent behavior and his failure to comply with treatment. By denying respondent's argument that compliance in the hospital is presumed, the court created an opportunity for petitioners to demonstrate a nexus between non-compliance, and violence, based on the patient's behavior while hospitalized.⁷³

Decisions on the Applicability of the Physician-Patient Privilege

In addition to challenges to the constitutionality of Kendra's Law, and clashes over the appropriate construction of the two hospitalizations and violent act criteria, there have been challenges involving the type of evidence which may, or must be offered in support of an AOT petition.

One significant evidentiary challenge involved the practice of having a patient's treating physician testify at the mandatory hearing on the petition. The practice prompted objections based on the physician-patient privilege, which is codified in N.Y. Civ. Prac. L. & R. (CPLR) 4504.

Supreme Court, Queens County, was faced with such a challenge in the Spring of 2000, in Matter of Nathan R.,⁷⁴ and ultimately ruled that the statutory privilege did not operate to prevent a treating physician from also fulfilling the role of examining physician in a Kendra's Law proceeding.

To meet the statutory requirements for AOT, a petition must be accompanied by an affidavit by an "examining physician," who must state that he or she has personally examined respondent no more than 10 days prior to the submission of the petition, that such physician recommends AOT, and that the physician is willing and able to testify at the hearing on the petition.⁷⁵ The examining physician is also required to testify at the hearing on the petition concerning the facts underlying the allegation that the respondent meets each of the AOT criteria, that it is the least restrictive alternative, and concerning the recommended treatment plan.⁷⁶

In Nathan R., the examining physician was also respondent's treating physician. Respondent moved to dismiss the petition, on the basis that "the physician-patient evidentiary privilege

codified in CPLR 4504 absolutely prohibits a treating psychiatrist from submitting an affidavit or giving testimony in support of [an AOT] petition.”⁷⁷ The motion to dismiss was denied:

CPLR 4504 does not prevent a treating physician from disclosing information about the patient under all circumstances. . . . The protection of the physician-patient privilege extends only to communications and not to facts. A fact is one thing and a communication concerning that fact is an entirely different thing.⁷⁸

The decision allowed that there may in fact be specific communications which are entitled to protection, but the burden is on the movant to demonstrate the existence of circumstances justifying the recognition of the privilege. Even in such cases, the privilege will only be held to attach to specific communications, and broad, conclusory claims of privilege, such as those made by respondent’s counsel in Nathan R., will not suffice.⁷⁹

Respondent also suggested that because a treating physician is among those enumerated who may bring a petition, and a petitioner cannot also act as the examining physician, a treating physician is statutorily prohibited from fulfilling the role of examining physician. This argument was also rejected:

It is unclear whether the [respondent] is also claiming that Mental Hygiene Law s.9.60 prohibits a treating psychiatrist from being the examining physician. It does not. It only prevents a treating psychiatrist from being the petitioner if the treating psychiatrist is the examining physician.⁸⁰

Supreme Court, Queens County, was faced with an identical argument, in a motion to dismiss a Kendra’s Law petition shortly after Nathan R. was decided. In Amin v. Rose F.,⁸¹ respondent urged the court to dismiss the petition as insufficient, because the respondent’s treating physician was also the examining physician, and therefore his testimony in support of the petition would be prohibited by the physician-patient privilege. In denying the motion, the court looked at, among other things, the legislative history of Kendra’s Law, and held:

[I]t is clear that the legislature intended and desired for the subject's treating physician to be intimately involved with the various aspects of assisted outpatient treatment, and thereby implicitly waived the physician-patient privilege for the purposes of assisted outpatient treatment. . . . Indeed, it would serve no useful purpose to insist on the physician-patient privilege under M.H.L. 9.60, and, in fact, would frustrate the clear intention of the legislature to keep mentally ill persons in the community and out of inpatient psychiatric hospitalization. Furthermore, once the privilege is waived, it is waived for all purposes . . . This clearly includes allowing the treating psychiatrist to examine the subject of the AOT proceeding, and to testify as to his findings at that hearing.

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Therefore, although the statute prohibits a treating physician from being both the petitioner and the examining physician with respect to a particular patient, the statute does not prohibit the treating physician from also being either the examining physician or the petitioner.

The respondent in Amin appealed the decision denying her motion to dismiss. The original petitioner did not file a responsive brief or otherwise oppose the appeal, because by the time of the appeal, the respondent was no longer in petitioner's care, and therefore petitioner did not identify itself as having any real stake in the outcome. The Attorney General was granted permission by the Appellate Division to file an *amicus* brief, and argued for an affirmance, based on the reasoning in Nathan R., and Amin. However, because the respondent in Amin entered into a voluntary agreement upon expiration of the original order, the appeal was dismissed as academic.⁸³ It is thus left to a future litigant to challenge the concurrent reasoning of Nathan R. and Amin.

Other Decisions

In Matter of Jason L.,⁸⁴ a case before the Supreme Court, Monroe County, a dispute evolved concerning whether a respondent has the right to a hearing before an order can issue for his removal to a hospital for the purposes of the examination. Even after the court formally requested that respondent submit to such an examination, he refused. Instead, respondent objected to the request, demanding that he be provided with a hearing prior to any court-ordered examination, and that to do otherwise would violate his constitutional due process rights. Relying on M.H.L. 9.60(h)(3), which governs situations where a patient refuses to permit an examination by a physician, the court ordered the removal for examination:

The court rejects respondent's contention that the statute implies the requirement of such a hearing, although in some cases it may be appropriate to do so. [The petition] sufficiently sets out grounds establishing reasonable cause to belief that the petition is true. The respondent was given ample opportunity to be heard at oral argument with respect to the petition and, indeed, plans to submit written opposition to the petition itself. However, this court feels that the statute authorizes the court to make a finding on the papers submitted when appropriate and empowers the court to authorize the police to take respondent into custody for purposes of the physician examination.⁸⁵

Jason L. provides guidance on the issue of the procedure for pre-hearing examinations, but leaves open the possibility that judges may find it appropriate in certain circumstances to conduct a hearing prior to ordering the removal of a patient for examination. The governing

standard remains whether the affidavits and other clinical evidence offered by the petitioner establish reasonable grounds to believe that the petition is true. This is a standard which is decidedly lower than that applicable to a decision on the merits of the petition, and the court in Jason L. was prudent in not allowing the hearing on the examination issue to expand into a hearing on the petition itself.

Questions regarding the evidentiary standard applicable to AOT hearings have also found their way into the courts. For example, in Matter of Jesus A.,⁸⁶ respondent moved to dismiss the petition, arguing that petitioner failed to offer facts sufficient to establish that an AOT order was appropriate. The court was critical of the affidavit of the examining physician, which merely paraphrased the criteria, concluding:

Clearly, these allegations, which are nothing more than conclusions, not facts, are insufficient. It thus is the holding of this court that, as in all other cases, allegations which are nothing more than broad, simple conclusory statements are insufficient to state a claim under section 9.60 of the Mental Hygiene Law.⁸⁷

The petitioner submitted a supplemental affidavit in an attempt to cure the deficiencies found in the original. This effort also failed, because it was not based upon “personal knowledge or upon information and belief in which event the source of the information and the grounds for the belief must be provided.”⁸⁸

If it was not clear prior to Jesus A., the fog has now lifted -- the petition must contain specific evidence, whether in the form of documents, affidavits or testimony, that all of the criteria are met. This burden must be carried by reference to facts, and the mere paraphrasing of the statutory language will not suffice.

There has been some controversy surrounding the question of whether the right to counsel provision of Kendra’s Law⁸⁹ applies to the pre-hearing examination, which inevitably takes place prior to the filing of the petition and the official commencement of the proceeding. In Matter of Nancy H., Supreme Court, Dutchess County held that the right to counsel attaches only after the proceeding is commenced. Because the examination took place prior to the filing of the petition, which commenced the proceeding, the patient did not have the right to have her attorney present during the examination.⁹⁰ A different conclusion was reached by Supreme Court, Otsego County in Matter of Noah C.⁹¹ In Noah C., the petitioner failed to provide notice to the respondent’s counsel prior to an examination in anticipation of a renewal petition. The court held that the proceeding had been commenced by the filing of the original petition, and that therefore the right to counsel had long since attached. In dicta, the court suggested that it shouldn’t matter whether the petition is for an original order or for a renewal, and that in either instance the patient’s counsel should receive notice prior to any pre-hearing examination.

This controversy culminated in a case decided by Supreme Court, Sullivan County, captioned Matter of David A.⁹² The court reasoned that since the purpose of the examination was to allow the examining physician to develop the affirmation which would be submitted as part of the petition, and to testify at the hearing itself, the right to counsel attached. Relying on earlier decisions, the court made clear that the attorney is entitled to notice, and may observe the examination, but must not interrupt or interfere with the examination. This allows the attorney to identify any issues pertaining to the examination, which may be raised later at the hearing.

There has also been controversy surrounding petitions for rehearing and review pursuant to M.H.L. 9.60(m). Specifically, there have been disputes concerning whether the service provisions of M.H.L. 9.60(f) apply to such petitions. The most common example is the situation

where a petition was brought by a private hospital, the petition was granted, and the individual was discharged into the community with the AOT order. Subsequent to discharge, a petition for a rehearing and review is filed, but only the original petitioner – the private hospital - is served. This is a problem because the hospital in nearly every case has had no contact with the patient following discharge, because the AOT treatment plan is implemented by the local Director of Community Services, and monitored by the Office of Mental Health program coordinator. In other words, the hospital is put in the position of having to defend the appropriateness of the AOT order when it is no longer involved with the individual's treatment, and often has no connection to the patient in the community. At the same time, the local Director, who has responsibility for the delivery of care pursuant to the AOT order, is left out of the proceeding.

By failing to serve the local Director and the OMH program coordinator, the petitioner for rehearing and review deprives those officials of a meaningful opportunity to fulfill their statutory duties, and deprives the court considering the petition for rehearing and review of the most current and crucial clinical information about the individual. Recognizing the need to avoid these unwanted outcomes, Supreme Court, Suffolk County in Matter of Weinstock,⁹³ held that a petitioner for rehearing and review must satisfy the service requirements of M.H.L. s. 9.60(f), and that both the local Director of Community Services, and the OMH program coordinator must be afforded a reasonable opportunity to participate in the proceeding.

