Contra Costa County Assisted Outpatient Treatment (AOT) Evaluation

2016 Interim Evaluation Report

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Table of Contents

Table of Figures

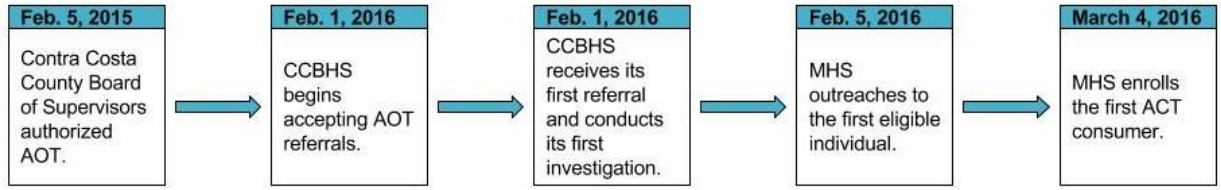
Table of Tables

Executive Summary

Background

On February 3, 2015, the Contra Costa County Board of Supervisors adopted a resolution to authorize the implementation of AOT in accordance with the Welfare and Institutions Code, Sections 5345-5349.5. Figure 1 below shows the implementation timeline of AOT in Contra Costa County.

Figure 1. Contra Costa County AOT Program Implementation Timeline



The County has designed an AOT program model that exceeds AB 1421 requirements and responds to the needs of its communities. The Care Team (CCBHS and Mental Health Systems) collaborates to conduct investigation, outreach, and engagement activities. MHS provides Assertive Community Treatment (ACT) services for individuals enrolled in ACT. When implemented to fidelity, ACT produces reliable results for consumers, including decreased negative outcomes, such as hospitalization, incarceration, and homelessness, and improved psychosocial outcomes, such as increased life skills and involvement in meaningful activities.

This preliminary report captures the first six months of AOT implementation in Contra Costa County, specifically addressing the following research questions:

1. How faithful are Contra Costa County's ACT services to the ACT model?
2. What are the outcomes for the people who participate in AOT, including the DHCS-required reporting outcomes?

What is ACT?

ACT is an evidence-based behavioral health program for people with serious mental illness who are at-risk of or would otherwise be served in institutional settings such as a hospital or jail, or experience homelessness.

In addition to adopting a new legal mechanism for providing mental health services to individuals with serious mental illness, the County contracted with a new service provider (MHS) to introduce a new service model (ACT). Given the number of new elements being introduced in Contra Costa County in the first six months of starting-up the AOT program, this report's discussion about the AOT program's implementation and preliminary outcomes should be interpreted cautiously until the County's AOT program has become more firmly established.

Key Findings

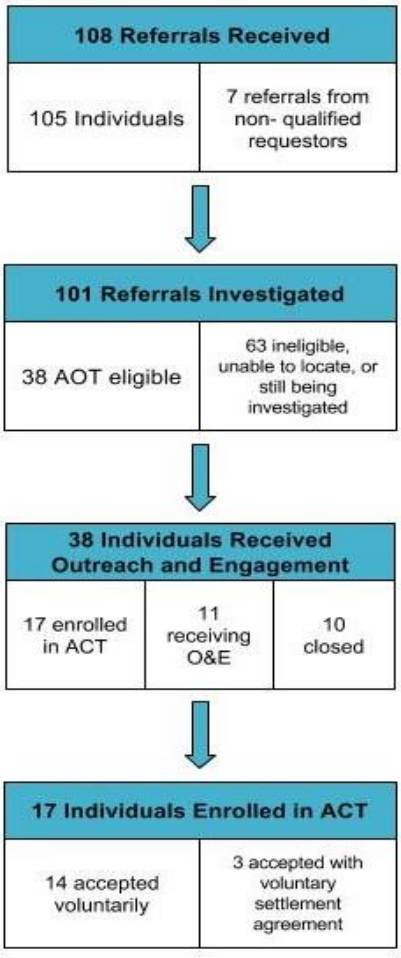
Pre-AOT Enrollment

The Pre-AOT Enrollment period includes the referral process and the investigation and outreach and engagement conducted by the Care Team. From 108 referrals, investigation of 101 cases resulted in 38 AOT eligible consumers receiving outreach and engagement. As of July 31, 2016, 17 consumers were enrolled in ACT and 11 were still receiving outreach and engagement services.

Referrals

Investigation of the referral process suggests that individuals for whom AOT is appropriate are being identified for services. Additional key findings regarding referral to AOT include:

- Consumers' family members, spouses, and housemates made the majority (60%) of referrals to CCBHS, suggesting that AOT has increased the capacity of this group to seek help for their loved ones.
- There may be an opportunity for the County to increase its education and outreach to law enforcement officials and mental health service providers to further inform them about AOT, their role as qualified requestors, and the opportunities to refer eligible individuals for service.



The Care Team

The Care Team is intended to work collaboratively to investigate and engage consumers in order to connect them to long-term services, either voluntarily or through AOT enrollment. Research on the Care Team's efforts suggests that the Care Team is conducting many activities to connect with consumers and their families in the community in order to engage them in long-term mental health services. Findings also suggest that in the final months of the evaluation period, the program model shifted so that investigation and outreach and engagement efforts operated consecutively instead of concurrently.

Post-AOT Enrollment

The County appears to be reaching the target population of consumers who have a history of repetitive hospitalization, incarceration, and homelessness and are unable or unwilling to engage in voluntary services. Although consumer enrollment dates span the six-month period, consumers are receiving a high degree of mental health services through this program.

Preliminary Outcomes

Given the small sample size and enrollment periods, this evaluation only reports baseline findings. Key demographic characteristics of the 17 AOT consumers include:

- Gender: 47% male, 53% female
- Race/Ethnicity: 29% Black/African American, 59% White, 12% Other
- Region: 47% Central, 29% East, 24% West
- Diagnosis at Enrollment: 30% mood disorders, 65% schizophrenia, 6% other, 65% co-occurring SUD

ACT Fidelity

The MHS ACTiOn Team received an overall fidelity score of 4.73, indicating a high level of fidelity to the ACT Model.

At baseline, the 17 AOT consumers reported experiencing a variety of adverse life events prior to enrollment, including hospitalization (13), incarceration (5), arrest (7), and homelessness (2).

AOT Investments and Costs

Given the preliminary nature of the AOT program at the end of the evaluation period, it is premature to estimate per person service delivery costs or project potential cost savings. The County has made the following investments with AOT implementation:

MHS Costs

Cost Type	Oct-June 2016
Start-up Costs	$242,832 (Oct '15 - Jan '16)
Service Delivery Costs	$661,660 (Feb '16 - Jun '16)
Total	$904,492 (Oct '15 - Jun '16)

Contra Costa County Department Costs

County Department	Feb-July 2016
CCBHS	$262,500
County Counsel	$22,733
Public Defender's Office	$66,750
Superior Court	$64,000

Recommendations

Following the interim six-month evaluation of the new AOT program in Contra Costa County, RDA makes the following recommendations:

AOT Referrals	❖ Increase outreach and education to qualified requestors, including professional staff (e.g. LEAs and mental health providers) ❖ Monitor "ineligible" consumers for a period of time to determine if re-referral to AOT is needed
Investigations and Outreach	❖ Utilize all ACT team members to provide outreach and engagement ❖ Strengthen communication practices during the transition between the investigation and outreach and engagement phases
AOT Consumers and Service Participation	❖ There may be a high proportion of AOT consumers who have forensic needs or are connected with the criminal justice system. MHS should consider training in forensic ACT and forensic mental health interventions.

Data Capacity	❖ CCBHS: Track investigation information electronically so that the data is available for each evaluation period and the County can learn more about who is and is not referred to MHS for AOT enrollment. ❖ MHS: Consistently input PAT, KET, and 3M data in the County's DCR system.

Introduction

In 2004, stakeholders throughout the mental health system in California joined together in support of Proposition 63, the Mental Health Services Act (MHSA). The MHSA was intended to "expand and transform" the public mental health system according to the following principles of 1) Recovery, Wellness, and Resiliency, 2) Consumer and Family Driven, 3) Community Collaboration, 4) Cultural Competency, and 5) Integrated Services.

MHSA provided an infusion of funds for Full Service Partnership (FSP) programs, among others, to provide services using a "whatever it takes" model for people with serious mental illness. However, the implementation of MHSA did not sufficiently address one of the largest issues facing the mental health community across the nation: the cycle of repetitive psychiatric crises and resulting hospitalizations, incarcerations, and homelessness of the most seriously mentally ill who struggle to engage in services.

As California counties began recognizing these limitations of the MHSA, some counties began choosing to implement California Assembly Bill 1421 (AB 1421). Passed in 2002, AB 1421 (also known as "Laura's Law") authorized the provision of Assisted Outpatient Treatment (AOT) in counties that adopt a resolution to implement AOT. AOT is designed to interrupt the repetitive cycle of hospitalization, incarceration, and homelessness for people with serious mental illness who have been unable and/or unwilling to engage in voluntary services through an expanded referral and outreach process which may include civil court involvement, whereby a judge may order participation in outpatient treatment. The Welfare and Institutions Code defines the target population, intended goals, and the specific suite of services required to be available for AOT consumers in California.

AOT in Contra Costa County

On February 3, 2015, the Contra Costa County Board of Supervisors adopted a resolution to authorize the implementation of AOT in accordance with the Welfare and Institutions Code, Sections 5345-5349.5. On February 1, 2016, Contra Costa County's AOT program became operational. In March 2016, the County accepted their first consumer into AOT. Contra Costa County provides behavioral health services to AOT consumers through an Assertive Community Treatment (ACT) team operated by Mental Health Systems (MHS), a contracted provider organization. ACT is an evidence-based behavioral health program for people with serious mental illness who are at-risk of or would otherwise be served in institutional settings or experience homelessness. ACT has the strongest evidence base of any mental health practice for people with serious mental illness and, when implemented to fidelity, ACT produces reliable results for consumers, including decreased negative outcomes, such as hospitalization, incarceration, and homelessness and improved psychosocial outcomes, such as improved life skills and increased involvement in meaningful activities.

It is important to note that in adopting a resolution to implement AOT, Contra Costa County not only adopted a new legal mechanism to connect individuals with serious mental illness to mental health services, they also contracted a new service provider, MHS, to implement the County's first ACT program in order to ensure they are providing the highest quality of care for individuals enrolled in AOT. Because there are a number of new components coming together at once, it is natural to expect programmatic modifications to be implemented over the course of the evaluation period (February 2016 - July 2016), and beyond.

Contra Costa County's AOT Program Model

Contra Costa County has designed an AOT program model that exceeds the requirements set forth in the legislation and responds to the needs of its communities. The Contra Costa County AOT program includes a Care Team comprised of CCBHS and MHS staff, including a County clinician, family advocate, and peer counselor, as well as an ACT team operated by MHS.

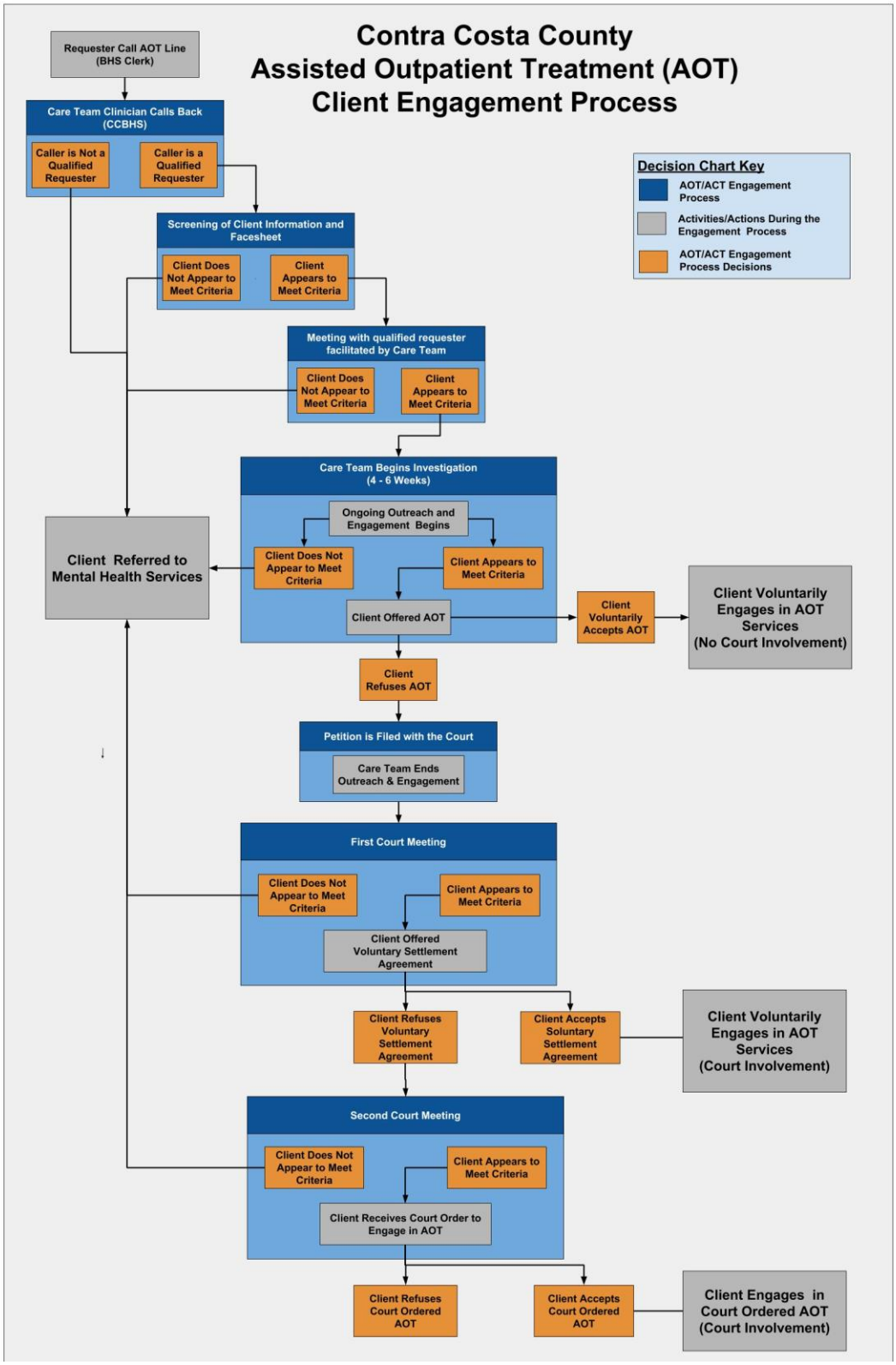
The first stage of engagement with Contra Costa County's AOT program is through a telephone referral whereby any "qualified requestor"[1] can make an AOT referral. Within five business days, a CCBHS mental health clinician connects with the requester to gather additional information on the referral, as well as reach-out to the individual referred to begin to identify whether he/she meets AOT eligibility criteria (see Appendix I. AOT Eligibility Requirements).

If the person appears to initially meet eligibility criteria, a CCBHS investigation from the Care Team staff facilitates a face-to-face meeting with the family and/or consumer to gather information, attempt to engage the consumer, and develops an initial care plan. If the consumer continues to appear to meet eligibility criteria, the Care Team provides a period of outreach and engagement while furthering the investigation to determine eligibility. If at any time the consumer accepts voluntary services and continues to meet eligibility criteria, he/she is immediately connected to and enrolled in ACT services.