A very recent case which considered the question of whether categories of service which are not technically clinical services may be included in the treatment plan was Matter of William C., which was decided by the Appellate Division, Second Department in May of 2009.⁹⁴ The case originated in Supreme Court, Suffolk County, and involved a challenge to the inclusion of the appointment of a representative payee, which is a form of financial management, in the AOT treatment plan.⁹⁵ Acknowledging that the statute does not specifically authorize the appointment of a representative payee, the court concluded that “[i]t cannot be seriously disputed that money management is a service which would assist a mentally ill person in “living and functioning” as a productive member of the community.”⁹⁶ While only explicitly authorizing the inclusion of financial management in the treatment plan, this case suggests the possibility that other traditionally non-clinical services may be included in an AOT treatment plan, at least to the extent that such services are essential to the ultimate goal of the treatment plan – for the patient to remain safely in the community.

One last issue worthy of discussion is the amount of discretion a court may exercise in fashioning relief when deciding a Kendra's Law petition. In In re Application of Manhattan Psychiatric Center,⁹⁷ the Appellate Division, Second Department, held it is within the authority of a trial court to grant or deny a Kendra's Law petition, but is beyond its authority to order retention pursuant to other sections of the M.H.L., or order treatment other than what is included in the treatment plan.

The case involved an AOT petition for a patient who, as well as having a history of mental illness and treatment failures, had a criminal history resulting from violent behavior. After the required hearing, and upon consent of the parties, the petition was granted. However, the court held the order in abeyance, pending an independent psychiatric evaluation of respondent. Although an AOT order ultimately was issued for the patient, the trial court at one point denied the petition, based on its own determination that the patient met the criteria for continued inpatient retention (the “dangerousness standard”), and should not be returned to the community, with or without AOT.

Respondent appealed, and the Second Department decided a number of issues raised by the lower court concerning the scope of that court's authority under the statute.⁹⁸ The first issue was whether the court may make its own determination of whether the patient meets the dangerousness standard, and was therefore beyond the reach of AOT. The Second Department responded in the negative, and held that the authority of the trial court was limited to deciding whether the statutory criteria had been met, and then either granting or denying the petition. The decision whether to release the patient is a clinical determination left, in this case, to the director of the hospital. Kendra's Law does not provide an avenue for the subordination of that clinical judgment to a judicial determination that the patient should remain hospitalized.⁹⁹

The second issue was whether M.H.L. section 9.60(e)(2)(ii), which permits the court to consider evidence beyond what is contained in the petition, also implicitly provides the authority for the court to make a judicial determination with respect to the dangerousness standard. The Second Department answered again in the negative, and held that section 9.60(e)(2)(ii) only permits the consideration of additional facts in deciding whether the statutory criteria have been met, "[i]t is not an invitation to the court to consider the issue of dangerousness in respect of a decision to release the patient."¹⁰⁰

An issue was also raised concerning whether a court has discretion to deny a petition, where the statutory criteria have been met. Noting that a court must deny the petition if the criteria have not been met, The Second Department concluded:

Thus, the court's discretion runs only to the least restrictive outcome. In other words, a court may decide not to order AOT for a person who meets the criteria, but it may not decide to order AOT for a patient who does not meet the criteria. . . . In any event, no measure of discretion would be sufficient to permit a court to bar the release of a hospitalized patient (or, by extrapolation, to order the involuntary admission of an unhospitalized patient) as an alternative to ordering AOT, because Kendra's Law does not place that decision before the court.¹⁰¹

Accordingly, it is now the case that clinical decisions, such as determinations of dangerousness, are not before the court during Kendra's Law proceedings. Judicial discretion is limited to deciding whether a petitioner has carried its burden of demonstrating that the statutory criteria are met by clear and convincing evidence, and then either granting or denying the petition.¹⁰²

Conclusion

While there are still many issues that may want for the clarity provided by judicial review, a number of threshold issues have been resolved since Kendra's Law became effective. Most importantly, the statute survived constitutional challenges based upon the right to control one's treatment. Court-ordered AOT has been distinguished from forcible medication over objection, and any fears that such forced treatment would proliferate under Kendra's Law should be allayed by judicial recognition of the fact that forced medication over objection is never appropriate in an AOT treatment plan, and in any event cannot occur absent sufficient due process pursuant to Rivers v Katz.

It is currently the law that in meeting the two hospitalizations criterion, although the duration of the current hospitalization is excluded from the respective look-back period, the current hospitalization itself can be used to meet the criterion. When deciding whether a prior hospitalization falls within the statutory look-back period, a petitioner may rely upon the latest date of the hospitalization, rather than the date of admission. Similarly, in meeting the violent

act criterion, although the duration of the current hospitalization is excluded from the respective look-back period, the violent acts occurring during the current hospitalization can be used to meet the criterion.

The petitioner must marshal facts and evidence, such as testimony from those with actual knowledge, in support of the petition. Mere recitations of the criteria, in affidavit form, will not suffice. In addition, while a patient's treating physician cannot be both the petitioner and the examining physician in an AOT proceeding, the treating physician can be one or the other. If a patient refuses to submit to an examination, the court can order the removal of the patient to a hospital for the purposes of the examination. In such a circumstance, the petitioner must meet specific criteria justifying the removal, but the patient does not have an absolute right to a pre-removal hearing.

Finally, Kendra's Law does not authorize courts to make independent determinations concerning the issue of whether a patient meets involuntary inpatient criteria, during a Kendra's Law proceeding. Statutory authority extends only to the judicial determination of whether the petitioner has met its burden of proving by clear and convincing evidence that the statutory criteria have been met, and then the court may either grant or deny the petition.

Endnotes

¹ Prior to the enactment of Kendra's Law, and prior to the tragic event involving Ms. Webdale, a pilot program for assisted outpatient treatment which was operated out of Bellevue Hospital in New York City. The pilot program was enacted in 1994 and codified as Mental Hygiene Law section 9.61. The pilot program expired in 1998. Although the pilot and the current law differ in many details, the basic framework for the current statute was based upon the pilot.

² Chapters 137 and 158 of the Laws of 2005.

³ 1999 N.Y. Laws 408.

⁴ Office of Mental Health Statewide AOT Report as of June 9, 2009.

⁵ Much of the information concerning the petition process in this article can be found at the New York State Office of Mental Health official web page, www.omh.state.ny.us, which contains a great deal of useful information about Kendra's Law.

⁶ M.H.L. section 9.60(i)(1).

⁷ M.H.L. section 9.60(h).

⁸ M.H.L. section 9.60(j)(2).

⁹ M.H.L. section 9.60(k).

¹⁰ M.H.L. section 9.60(n).

¹¹ The 2005 legislation modified subdivision (b) of section 9.47 of the Mental Hygiene Law to require counties to conduct timely investigations of reports of persons who may be in need of assisted outpatient treatment; establish procedures to provide timely notice of the completion of such investigations to reporting persons and OMH program coordinators; and document such investigations. Further, directors of community services are responsible for documenting petition filing dates and dates of court orders, and coordinating and documenting the timely delivery of services.

¹² M.H.L. section 9.60(e) (1).

¹³ M.H.L. section 9.60(e) (3) (i). Subdivision 9.60(e)(4) was amended as part of the 2005 legislation to authorize the Office of Mental Health to make available to counties with a population of less than seventy-five thousand, a qualified physician for the purposes of making affirmations and affidavits as required under subdivision (e)(3) of this section. The amendment does not require OMH to provide examining physicians for every petition developed by a qualifying county, but simply authorizes the OMH to make such clinical resources available when appropriate and necessary.

¹⁴. M.H.L. section 9.60(h)(3). There has been some debate concerning the issue of whether the hearing, is a right which waivable by the patient. Although some courts may grant petitions where all parties agree to waive the hearing, the language of 9.60(h)(2), and 9.60(i)(3), which expressly prohibit the court from granting an AOT order absent the examining physician's testimony at the hearing, suggests that the hearing itself is non-waivable. Other provisions, such as 9.31 and 9.35 which create the right to a hearing in the inpatient retention context provide a procedure for the patient to request a hearing, and in the absence of such a request the hearing is deemed waived.

¹⁵. M.H.L. section 9.60(c).

¹⁶. M.H.L. section 9.60(j)(2).

¹⁷. M.H.L. section 9.60(f).

¹⁸. M.H.L. section 9.60(h).

¹⁹. M.H.L. section 9.60 (j)(2).

²⁰. M.H.L. section 9.60(m).

²¹. M.H.L. section 9.60(n).

²². In December of 2000, the federal Department of Health and Human Services promulgated regulations pursuant to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) establishing standards for the privacy of individually identifiable health information (45 C.F.R. Parts 160 and 164). The general rule established in these regulations is that individually identifiable health information cannot be used or disclosed by covered entities (e.g. providers who engage in electronic transactions) without patient consent or authorization. However, several of the listed exceptions to this requirement would permit covered entities to continue to exchange clinical information without patient consent or authorization as required by Kendra's Law and Kendra's Law court orders.

²³ The 2005 legislation also provides standing to certain original petitioners (family members and persons who live with patients) to file petitions for additional periods of treatment, provided that the original petitioner retains his or her original status pursuant to subparagraphs (e)(1)(i) or (e)(1)(ii).

²⁴. In re Urcuyo, 714 N.Y.S.2d 862 (Sup. Ct. Kings County, 2000).

²⁵. Rivers v. Katz, 67 N.Y.2d 485 (1986).

²⁶. In re Urcuyo, 714 N.Y.S.2d at 841-42.

²⁷. Id., at 872, n., 3 (citations omitted).

²⁸. Id., at 869-70.

²⁹. Id., at 870.

³⁰. Project Release v. Provost, 772 F.2d 960 (2d Cir., 1983)

³¹. Matter of Seltzer v. Hogue, 187 A.D.2d 230 (Second Dept. 1993)

³². See also, In re Francis S., 206 A.D.2d 4 (First Dept. 1995), aff'd 87 N.Y.2d 554 (1995). Francis S., like the patient in Hogue, was not dangerous in the structured environment of a hospital, but in the community failed to comply with treatment and decompensated to the point of dangerousness.

³³. In the Matter of the Application of Glenn Martin, For an Order Pursuant to Section 9.60 of the Mental Hygiene Law (Kendra's Law) Authorizing Assisted Outpatient Treatment for K.L., 500748/00 (Sp. Ct., Queens County, 2000), (Order Granting Kendra's Law Petition).

³⁴. Id., at 7.

³⁵. Id.

³⁶. Id.

³⁷. Id., at 8.

³⁸. Id., at 9.

³⁹. Id., at 10.

⁴⁰. Id., at 8.

⁴¹. Id., at 9.

⁴². Id., at 10

⁴³. Id., at 11.

⁴⁴. For example, M.H.L. section 9.37, which provides for removal for a 72-hour observation period upon certification by a Director of Community Services was upheld in Woe by Woe v. Cuomo, 729 F.2d 96 (2nd Cir. 1984), cert. den. 469 U.S. 936. The court also cited Thomas v. Culberg, 741 F.Supp. 77 (S.D.N.Y. 1990), upholding section 9.41 of the M.H.L., which permits police officers to take into custody a person who appears to be mentally ill. The court in Matter of K.L. noted that these warrantless detention

provisions were upheld, even though, unlike detentions pursuant to Kendra's Law, they do not follow from earlier judicial findings.

⁴⁵ Matter of K.L., 302 A.D.2d 388, 389 (Second Dept., 2003)

⁴⁶ Id.

⁴⁷ Id., at 390 (citations omitted).

⁴⁸ 424 U.S. 319.

⁴⁹ Matter of K.L., 302 A.D.2d 388, 391.

⁵⁰ Id.

⁵¹ Id., at 391-392

⁵² Matter of K.L., 1 N.Y.3d 362 (2004).

⁵³ Id., at 369.

⁵⁴ Id., at 370.

⁵⁵ Id.

⁵⁶ Id., at 371-372.

⁵⁷ Id., at 372.

⁵⁸ Id.

⁵⁹ Id.

⁶⁰ Id., at 373-374

⁶¹ Id., At 374

⁶² Matter of Sarkis, (NYLJ, Aug. 18, 2000, at 29, col 6).

⁶³ Id.

⁶⁴ Id.

⁶⁵ In the Matter of South Beach Psychiatric Center, etc., respondent; Andre R., 727 N.Y.S.2d 149, 150 (Second Dept. 2001), (citations omitted).

⁶⁶ Matter of Dailey, 713 N.Y.S.2d 660, (Sup. Ct. Queens County, 2000).

⁶⁷ Matter of Dailey, 713 N.Y.S.2d at 663 (emphasis in original).

⁶⁸ In the Matter of Pilgrim Psychiatric Center v. Anthony F., 18601/01 (S.Ct. Suffolk Cty, 2002), (Order Denying Motion to Dismiss Kendra's Law Petition).

⁶⁹ In the Matter of Weinstock, appellant: Hector A. (Anonymous), respondent, 733 N.Y.S.2d 243 (Second Department, 2001).

⁷⁰ Id., at 245.

⁷¹ In the Matter of Weinstock, for an order Authorizing Outpatient treatment for Julio H., 723 N.Y.S.2d 617 (Sup. Ct. Kings County, 2001).

⁷² Id., at 619.

⁷³ See, In the Matter of Weinstock, for an Order Authorizing Assisted Outpatient Treatment for Shali K., 742 N.Y.S.2d 447 (Sup.Ct., Kings County 2002), where the court accepted the argument that a violent act in the hospital may count under the statute, but denied the petition because petitioner failed to establish a nexus between the violent act and respondent's treatment failures.

⁷⁴ In the Matter of Sullivan, for an Order Authorizing Outpatient Treatment for Nathan R., 710 N.Y.S.2d 804 (Sup Ct. Queens County, 2000).

⁷⁵ M.H.L. section 9.60(e)(3)(i).

⁷⁶ M.H.L. section 9.60(h)(4).

⁷⁷ Matter of Nathan R., 710 N.Y.S.2d at 805 (quoting respondent's counsel).

⁷⁸ Id., at 805.

⁷⁹ Id., at 806.

⁸⁰ Id.

⁸¹ Amin v. Rose F., (NYLJ, December 7, 2000, at 31, col 1).

⁸² Id.

⁸³ In the Matter of Rose F. v. Amin, 739 N.Y.S.2d 834 (Second Dept. 2002).

⁸⁴ Matter of Director of Community Services, for an Order Authorizing Assisted Outpatient Treatment for Jason L., 715 N.Y.S.2d 833 (Sup. Ct. Monroe County, 2000).

⁸⁵ Id., at 189.

⁸⁶ In the Matter of Sullivan, for an Order Authorizing Outpatient Treatment for Jesus A., 710 N.Y.S.2d 853 (Sup. Ct. Queens County, 2000).

⁸⁷ Id., at 857 (citations omitted).

⁸⁸. Id. (Citations omitted).

⁸⁹. M.H.L. section 9.60(g).

⁹⁰. Matter of Nancy H., No. 125/2000 - MI (Dutchess Cty, 2000), (Order Denying Motion to Dismiss for Lack of Subject Matter Jurisdiction).

⁹¹. Matter of Noah C., No. 8598 (Otsego Cty, 2003), (Order Granting Motion to Dismiss for Failure to Notice Patient's Counsel Prior to Examination).

⁹². No. 981-05 (Sup. Ct. Sullivan County, June 2, 2005).

⁹³. No. 21474/04 (Sup. Ct. Suffolk County, March 16, 2005).

⁹⁴. 2009 Slip. Op. 04232, Appellate Division, Second Department.

⁹⁵. "Representative Payee Status" refers to the mechanism whereby a representative is appointed to receive certain funds on behalf of the patient, and use those funds to pay specific financial obligations for the patient, such as rent.

⁹⁶. Id., at 7.

⁹⁷. In re Application of Manhattan Psychiatric Center, 728 N.Y.S.2d 37 (Second Dept., 2001).

⁹⁸. Because the court did eventually sign an AOT order for the patient, the matter would appear to be beyond appellate review, based on the mootness doctrine. The Second Department accepted the case as an exception to the mootness doctrine, because it is unlikely to be repeated, it involves a phenomenon which typically evades review, and it implicates substantial and novel issues. Id., at 39.

⁹⁹. Id., at 42.

¹⁰⁰. Id., at 43.

¹⁰¹. Id., at 43, 44 (citations omitted).

¹⁰². See also In the Matter of Endress, for an order Authorizing Outpatient Treatment for Barry H., 732 N.Y.S.2d 549 (Sup. Ct. Onieda County, 2001). The court in Endress believed that the patient should not be released into the community at all, but citing Matter of Manhattan Psychiatric Center, reluctantly granted the AOT petition, as the most appropriate outcome, given its limited alternatives.

Kendra's Law Statute

Text of Mental Hygiene Law * § 9.60 Assisted outpatient treatment.

(a) Definitions. For purposes of this section, the following definitions shall apply:

(1) "assisted outpatient treatment" shall mean categories of outpatient services which have been ordered by the court pursuant to this section. Such treatment shall include case management services or assertive community treatment team services to provide care coordination, and may also include any of the following categories of services: medication; periodic blood tests or urinalysis to determine compliance with prescribed medications; individual or group therapy; day or partial day programming activities; educational and vocational training or activities; alcohol or substance abuse treatment and counseling and periodic tests for the presence of alcohol or illegal drugs for persons with a history of alcohol or substance abuse; supervision of living arrangements; and any other services within a local or unified services plan developed pursuant to article forty-one of this chapter, prescribed to treat the person's mental illness and to assist the person in living and functioning in the community, or to attempt to prevent a relapse or deterioration that may reasonably be predicted to result in suicide or the need for hospitalization.

(2) "director" shall mean the director of community services of a local governmental unit, or the director of a hospital licensed or operated by the office of mental health which operates, directs and supervises an assisted outpatient treatment program.

(3) "director of community services" and "local governmental unit" shall have the same meanings as provided in article forty-one of this chapter.

(4) "assisted outpatient treatment program" shall mean a system to arrange for and coordinate the provision of assisted outpatient treatment, to monitor treatment compliance by assisted outpatients, to evaluate the condition or needs of assisted outpatients, to take appropriate steps to address the needs of such individuals, and to ensure compliance with court orders.

(5) "assisted outpatient" shall mean the person under a court order to receive assisted outpatient treatment.

(6) "subject of the petition" or "subject" shall mean the person who is alleged in a petition, filed pursuant to the provisions of this section, to meet the criteria for assisted outpatient treatment.

(7) "correctional facility" and "local correctional facility" shall have the same meanings as provided in section two of the correction law.

(8) "health care proxy" and "health care agent" shall have the same meanings as provided in article twenty-nine-C of the public health law.

(9) "program coordinator" shall mean an individual appointed by the commissioner of mental health, pursuant to subdivision (f) of section 7.17 of this chapter, who is responsible for the oversight and monitoring of assisted outpatient treatment programs.

(b) Programs. The director of community services of each local governmental unit shall operate, direct and supervise an assisted outpatient treatment program. The director of a hospital licensed or operated by the office of mental health may operate, direct and supervise an assisted outpatient treatment program, upon approval by the commissioner. Directors of community services shall be permitted to satisfy the provisions of this subdivision through the operation of joint assisted outpatient treatment programs. Nothing in this subdivision shall be interpreted to preclude the combination or coordination of efforts between and among local governmental units and hospitals in providing and coordinating assisted outpatient treatment.

(c) Criteria. A person may be ordered to receive assisted outpatient treatment if the court finds that such person:

(1) is eighteen years of age or older; and

(2) is suffering from a mental illness; and

(3) is unlikely to survive safely in the community without supervision, based on a clinical determination; and

(4) has a history of lack of compliance with treatment for mental illness that has:

(i) prior to the filing of the petition, at least twice within the last thirty-six months been a significant factor in necessitating hospitalization in a hospital, or receipt of services in a forensic or other mental health unit of a correctional

facility or a local correctional facility, not including any current period, or period ending within the last six months, during which the person was or is hospitalized or incarcerated; or

(ii) prior to the filing of the petition, resulted in one or more acts of serious violent behavior toward self or others or threats of, or attempts at, serious physical harm to self or others within the last forty-eight months, not including any current period, or period ending within the last six months, in which the person was or is hospitalized or incarcerated; and

(5) is, as a result of his or her mental illness, unlikely to voluntarily participate in outpatient treatment that would enable him or her to live safely in the community; and

(6) in view of his or her treatment history and current behavior, is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm to the person or others as defined in section 9.01 of this article; and

(7) is likely to benefit from assisted outpatient treatment.