However, if after a period of outreach and engagement, the consumer does not accept voluntary services and continues to meet criteria, the County mental health director or designee may choose to file a petition with the court. Utilizing a collaborative court model that combines judicial supervision with community mental health treatment and other support services, Contra Costa County then holds 1-2 court hearings to determine if criteria for AOT are met. At this time, the individual may enter into a voluntary settlement agreement to receive ACT services, or be ordered to AOT for a period of no longer than six months. After six months, if the judge deems that the person continues to meet AOT criteria, they may authorize an additional six-month period. At every stage of the process, CCBHS and MHS staff continue to offer the individual opportunities to voluntary engage in services and may recommend a 72-hour hold, at any stage of the process, if they meet existing involuntary criteria. Figure 2 depicts this process.

[1] Qualified requestors include: An adult who lives with the individual; Parent, spouse, adult sibling, or adult child of the individual; Director of an institution or facility where the individual resides; Director of the hospital where the person is hospitalized; Treating or supervising mental health provider; Probation, parole, or peace officer.

Figure 2. Contra Costa County AOT Client Engagement Process Flowchart



AOT Evaluation

The AOT program in Contra Costa County presents three main areas of interest to both the program's implementation as well as its evaluation. The issues include:

1. There is little evidence that indicates who may be best served in a voluntary program and who may be most likely to require and subsequently benefit from AOT services.
2. In order to determine how to best target outreach efforts, it is necessary to understand how people with serious mental illness become engaged in outpatient mental health services, particularly the AOT program.
3. As consumers receive Contra Costa County's AOT services, understanding the factors that affect their service participation, retention, and outcomes, specifically as it pertains to the AOT intervention, will allow Contra Costa County to best identify individuals with serious mental illness who are most likely to benefit from AOT.

In order to assess these issues, CCBHS contracted with Resource Development Associates (RDA) to provide external evaluation services to better understand the role of ACT and AOT in Contra Costa County's system of care, as well as to inform the required annual report to DHCS. This initial report addresses the following evaluation research questions:

1. How faithful are Contra Costa County's ACT services to the ACT model?
2. What are preliminary outcomes for the people who participate in AOT, including the DHCS-required reporting outcomes?

This report is intended to provide information to the Board of Supervisors, Contra Costa Behavioral Health Services, stakeholders, and the public about how AOT implementation is progressing, with special attention paid to the referral and outreach and engagement process, as well as preliminary findings as they relate to consumers enrolled in AOT. Each section begins with a short list of highlighted key findings for quick reference. Future reports will include comparisons of consumers who participate in AOT with and without court involvement, as well as comparisons of consumers who engage in existing FSP services and those who participate in AOT without court involvement.

Methodology

ACT Fidelity Assessment

The intention of the fidelity assessment process is to measure the extent to which MHS' ACT team is in alignment with the ACT model and identify opportunities to strengthen ACT/AOT services. For this component of the evaluation, RDA applied the ACT Fidelity Scale, developed at Dartmouth University[2] and codified in a SAMHSA toolkit.[3] This established assessment process sets forth a set of data collection activities and scoring process in order to determine a fidelity rating as well as qualifications of assessors.

The fidelity assessment began with a series of project launch activities. This included:

1. Project launch call with CCBHS to confirm desired outcomes for the fidelity assessment and identify contact persons for each of the activities.
2. Project launch call with CCBHS and MHS to introduce the fidelity assessment and desired outcomes, describe the assessment process, and confirm logistics for the assessment site visit.
3. Data request to CCBHS and MHS in advance of the site visit to obtain descriptive data about consumers enrolled in ACT since program inception.

The assessors conducted a full-day site visit at MHS' ACT team office in Concord, CA on August 26, 2016. During the site visit, the assessors engaged in the following activities:

- ACT program meeting observation
- Interviews with eight (8) ACT team members including the Team Leader, Clinical Director, Clinician, Nurse, Family and Peer Partners, and Housing and Vocational Specialists.
- Review of available documentation
- Consumer focus group (11 of 17 enrolled consumers in attendance)
- Family member focus group (13 family members of 9 enrolled consumers in attendance)
- Debrief with the Team Leader and Clinical Director

Concurrently, RDA obtained data from CCBHS and MHS and conducted descriptive analyses of the demographics and service utilization patterns of consumers enrolled in ACT.

Following the site visit and data analysis, the assessors each independently completed the fidelity rating scale and then met to seek consensus on each individual rating as well as identify recommendations to strengthen MHS' ACT program fidelity rating. The results of that discussion and the fidelity assessment are presented in the proceeding Results and Discussion sections.

[2] http://www.dartmouth.edu/~implementation/page15/page4/files/dacts_protocol_1-16-03.pdf
[3] Substance Abuse and Mental Health Services Administration. *Assertive Community Treatment: Evaluating Your Program.* DHHS Pub. No. SMA-08-4344, Rockville, MD: Center for Mental Health Services Administration, U.S Department of Health and Human Services, 2008.

AOT Program Evaluation

RDA worked with CCBHS and MHS staff to obtain the data necessary for addressing the second research question about AOT consumers' outcomes since the program's implementation, from February 1, 2016 through July 31, 2016. Table 1 below presents the data sources utilized for this evaluation, as well as the data elements captured by each data source, and the questionnaires and/or forms that were used to measure each data element. Appendix II. Description of Evaluation Data Sources provides a description of each data source.

Table 1. Data Sources and Elements

Data Source	Data elements	Questionnaires/Forms
CCC Referral Log	❖ AOT Referrals ❖ Demographics	❖ Referral Log
CCC Blue Notes	❖ Outreach and Engagement Encounters	❖ Blue Notes for each Outreach and Engagement Encounter
CCC PSP Billing System	❖ Behavioral Health services ❖ Hospitalizations ❖ Diagnoses	❖ Service Claims
MHS Outreach and Engagement Log	❖ Outreach and Engagement Encounters	❖ Outreach and Engagement Log
Data Collection & Reporting (DCR) Files	❖ Arrests ❖ Incarceration ❖ Homelessness ❖ Employment	❖ Partnership Assessment Form (PAF) ❖ Key Event Tracking Form (KET) ❖ Quarterly Assessment (3M)
MHS Outcomes Spreadsheet	❖ Social Functioning ❖ Independent Living ❖ Violent Behavior ❖ Victimization ❖ Recovery	❖ High Risk Assessment (HRA) ❖ Brief Psychiatric Rating Scale (BPRS) ❖ Self Sufficiency Matrix (SSM)
CCBHS Financial Data	❖ Costs associated with AOT	❖ CCBHS Expenditures to MHS ❖ Staffing Expenditures: County Counsel, Public Defender's Office, and Civil Court

Data Analysis

RDA worked closely with CCBHS and MHS staff throughout the data collection and analysis processes. Upon receiving each data set, RDA performed a review of its contents and collaborated with CCBHS and MHS staff to ensure the evaluation team understood each data element and could seek additional data as needed.

Given that data for this evaluation came from multiple sources, RDA first ensured that identifying information for consumers was consistent and could be matched across sources so that each consumer could be tracked throughout his or her involvement in AOT. For example, data from MHS regarding consumers' enrollment into AOT was matched with County billing data to establish enrollment dates and create a variable indicating whether or not County services occurred before or after AOT enrollment. RDA consulted with CCBHS and MHS on any consumers where their timeline was unclear.

After verifying our understanding of the data with the Care Team and matching consumers across data sources, RDA began the analysis. Throughout this process, several key analytic decisions were made:

- Though some data sources provided consumer data through August, the evaluation team decided to use July 31, 2016 as a cut-off date for data collection and analysis in order to consistently report on all consumer outcomes. For example, episodes open beyond July 31, 2016 were given an end date of July 31 for this interim report's analyses.
- RDA decided to categorize consumers based on their four disposition or status categories as of July 31, 2016 (i.e., Ongoing Outreach and Engagement, Accepted ACT Services Voluntarily, Accepted ACT Services with a Settlement Agreement, and Closed).
- RDA also created several variables for analysis based on multiple data sources, which were used to describe the average duration of time consumers spent moving through the AOT process, depending on what month they were referred:
    - Length of time (in days) from referral to first CCBHS contact
    - Length of time (in days) from first CCBHS contact to last (or July 31, 2016 if investigation still ongoing) CCBHS contact
    - Length of time (in days) from first CCBHS contact to first MHS contact
    - Length of time (in days) from first MHS contact to AOT enrollment
    - Length of time (in days) from referral to enrollment
- Given the different sample sizes in the above-mentioned four disposition groups (11, 14, 3, and 10, respectively) and variability in length of enrollment for those in AOT, findings were reported per month and per consumer when possible. This allowed RDA to standardize results and account for differences in sample size and length of enrollment.
- For this report, RDA used self-reported data for all outcomes except hospitalization and billable services. The majority of this data captured consumers' experiences for 12 months prior to their enrollment in AOT; however, RDA was able to use three years of pre-data for hospitalizations and other billable CCBHS services. RDA chose to use all years of available PSP billing data, standardized by month, when reporting on hospitalization costs and the consumer profile, but used only the year prior to enrollment when reporting on pre-AOT hospitalizations in the "AOT Consumer Outcomes" section.
- RDA chose not to report on any data at an individual level in order to ensure confidentiality.

For all analyses in this report, RDA used descriptive statistics (e.g., frequencies, mean, median, and mode) to describe the data in meaningful ways. In future reports with larger sample sizes and longer enrollment

periods for consumers, RDA will look to employ both descriptive and inferential statistics to answer the evaluation's research questions.

Limitations

As is the case with all real-world evaluations, there are limitations to consider. One major limitation is the preliminary nature of this evaluation. Given that the County's AOT program became operational on February 1, 2016, and that the County embarked on implementing its first ACT program with a new service provider at this time, there are natural programmatic developments and modifications that took place over the course of the evaluation period. It is important to note that program modifications are to be expected, and results should be interpreted cautiously until the County's AOT program has become more firmly established.

It is also important to note that from February 1, 2016 - July 31, 2016 Contra Costa County's AOT program enrolled only 17 AOT consumers, six of which enrolled in June or July. Moreover, AOT consumers had only spent, on average, 77 days enrolled in the AOT program, with participation ranging from two weeks to five months through July 31, 2016. Because relatively few individuals enrolled in AOT during the evaluation period, and they only spent, on average, short periods in AOT, this report does not assess changes in DHCS outcomes, including costs, pre- and post-AOT enrollment. Instead pre-AOT criminal justice involvement and histories of hospitalization and homelessness are reported, while baseline psychosocial assessment data from MHS are reported. Future reports will analyze changes over time as greater numbers of AOT participants have been enrolled for longer periods of time.

For this report, RDA also relied on AOT consumer self-reported measures of criminal justice involvement to identify pre-AOT criminal justice involvement. While self-report measures may serve as an accurate proxy, they are not ideal measures and limit the precision of the analyses. In order to produce more robust analyses for future reports, RDA has established agreements with the Superior Court and Sheriff's Office to collect arrest and sentencing data to measure criminal justice involvement pre- and post-AOT enrollment.

MHS has been operational for a short time period and thus there is a relatively small number of AOT consumers enrolled in the program. In order to the average monthly cost of providing MHS services for AOT consumers, RDA utilized the most recent month's (June 2016) financial data from MHS. While this measure is not ideal, RDA made the assumption that the costs incurred during the most recent month of AOT implementation would be the most reflective of the current costs. Once the program has matured and greater number of consumers are enrolled, RDA will be able to calculate a more usable average monthly MHS costs.

A final limitation is the County's data capacity for tracking AOT services. CCBHS has no electronic records of their investigation process; instead, all of this information exists in hard copy, hand-written notes. RDA spent one day working with CCBHS staff to collect pertinent information on all individuals eventually referred to MHS; moving forward, in order to better describe and compare the consumer profiles of those

who are and are not referred to MHS for AOT enrollment, it is imperative that CCBHS begin to transfer data from field notes into an electronic platform.

MHS also has data limitations, as large numbers of PAF, KET, and 3M data were not available via the County's DCR data system. It appears that PAF data is only available for consumers' first assessment, so if AOT consumers have already had assessments entered into the system there was no way to retrieve this data. Moreover, large numbers of KET and 3M data were missing from the DCR. As a result, RDA staff spent one day working with MHS to transfer hard copies of PAF, KET, and 3M assessments into Excel spreadsheets for evaluation. Moving forward, RDA will work with MHS to streamline this process.

Despite these limitations, the following evaluation will help CCBHS and MHS better understand how AOT implementation is progressing, as well as some of the individual, program, and systems-level processes that have resulted from the implementation of AOT. This evaluation will help CCBHS and MHS develop program improvements, and also help the County begin to answer critical questions that will assist them as they continue to improve their capacity to meet the needs of those with the most serious mental illnesses. This evaluation would not be able to answer such questions if AOT implementation took place under the constraints of a randomized control trial.

Results

RDA's evaluation of Contra Costa County's AOT program is structured to explore specific research questions. This initial report addresses the following to evaluation research questions:

1. How faithful are Contra Costa County's ACT services to the ACT model?
2. What are the outcomes for the people who participate in AOT, including the DHCS-required reporting outcomes?

In this Results section, RDA first presents its findings addressing the first research question of assessing Contra Costa County's implementation fidelity of ACT services. Following the presentation of RDA's ACT Fidelity Assessment findings, RDA then presents its findings of outcomes exhibited and experienced by AOT participants, broken down by pre- and post-AOT enrollment related outcomes.

ACT Fidelity

The ACT program was rated on the three domains set forth in the ACT Fidelity Scale, including:

- Human Resources: Structure and Composition
- Organizational Boundaries
- Nature of Services

Each domain has specific criterion rated on a five-point Likert scale with clearly defined descriptions for each rating. The following chart provides an overview of the domains, criterion, and ACTiOn Team's program rating. As shown in the table below, **the ACTiOn Team received an overall fidelity score of 4.73 indicating a high level of fidelity to the ACT Model**. The proceeding section provides descriptions, justifications, and data sources for each criterion and rating.

Table 2. ACT Fidelity Assessment Scores

Domain	Criterion	Rating
Human Resources: Structure and Composition	Small caseload	5
	Team approach	5
	Program meeting	5
	Practicing ACT leader	4
	Continuity of staffing	4
	Staff capacity	5
	Psychiatrist on team	5
	Nurse on team	5
	Substance abuse specialist on team	5
	Vocational specialist on team	5

Domain	Criterion	Rating
	Program size	5
Organizational Boundaries	Explicit admission criteria	3
	Intake rate	5
	Full responsibility for treatment services	5
	Responsibility for crisis services	5
	Responsibility for hospital admissions	N/A
	Responsibility for hospital discharge planning	N/A
	Time-unlimited services	5
Nature of Services	In vivo services	3
	No drop-out policy	5
	Assertive engagement mechanisms	5
	Intensity of services	5
	Frequency of contact	4
	Work with support system	5
	Individualized substance abuse treatment	5
	Co-occurring disorder treatment groups	5
	Co-occurring disorders model	5
	Role of consumers on treatment team	5
ACT Fidelity Score		**4.73**

Human Resources: Structure and Composition

Small Caseload: 5

Small caseload refers to the consumer-to-provider ratio, which is 10:1 for ACT programs. MHS' ACTiOn Team received a rating of 5 for this criterion as they have 11.5 FTEs who provide direct services, as well as 2 administrative staff, for 17 consumers and clearly exceeds the 10:1 ratio. This was assessed through personnel records and staff interviews.

Team Approach: 5

Team approach refers to the provider group functioning as a team rather than as individual team members with all ACT team members knowing and working with all consumers. MHS' ACTiOn Team received a rating of 5 for this criterion as more than 90% of consumers had face-to-face interactions with more than one team member in a two-week period. This was assessed through consumer records and further supported through the morning meeting observation, staff interviews, and consumer and family focus groups.

Program Meetings: 5

The Program meeting item measures the frequency with which the ACTiOn team meets to plan and review services for each consumer. MHS' ACTiOn Team received a rating of 5 for this criterion as they team meets at least four times per week and reviews every consumer in each meeting. Assessors observed the

program meeting during the site visit and observed the team discussion for every consumer as well as confirmed the frequency of program meeting through available documentation and staff interviews.