(d) Health care proxy. Nothing in this section shall preclude a person with a health care proxy from being subject to a petition pursuant to this chapter and consistent with article twenty-nine-C of the public health law.

(e) Petition to the court. (1) A petition for an order authorizing assisted outpatient treatment may be filed in the supreme or county court in the county in which the subject of the petition is present or reasonably believed to be present. Such petition may be initiated only by the following persons:

(i) any person eighteen years of age or older with whom the subject of the petition resides; or

(ii) the parent, spouse, sibling eighteen years of age or older, or child eighteen years of age or older of the subject of the petition; or

(iii) the director of a hospital in which the subject of the petition is hospitalized; or

(iv) the director of any public or charitable organization, agency or home providing mental health services to the subject of the petition or in whose institution the subject of the petition resides; or

(v) a qualified psychiatrist who is either supervising the treatment of or treating the subject of the petition for a mental illness; or

(vi) a psychologist, licensed pursuant to article one hundred fifty-three of the education law, or a social worker, licensed pursuant to article one hundred fifty-four of the education law, who is treating the subject of the petition for a mental illness; or

(vii) the director of community services, or his or her designee, or the social services official, as defined in the social services law, of the city or county in which the subject of the petition is present or reasonably believed to be present; or

(viii) a parole officer or probation officer assigned to supervise the subject of the petition.

(2) The petition shall state: (i) each of the criteria for assisted outpatient treatment as set forth in subdivision (c) of this section;

(ii) facts which support the petitioner's belief that the subject of the petition meets each criterion, provided that the hearing on the petition need not be limited to the stated facts; and

(iii) that the subject of the petition is present, or is reasonably believed to be present, within the county where such petition is filed.

(3) The petition shall be accompanied by an affirmation or affidavit of a physician, who shall not be the petitioner, stating either that:

(i) such physician has personally examined the subject of the petition no more than ten days prior to the submission of the petition, recommends assisted outpatient treatment for the subject of the petition, and is willing and able to testify at the hearing on the petition; or

(ii) no more than ten days prior to the filing of the petition, such physician or his or her designee has made appropriate attempts but has not been successful in eliciting the cooperation of the subject of the petition to submit to an examination, such physician has reason to suspect that the subject of the petition meets the criteria for assisted outpatient treatment, and such physician is willing and able to examine the subject of the petition and testify at the hearing on the petition.

(4) In counties with a population of less than seventy-five thousand, the affirmation or affidavit required by paragraph three of this subdivision may be made

by a physician who is an employee of the office. The office is authorized to make available, at no cost to the county, a qualified physician for the purpose of making such affirmation or affidavit consistent with the provisions of such paragraph.

(f) Service. The petitioner shall cause written notice of the petition to be given to the subject of the petition and a copy thereof to be given personally or by mail to the persons listed in section 9.29 of this article, the mental hygiene legal service, the health care agent if any such agent is known to the petitioner, the appropriate program coordinator, and the appropriate director of community services, if such director is not the petitioner.

(g) Right to counsel. The subject of the petition shall have the right to be represented by the mental hygiene legal service, or privately financed counsel, at all stages of a proceeding commenced under this section.

(h) Hearing. (1) Upon receipt of the petition, the court shall fix the date for a hearing. Such date shall be no later than three days from the date such petition is received by the court, excluding Saturdays, Sundays and holidays. Adjournments shall be permitted only for good cause shown. In granting adjournments, the court shall consider the need for further examination by a physician or the potential need to provide assisted outpatient treatment expeditiously. The court shall cause the subject of the petition, any other person receiving notice pursuant to subdivision (f) of this section, the petitioner, the physician whose affirmation or affidavit accompanied the petition, and such other persons as the court may determine to be advised of such date. Upon such date, or upon such other date to which the proceeding may be adjourned, the court shall hear testimony and, if it be deemed advisable and the subject of the petition is available, examine the subject of the petition in or out of court. If the subject of the petition does not appear at the hearing, and appropriate attempts to elicit the attendance of the subject have failed, the court may conduct the hearing in the subject's absence. In such case, the court shall set forth the factual basis for conducting the hearing without the presence of the subject of the petition.

(2) The court shall not order assisted outpatient treatment unless an examining physician, who recommends assisted outpatient treatment and has personally examined the subject of the petition no more than ten days before the filing of the petition, testifies in person at the hearing. Such physician shall state the facts and clinical determinations which support the allegation that the subject of the petition meets each of the criteria for assisted outpatient treatment.

(3) If the subject of the petition has refused to be examined by a physician, the court may request the subject to consent to an examination by a physician appointed by the court. If the subject of the petition does not consent and the court finds reasonable cause to believe that the allegations in the petition are true, the court may order peace officers, acting pursuant to their special duties, or police officers who are members of an authorized police department or force, or of a sheriff's department to take the subject of the petition into custody and transport him or her to a hospital for examination by a physician. Retention of the subject of the petition under such order shall not exceed twenty-four hours. The examination of the subject of the petition may be performed by the physician whose affirmation or affidavit accompanied the petition pursuant to paragraph three of subdivision (e) of this section, if such physician is privileged by such hospital or otherwise authorized by such hospital to do so. If such examination is performed by another physician, the examining physician may consult with the physician whose affirmation or affidavit accompanied the petition as to whether the subject meets the criteria for assisted outpatient treatment.

(4) A physician who testifies pursuant to paragraph two of this subdivision shall state: (i) the facts which support the allegation that the subject meets each of the criteria for assisted outpatient treatment, (ii) that the treatment is the least restrictive alternative, (iii) the recommended assisted outpatient treatment, and (iv) the rationale for the recommended assisted outpatient treatment. If the recommended assisted outpatient treatment includes medication, such physician's testimony shall describe the types or classes of medication which should be authorized, shall describe the beneficial and detrimental physical and mental effects of such medication, and shall recommend whether such medication should be self-administered or administered by authorized personnel.

(5) The subject of the petition shall be afforded an opportunity to present evidence, to call witnesses on his or her behalf, and to cross-examine adverse witnesses.

(i) Written treatment plan. (1) The court shall not order assisted outpatient treatment unless a physician appointed by the appropriate director, in consultation with such director, develops and provides to the court a proposed written treatment plan. The written treatment plan shall include case management services or assertive community treatment team services to provide care coordination. The written treatment plan also shall include all categories of services, as set forth in paragraph one of subdivision (a) of this section, which such physician recommends that the subject of the petition receive. All service providers shall be notified regarding their inclusion in the written treatment plan. If the written treatment plan includes medication, it shall state whether such medication should be self-administered or administered by authorized personnel, and shall specify type and dosage range of medication most likely to provide maximum benefit for the subject. If the written treatment plan includes alcohol or substance abuse counseling and treatment, such plan may include a provision requiring relevant testing for either alcohol or illegal substances provided the physician's clinical basis for recommending such plan provides sufficient facts for the court to find (i) that such person has a history of alcohol or substance abuse that is clinically related to the mental illness; and (ii) that such testing is necessary to prevent a relapse or deterioration which would be likely to result in serious harm to the person or others. If a director is the petitioner, the written treatment plan shall be provided to the court no later than the date of the hearing on the petition. If a person other than a director is the petitioner, such plan shall be provided to the court no later than the date set by the court pursuant to paragraph three of subdivision (j) of this section.

(2) The physician appointed to develop the written treatment plan shall provide the following persons with an opportunity to actively participate in the development of such plan: the subject of the petition; the treating physician, if any; and upon the request of the subject of the petition, an individual significant to the subject including any relative, close friend or individual otherwise concerned with the welfare of the subject. If the subject of the petition has executed a health care proxy, the appointed physician shall consider any directions included in such proxy in developing the written treatment plan.

(3) The court shall not order assisted outpatient treatment unless a physician appearing on behalf of a director testifies to explain the written proposed treatment plan. Such physician shall state the categories of assisted outpatient treatment recommended, the rationale for each such category, facts which establish that such treatment is the least restrictive alternative, and, if the recommended assisted outpatient treatment plan includes medication, such physician shall state the types or classes of medication recommended, the beneficial and detrimental physical and mental effects of such medication, and whether such medication should be self-administered or administered by an authorized professional. If the subject of the petition has executed a health care proxy, such physician shall state the consideration given to any directions included in such proxy in developing the written treatment plan. If a director is the petitioner, testimony pursuant to this paragraph shall be given at the hearing on the petition. If a person other than a director is the petitioner, such testimony shall be given on the date set by the court pursuant to paragraph three of subdivision (j) of this section.

(j) Disposition. (1) If after hearing all relevant evidence, the court does not find by clear and convincing evidence that the subject of the petition meets the criteria for assisted outpatient treatment, the court shall dismiss the petition.

(2) If after hearing all relevant evidence, the court finds by clear and convincing evidence that the subject of the petition meets the criteria for assisted outpatient treatment, and there is no appropriate and feasible less restrictive alternative, the court may order the subject to receive assisted outpatient treatment for an initial period not to exceed six months. In fashioning the order, the court shall specifically make findings by clear and convincing evidence that the proposed treatment is the least restrictive treatment appropriate and feasible for the subject. The order shall state an assisted outpatient treatment plan, which shall include all categories of assisted outpatient treatment, as set forth in paragraph one of subdivision (a) of this section, which the assisted outpatient is to receive, but shall not include any such category that has not been recommended in both the proposed written treatment plan and the testimony provided to the court pursuant to subdivision (i) of this section.

(3) If after hearing all relevant evidence presented by a petitioner who is not a director, the court finds by clear and convincing evidence that the subject of the

petition meets the criteria for assisted outpatient treatment, and the court has yet to be provided with a written proposed treatment plan and testimony pursuant to subdivision (i) of this section, the court shall order the appropriate director to provide the court with such plan and testimony no later than the third day, excluding Saturdays, Sundays and holidays, immediately following the date of such order. Upon receiving such plan and testimony, the court may order assisted outpatient treatment as provided in paragraph two of this subdivision.

(4) A court may order the patient to self-administer psychotropic drugs or accept the administration of such drugs by authorized personnel as part of an assisted outpatient treatment program. Such order may specify the type and dosage range of such psychotropic drugs and such order shall be effective for the duration of such assisted outpatient treatment.

(5) If the petitioner is the director of a hospital that operates an assisted outpatient treatment program, the court order shall direct the hospital director to provide or arrange for all categories of assisted outpatient treatment for the assisted outpatient throughout the period of the order. For all other persons, the order shall require the director of community services of the appropriate local governmental unit to provide or arrange for all categories of assisted outpatient treatment for the assisted outpatient throughout the period of the order.

(6) The director shall cause a copy of any court order issued pursuant to this section to be served personally, or by mail, facsimile or electronic means, upon the assisted outpatient, the mental hygiene legal service or anyone acting on the assisted outpatient's behalf, the original petitioner, identified service providers, and all others entitled to notice under subdivision (f) of this section.

(k) Petition for additional periods of treatment. Within thirty days prior to the expiration of an order of assisted outpatient treatment, the appropriate director or the current petitioner, if the current petition was filed pursuant to subparagraph (i) or (ii) of paragraph one of subdivision (e) of this section, and the current petitioner retains his or her original status pursuant to the applicable subparagraph, may petition the court to order continued assisted outpatient treatment for a period not to exceed one year from the expiration date of the current order. If the court's disposition of such petition does not occur prior to the expiration date of the current order, the current order shall remain in effect until such disposition. The procedures for obtaining any order pursuant to this subdivision shall be in accordance with the provisions of the foregoing subdivisions of this section; provided that the time restrictions included in paragraph four of subdivision (c) of this section shall not be applicable. The notice provisions set forth in paragraph six of subdivision (j) of this section shall be applicable. Any court order requiring periodic blood tests or urinalysis for the presence of alcohol or illegal drugs shall be subject to review after six months by the physician who developed the written treatment plan or another physician designated by the director, and such physician shall be authorized to terminate such blood tests or urinalysis without further action by the court.

(l) Petition for an order to stay, vacate or modify. (1) In addition to any other right or remedy available by law with respect to the order for assisted outpatient treatment, the assisted outpatient, the mental hygiene legal service, or anyone acting on the assisted outpatient's behalf may petition the court on notice to the director, the original petitioner, and all others entitled to notice under subdivision (f) of this section to stay, vacate or modify the order.

(2) The appropriate director shall petition the court for approval before instituting a proposed material change in the assisted outpatient treatment plan, unless such change is authorized by the order of the court. Such petition shall be filed on notice to all parties entitled to notice under subdivision (f) of this section. Not later than five days after receiving such petition, excluding Saturdays, Sundays and holidays, the court shall hold a hearing on the petition; provided that if the assisted outpatient informs the court that he or she agrees to the proposed material change, the court may approve such change without a hearing. Non-material changes may be instituted by the director without court approval. For the purposes of this paragraph, a material change is an addition or deletion of a category of services to or from a current assisted outpatient treatment plan, or any deviation without the assisted outpatient's consent from the terms of a current order relating to the administration of psychotropic drugs.

(m) Appeals. Review of an order issued pursuant to this section shall be had in like manner as specified in section 9.35 of this article.

(n) Failure to comply with assisted outpatient treatment. Where in the clinical judgment of a physician, (i) the assisted outpatient, has failed or refused to comply with the assisted outpatient treatment, (ii) efforts were made to solicit compliance, and (iii) such assisted outpatient may be in need of involuntary admission to a hospital pursuant to section 9.27 of this article or immediate observation, care and treatment pursuant to section 9.39 or 9.40 of this article, such physician may request the director of community services, the director's designee, or any physician designated by the director of community services pursuant to section 9.37 of this article, to direct the removal of such assisted outpatient to an appropriate hospital for an examination to determine if such person has a mental illness for which hospitalization is necessary pursuant to section 9.27, 9.39 or 9.40 of this article. Furthermore, if such assisted outpatient refuses to take medications as required by the court order, or he or she refuses to take, or fails a blood test, urinalysis, or alcohol or drug test as required by the court order, such physician may consider such refusal or failure when determining whether the assisted outpatient is in need of an examination to determine whether he or she has a mental illness for which hospitalization is necessary. Upon the request of such physician, the director, the director's designee, or any physician designated pursuant to section 9.37 of this article, may direct peace officers, acting pursuant to their special duties, or police officers who are members of an authorized police department or force or of a sheriff's department to take the assisted outpatient into custody and transport him or her to the hospital operating the assisted outpatient treatment program or to any hospital authorized by the director of community services to receive such persons. Such law enforcement officials shall carry out such directive. Upon the request of such physician, the director, the director's designee, or any physician designated pursuant to section 9.37 of this article, an ambulance service, as defined by subdivision two of section three thousand one of the public health law, or an approved mobile crisis outreach team as defined in section 9.58 of this article shall be authorized to take into custody and transport any such person to the hospital operating the assisted outpatient treatment program, or to any other hospital authorized by the director of community services to receive such persons. Any director of community services, or designee, shall be authorized to direct the removal of an assisted outpatient who is present in his or her county to an appropriate hospital, in accordance with the provisions of this subdivision, based upon a determination of the appropriate director of community services directing the removal of such assisted outpatient pursuant to this subdivision. Such person may be retained for observation, care and treatment and further examination in the hospital for up to seventy-two hours to permit a physician to determine whether such person has a mental illness and is in need of involuntary care and treatment in a hospital pursuant to the provisions of this article. Any continued involuntary retention in such hospital beyond the initial seventy-two hour period shall be in accordance with the provisions of this article relating to the involuntary admission and retention of a person. If at any time during the seventy-two hour period the person is determined not to meet the involuntary admission and retention provisions of this article, and does not agree to stay in the hospital as a voluntary or informal patient, he or she must be released. Failure to comply with an order of assisted outpatient treatment shall not be grounds for involuntary civil commitment or a finding of contempt of court.

(o) Effect of determination that a person is in need of assisted outpatient treatment. The determination by a court that a person is in need of assisted outpatient treatment shall not be construed as or deemed to be a determination that such person is incapacitated pursuant to article eighty-one of this chapter.

(p) False petition. A person making a false statement or providing false information or false testimony in a petition or hearing under this section shall be subject to criminal prosecution pursuant to article one hundred seventy-five or article two hundred ten of the penal law.

(q) Exception. Nothing in this section shall be construed to affect the ability of the director of a hospital to receive, admit, or retain patients who otherwise meet the provisions of this article regarding receipt, retention or admission.

(r) Education and training. (1) The office of mental health, in consultation with the office of court administration, shall prepare educational and training materials on the use of this section, which shall be made available to local governmental units, providers of services, judges, court personnel, law enforcement officials and the general public.

(2) The office, in consultation with the office of court administration, shall establish a mental health training program for supreme and county court judges and court personnel. Such training shall focus on the use of this section and generally address issues relating to mental illness and mental health treatment.

Appendix B

Methods Overview

In this section we provide an overview of methodological and design issues relevant to the evaluation, including: (1) multiple sources of data; (2) study samples; (3) recruitment and Institutional Review Board procedures for the 6-county data; (4) measures and instruments; (5) data structure for repeated measures analysis; (6) analytic approaches; (7) sample weighting with propensity scores to adjust for comparison group differences; and (8) multiple imputation of missing data.

1. Multiple Sources of Data

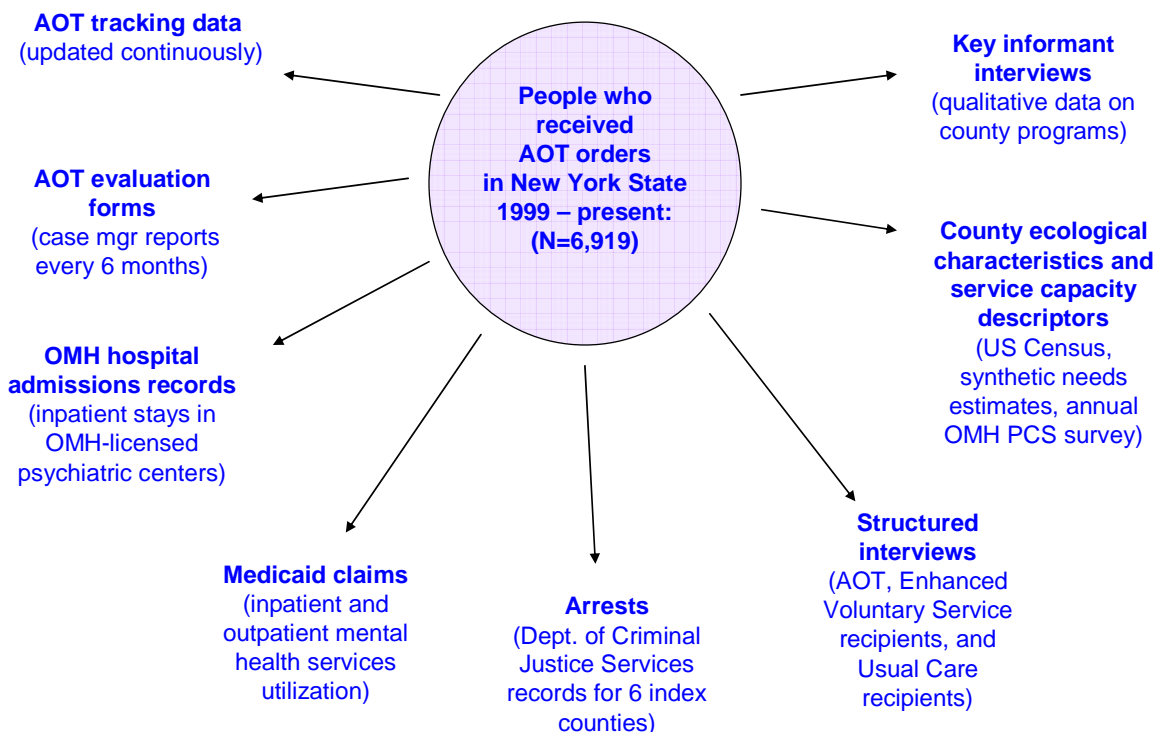
The Assisted Outpatient Treatment (AOT) evaluation research project combined primary data collection with secondary analysis of several existing data sources. Specifically, we interviewed key informants throughout the state and conducted structured interviews with AOT recipients and Enhanced Voluntary Services recipients in six New York counties: Albany, Erie, Monroe, Nassau, New York, and Queens. We obtained lifetime arrest records for sample members in these six counties. We conducted secondary analyses of AOT program administrative, tracking, and evaluation data. We used Medicaid claims and OMH psychiatric facilities' admissions data to capture hospitalizations and mental health services encounters. We utilized data from the US Census, the Mental Health Needs Assessment Project, and the New York Office of Mental Health (OMH) Patient Characteristics Survey. These various sources of data are represented schematically in Exhibit B.1 and are briefly described next.