Practicing ACT Leader: 4

Practicing ACT leader refers to the supervisor of frontline staff providing direct service to consumers. Full fidelity requires that the supervisor provide direct service at least 50% of the time. MHS' ACTiOn Team received a rating of 4 because the Team Leader provides direct services about 40% of the time. These direct services include both formal and informal interactions and may or may not include formal progress notes. As such, this rating is solely based on staff interviews.

Continuity of Staffing: 4

Continuity of staffing measures the program's level of staff retention. Full fidelity requires less than 20% turnover within a two-year period, which was adjusted to a 6-month period for MHS' ACTiOn Team as per the Dartmouth protocol for evaluating new programs. During the evaluation period, there were four of 20 staff who discontinued employment with MHS' ACTiOn Team, which is a 20% turnover rate for the first six months of program operation. This results in a rating of 4 based on the scoring rubric and was assessed through a review of personnel records and staff interviews.

Staff Capacity: 5

Staff capacity refers to the ACT program operating at full staff capacity. According to personnel records, the MHS' ACTiOn Team has operated at or above full staffing capacity 100% of the time, which exceeds the 95% benchmark set forth in the scoring rubric.

Psychiatrist on Team: 5

Fidelity to the ACT model requires 1.0 FTE psychiatrist per 100 consumers. For 17 consumers, the ACT team would require a 0.17 FTE psychiatrist. Currently, MHS' ACTiOn Team provides 0.5 FTE psychiatrist, as reported by staff and personnel records. This results in a rating of 5. Once the program is at full capacity of 75 enrolled consumers, the team will require a .75 FTE psychiatrist to meet full fidelity to the ACT model.

Nurse on Team: 5

The ACT model requires a 1.0 FTE nurse per 100 consumers. Currently, MHS' ACTiOn Team employs two full-time nurses, including a registered nurse and licensed vocational nurse, as observed by personnel records and staff interviews. This exceeds the required ratio and results in a rating of 5.

Substance Abuse Specialist on Team: 5

The ACT model includes a substance abuse specialist position on the ACT team. Currently, MHS' ACTiOn Team employs a 1.0 FTE dual recovery specialist as well as a family partner who is a Certified Drug and

Alcohol Counselor (CADC), as observed by personnel records and staff interviews. This exceeds the required ratio and results in a rating of 5.

Vocational Specialist on Team: 5

The ACT model includes a vocational specialist position on the ACT team. Currently, MHS' ACTiOn Team employs a 1.0 FTE vocational rehabilitation specialist, as observed by personnel records and staff interviews. This exceeds the required ratio and results in a rating of 5. When at full capacity, the program will need to ensure that there are 1.5 FTE with the requisite experience in vocational rehabilitation.

Program Size: 5

Program size refers to the size of the staffing to provide necessary staffing diversity and coverage. MHS' ACTiOn Team exceeds the staffing ratio, as observed by personnel records and staff interview. This results in a rating of 5.

Organizational Boundaries

Explicit Admission Criteria: 3

Explicit admission criteria refer to: 1) measureable and operationally defined criteria to determine referral eligibility, and 2) ability to make independent admission decisions based on explicitly defined criteria. MHS' ACTiOn Team, in partnership with CCBHS, has explicit admission criteria for enrollment into ACT. However, the responsibility for actively identifying and engaging potential ACT consumers lies primarily with CCBHS as a part of the larger Assisted Outpatient Treatment program. The measureable and operationally defined criteria clearly meets ACT fidelity while the decision-making authority is not in alignment with the model. This is not to suggest that a partnership between CCBHS and MHS could not meet fidelity but more that the partnership must involve both parties working together to determine and confirm eligibility. For this reason, MHS' ACTiOn Team received a score of 3, which is the average of a 5 for the clearly defined criteria and a 1 because they take all cases as determined outside of the program.

Intake Rate: 5

Intake rate refers to the rate at which consumers are accepted into the program to maintain a stable service environment. In the past six months, there have been no more than six consumers admitted in any given month resulting in a rating of 5. This was observed through a review of consumer records.

MHS' Action Team admitted new clients from March to July for the reporting period. There were no intakes in the months of January and February. For the five months that the team conducted intakes, they averaged 3.4 clients per month. The most intakes they had in month was four in March, June, and July and the lowest intakes was two in the month of April.

Table 3. Action Team Monthly Intake January 2016 to July 2016

Month of Intake	Total Intakes
March	4

Month of Intake	Total Intakes
April	2
May	3
June	4
July	4
Total Intakes	**17**
Monthly Average	**3.4**

In order to implement ACT with fidelity, a provider should have a monthly intake rate of six or lower. The Action Team's highest monthly intake was four and receive a score of 5 for this item.

Full Responsibility for Services: 5

Fidelity to the ACT model requires that ACT programs not only provide case management services but also provide psychiatric services, counseling/psychotherapy, housing support, substance abuse treatment, and employment and rehabilitative services. Currently, MHS' ACTiOn Team provides the full range of services, including psychiatric services, counseling/psychotherapy, housing support, substance abuse treatment, and employment and rehabilitative services. This was observed through program meeting observation, staff interview, a review of consumer personnel records, and input from a consumer focus group and results in a rating of 5.

Responsibility for Crisis Services: 5

The ACT model includes a 24-hour responsibility for covering psychiatric crises. MHS' ACTiOn Team provides 24-hour coverage through a rotating on-call system that is shared by all program staff, with the exception of administrative staff. The Team Leader and Program Supervisor provide back-up coverage and support. This was observed through program meeting observation and staff interview as well as a review of personnel records and results in a rating of 5.

Responsibility for Hospital Admissions: N/A

The ACT model includes the ACT program participating in decision-making for psychiatric hospitalization. Currently, MHS' ACTiOn Team is willing and available to participate in all decisions to hospitalize ACT consumers. During the initial six-month period, there were no inpatient psychiatric hospitalizations. It is important to note that some consumers were hospitalized at the time of referral and/or enrollment into the program, and those hospitalizations were not considered in this ACT Fidelity Assessment criterion as the decision to hospitalize occurred either before or as a part of the enrollment process. Some consumers did access other crisis services post ACT-enrollment, including Psychiatric Emergency Services and Crisis Residential Treatment, but none were actually hospitalized following enrollment. As such, this criterion was not scored and removed from the overall fidelity score.

Responsibility for Hospital Discharge Planning: N/A

The ACT model includes the ACT program participating in hospital discharge planning. Currently, MHS' ACTiOn Team is willing and available to participate in all decisions to hospitalize ACT consumers. During the initial six-month period, there were no inpatient psychiatric hospitalizations. It is important to note that some consumers were hospitalized at the time of referral and/or enrollment into the program, and those hospitalizations were not considered in this criterion as the hospitalization occurred either before or as a part of the enrollment process. Some consumers did access other crisis services post ACT-enrollment, including Psychiatric Emergency Services and Crisis Residential Treatment, but none were actually hospitalized following enrollment. As such, this criterion was not scored and removed from the overall fidelity score.

Time-Unlimited Services: 5

The ACT model is designed to be time-unlimited with the expectation that less than 5% of consumers graduate annually. MHS' ACTiOn Team did not graduate any consumers during the assessment period, although any consumer who moved out of the area was removed from the analysis for this criterion. This was determined through consumer records, staff interview, and via input from family members.

Nature of Services

In-Vivo Services: 3

ACT services are designed to be provided in the community, rather than in an office environment. The Community-based services item measures the number of MHS' ACTiOn Team contacts in a client's natural settings which refers to location where clients live, work, and interact with other people. To calculate this measure, we randomly selected 10 of the 17 ACT clients and counted the total number of community based encounters for each client from January 1, 2016 to July 31, 2016. We calculated a ratio of community based encounters to the total number of encounters for each client. We then ranked the ten ratios and determined the median value to score this measure. For this time period, 53% of all encounters between the Action Team and Clients occurred in the Community-based settings. As this percentage falls between the range of 40% to 59%, the score for this measure is 3.

No Dropout Policy: 5

This criterion refers to the retention rate of consumers in the ACT program. According to consumer records and staff report, no consumer dropped out of MHS' ACTiOn Team in the past 12 months. Any consumer who moved out of the area was removed from the analysis for this criterion, and this was determined through consumer records, staff interview, and via input from family members.

Assertive Engagement Mechanisms: 5

As part of ensuring engagement, the ACT model includes using street outreach and legal mechanisms as indicated and available to the ACT team. The ACT team includes a subsection of consumers who are

enrolled in Assisted Outpatient Treatment via agreement with the court, a legal mechanism for supporting engagement, as well as a variety of outreach mechanisms to engage consumers. During the program meeting observation and staff interviews, team members discussed places where they regularly frequent to locate and interact with consumers. This results in a rating of 5.

Intensity of Services: 5

Intensity of services is defined by the face-to-face time service time MHS' ACTiOn Team staff spend with clients. Fidelity to the ACT model requires that consumers receive an average of two hours per week of face-to-face contact. We measured intensity of services by analyzing data from the most recent and up to date time period, which was July 2016. Following ACT Assessment protocols, we calculated the weekly mean values of encounter time (converted from minutes to hours) between MHS' ACTiOn Team staff and clients over a four-week period. From the mean values over the four-week period we determined the median number of services hours. We excluded phone contacts and collateral contacts.

For the month of July, 17 ACT clients received a total of 362.7 hours of face-to-face services. The intensity of service rate was **5.4 hours of services per week per client**. In order to be in alignment with the ACT model, providers are expected to provide more than two hours of services per week. Since the MHS' ACTiOn Team well exceeds that level, they receive a score of 5.

Across individual clients, we noted some variability in the intensity of services for the month. The range of intensity was relatively large; from a minimum value of 5.2 hours to 50.7 hours with the median being 17.7. Similarly, when ranking clients in quartiles, as depicted in Table 4, the top quartile of four clients accounts for 164 hours, or forty-eight percent (45%) of all hours (*n* = 341) for that month. Similarly, the second quartile of five clients accounts for 104 hours or 30% of service hours in July. If the first and second quartiles are combined, nine clients account for 267 or seventy-eight percent (78%) of logged service hours in July. The remaining eight clients in the third and fourth quartiles account for only a total of 74 services hours or twenty-two percent of services hours.

Table 4. Quartile Ranking of Service Hours Received for July 2016

Quartile	Range of Hours	# of Clients	Total Hours	Percent of Total (*n* = 341)
Quartile 1	51– 27	4	163.8	48%
Quartile 2	26 – 17	5	103.6	30%
Quartile 3	16 – 10	4	52.2	15%
Quartile 4	9 – 0	4	21.8	6%

This variability indicates that while nearly all clients are receiving the appropriate intensity of services, a small portion of clients receive services at much higher rate of intensity than the rest. Currently, with the smaller pool of clients, this does not appear to impact MHS' ACTiOn Team's capacity to provide services at a rate that is in alignment with the ACT model. However, as MHS' ACTiOn Team expands the number of clients they serve, continuing this trend will likely cause inconsistencies in service delivery across clients and may result in decreased fidelity to the model.

Frequency of Contact: 4

Fidelity to the ACT model requires that ACT consumers have an average of at least four (4) face-to-face contacts per week. We measured frequency of contact by analyzing at data from the most recent and up to date time period, which was July 2016. Following ACT Assessment protocols, we calculated the mean values over a four-week period of face-to-face contacts between ACT team member and ACT clients. From the mean values over the four-week period, we determined the median number of services hours. We excluded phone contacts and collateral contacts. For the month of July, MHS' ACTiOn Team conducted a total of 223 face-to-face contacts with 16 clients. Using the ACT assessment methodology, the frequency of contact rate was 3.8 face-to-face contacts per week with the Action Team. In order to be in full alignment with the ACT model, providers must have an average of four contacts per week. As the average is slightly lower than 4, the ACTiOn team receives a score of 4.

Table 5. Action Team Face-to-face Contacts with Clients by Week for July 2016

Week	Weekly Total Contact	Weekly Average Contacts
Week 1 (July 1 – 7)	37	2.6
Week 2 (July 8 - 15	64	4.5
Week 3 (July 16- 23)	62	3.9
Week 4 (July 24 – 31)	60	3.7

Looking at face-to-face contacts per client for the entire month, we also noted a large range in face-to-face contacts. The lowest number of contacts for the month was five while the max number of contacts was 28 with the median value being 13. Similarly, as depicted in Table 5, there is some variation in the total number of contact by from Week One to the other three weeks in the month.

Work with Informal Support System: 5

The ACT model includes support and skill-building for the consumer's support network, including family, landlords, and employers. This criterion measures the extent to which MHS' ACTiOn Team provides support and skill-building for the client's informal support network as a way to further enhance the client's integration and functioning. Per the ACT Fidelity Assessment methodology, we identified a subgroup of 11 clients with collateral contacts from January 1, 2016 to July 31, 2016 and calculated the average rate of contact for this for the subgroup. We then calculated the rate of contact for the entire caseload of 17 clients. The rate of collateral contact for the Action Team for this time period is 4.8 contacts per month per client. In order to be in full alignment with the model, ACT providers must have 4 or more collateral contacts per client, per month. As the Action Team's rate of contact is higher than four, they receive of score of 5.

When looking at the contact data of clients with collateral contacts, we noticed that there is a wide range in the number of contacts for each client. Most clients were in a range of 1 to 6 contacts per client, while one client had 50 contacts. It is important to note, that this individual does skew the rate of contact to increase substantially. If we exclude this individual from the calculation, the rate of collateral contact drops from 4.8 to 2 while the median value drops to 3.5.

Individualized Substance Abuse Treatment: 5

The ACT model is based on an interdisciplinary team that provides all of the services a consumer may need to support their recovery and address their psychosocial needs, including individualized substance abuse treatment. MHS' ACTiOn Team provides individualized substance abuse services via the dual recovery specialist, family partner, and other clinical staff. This was observed through a review of personnel and consumer records, staff interview, and consumer focus groups and results in a rating of 5.

Co-occurring Disorder Treatment Groups: 5

The ACT model is based on an interdisciplinary team that provides all of the services a consumer may need to support their recovery and address their psychosocial needs, including co-occurring disorder treatment groups. MHS' ACTiOn Team provides co-occurring disorder groups led by the dual recovery specialist, family partner, and other clinical staff. This was observed through a review of personnel and consumer records, staff interview, and consumer focus groups and results in a rating of 5.

Dual Disorders Model: 5

The ACT model is based on a non-confrontational, stage-wise treatment model that considers the interactions between mental illness and substance use and has gradual expectations of abstinence. The assessors were impressed with the implementation of motivational interviewing and stages of change principles throughout the program meeting and staff interviews and found that MHS' ACTiOn Team clearly meets and exceeds the treatment philosophy set forth in the ACT model. This results in a rating of 5.

Role of Consumers on Team: 5

The ACT model includes the integration of consumers as full-fledged ACT team members, usually in the provision of peer support and/or peer counseling. MHS' ACTiOn Team does include consumer membership as a part of the ACT team staffing. This was observed through a review of personnel records, team meeting observation, and staff interview and results in a rating of 5.

Other Feedback

ACT consumers and family members were generally appreciative of the ACT program and believed that participating in ACT had been beneficial. Program strengths included:

- **Partnership and Responsivity:** Consumers commented on the unique qualities of the ACT program with respect to feeling like a partner and participating in shared decision making with the team to determine recovery goals and strategies. They specifically highlighted the psychiatrist as someone who cares about their opinions, asks for their feedback, and considers their experiences in making medication decisions. One participant also acknowledged that the team nurse has been willing to administer injections at her home to help her feel more comfortable because she is afraid of needles. Consumers also acknowledged how responsive staff are. Consumers shared, "I get assistance right away," and "you can explain your need and someone

will come find you." Another consumer stated, "Someone is always within your reach. Telephone, stop by, or they come find you."