Child and Adult Integrated Reporting System (CAIRS). The CAIRS data contain information on Assertive Community Treatment (ACT) and AOT service recipients. ACT team members and AOT case managers complete a standardized assessment for each recipient at the onset of ACT or AOT services and every six months thereafter for the duration of the ACT and AOT services. Data are collected on: (1) demographic characteristics; (2) living situation; (3) services received; (4) engagement in services; (5) adherence to prescribed medications; (6) self-care and social skills; and (7) the occurrence of significant events, including hospitalization, homelessness, arrest, incarceration, and harmful behaviors. The CAIRS data were used to examine a variety of outcomes, including those presented in Chapters 2 and 3.

Tracking for AOT Cases and Treatment (TACT). The TACT database contains information on each AOT court order, including dates of initiation, expiration, and renewal. The TACT data were used to create periods of AOT exposure and were then merged with the Medicaid data.

Medicaid. Medicaid claims and eligibility data were used to describe patterns of inpatient and outpatient services utilization between 1999 and 2007. Only Medicaid-eligible person-months were included in our multivariable analyses (a more detailed discussion of this can be found in the [Data Structure](#) and [Analytic Approaches](#) sections below). Medicaid data were also used to identify an “intensive treatment” comparison group of non-AOT recipients who had experienced: (1) two or more hospitalizations; (2) 14 inpatient days in any single year; and (3) had received ACT or intensive case management (ICM) services in any year since 1999; this comparison group was used in the analysis of AOT’s impact on the service system (Chapter 6). The same strategy was used to identify a “usual care” group for the 6-county interview study; however, there was no ACT/ICM criterion for the 6-county “usual care” group (see Exhibit B.2 and the [Study Samples](#) section below for more information on these two groups). Medicaid analyses are presented in Chapters 3, 5, and 6.

Exhibit B.1. AOT study: Multiple data sources



OMH Hospitalization Data. OMH inpatient hospitalization data were merged with Medicaid inpatient service claims data to create an overall summary of inpatient days. All inpatient analyses include both Medicaid and OMH psychiatric facility stays.

County Population Characteristics, AOT Rates, Mental Health Needs, and Services Utilization Data. We combined multiple sources of data for the “racial disparity” analyses presented in Chapter 1. Analyses are based on data from: (1) the OMH Patient Characteristics Survey, a biannual survey that collects information on the population served in the State’s mental health system and types of services received; (2) OMH hospitalization data; (3) the US Census, which we used to obtain estimates of county population by race and poverty status; and (4) synthetic county estimates of the prevalence of severe mental illness (SMI). Estimates were obtained from Professor Charles E. Holzer III at UTMB Galveston. Holzer’s estimates are derived from statistical models which apply epidemiological survey data to the demographic profile of each county (<http://psy.utmb.edu/estimation/estimation.htm>). These estimates were obtained for the total number of African Americans and Whites with SMI in each county, whether or not they were in treatment.

Key Informant Interview Data. Primary data collection included key informant interviews throughout the State with AOT program directors, service providers, Mental Hygiene Legal Service attorneys, and others involved with the AOT program. These data were collected through open-ended qualitative interviews. Data from key informant interviews are interspersed throughout the Report in the form of direct quotes.

6-County Interview Data. Primary data collection was conducted in six counties: Albany, Erie, Monroe, Nassau, New York, and Queens. Data were collected through structured client interviews. Results from this sample are presented in Chapters 3 and 4.

Department of Criminal Justice Services Arrest Records. We obtained Division of Criminal Justice Services (DCJS) lifetime arrest records for AOT and Enhanced Voluntary Service recipients for those in the 6-county sample.

2. Study Samples

Except for the key informant interviews, all participants in the study were mental health service recipients who had been diagnosed with schizophrenia spectrum or affective disorder. All participants were aged 18 years or older. There were four main categories of study samples: AOT, Enhanced Voluntary Service, Intensive Treatment, and Usual Care. Exhibit B.2 summarizes key features of these samples, comparison groups, and methods of analysis. An overview of primary data collection activities in the 6 counties is presented next.

6-County Primary Data Collection

Interviews were conducted with individuals who had been on AOT or who were receiving Enhanced Voluntary Service. (There were a total of 211 unique individuals who completed a total of 277 interviews. Chapter 4 describes how we allocated the 277 interviews across non-duplicative sample groups and the characteristics of those samples.) Our original sampling plan included a usual care group in addition to the AOT and Enhanced Voluntary Service groups. Participants from the usual care group consisted of individuals matched to the AOT and Enhanced Voluntary Service groups on a number of characteristics, including diagnosis, hospitalization history, and region. However, given difficulties in obtaining appropriate matched samples from the Medicaid data, sampling for the usual care group was discontinued after 12 subjects had been interviewed. All subjects were re-classified into three groups: (1) no current or recent AOT, which included individuals who never had an AOT order and those who had not had an AOT order for at least the past 7 months; (2) current AOT, which included individuals on an AOT order at the time of the interview; and (3) recent AOT, which included individuals who had an AOT order in the past 6 months but who were not on an AOT order at the time of the interview.

Exhibit B.2: AOT evaluation project summary of data sources and comparison group operational definitions

	Medicaid data	CAIRS data	6-county data ²	6-county arrest data ²	County aggregate data
AOT sample	Medicaid claims 1999-2007 for mental health services for all OMH service recipients with AOT orders since 1999 (n= 2.7M claims); AOT order dates merged from TACT data	All AOT Evaluation ¹ Baseline Assessment Forms and Follow-up Assessments Forms for AOT periods, filled out by case managers every 6 months (n=5,025; usable analytic sample n=3,692)	AOT clients sampled from county AOT program rosters. Sample stratified into 3 cohorts: AOT current, AOT recent past, no current or recent AOT (see below for description of final samples)	AOT clients sampled from county AOT program rosters (arrest data are then available for 100 months). Sample stratified into 3 cohorts: Pre-AOT, Current AOT, and Post AOT (see below for description of final samples)	Counts of AOT orders recorded in OMH TACT data 2000 to 2006 (n=372 county-years) and AOT investigations (duplicated annual counts 2000 to 2002; unduplicated counts after 2003)
Enhanced Voluntary Services Sample	None (no enhanced voluntary services sample for this analysis).	None (no enhanced voluntary services sample for this analysis).	Enhanced Voluntary Services participants were sampled from county active AOT program rosters. Sample stratified into 3 cohorts: Pre-EVS, Current EVS, and Post EVS (see below for description of final samples)	Enhanced Voluntary Services participants were sampled from county active AOT program rosters. Sample stratified into 3 cohorts: Pre-EVS, Current EVS, and Post EVS (see below for description of final samples)	Counts of voluntary service enhancements

Exhibit B.2 (Continued): AOT evaluation project summary of data sources and comparison group operational definitions

	Medicaid data	CAIRS data	6-county data ²	6-county arrest data ²	County aggregate data
Intensive treatment sample³	<p>Medicaid claims 1999-2007 for mental health services for all OMH service recipients meeting the following criteria (n=4.0M claims)</p> <p>A. Current service user: OMH certified outpatient service with a date of service of July 1, 2006 to present</p> <p>B. Diagnosis: schizophrenia or affective disorder as billing diagnosis for inpatient admission.</p> <p>C. Hospital recidivism: 2 or more psychiatric admissions in any year since 1999</p> <p>D. Intensive inpatient treatment: total of 14 or more inpatient days in a year</p> <p>E. Intensive outpatient services: OMH recipient of ACT or ICM services at any time since 1999</p>	<p>All CAIRS Baseline Assessment Forms and Follow-up Assessments Forms for ACT (non-AOT) periods; filled out by case managers every 6 months; matched to AOT sample on hospitalization history, diagnosis, gender, race (usable analytic matched sample n=744 unique individuals who never had AOT)</p>	<p>None (no intensive treatment sample for this analysis).</p>	<p>None (no intensive treatment sample for this analysis).</p>	<p>Counts of voluntarily and involuntarily hospitalized patients admitted to OMH psychiatric centers by county 2000 - 2006</p> <p>Counts of ACT and ICM recipients by county from the Patient Characteristics Surveys⁴ 1999, 2001, 2003, 2005; data for intervening (non-surveyed) years are interpolated.</p>

Exhibit B.2 (Continued): AOT evaluation project summary of data sources and comparison group operational definitions

	Medicaid data	CAIRS data	6-county data ²	6-county arrest data ²	County aggregate data
Usual care sample	None (no usual care sample for this analysis).	None (no usual care sample for this analysis).	<p>Sample from Medicaid usual-care group matched to AOT sample distributions on race, gender, and diagnosis. Sample stratified into 3 cohorts by time from hosp d/c: recent hosp; 6 mos; 12 mos after hosp (see below for description of final samples)</p> <p>A. Current service user: OMH certified outpatient service with a date of service of July 1, 2006 to present</p> <p>B. Diagnosis: schizophrenia or affective disorder as billing diagnosis for inpatient admission.</p> <p>C. Hospital recidivism: 2 or more psychiatric admissions in any year since 1999</p> <p>D. Intensive inpatient treatment: total of 14 or more inpatient days in a year</p> <p>E. Intensive outpatient services: No criterion for inclusion</p>	None (no usual care sample for this analysis).	Counts of OMH service recipients with SMI NOT receiving inpatient or Assertive Community Treatment (ACT) and Intensive Case Management (ICM) by county from the Patient Characteristics Surveys 1999, 2001, 2003, 2005; data for intervening (non-surveyed) years are interpolated.

Exhibit B.2 (Continued): AOT evaluation project summary of data sources and comparison group operational definitions

	Medicaid data	CAIRS data	6-county data ²	6-county arrest data ²	County aggregate data
Comparison groups for analysis	The analytic samples for the AOT Medicaid analyses vary by outcome. However, as an example, the number of <u>person-periods</u> available for the various AOT conditions (and subsequent predicted probabilities) when evaluating admission to a hospital were: pre-AOT (n=117,889); AOT 1-6 months (n=26,949); AOT 7-12 months (n=14,916)	Analyses included those with 6 or more months of treatment and those with 12 or more months of treatment. <u>Person-periods</u> : 6 month observations: ACT alone (n=1493); AOT+ICM (n=3518); AOT+ACT (n=2600). 12 month observations: ACT alone (n=952); AOT+ICM (n=1734); AOT+ACT (n=852)	AOT current (n=115), AOT recent past (n=28), no current or recent AOT (n=134) ⁵	<u>Individuals</u> : AOT group (n=144); EVS group (n=42). <u>Person-periods</u> : Pre AOT/EVS (n=16,709); Current AOT (n=2,083); Post AOT (n=838); Current EVS (n=952); Post EVS (n=518)	NY counties aggregated by region: NY City, Central, Hudson, Long Island, Western
Methods of statistical analysis	Repeated measures, multivariable logistic regression; statistical controls for underlying differences across individuals within different comparison groups	Repeated measures, multivariable logistic regression; statistical controls for underlying differences across individuals within different comparison groups	Mean values calculated for outcomes of interest across comparison groups	Repeated measures, multivariable logistic regression; statistical controls for underlying differences across individuals within different comparison groups	Repeated measures, multivariable logistic regression analyses by region; statistical controls for underlying differences across individuals within different comparison groups

¹AOT Evaluation Database is a combination of data from the CAIRS and TACT databases.

²Albany, Erie, Monroe, New York, Nassau, Queens. Other data collection in these counties includes case manager informant interviews (1 time at AOT exit) and key informant interviews.

³The Medicaid intensive treatment sample was used for the analyses that examined the "Impact of Assisted Outpatient Treatment on the New York Service System", which was reviewed in Chapter 6.

⁴The Patient Characteristics Survey (PCS) collects demographic, clinical, and service-related information for each person who receives a mental health service during a specified one-week period. All programs licensed or funded (directly or indirectly) by the NYS Office of Mental Health are required to complete the survey. The PCS is conducted biennially and receives data from over 4,000 programs serving approximately 170,000 people during the week.

⁵For the 6-county sample there were 12 "intensive treatment" (i.e., ACT or ICM)/"usual care" (i.e., no ACT or ICM) participants. Nine of those 12 had received ACT or ICM and the remaining 3 had received "other case management" in the 6 months prior to their interview. These 12 individuals were folded into the "no/never AOT" group for the analyses described in Chapter 4 ("Participants' perceptions of Assisted Outpatient Treatment (AOT) and related treatment experience and attitudes"). The specific breakdown for all 9 original "groups" was: New AOT (n=39); 6 month AOT (n=41); 12 month AOT (n=34); New EVS (n=22); 6 month EVS (n=45); 12 month EVS (n=15); recent post-AOT (n=42); 6 months post-AOT (n=27); Intensive treatment/Usual care (n=12). These 9 groups were reconstituted as AOT current (n=115); AOT recent past (n=28); and no current or recent AOT (n=134).

3. Recruitment and IRB Procedures for the 6-County Data

Recruitment

Eligible clients from the 6 counties were drawn from a list of current AOT and Enhanced Voluntary Service clients provided by the regional AOT Coordinator. The AOT Coordinator or program staff used a standard script to introduce the research study to the client and obtain permission for our research staff to directly contact the client. Clients interested in learning more about the research signed a screening form and provided contact information. Screening forms were then faxed or mailed to the research coordinator at PRA, who then confirmed eligibility and contacted clients to explain the research project and to schedule a meeting with a research interviewer.

The informed consent document was read aloud to each client by the research interviewer. Interviewers administered a brief assessment as part of the consent process to determine if the client understood the basic elements of the research (e.g., that they were free to refuse to participate or to stop at any time) and was able to communicate clearly. In the event the client failed the assessment (i.e., was not competent to complete the interview), the interviewer informed the client that he/she was not eligible to participate and provided them with a copy of the informed consent plus contact information for the research team. Eligible and competent clients signed, and were provided a copy of, the consent form prior to beginning the interview. The interview took approximately 90 minutes and participants were paid \$25.

Institutional Review Board Procedures

This research was reviewed annually by several Institutional Review Boards (IRBs), including those at Duke University Medical Center, Policy Research Associates, Inc., New York's OMH, and Biomedical Review Association of New York (BRANY) which served as the IRB of record for the NYC Health and Hospitals Corporation and the NYC Department of Health and Human Services. This research was also subjected to individual facility reviews at Bellevue Hospital, Elmhurst Hospital, and Queens Hospital.

4. Measures and Instruments

We compared recipient groups on multiple outcomes. Descriptions of outcome variables and other variables of interest are listed below, along with their respective measures and data sources (Exhibit B.3).

**Exhibit B.3. New York AOT Evaluation
Instrument Table**

Construct	Measure	Scale	Data Source
Service engagement	NY OMH ACT/AOT/CM Assessment ^{ciii}	One item rated on a 5-point scale (not engaged [no contact with providers, does not participate in services at all] to excellent [independently and appropriately uses services]). Individuals were rated as “high engagement=1” if they were rated as 4 or 5.	AOT Evaluation Dataset ^{civ}
Appointment adherence or receipt of services	AOT Evaluation Client Interview ^{cv}	One item rated on a 5-point scale (never missed an appointment to avoided keeping appointments altogether). Individuals were rated as “appointment adherent=1” is they were rated as 1 or 2.	Interview
	Service billing	A paid case management service claim reported for a given month is rated as “1” for that person-month observation.	Medicaid and OMH records
Medication adherence or receipt	NY OMH ACT/AOT/CM Assessment ⁱ	One item rated on a 5-point scale (rarely or never takes medication as prescribed to takes medication exactly as prescribed). “Medication not prescribed” coded as “missing.” Individuals were rated as “high medication adherence=1” if they were rated as 4 or 5.	AOT Evaluation Dataset ⁱⁱ
	AOT Evaluation Client Interview ⁱⁱⁱ	One item rated on a 6-point scale (never missed taking medication to never took medication). Individuals were rated as “medication adherent=1” is they were rated as 1 or 2.	Interview

	Prescription filled	Medication prescription fills were assessed by examining Medicaid claims and OMH service data. Only medications appropriate for the individual's psychiatric condition, which had to be diagnosed by a psychiatrist or while in an inpatient hospital stay, were counted. Individuals were rated as "positive for medication possession=1" if they have a sufficient medication supply for that month, as indicated by duration of prescriptions and defined as $\geq 80\%$ days of a given month.	Medicaid and OMH records
Attitudes about medications	Modified Drug Attitude Inventory (DAI) ^{cvi}	Eight true/false statements. Item response reflects positive attitude toward medication, than=1. Example item: "Medications make me feel more relaxed." Mean scores calculated, with higher scores reflecting more positive medication attitudes.	Interview
Hospitalization	NY OMH ACT/AOT/CM Assessment ⁱ	Total number of psychiatric hospitalizations in the previous 6 months. Individuals were rated as "positive for hospitalization=1" if they had ≥ 1 hospitalizations in previous 6 months.	AOT Evaluation Dataset ⁱⁱ
	Monthly psychiatric hospital admissions	Monthly psychiatric hospital admissions were assessed by examining Medicaid claims and OMH service data. An individual admitted in a given month was rated as "positive for hospitalization admission=1" for that person-month observation (an individual with multiple hospital admissions in a month is rated as "1").	Medicaid and OMH records
Harm to others	NY OMH ACT/AOT/CM Assessment ⁱ	One item assessed the recentness of harm to others (never to this week). Individual rated as "positive for harm to others=1" if an incident was reported within the past 6 months.	AOT Evaluation Dataset ⁱⁱ

	Modified MacArthur Community Violence Interview ^{cvii}	<p>A semi-structured interview was used to gather information from the 6-county service recipient sample on whether they engaged in 12 violent/aggressive behaviors, varying in degree of seriousness, in the previous 6 months. Each act is coded as 1=endorsed by recipient and 1=someone, other than interviewee, was physically harmed as a result of incident. Example: “In those six months, did you hit anyone with a fist or beat anyone up? Where did this happen and who else was involved? Was anyone physically hurt (besides you)? [If no, probe--] Not even bruises or cuts?”</p> <p>The instrument yields a measure of any violence (yes/no).</p>	Interview
Harm to self	NY OMH ACT/AOT/CM Assessment ⁱ	<p>One item assessed the recency of an incident of self-harm (never to this week).</p> <p>Individual rated as “positive for self-harm=1” if an incident was reported within the past 6 months.</p>	AOT Evaluation Dataset ⁱⁱ
Arrests	Arrest records	<p>Arrest records of service recipients who participated in the 6-county interview (n=211) were obtained. Individual was rated as positive or negative for arrest (arrest=1, no arrest=0) for a given month, and the data were structured as person-month observations). Arrests included both misdemeanors and felonies.</p>	DCJS records ^{cviii}
Illness Characteristics	Modified Colorado Symptom Inventory ^{cix}	<p>Fifteen items assessing psychiatric symptoms experienced in the past month, endorsed on 5-point scale (at least every day to not at all).</p> <p>Mean scores were calculated, with lower scores reflecting more prominent psychiatric symptoms.</p>	Interview
Alcohol and drug use	NY OMH ACT/AOT/CM Assessment ⁱ	<p>Recent alcohol and drug use was assessed across 12 substances.</p> <p>Individual was rated as a “substance user=1” if reported used any substance in past 6 months (nicotine is not included in scale).</p>	AOT Evaluation Dataset ⁱⁱ