- **Professionalism:** Consumers discussed the professionalism of the ACT team and staff. Consumers specifically mentioned their consistency in returning phone calls and clear communication as well as the staff training in supporting individuals when in crisis to deescalate the situation and avoid interaction with the police and/or hospital.
- **Inclusive approach to services:** Participants highlighted that the ACT team is responsive to a variety of support needs, including:
  - Coordinating, reminding, and providing transportation to attend appointments, including doctor and psychiatry appointments
  - Support with medications, specifically injections and delivering prescriptions
  - Helping navigate the legal system, either the court component of AOT or because of previous victimization
  - Activity-based and recovery-oriented groups, including the fitness class

Discussion participants also provided suggestions for improving the program, including:

- **Meaningful Activities:** Consumers and family members shared that despite the frequent contact with members of MHS' ACTiOn Team, people still have a fair amount of free time. Both consumers and family members suggested that activity-based groups may be helpful to support consumers with their recovery goals. Suggestions included more game nights, art groups, barbeques, trips to the library or other community locales, and volunteering at the local animal shelter.
- **Family Component:** While family members and consumers alike discussed how the program is supporting them to rebuild relationships, family members also discussed how difficult it can be to support their loved ones and that it would be useful to have a family support group for ACT family members as a part of the program. This group could provide support to family members as well as provide psychoeducation to build additional skills to support their loved one. The assessors recommend, in addition to a family support group, a multi-family group whereby ACT consumers and their family members attend a group and participate in recovery-oriented activities together. Multi-family groups are an evidence based practice and support improved communication within a family unit as well as develop shared goals and tools to support recovery, provide additional opportunities for consumers and family members to build positive experiences as the consumer stabilizes, and encourage community amongst consumer and family members.
- **Housing and Supervision:** While many consumers and family members appreciated that they received housing as a part of enrolling in MHS' ACTiOn Team, family members cited both the lack of available housing in the County, the lack of a diversity of housing options, and supervision concerns. While there were no ready solutions, some family members wished that there was a higher degree of supervision within the housing placements for their loved ones as well as more housing choices.

Pre-AOT Enrollment Outcomes

As noted above, CCBHS and MHS conduct an extensive set of activities from the time of referral to enrollment (refer to Figure 2 above for a visual representation of Contra Costa County's AOT process). Findings regarding the intended program model indicate that in practice this process has occurred in two consecutive steps, with some overlap. Given that in adopting AOT the County also implemented its first ACT program while working with a new service provider (MHS), it is natural for program modifications to occur. Currently, CCBHS staff conducts investigations to determine whether individuals referred to AOT meet eligibility criteria. Then, if an individual does meet eligibility criteria, the CCBHS staff in charge of the investigation connects MHS with the consumer to enroll them in AOT, either voluntarily or with court involvement. Given the modification to the AOT program implementation, RDA reports separate findings for CCBHS investigation and MHS outreach and engagement.

Referral for AOT

KEY FINDINGS

- Individuals for whom AOT is appropriate are being identified for services.
- Consumers' family members, spouses, and housemates made the majority (60%) of referrals to CCBHS, suggesting that AOT has increased the capacity of this group to seek help for their loved ones.
- There may be an opportunity for the County to increase its education and outreach to law enforcement officials and mental health service providers to further inform them about AOT, their role as qualified requestors, and the opportunities to refer eligible individuals for service.

As previously described, qualified requestors refer individuals who appear to meet AOT eligibility criteria by calling the County's AOT referral line. CCBHS staff determine the status of the qualified requestor prior to beginning their investigation of the referred consumer. CCBHS received 108 total referrals during the evaluation period. Of these 108 referrals for AOT, 105 were for unique individuals.[4] Seven of the 108 total referrals were from unqualified requestors or requestors labeled as "other." The majority of unqualified requestors were individuals referring themselves for AOT.

Table 6 depicts the percentage of referrals by each category of qualified requestor. The majority of qualified requestors who referred consumers to CCBHS for investigation were family members or housemates of consumers, which suggests that the implementation of AOT in Contra Costa County provides an opportunity for non-professionals to refer their loved ones for services. It also suggests that the County may need to increase its educational efforts with law enforcement and mental health providers to further inform them about the program and their role as qualified requestors. No referrals were made by the Director of the institution where a referred individual resides. It is unlikely that any

[4] None of the three individuals referred multiple times met AOT eligibility criteria.

referrals would be made by this type of requestor because Contra Costa County does not have any in-county mental health institutions. Given the large proportion of referrals from non-professionals, it is possible that the County may need to implement more targeted recruitment of eligible consumers who may not have loved ones advocating for them.

Table 6. Summary of Requestor Type[5]

Requestor	Percent of Total Referrals (N = 108)
Parent, spouse, adult sibling, or adult child	58.3%
Treating or supervising mental health provider	16.7%
Probation, parole, or peace officer	14.8%
Adult who lives with individual	1.9%
Director of hospital where individual is hospitalized	1.9%
Director of institution where individual resides	0.0%
Not a qualified requestor or "other"	6.5%

Care Team

KEY FINDINGS

- Members of the Care Team (CCBHS and MHS) are conducting many activities to connect with consumers and their families in the community in order to get them engaged in long-term mental health services.
- In the final months of the evaluation period, investigation and outreach and engagement efforts operated consecutively instead of concurrently.
- At the conclusion of the evaluation period (July 31, 2016), eligible consumers could be grouped into four different dispositions:
  - Ongoing Outreach and Engagement (29%)
  - Accepted ACT Services Voluntarily (26%)
  - Accepted ACT Services with a Settlement Agreement (8%)
  - Closed (26%)

Contra Costa County's Care Team consists of CCBHS and MHS staff. As previously described, the AOT program is designed so that the County's investigation and MHS's outreach and engagement efforts occur concurrently; however, quantitative and qualitative findings from the six-month evaluation period indicate that program implementation has modified over time. At the conclusion of the evaluation period, investigation efforts and outreach and engagement services were operating as a consecutive process. Therefore, this section reports findings from the different Care Team processes separately and concludes with findings from the time of referral to enrollment.

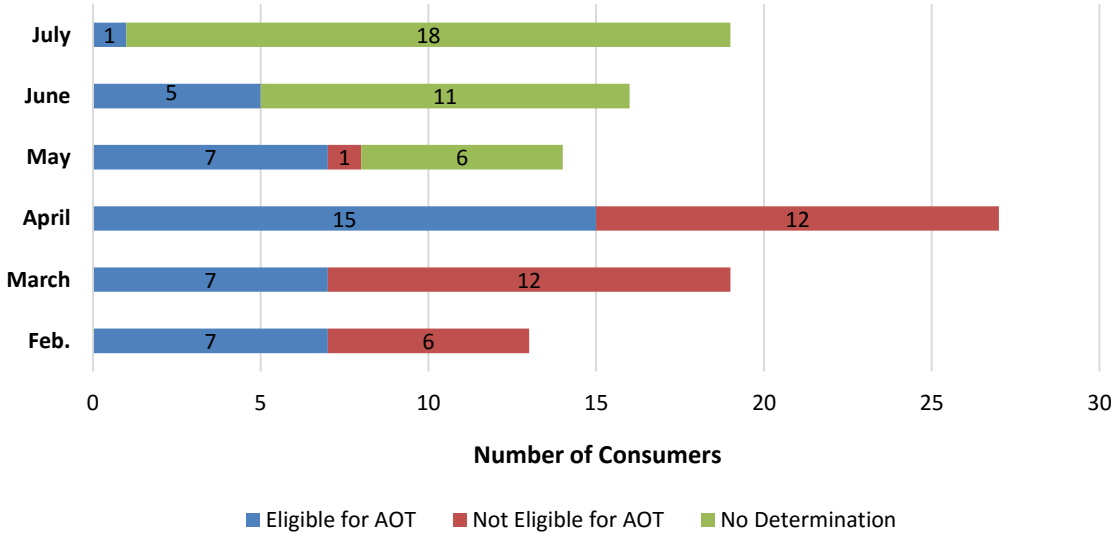
[5] Source: CCBHS Care Team Referral Log

Investigation

Following referral by a qualified requestor, CCBHS staff conduct a screening of the client's information and face sheet. If the client appears to meet AOT eligibility criteria, CCBHS meets with the qualified requestor. If the client continues to appear to meet eligibility criteria following a meeting with the qualified requestor, CCBHS begins a four- to six-week investigation to determine eligibility. Investigation consists of attempts to contact consumers via phone and in-person at various locations to determine if referred consumers meet the criteria for AOT. Consumers' family members are also included in this process, when appropriate and as permitted by law.

Figure 3 depicts CCBHS's eligibility determination for each referred consumer, by month. Individuals were either considered eligible for AOT, ineligible, or no determination had been made at the time of the evaluation. For the first three months of the program's implementation, an eligibility determination was made for all consumers. Qualitative data from focus groups with the County's investigation team suggest that the increase in consumers without an eligibility determination in May, June, and July may be partially due to a program modification requiring CCBHS to sign a document verifying that a referred consumer meets eligibility criteria before connecting them to MHS. This modification may have increased the duration of investigation periods. Additionally, the increase in consumers without a determination in more recent months may also be reflective of investigations that are still ongoing because consumers are difficult to connect or with locate. Future evaluation reports capturing a greater implementation period are expected to help explain these patterns.

Figure 3. AOT Eligibility Determinations for all Referred Consumers by Month[6]



During the evaluation period of February-July 2016, CCBHS's investigation identified and connected 38 individuals to MHS for outreach and engagement services. The remaining 67 consumers who were

[6] Source: CCBHS Care Team Referral Log

referred either had an unqualified requester, were considered ineligible, were unable to be located, were connected to other services, or still have an ongoing investigation.

For the purposes of this evaluation, RDA established the following four eligibility status categories to reflect the disposition of consumers at the conclusion of the evaluation period (July 31, 2016):

- **Ongoing Outreach and Engagement**: Consumers connected by the County to MHS for intensive outreach and engagement services who are still being engaged with the goal of connecting them to long-term services
- **Accepted ACT Services Voluntarily**: Consumers connected to MHS who enrolled in AOT and are receiving ACT services without court involvement
- **Accepted ACT Services with a Settlement Agreement**: Consumers connected to MHS who needed court involvement to enroll in AOT and receive ACT services
- **Closed**: Eligible consumers who were connected to MHS but closed in collaboration with the County for reasons including no longer meeting eligibility requirements, revocation of referral from the qualified requestor, or if consumers could not be located

Table 7 depicts the disposition of the 38 consumers considered eligible for AOT by CCBHS at the conclusion of the evaluation period. As of July 31, 2016, 45% of referred consumers who were considered eligible for AOT and connected to MHS enrolled in AOT, 29% were still receiving outreach services, and 26% were closed to investigation and outreach and engagement.

Table 7. Status of All AOT-Eligible Consumers at Conclusion of Evaluation Period[7,8]

Consumer Status	Number of Consumers	% of Total Eligible Consumers
Ongoing Outreach and Engagement	11	29%
Accepted ACT Services Voluntarily	14	37%
Accepted ACT Services with Settlement Agreement	3	8%
Closed	10	26%

During the evaluation period, CCBHS's investigation team made a total of 420 investigation contact attempts with consumers who appeared to meet AOT eligibility criteria (N = 38).[9] The proportion of total investigation contacts made with each consumer group is reported in Table 8. The majority of contacts were made with either consumers who were still receiving outreach and engagement services (32%) or who voluntarily enrolled in AOT (31%).

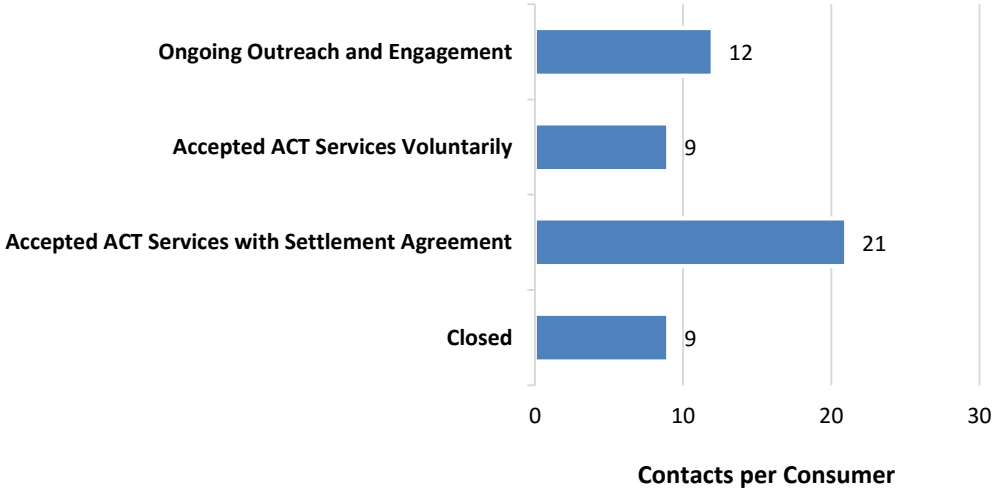
[7] Three individuals who were receiving outreach at the time of the evaluation have since been enrolled in AOT.
[8] Sources: CCBHS Care Referral Log; MHS Outreach and Engagement Log
[9] Data determining the outcome of each investigation contact is currently unavailable.

Table 8. Total Number of Investigation Contacts by Consumer Status

Consumer Status	Number of Contact Attempts
Ongoing Outreach and Engagement	135
Accepted ACT Services Voluntarily	131
Accepted ACT Services with Settlement Agreement	62
Closed	92

Figure 4 shows the average number of contacts per consumer by each disposition category. Though consumers who eventually accepted ACT services with a settlement agreement received the fewest total investigation contacts, they experienced the most contacts per consumer compared to any other group. This likely reflects: 1) the small size of this group (n = 3), and 2) the challenges associated with finding and engaging this group of consumers, which requires more attempts at contact to determine eligibility and successfully connect them with MHS for outreach and engagement.

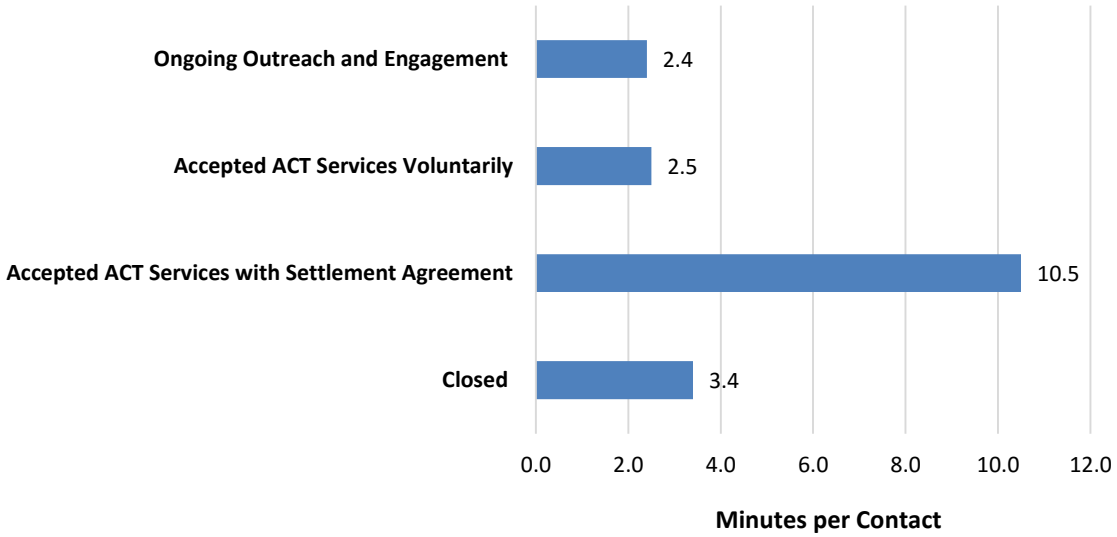
Figure 4. Average Investigation Contact Attempts per Consumer[10]



The median duration of time spent with all eligible consumers (N = 38) at every contact was 20 minutes. Figure 5 shows the average duration of contacts per consumer by disposition. As with the number of contacts per consumer (see Figure 4), CCHBS staff spent more time per contact with consumers who eventually enrolled in AOT through a settlement agreement, likely for similar reasons.

[10] Source: CCCBHS Care Team Referral Log

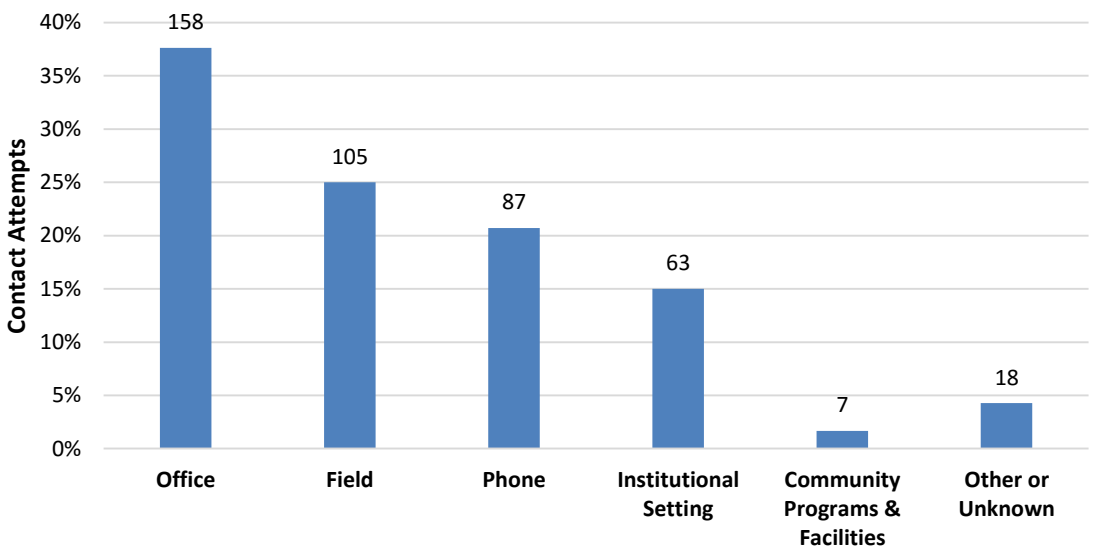
Figure 5. Average Duration (in Minutes) of Investigation Contacts per Consumer[10]



A key component of the investigation process is CCBHS's ability to meet consumers and their families at whatever location is necessary to find consumers and determine their eligibility for AOT. During the evaluation period, CCBHS connected with consumers and their family members in several locations and through both in-person and phone contacts. Figure 6 shows that 38% of contacts with all consumers occurred in a clinic setting in the County, including CCBHS' network of clinics, while 25% of contact attempts occurred in the field. Visits to correctional or inpatient facilities comprised 15% of investigation contacts and 21% of contacts occurred over the phone. Healthcare and licensed care facility visits accounted for two percent of contacts and the remaining four percent were at other locations or unknown. It is interesting that most contacts are occurring in clinic settings; future evaluations will explore the outcomes of these contacts to see if there are any differences in the success of contacts based on their location.[11]

[11] The total investigation contacts (N = 420) is lower than the total locations of contacts (N = 438) because some contacts occurred at multiple locations. Percentages of contact locations are reported for the total number of contacts.

Figure 6. Locations of CCBHS Investigation Contacts for All Eligible Consumers[12, 13]



In sum, the CCBHS investigation team identified and connected 38 eligible consumers for AOT outreach and engagement services. The majority of their contact attempts during the investigation were with those for whom outreach and engagement was still ongoing at the conclusion of the evaluation and with consumers who accepted ACT services voluntarily. However, they engaged in more contacts per consumer and had longer contacts on average with consumers who enrolled in ACT with a settlement agreement. Most of their total contacts occurred in their office (38%) or the field (25%). Given data constraints, RDA was unable to determine how many contacts were successful or the nature of the contact (e.g., in-person, collateral).

Outreach and Engagement

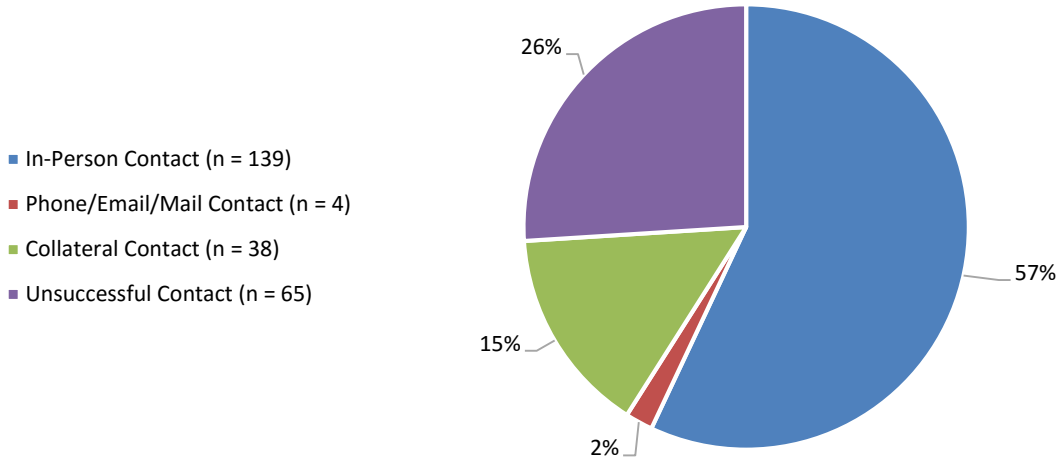
The CCBHS investigation team connects all consumers who appear to meet AOT eligibility requirements to MHS for outreach and engagement services. MHS conducts intensive outreach and engagement services to collect information about and build rapport with consumers and their families so that consumers ultimately agree to enroll in AOT and accept ACT services voluntarily.

As previously reported, CCBHS identified 38 eligible consumers and connected them to MHS. From February-July 2016, MHS attempted to provide outreach and engagement services 252 times to those consumers. RDA could not determine the outcomes of six of the 252 attempts and therefore removed them from the analysis. Contacts were considered unsuccessful if the consumer did not show, if MHS staff were unable to locate the consumer, or if MHS left a message for the consumer or family member. Figure

[12] Source: CCBHS Care Team Referral Log
[13] In order to protect consumers' confidentiality, correctional and inpatient facility categories were condensed to "Institutional Setting" and healthcare and licensed care facilities were condensed to "Community-Based Programs and Facilities."

7 shows that of the remaining 246 attempts at contact, 74% were successful and resulted in either an in-person contact; a telephone, email, or mail contact; or a collateral contact (e.g., contact with a family member, friend, clinician, etc.). This indicates that MHS's contact strategy is working effectively, as they were able to reach consumers or their loved ones the majority of the time.

Figure 7. Type of Outreach and Engagement Contact Attempts for All Consumers[14]



The proportion of total outreach and engagement contacts made with each consumer group is reported in Table 9. The majority of contact attempts were made with consumers who were still receiving outreach and engagement services (44%) or those who voluntarily enrolled in AOT (37%).

Table 9. Total Number of Outreach and Engagement Contact Attempts by Consumer Status

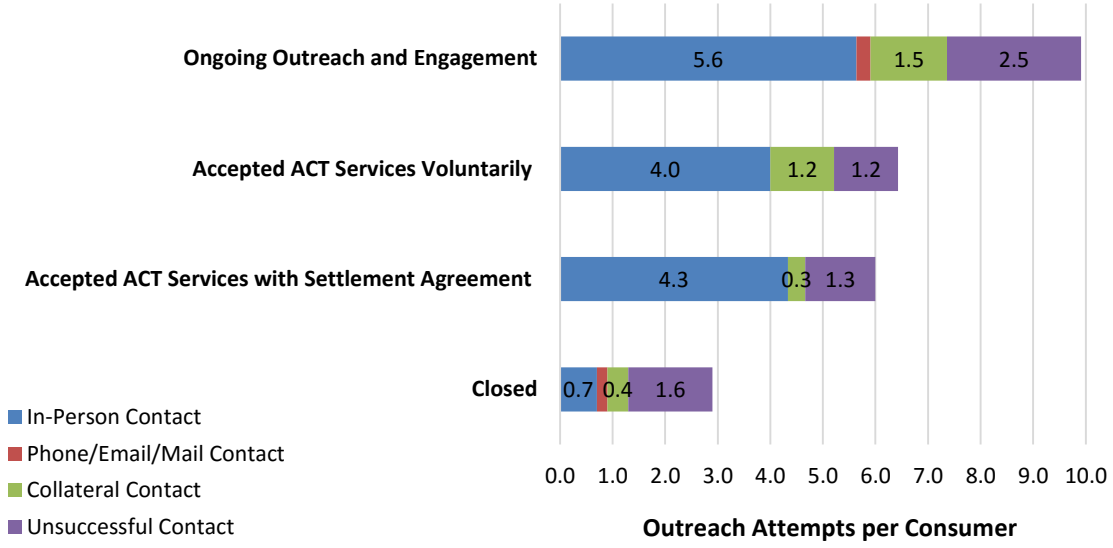
Consumer Status	Number of Contact Attempts
Ongoing Outreach and Engagement	109
Accepted ACT Services Voluntarily	90
Accepted ACT Services with Settlement Agreement	18
Closed	29

Figure 8 depicts the type and number of outreach and engagement attempts by MHS per consumer by consumer groups. Consumers who were still receiving outreach and engagement services at the conclusion of the evaluation period had the most successful in-person contacts per consumer. They also had the most unsuccessful contacts per person, which could reflect the higher number of total contact attempts for this group. Consumers for whom outreach and engagement was closed received the fewest total contact attempts (12%) and more unsuccessful attempts per consumer than either group of consumers enrolled in AOT. Interestingly, though consumers who voluntarily enrolled in AOT had five

[14] Source: MHS Outreach and Engagement Log

times as many total contact attempts than those who enrolled with a settlement agreement, the two groups had comparable outreach attempts per person. This is likely due to the difference in group size, with only three consumers enrolling in AOT through a settlement agreement.

Figure 8. Type and Number of Outreach and Engagement Attempts per Consumer[15,16]



As previously mentioned, MHS's outreach and engagement team consists of MHS clinicians and staff, family partners, and peer partners. Family partners are individuals with the lived experience of having a loved one with a serious mental illness. Peer partners are individuals with lived experience as consumers of the mental health system. Figure 9 shows the proportion of successful outreach and engagement attempts by provider for all consumers (N = 38). Family partners made almost half of the successful outreach contacts with all consumers, while peer partners made about one third.

[15] Source: MHS Outreach and Engagement Log
[16] There were 0.3 Phone/Email/Mail contacts for Ongoing Outreach and Engagement Consumers and 0.2 for Closed Consumers

Figure 9. Proportion of Successful Outreach Attempts by Provider for All Consumers[17]

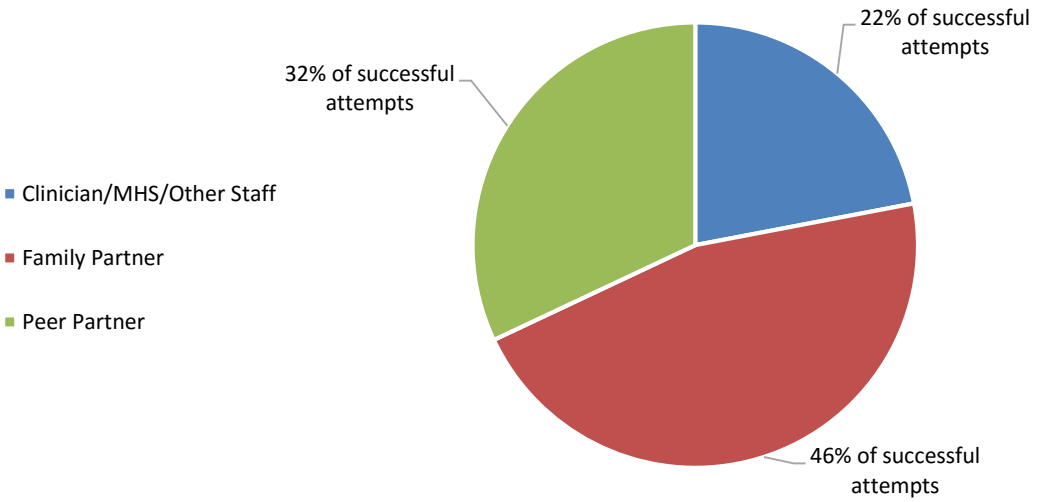
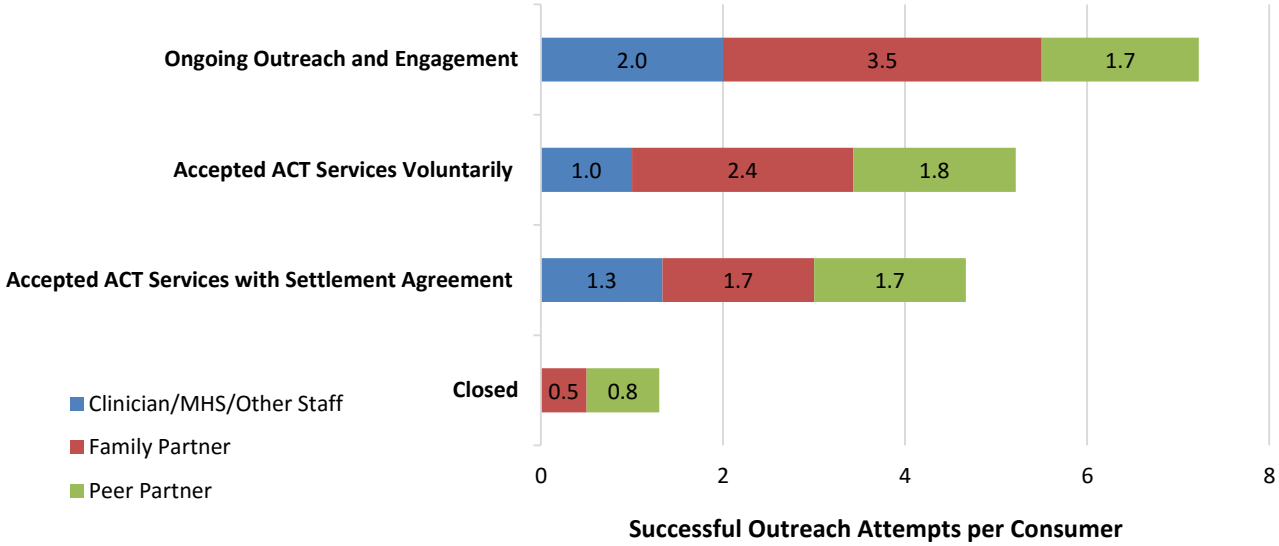


Figure 10 depicts the rate of outreach and engagement attempts by provider per consumer by disposition. Clinicians and MHS staff had zero successful contacts with consumers who were eventually closed in collaboration with the County. They had the most contacts per consumer with those who were still receiving outreach and engagement services. Compared to other providers, family partners had the highest rates of contact per consumer with those who accepted ACT services voluntarily and with those who still receiving outreach and engagement services at the conclusion of the evaluation period. Peer and family partners had equal contact with those who accepted ACT services with a settlement agreement.

[17] Source: MHS Outreach and Engagement Log

Figure 10. Successful Outreach and Engagement Attempts by Provider per Consumer[18]



The average duration of successful outreach and engagement attempts for all eligible consumers (N = 38) for the evaluation period was 44 minutes. Figure 11 shows the average length of successful attempts across all consumers by provider. Though peer partners had fewer contacts than family providers, their contacts lasted longer than family partners or clinicians and MHS staff, on average.