Functional impairment	Global Assessment of Functioning ^{cx}	Ranked on a scale of 1 – 100, with high scores representing high functioning. Ten behavioral or symptom descriptors are used to guide the ranking. Example descriptor: 41 - 50 Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job). Individual was rated as having a “significant functional impairment=1” if rated ≤ 50.	Interview
	NY OMH ACT/AOT/CM Assessment ⁱ : Self-care and community living	Thirteen items rated on 5-point scale (acts independently to totally dependent). Example: “How much support does the consumer typically need to make and keep necessary appointments?” Individual was rated as being “impaired in self-care and community living=1” if rated as a 4 or 5 on <i>any</i> of the 11 items.	AOT Evaluation Dataset ⁱⁱ
	NY OMH ACT/AOT/CM Assessment ⁱ : Social, interpersonal, and family functioning	Nine items rated on 5-point scale (highly typical to highly atypical). Example: “How typical is it for the consumer to effectively handle conflict?” Individual was rated as being “impaired in social functioning=1” if rated as a 4 or 5 on <i>any</i> of the 9 items.	AOT Evaluation Dataset ⁱⁱ
Empowerment	CMHEI Empowerment Scale ^{cx} ⁱ	Sixteen items rated on a 5-point agreement scale (strongly agree to strongly disagree). Example: “People have a right to make their own decisions, even if they are bad ones.” Mean scores were calculated, with higher scores reflecting greater empowerment.	Interview
Life satisfaction	AOT Evaluation Client Interview ⁱⁱⁱ	One item rated on a 7-point scale (terrible to delighted). Mean score calculated with high scores reflecting greater satisfaction.	Interview

Treatment satisfaction	Modified MHSIP Consumer Survey ^{cxii}	<p>Nine items rated on a 5-point scale (strongly agree to strongly disagree). Example: "I was able to get all of the services I thought I needed."</p> <p>Mean scores were calculated, with higher scores reflecting greater satisfaction.</p>	Interview
Working alliance	Working Alliance Inventory (WAI) Short Form ^{cxiii}	<p>Eight items rated on a 5-point scale (strongly agree to strongly disagree). Example: "The goals of my work with (provider name) are important to me."</p> <p>Mean scores were calculated; higher scores reflected stronger working alliance.</p>	Interview
AOT understanding	AOT Evaluation Client Interview ⁱⁱⁱ	<p>Twelve true/false statements. Example: "When they have an AOT order, people are required to go to mental health treatment appointments that are part of the treatment plan." (True).</p> <p>Mean scores were calculated, with higher scores reflecting greater understanding.</p>	Interview
Perceived AOT stigma	AOT Evaluation Client Interview ⁱⁱⁱ	<p>One yes/no item: "When people are under AOT, do you think that most other people think less of them?"</p> <p>Individual rated as "perceives AOT stigma=1".</p>	Interview
AOT perceived benefits	AOT Evaluation Client Interview ⁱⁱⁱ	<p>Three yes/no items. Item response positive for benefit=1. Example: "When people are under AOT, do you think they are more likely to keep their mental health or substance abuse appointments?"</p> <p>Mean scores were calculated, with higher scores reflecting greater perceived benefits.</p>	Interview

Barriers to treatment	AOT Evaluation Client Interview ⁱⁱⁱ	Six true/false items reflecting both mandate- and non-mandate-related barriers. Item response positive for barrier=1. Example mandate-related barrier: “Did you delay getting help because you think that going to treatment might get you in trouble with the law?” Example non-mandate related barrier: “Did you delay getting help because you think that going for help probably wouldn’t do any good?” Mean scores were calculated, with higher scores reflecting more barriers.	Interview
Fear of involuntary commitment	AOT Evaluation Client Interview ⁱⁱⁱ	One yes/no item, “Has fear of being involuntarily committed ever caused you to avoid treatment for mental health?” Individual rated as “positive for fear=1”.	Interview
Perceived coercion	Modified MacArthur Admission Experience Scale ^{cxiv}	Five items rated on a 5-point scale (strongly agree to strongly disagree) assessing experiences in the previous 6 months. Example: “It was my idea to get treatment.” Mean scores were calculated, with higher scores reflecting greater perceived coercion.	Interview
Procedural justice	Modified MacArthur Admission Experience Scale ^{xii}	Six items rated on a 3-point scale (not at all, somewhat, or definitely). Example: “When you received your court order did they treat you respectfully?” Mean scores were calculated, with higher scores reflecting greater procedural justice.	Interview

<p>General pressures to adhere to treatment</p>	<p>AOT Evaluation Client Interviewⁱⁱⁱ</p>	<p>Thirty-three yes/no items constituting 4 subscales (warnings, sanctions, medication oversight, commitment pressure) assessing experiences in the previous 6 months. Item response positive for pressure=1. Example (warnings subscale): “Did anyone tell you that you may lose your housing if you don’t follow your treatment plan?”</p> <p>Mean scores were calculated for the total scale and each subscale, with higher scores reflecting greater pressure.</p>	<p>Interview</p>
<p>Pressure benefits</p>	<p>AOT Evaluation Client Interviewⁱⁱⁱ</p>	<p>Nine items rated on a 5-point scale (strongly agree to strongly disagree). Lower scores reflect greater perceived benefits from pressures to adhere to treatment. Example: “Overall, the pressures or things people have done were for my own good.”</p> <p>Mean scores were calculated, with higher scores reflecting fewer perceived benefits of pressure to adhere to treatment.</p>	<p>Interview</p>

5. Data Structure

For all analyses that used the Medicaid and AOT Evaluation Data (i.e., CAIRS/TACT) we created analytic files that contained multiple observations per person, or repeated measures over time. The analytic files created from the Medicaid and AOT Evaluation Data were similar in form; the only differences were related to timeframe in the source data (i.e., the Medicaid data could be grouped into one month intervals, while the AOT Evaluation Data were only available in six month intervals). Because of the overall similarity between the two sets of analytic files, we will provide a brief overview of how we constructed the Medicaid data only.

Our study period for the Medicaid data consisted of 88 months (i.e., between November 1999 and February 2007). Utilizing these 88 months, we created a vertical data shell or “long file” where each individual had 88 rows of data. In this data structure, each month became a separate record and each type of service event or status, such as being on AOT or not, became a separate variable. Specifically, each individual’s Medicaid claims history was examined for receipt of any Medicaid-reimbursed mental health services (e.g., ACT, ICM, inpatient days, other case management, pharmacy fills; OMH hospital days were also merged with the Medicaid data) that occurred in a given month between November 1999 and February 2007. Separate variables for each type of service were created and populated with values from the individual’s Medicaid-reimbursed services. Each of these variables spanned 88 months. We then merged in dates of each individual’s AOT order, which allowed us to evaluate the association between receiving AOT and a variety of outcomes, using repeated measures regression techniques.

6. Analytic Approaches

We used multivariable regression techniques (e.g., logistic regression for dichotomous outcomes, Poisson or negative binomial regression for count outcomes depending on the underlying distribution of the data) to estimate the relationship between AOT and various outcomes. We controlled for time and a wide array of available covariates. We also made appropriate statistical adjustments to account for the non-independence of observations that is present when estimating effects in a repeated measures model. In addition to using all available information to control for differences between subjects, we also created propensity scores that were used to weight the Medicaid data.

7. Propensity Scoring

We calculated propensity scores that were used to weight the longitudinal Medicaid data. This approach, inverse probability of treatment weighting¹⁵, “predicts” the propensity of an individual receiving the treatment they actually received; the propensity scores are then used to weight the data. The goal of using propensity scores is to make the sample similar to a randomized experiment. We created two sets of propensity scores. The first set of scores modeled the likelihood of each person receiving an initial AOT order and the second set of scores modeled the likelihood of each person being renewed on AOT. Propensity scores from each of these models were output and used to weight the longitudinal Medicaid data to account for baseline differences in the likelihood of receiving AOT. Our propensity regression models included all available demographic and clinical variables. Additionally, the propensity models included information on medication possession ratio and prior inpatient hospitalization.

8. Multiple Imputation of Missing Data

Because the CAIRS data had a substantial amount of missing data, we used multiple imputation techniques to provide complete data for subjects. Data were imputed using SAS PROC MI with imputations set to the default of 5. Imputing data in this manner provides less biased parameter estimates than other missing data strategies such as listwise or pairwise deletion¹¹⁶. Most of our analyses had fewer than 5% missing data.

ⁱ New York State OMH ACT, AOT, and Case Management Assessment Form is completed by case managers or ACT team staff and is collected at baseline and every six months.

ⁱⁱ AOT Evaluation Dataset consists of the CAIRS database (ACT recipient data), the AOT Evaluation database (AOT recipient data), and select TACT variables.

ⁱⁱⁱ AOT Evaluation Client Interview Instrument was used by PRA staff to interview a subsample of current and past AOT recipients. This instrument consisted of standardized measures, as well as measures created for the purpose of this study.

^{iv} Hogan TP, Awad AG, Eastwood R. (1983). A self-report scale predictive of drug compliance in schizophrenics: reliability and discriminative ability. *Psychological Medicine*, 13, 177-183.

^v Steadman, H., Mulvey, E., Monahan, J., Robbins, P., Appelbaum, P., Grisso, T., Roth, L., & 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.

^{vi} Division of Criminal Justice Services records included lifetime arrest data (i.e., both pending and disposed charges) for the 6-county AOT and EVS groups

^{vii} Ciarlo JA, Edwards DW, Kiresuk TJ, et al (1981). The Assessment of Client/Patient Outcome Techniques for Use in Mental Health. Contract 278-80-0005. Washington, DC, National Institute of Mental Health; Conrad KJ, Matters MD, Yagelka J, et al (2001). Reliability and validity of a Modified Colorado Symptom Index in a national homeless sample. *Mental Health Services Research*, 3, 141-153.

^{viii} Endicott, J, Spitzer, RL, Fleiss, JL, & Cohen, J (1976). The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbances. *Archives of General Psychiatry*, 33, 766-771.

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^x Mental Health Statistics Improvement Program (MHSIP) Consumer Survey. Ganju, V (1999). The Mental Health Statistics Improvement Program Consumer Survey. Austin, TX: Department of Mental Health and Mental Retardation.

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^{xiii} Robins, J.M., Hernan, M.A., & Brumback, B. (2000). Marginal structural models and causal inference in epidemiology. *Epidemiology*, 11, 550-560.

^{xiv} Schafer, J.L. & Olsen, M.K. (1999). Multiple imputation for multivariate missing-data problems: A data analyst's perspective. *Multivariate Behavioral Research*, 33, 545-571.