[18] Source: MHS Outreach and Engagement Log

Figure 11. Average Duration (in Minutes) of Successful Outreach and Engagement Attempts by Provider for All Eligible Consumers[19]

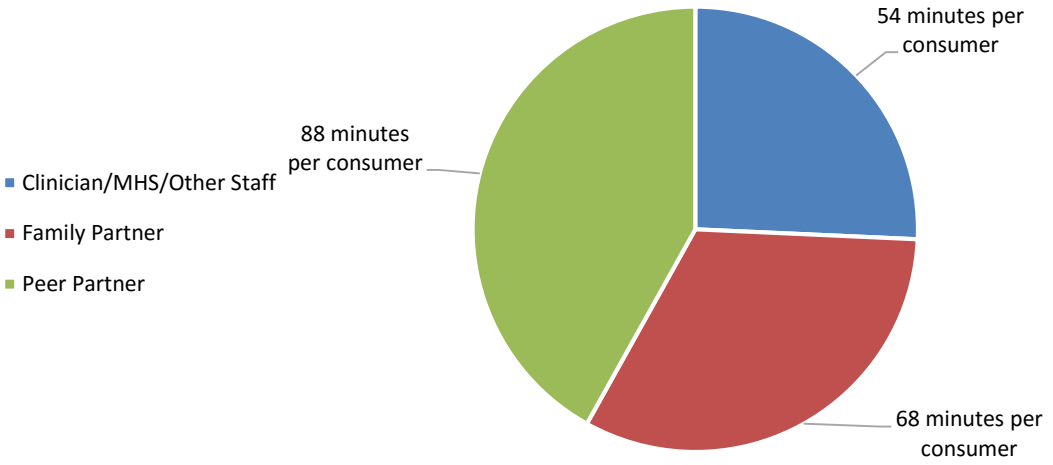
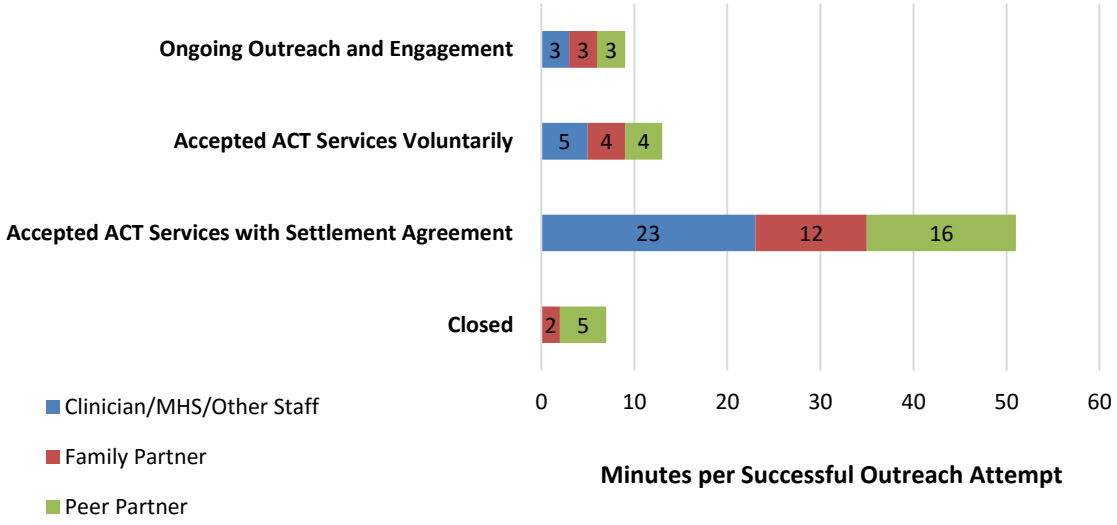


Figure 12 shows the average length of providers' successful outreach and engagement attempts per consumer. Interestingly, though there were fewer overall contacts between providers and consumers who eventually enrolled in ACT with a settlement agreement, the contacts that were made lasted longer per consumer than for any other consumer group.

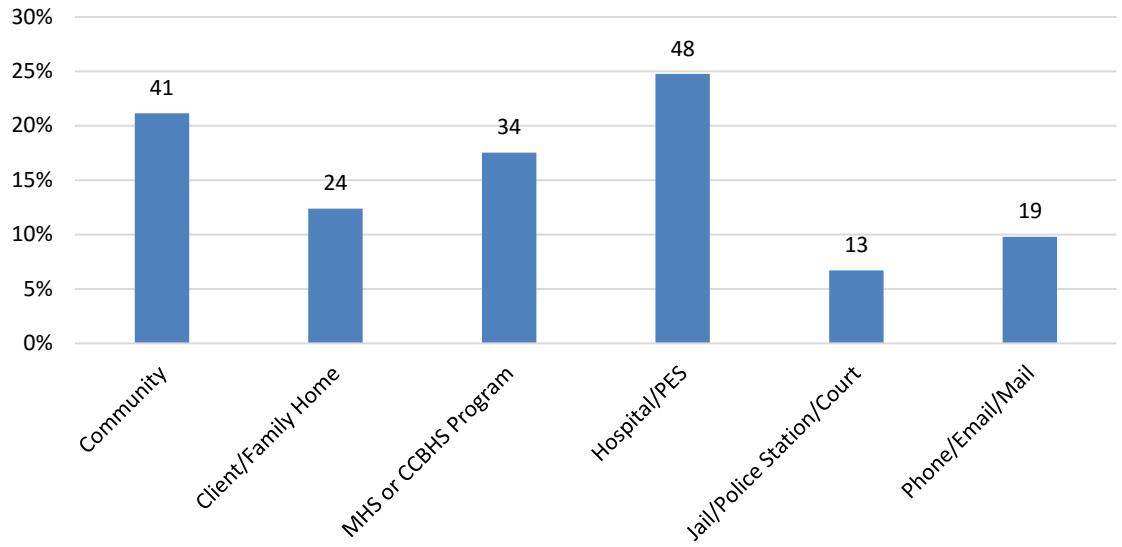
Figure 12. Average Duration (in Minutes) of Successful Outreach Attempts by Provider per Consumer[20]



[19] Source: MHS Outreach and Engagement Log
[20] Source: MHS Outreach and Engagement Log

As with the investigation process, MHS' outreach and engagement services are characterized by a willingness to engage with consumers and their families in the community and other settings. Figure 13 shows the various locations of MHS' successful contacts with consumers and their families. Most contacts occurred in hospitals or psychiatric emergency facilities (PES; 25%) or the community (21%).

Figure 13. Locations of Successful Outreach and Engagement Attempts for All Eligible Consumers[21]



In summary, the MHS outreach and engagement team made most of their successful contacts with consumers who were still receiving outreach services at the conclusion of the evaluation period (44%) or who voluntarily enrolled in ACT (37%). Though they made fewer total contact attempts with consumers who enrolled in AOT with a settlement agreement, the rate of contacts per consumer was similar across the two AOT groups. MHS family partners made the most successful contacts (46%) and had the highest rate of contacts with consumers still receiving outreach and engagement services; however, peer partners tended to have longer-lasting contacts. The longest contacts for all MHS providers were with consumers who enrolled in AOT with a settlement agreement.

Time from Referral to Enrollment

Throughout the evaluation period, there was variability in the time it takes from initial referral to AOT enrollment. Figure 14 depicts the timeline from referral through enrollment by each month of program implementation. Each month consists of all AOT consumers who were referred that month. The chart captures the average length in days of each stage of contact for consumers who enrolled in AOT during the evaluation period:

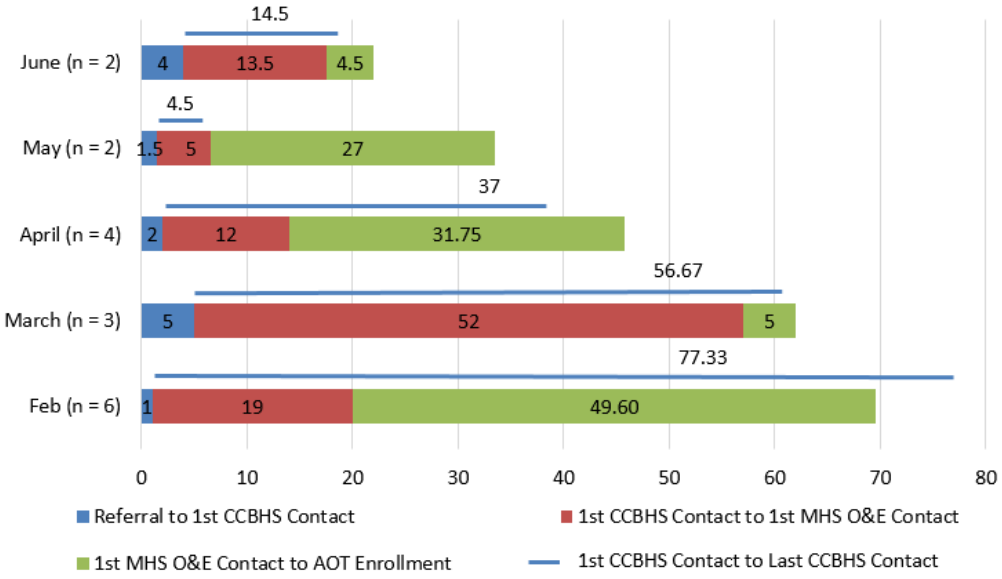
- Referral to first CCBHS contact
- First CCBHS contact to first MHS contact

[21] Source: MHS Outreach and Engagement Log

- First MHS contact to AOT enrollment
- First CCBHS contact to last CCBHS contact

Figure 14 suggests that individuals are getting from referral to enrollment more quickly as the AOT program model matures. In the program's first month of operation the average number of days from referral to enrollment was 70 days; by June the average number of days had dropped to approximately 22 days from referral to enrollment. Figure 14 also shows that there is less overlap between the investigation and the outreach and engagement services in the more recent months of program implementation. This represents the aforementioned modifications to the program implementation that occurred in more recent months and suggests that in the final months of the evaluation period, efforts at finding and engaging consumers are happening consecutively, as opposed to concurrently.

Figure 14. Average Days Spent in Each Step by Month for AOT Consumers[22]



Post-AOT Enrollment Outcomes

During the evaluation period, 17 of the 38 consumers identified by the Care Team as eligible for AOT enrolled in AOT and accepted ACT services. Of those 17 consumers, three enrolled following a petition to the court and a settlement agreement and 14 enrolled voluntarily.

This section reports the consumer profile of these 17 individuals, including their diagnosis and past service history, as well as a description of the intensity, frequency, and type of services they received.

[22] Sources: CCBHS Forensic Mental Health Referral Log; MHS Outreach and Engagement Log

AOT Consumer Profile

KEY FINDINGS

- The County is reaching the target population of consumers who have a history of repetitive hospitalization, incarceration, and homelessness.
- Sixty-five percent of AOT consumers self-report having co-occurring mental health and substance use disorders.

This section reports the demographic information and characteristics of consumers enrolled in AOT, including their diagnosis at enrollment and service utilization history.

Demographic Information

The CCBHS Care Team collected demographic information for every consumer referred for AOT. Table 10 depicts the demographic characteristics of the 17 individuals enrolled in AOT at the conclusion of the evaluation period. The majority of AOT consumers were female, white, and from the Central region of Contra Costa County.

Table 10. AOT Consumer Demographics[23]

Category	Percent
Gender	
Male	47%
Female	53%
Race/Ethnicity	
Black/African American	29%
White	59%
Other	12%
Region	
Central	47%
East	29%
West	24%

Diagnosis at Enrollment

MHS staff documents the primary diagnosis of AOT consumers at every encounter. For descriptive purposes in this evaluation, we report diagnosis at enrollment into the AOT program. Table 11 shows that the majority of consumers had a primary diagnosis of either schizophrenia (65%) or a mood disorder (30%), which includes bipolar and depressive disorders. Secondary diagnosis information will be included in future reports.

[23] Source: CCBHS Forensic Mental Health Referral Log

Table 11. AOT Consumer Primary Diagnosis at Enrollment[24]

Diagnosis	Percent
Mood Disorder, Including Bipolar and Depressive Disorders	30%
Schizophrenia	65%
Other	6%

According to County billing data, 12% of consumers had at least one episode of substance use treatment prior to enrollment; however, 65% of AOT consumers had a self-reported co-occurring substance use disorder at some point in their life and 59% had a self-reported co-occurring substance use disorder at enrollment.

MHS clinicians administered the Brief Psychiatric Rating Scale (BPRS) for 16 of the 17 consumers at enrollment. The BPRS measures psychiatric symptoms in 18 domains, including hostility, suspiciousness, and hallucination. For each question, the clinician rated the participant's observed symptomology over the previous days from 1 (not present) to 7 (extremely severe). The total rating scale ranges from 24 to 160. The average BPRS score of the 16 AOT consumers assessed at enrollment was 65, with scores ranging from 29 to 118 and a median score of 59.

Hospitalizations

County PSP data was used to track consumers' history of psychiatric hospitalization in the three years prior to the implementation of AOT in Contra Costa County. During that time, 13 consumers had at least one inpatient psychiatric hospitalization at the Contra Costa Regional Medical Center, Mount Diablo Medical Pavilion, or Napa State Hospital. As shown in Table 12, of those consumers with at least one hospital stay, there was an average of five hospitalizations per consumer. Their prior hospital stays lasted an average of 23 days. On average, all 17 AOT consumers had about 3.8 hospitalizations per consumer.

Table 12. Average and Median Hospital Episodes and Days in Hospital

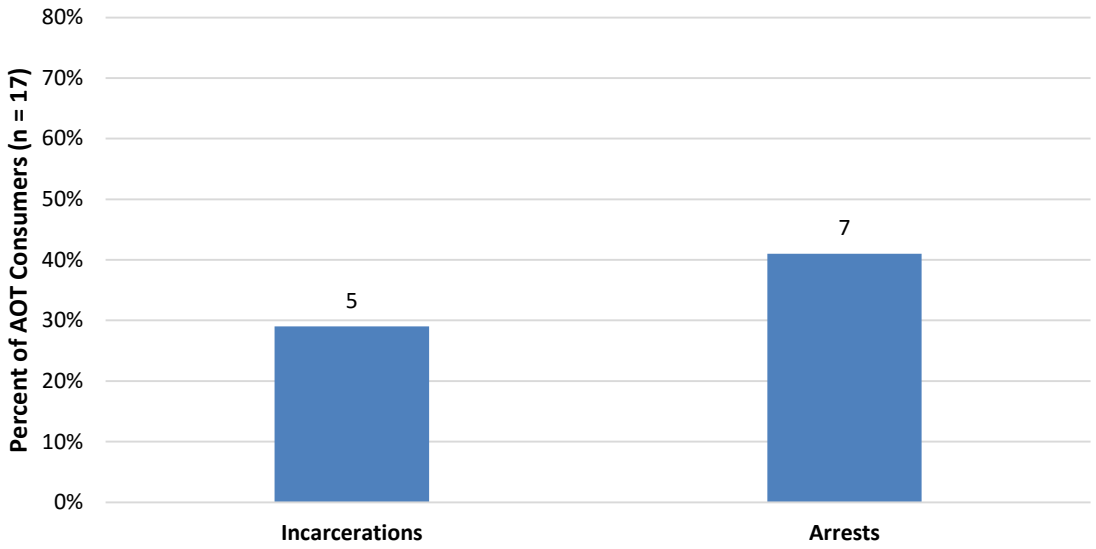
	Average	Median
Hospital Episodes	5	5
Hospital Days	23	21

Criminal Justice Involvement[25]

Consumers reported their history of justice system involvement for the 12 months prior to AOT enrollment. As show in Figure 15, 29% of consumers were in jail and 41% were arrested at some point in the 12 months prior to enrollment. The 41% of consumers with a history of arrest were arrested an average of five times during that period. Qualitative data from CCBHS and MHS suggests there is greater proportion of consumers referred to AOT who have forensic involvement than is currently reflected in self-report data.

[24] Source: PSP Data
[25] RDA currently only has self-report criminal justice data. Data from the criminal justice system will be accessible and included in future reports.

Figure 15. Consumers' History of Incarceration or Arrest in the 12 Months Prior to AOT Enrollment[26]



In addition to incarceration and arrest history, 24% of consumers were on probation and had been on probation at some point in the previous 12 months.

Housing Status

According to self-report data, among 17 AOT consumers enrolled during the evaluation period, 35% (n=6) were homeless when they enrolled in AOT and 12% (n=2) were living in an emergency shelter. Another 29% (n=5) of consumers were either living with their parents; an adult family member; or in a house or apartment with a spouse or partner, minor children, dependents, or a roommate while either holding the lease or contributing to the rent or mortgage at enrollment. Additionally, in the year prior to enrollment, 88% (n=15) of AOT consumers self-reported having spent time in an acute medical or psychiatric hospital, community care center, or residential treatment facility.

Table 13 depicts the housing status of AOT consumers at enrollment and, during the 12 months prior to enrollment, and the average number of days they had a given housing status during that 12-month period.

Table 13. Housing Status 12 Months Prior to and at Enrollment for AOT Consumers[27]

Housing Status	Status at Enrollment	Status in the Last 12 Months	Average Number of Days in the Last 12 Months
Lives in the Community	29%	18%	340
Homeless	35%	12%	257.5
Jail	0%	29%	50.5

[26] Sources: PAF and PSP Data
[27] Source: PAF

Housing Status	Status at Enrollment	Status in the Last 12 Months	Average Number of Days in the Last 12 Months
Acute Medical or Psychiatric Hospital, Community Care Center, or Residential Treatment	18%	88%	55
Emergency Shelter	12%	12%	15.5
Other	6%	6%	177
Unknown	0%	6%	365

Financial Support

Consumers reported their different sources of financial report at enrollment and in the 12 months prior to enrollment. As shown in Table 14 consumers received financial support from a variety of sources both prior to and at enrollment. The majority of consumers received support from Supplemental Security Income (SSI) in the 12 months prior to enrollment and continued to receive SSI support at enrollment. Additionally, 24% had a representative payee at enrollment, and 29% had a payee in the 12 months prior to enrollment.

Table 14. Sources of Financial Support for AOT Consumers[28]

Source of Financial Support	Received in the 12 Months Prior to Enrollment	Receiving at Enrollment
Supplemental Security Income	59%	53%
Social Security Disability Insurance	12%	18%
Support from family or friends	18%	18%
Retirement/Social Security	12%	12%
Other (including Housing Subsidy, General Relief/ Assistance, and Food Stamps)	24%	12%

AOT Consumers' Service Participation

KEY FINDINGS

- The length of participation varies across AOT consumers.
- Consumers are receiving substantial service provision from the ACT team.
- In addition to ACT, consumers receive services from other County and contracted providers.

AOT consumers in Contra Costa County receive ACT services from a multidisciplinary team who provide direct services in the community and are available 24-hours a day to provide time-unlimited services. This section reports the intensity and frequency of ACT services for the 17 AOT consumers, as well as the types of services they experienced in addition to ACT.

[28] Source: PAF

Intensity and Frequency of ACT Services

There was variability in the length of time spent receiving ACT services, depending on consumers' initial referral and enrollment dates. AOT enrollment dates ranged from March to July and consumers were enrolled for an average of 77 days through the end of the evaluation period on July 31, 2016 (see Table 15). There was an average of 24 ACT service encounters per month with an average duration of 156 minutes per contact.

Table 15. Length of Enrollment in AOT

Average	Minimum	Maximum	Median
77 days	13	149	72

Significant Meaningful Activities

ACT is intended to provide 100% of services, including providing opportunities for participation in recovery-oriented activities such as game nights, art groups, barbecues, and other activities that support life skills development. MHS only recently started to track the participation of AOT consumers in significant meaningful activities; future reports will report on changes in rates of participation in these activities during program participation.

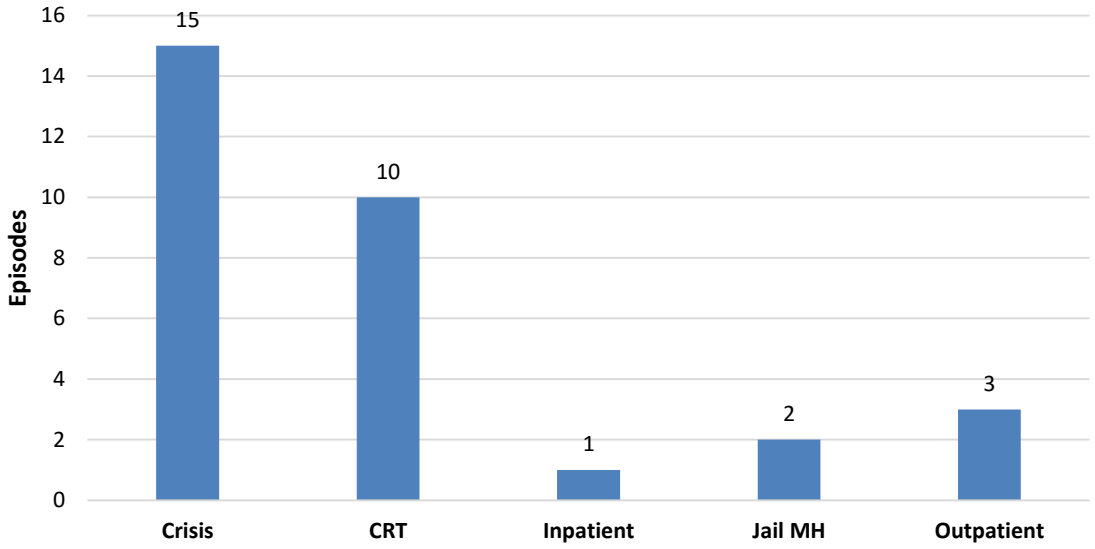
Additional Non-ACT Services

Though ACT is designed to provide comprehensive FSP services, some consumers receive additional services while enrolled in AOT. During the evaluation period, AOT Consumers in Contra Costa County engaged in the following additional services:

- **Crisis**: This includes services received at the CCRMC Psychiatric Emergency Services, Miller Wellness Center, and clinical services provided by the CCBHS forensic unit in partnership with local law enforcement agencies.
- **Crisis residential treatment**: A 24-hour unlocked facility that provides an alternative to inpatient hospitalization, including admissions at Hope House and Neireka House.
- **Inpatient**: Any psychiatric hospitalization in a locked setting, including services at Contra Costa Regional Medical Center Unit 4C and Mt Diablo Psychiatric Hospital. Any out of county hospitalization billed to Medi-Cal or reimbursed by CCBHS are included. Hospitalizations covered by private insurance or Medicare only may not be included.
- **Outpatient**: Any non-residential outpatient specialty mental health service, including Full Service Partnership, case management, medication, and other outpatient services.
- **Jail mental health**: Mental health services provided by CCBHS to consumers while incarcerated in a Contra Costa County jail facility. Mental health services received while consumers were incarcerated in other county or state prisons are not included.

As shown in Figure 16, the majority of consumers' non-ACT service episodes were either for crisis services (48%) or crisis residential treatment stays (32%). Notably, six of the 17 AOT consumers had not engaged in any services other than those provided by MHS at the conclusion of the evaluation period.

Figure 16. Episodes of Service Use Other than ACT for AOT Consumers[29]



ACT Treatment Adherence and Retention

Data on AOT consumers' adherence to treatment plans was not available for this report. Retention is a proxy of adherence, and all participants who enrolled in ACT remained engaged with the program through the evaluation period. RDA is exploring the possibility of receiving pharmacy data to assess medication possession ratios as a proxy for adherence to medication plans in future reports.

AOT Consumer Outcomes

KEY FINDINGS

- Given the preliminary nature of the AOT program at the end of the evaluation period, it is premature to evaluate AOT consumer outcomes.
- This section reports on pre-enrollment and baseline measures of DHCS outcomes.

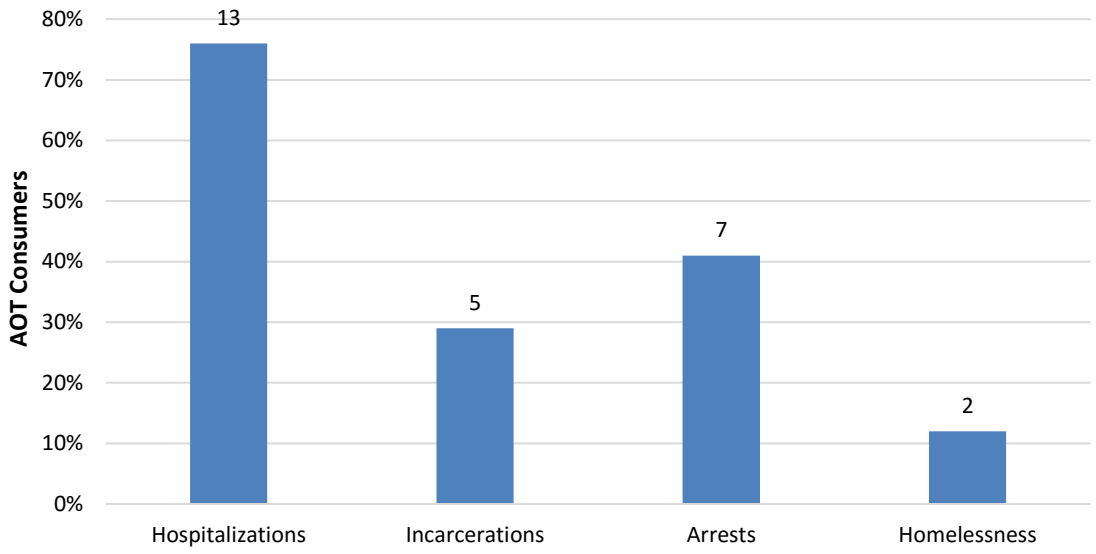
One key objective of AOT is to interrupt the cycle of repeated psychiatric hospitalizations, incarcerations, and homelessness among individuals with serious mental illness who are unwilling or unable to engage in voluntary specialty mental health services. Given the preliminary nature of the AOT program at the end of the evaluation period, this section reports only on pre-enrollment and baseline measures of these outcomes. Future reports will report on changes in outcomes during AOT participation.

[29] Source: PSP Data

Hospitalizations, Incarceration, Arrests, and Homelessness

Figure 17 indicates consumers' hospitalization, incarceration, arrests, and homelessness from the 12 months prior to enrollment. The chart depicts the number of AOT consumers who experienced an adverse life event or hospitalization at least once in the 12 months prior to their enrollment in AOT. As noted in the consumer profile section, the findings below indicate that the County is reaching the target population of consumers who have a history of hospitalization, incarceration, and homelessness.

Figure 17. Number of Consumers Experiencing Adverse Events Pre-AOT Enrollment[30]



Substance Use

At the time of this report, substance use data was only available for pre-enrollment and at enrollment. As previously reported, 12% of consumers had at least one episode of substance use treatment prior to enrollment, while 65% of AOT consumers self-reported having a co-occurring substance at some point in their lives and 59% reported a substance problem at enrollment. Changes in consumers' substance use will be reported in the next evaluation report.

AOT Enforcement Mechanisms

The primary enforcement mechanism in AOT occurs when a judge issues a mental health evaluation order at a designated facility for a consumer who does not meet 5150 criteria established in the WIC. No enforcement mechanisms were used in the first six months of the program.

[30] Sources: PAF and PSP Data

Violent Behavior

At the time of this report, data on violent behavior was only available for AOT consumers at enrollment. Baseline data from the High Risk Assessment (HRA) indicates that all consumers had a history of violent impulses and/or homicidal ideation toward a reasonably identified victim. Changes in consumers' violent behavior will be reported in the next evaluation report.

Victimization

For this report, data from the "safety" domain of the Self Sufficiency Matrix (SSM) at enrollment was used to indicate consumers' victimization experience. The "safety" domain is scored from 1 (in crisis) to 5 (thriving) and captures the extent to which consumers' environment is stable and safe. Table 16 reports consumers' scores on the SSM for safety. On average, the 16 consumers who were given the assessment reported feeling stable regarding safety in their community. For future reports, additional data will be collected to report the victimization of consumers with greater specificity.

Table 16. Safety SSM Scores for AOT Consumers (n = 16)[31]

Domain	Average	Median	Mode
Safety	2.5	3	4

Social Functioning and Independent Living

For this report, the majority of social functioning and independent living data is only available for pre-enrollment and at enrollment to AOT. MHS clinicians completed the SSM for all but one consumer at enrollment to gauge consumers' baseline social functioning and independent living. Table 17 depicts consumers' baseline scores for the life skills, family/social relations, and community involvement domains of the SSM.

Table 17. Social Functioning and Independent Living SSM Scores for AOT Consumers (n = 16)[32]

Domain	Average	Median	Mode
Life Skills	2.7	2.5	2
Family/Social Relations	2.1	2	2
Community Involvement	2.3	2	2

On average, consumers were rated between being able to meet between a few and most of the needs of daily living without assistance. On average their family/friends may be supportive but lack the resources or ability to help and there is some potential for abuse or neglect. Additionally, consumers are socially isolated and/or lack social skills and/or the motivation to become socially involved, on average.

According to self-report data, in the 12 months prior to AOT enrollment all AOT consumers were unemployed, none were in school, and 29% had a primary care physician. At enrollment, 18% of consumers were employed and 53% of consumers included employment in their recovery goals. No

[31] Source: SSM
[32] Source: SSM

consumers were in school at enrollment, but 47% included education in their recovery goals and one consumer enrolled in a community college or four-year college while receiving ACT services. Eighteen percent of consumers had a primary care physician at enrollment.

Consumer Satisfaction

Consumer satisfaction surveys will be administered further into the four-year evaluation; therefore, data is not currently available but will be included in future reports.

AOT Costs and Cost Savings

KEY FINDINGS

- Given the preliminary nature of the AOT program at the end of the evaluation period, it is premature to project MHS service delivery costs or project potential cost savings.
- Because there are only 17 AOT consumers during the evaluation period, MHS per person service costs are higher than they will be once AOT reaches its capacity of 75 consumers.

There are a number of expenses associated with the implementation of Contra Costa County's AOT program. RDA collected cost related information from the CCBHS Finance Department, as well as from County Departments involved in AOT who outlined their costs associated with the program. These costs are discussed in greater detail below.

While there are expenses associated with implementing the County's AOT program, ideally there are also costs savings generated through program implementation. For instance, if AOT consumers have reduced numbers of hospitalizations, arrests, and incarcerations after enrolling in AOT this saves the County money they would be spending on these events. Additionally, the County generates revenue when MHS provides Medi-Cal eligible services for AOT consumers. The sections below provide a preliminary look at costs associated with AOT program implementation, as well as the extent to which AOT has generated revenue through Medi-Cal billing. Future reports will assess the extent to which AOT has produced cost savings, if at all, through reduced numbers of hospitalizations and reduced criminal justice involvement post-enrollment in AOT.

MHS Costs

The County contracted with MHS to provide ACT services as part of the AOT program in October 2015. The costs paid to MHS during the fiscal year 2015-2016 (October 2015 – June 2016[33]) were $904,492. Approximately $242,832 went towards start-up costs (October 2015 – January 2016) while approximately $661,660 went towards service delivery (February 2016 – June 2016).

[33] RDA does not include MHS cost data for the month of July because financial data was only available for fiscal year 2015 – 2016.

Table 18. MHS Costs

MHS Costs	October - June 2016
Start-up Costs	$242,832 (Oct '15 - Jan '16)
Service Delivery Costs	$661,660 (Feb '16 - Jun '16)
Total	$904,492 (Oct '15 - Jun '16)

Of the costs paid to MHS for service delivery during the February through June 2016 time period, the County estimated they would receive approximately 35% (accounting for a 15% disallowance rate) in revenue from Medi-Cal billing, or $231,581.07. In actuality, MHS provided approximately $30,413.44 worth of Medi-Cal eligible services during this time period, and the County estimates they will receive approximately $10,644.70. While this figure is much below the amount the County anticipated they would generate through ACT service provision, it is important to remember that the County's AOT program is in its early stages; only 17 consumers had enrolled in AOT during the evaluation period, and none of these individuals were enrolled for the full time. With this in mind, it is important to note that the amount of revenue generated through ACT service provision will grow as the AOT program enrolls more individuals.

Public Agency Costs

Contra Costa County reported AOT-related expenses for the following public agencies: CCBHS, County Counsel, the Office of the Public Defender, and the Superior Court. Table 19 shows the approximate dollar amount each department spent on AOT related services from February-July 2016. To calculate costs associated with CCBHS, the Public Defender's Office, and the Superior Court, RDA assumed approved budgets were expended on a 1/12 basis. For costs associated with County Counsel, RDA received actual monthly costs for the time period.

Table 19. Contra Costa County Department Costs[34]

County Department	February - July 2016 Cost
CCBHS	$262,500
County Counsel	$22,733
Public Defender's Office	$66,750
Superior Court	$64,000

Costs associated with CCBHS are for CCBHS Care Team operations that include managing the AOT referral line and conducting investigation and outreach for all individual referred to AOT by qualified requestors. County Counsel provides consultation services for CCBHS, and also prepares and files all petitions to Court and represents the County in Court hearings. Finally, the Office of the Public Defender has one full-time employee who represents all AOT clients, and the Superior Court is responsible for holding AOT court hearings each week.

[34] Source: County AOT Financial Data

Costs of Services

Pre-AOT Enrollment Service Costs

RDA utilized PSP billing data to determine the total costs of services for the 17 enrolled AOT consumers in the three years prior to AOT enrollment. The total cost of services for the 17 AOT consumers during this time period was $2,856,712 or $952,237 annually. Figure 18 shows that psychiatric inpatient hospitalizations accounted for 28% of those total costs.

Figure 18. County Hospitalization and Other Service Costs Pre-Enrollment for AOT Consumers

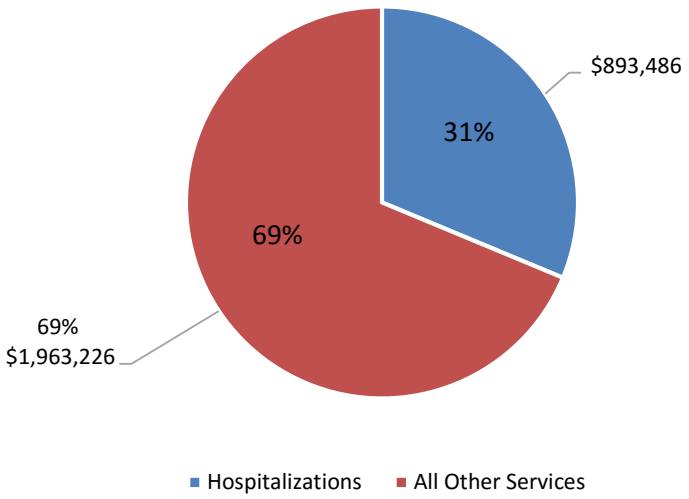


Table 20 shows the breakdown of these costs per month and per consumer. Though RDA had access to three years of billing data from PSP, eight of the 17 consumers had less than three years' worth of data. Of those eight consumers, five had between two and three years of data, two had less than one year of data, and one had no pre-data. On average, in the three years prior to enrolling in AOT, hospitalization costs were $1,853 per consumer per month; all other service costs were approximately $3,954. This indicates that the average monthly service cost was approximately $5,806 for AOT consumers in the three years prior to their enrollment in AOT.

Table 20. Service Costs Pre-AOT Enrollment

Services	Average Annual Cost	Average Cost per Month	Average Annual Cost Per Consumer	Average Cost per Month per Consumer
Hospitalization	$285,420	$23,785	$22,544	$1,853
Other Services	$872,652	$72,721	$48,094	$3,953
Total	$1,158,072	$96,506	$70,638	$5,806

Post-AOT Enrollment Service Costs

Given the preliminary nature of the AOT program at the end of this evaluation period, it is premature to estimate per person service delivery costs or project potential cost savings. RDA will report these types of post-AOT enrollment service costs in future evaluation reports after the AOT program has been in existence for a longer period of time.

Costs Savings

Because 17 AOT consumers had spent, on average, only 77 days enrolled in the County's AOT program during the evaluation period RDA does not report on cost savings at this time; it is imperative to monitor greater numbers of individuals for longer periods of time before suggesting an association between enrollment in AOT and reduced hospitalizations and/or criminal justice involvement for AOT consumers in Contra Costa County.

Future reports will assess potential costs savings associated with reduced hospitalizations and criminal justice involvement once greater number of AOT consumers have been enrolled for longer periods.

Discussion

AOT Referrals

Since program inception, there have been 108 referrals concerning 105 individuals, suggesting that people who meet criteria as **qualified requestors are knowledgeable about how to refer eligible individuals to the program**. However, more than half of referrals are coming from family. While a consistent number of referrals have been made to AOT since the start of the program, only approximately one-third have been made by Mental Health providers and/or Law Enforcement Partners. The County may wish to consider how to continue to educate these partners about the County's AOT program. Intervening while individuals are in secure settings where County staff can locate them is often ideal; in these cases, individuals who are referred to AOT while in a secure setting may be more likely to voluntarily accept ACT services. Additionally, CCBHS and/or MHS staff will be more able to locate these individuals to begin the investigation and outreach and engagement process. It is ideal for providers from psychiatric hospitals, PES, and/or jail staff to make referrals to AOT for eligible individuals as close to intake as possible so that CCBHS and/or MHS staff have an opportunity to engage them prior to their release to help link them to appropriate services. This may also ensure that eligible individuals without involved family members also gain access to the program. Suggestions to promote access for all County residents who may benefit from this program include:

- Outreach and engagement presentations and other communications strategies throughout the County to promote access and ensure that all communities have the knowledge to refer eligible individuals; and
- Continued outreach efforts to professionals who meet criteria as qualified requestors, including CCRMC, jail, and law enforcement staff who are likely to come into contact with eligible individuals who may not have involved family.

The CCBHS Care Team conducts an investigation to determine eligibility and need for all consumers referred. Their approach includes reviewing the consumer's service history and diagnosis, gathering collateral information from the qualified requestor and/or family, and conducting an assessment with the consumer referred. Thirty-one of the consumers referred were unable to be located or were otherwise connected to services. The CCBHS Care Team described that for the "ineligible consumers," they had a history of participating in mental health services on a voluntary basis but had some sort of disruption in services. For these individuals, the CCBHS Care Team has been able to determine if it is more beneficial to re-connect the individual to services where they had previously been successful or refer the person to AOT, if eligible. This may be an unexpected benefit of AOT implementation in that **the CCBHS Care Team has established a safety net whereby they are able to assess and link consumers in need to the most appropriate service**, which may include AOT but also may include other services, as clinically indicated.

The majority of the consumers referred to AOT who needed mental health services agreed to participate in mental health services on a voluntary basis. This includes 82% of consumers who enrolled in ACT services with MHS on a voluntary basis as well as the consumers previously discussed who were re-connected to other CCBHS mental health services (e.g., FSP or other outpatient services). Additionally, there was a percentage of referrals who were unable to be located. For referred consumers who either cannot be located or agree to participate in voluntary services:

- The County may wish to consider monitoring the hospitalization and/or incarceration of these individuals for a set period of time to
  - Contact those who are unable to be located when in secure settings (e.g. hospital, jail); and
  - Ensure that those who agree to voluntary services sustain service participation and achieve certain outcomes as expected in ACT (e.g., reduced hospitalization and incarceration) or can be proactively identified and re-referred, if clinically indicated.
- CCBHS and MHS may also wish to monitor those who enroll in ACT services on a voluntary basis for service participation and progress, such as hospitalization and/or incarceration, to determine if an agreement with the court, such as AOT court order or voluntary settlement agreement, would further support the consumer.

Outreach and Engagement

In adopting a resolution to implement AOT, Contra Costa County not only adopted a new legal mechanism to connect individuals with severe mental illness to mental health services, they also contracted a new service provider, MHS, to implement the County's first ACT program in order to ensure they are providing the highest quality of care for individuals enrolled in AOT. The program model, as designed, included a Care Team consisting of CCBHS clinical staff and MHS peer and family staff. The original intent was that the Care Team, including CCBHS and MHS staff, would work together to concurrently conduct the referral investigation and outreach and engagement efforts. In practice, **the program model has changed in that 1) CCBHS clinical staff conduct the referral investigation first to determine eligibility, and then 2) refer only eligible consumers to MHS for outreach and engagement by the peer and family partners**. Because there are a number of new components coming together at once, it is natural to expect programmatic modifications to occur. While it is normal and expected that any program will make modifications during initial implementation as a response to unexpected challenges and to ensure that the program is able to meet its intended goals, it is important that any modifications are explicit and that any implications of program adaption are planned for and addressed. Changing the Care Team from a concurrent to consecutive approach to investigation and outreach has implications, including:

- Currently, the de facto care transition from AOT referral to ACT enrollment occurs between CCBHS clinicians and the MHS family partner. Moving forward, it may be important to schedule an in-person transition between CCBHS and MHS staff that includes the consumer, and family as permitted, as well as clinical staff from MHS. In alignment with the ACT model, all team members

provide services to all consumers, so that the "warm handoff" could also occur with a clinical case manager, nurse, dual recovery specialist, or other ACT team member and not be limited to the family partner, as originally suggested in the program design.

- While the original design suggested concurrent approaches to investigation and outreach, separating these activities into two discrete phases may create ambiguity in terms of roles and responsibilities. In order to ensure that each phase of the process is successful and that eligible consumers are able to efficiently and effectively move through the process and enroll in ACT, it may be important to clarify roles and responsibilities as well as establish set communication procedures to ensure that MHS receives all relevant information from the CCBHS clinical staff to engage and serve the person, and CCBHS is notified when someone is at risk of or experiencing hospitalization and/or incarceration so that they can re-evaluate if a petition or other legal mechanism is appropriate to support the person.
- This change may also shorten the length of time that MHS engages in pre-admission "outreach and engagement" and move outreach and engagement activities post-enrollment. While outreach and engagement for an ACT team can happen pre or post formal enrollment, this change may:
    - Reduce MHS' staff ability to work with parents/family in advance of ACT enrollment if the consumer does not provide express written consent upon enrollment; and
    - Increase the likelihood that MHS staff sign people up while in secure settings (e.g. hospital, jail) rather than wait until release back into the community.

If the County continues this program modification, which would be expected, it may be important to "complete" the modification and make the modified design as explicit as the planned design. This includes documenting the modified process, clarifying roles and responsibilities, and establishing set communication procedures that promote bi-directional communication beginning at referral and extending throughout ACT service participation. It may also be useful to set shared expectations about enrolling consumers while in secure settings and the role of family engagement at each phase of the process.

ACT Fidelity

Overall, **MHS' ACTiOn Team received an average fidelity rating of 4.73 and scored in the "high fidelity" range**. The assessors were impressed with a variety of elements of MHS' ACTiOn Team and observed that many of the program elements were present and met or exceeded fidelity measures. The program was robustly staffed with more team members than required with staff who are clearly committed to the success of the program and consumers. Staff demonstrated their familiarity with motivational interviewing and the recovery model in conversations with assessors and are working as a cohesive team. The program is structured to provide adequate staffing that can do "whatever it takes" to support consumers and meet them "wherever they're at," literally and figuratively. Team members appeared to work together throughout the day to ensure that all consumers receive individualized support to achieve their goals. Both consumers and family members expressed gratitude to MHS' ACTiOn Team and staff for

the accomplishments that ACT consumers have achieved during program participation. Throughout the focus groups, assessors heard consumer and family member accounts of increasing stability and finding hope, as well as a number of tangible successes, including:

- Obtaining housing and income
- Reducing hospitalizations
- Feeling safe
- Improving and repairing family relationships
- Believing that recovery is possible

While the fidelity assessment revealed a high degree of alignment with the ACT model, this is a relatively new program that is not yet operating at full capacity. MHS' ACTiOn Team is contracted to provide services to 75 individuals, is currently serving 17 individuals, and is fully staffed with 13.5 direct service staff and two administrative staff. As admissions increase, the team may need to consider how to scale their operations to maintain a high degree of fidelity with the model. For example, the assessors noted the following areas that may require more focused attention:

- In the team meeting, staff discussed all 17 consumers. When at full capacity, their meetings will need to include 75 consumers.
- Staff are currently delivering medication to some consumers on a daily basis. While this is a common practice for ACT teams, MHS' ACTiOn Team may need to consider how to structure medication delivery to more consumers as the program grows.
- Groups are currently held at the MHS' ACTiOn Team office in Concord, CA, and staff provide transportation to consumers who live in East and West County. With a larger group of consumers throughout the County, it may be more feasible to hold activities in other locations to minimize travel time while still providing the same level of support. This may also improve the ratio of community-based services provided in-vivo.
- Currently, the psychiatrist works half-time. When at full capacity, the team will need a ¾ time psychiatrist to remain in fidelity with the model.
- As noted previously, there is a high variability in the frequency and intensity of services consumers receive. As the program grows, MHS' ACTiOn Team may need to consider how to ensure that all consumers receive the appropriate level of service.
- In order to meet the needs of the community, MHS' ACTiOn Team may need to accept more than six consumers per month until at capacity. The specific enrollment numbers should be determined in partnership with the County.

Given that the ACT model is new to Contra Costa County and is a part of the AOT pilot project, the assessors acknowledge that there is a need to continue to attend to the partnership between CCBHS and MHS' ACTiOn Team. While this currently shows up around admissions in this fidelity assessment, it may also play a role in how CCBHS and MHS work together around hospital admission and discharge. While there were was only one hospitalizations in the first six months of implementation, it is likely that more hospitalizations will occur at some point, and the partnership between CCBHS and MHS is key to both

supporting consumers to avoid unnecessary hospitalizations as well as transition back into the community upon discharge.

Preliminary Outcomes

While the County's AOT program is in its early stages, it appears that the program is enrolling people who are eligible and have a high degree of need.

Thirteen of 17 AOT consumers (76%) had at least one psychiatric hospitalization in the three years prior to their AOT enrollment. Among these 13 individuals, each had an average of three hospitalizations in the three years prior to their AOT enrollment. The majority of AOT consumers (59%) also self-reported experiencing a mental health or substance abuse related emergency intervention in the 12 months prior to enrollment, and approximately 59% also self-reported having a co-occurring substance use disorder at the time of their AOT enrollment. Moreover, approximately 41% (n=7) of AOT consumers reported being arrested and 24% (n=5) reported being incarcerated in the 12 months prior to AOT enrollment. Approximately 41% of AOT consumers also reported being homeless or living in an emergency shelter at the time of their enrollment.

Additionally, it appears that there may be a high proportion of AOT consumers who have forensic needs or are also connected with the criminal justice system. While ACT is an appropriate service intervention for consumers with forensic needs and AOT is a less restrictive intervention than incarceration and criminal court involvement, this may require additional preparation and/or training to appropriately respond to the emerging needs.

CCBHS and MHS Data Capacity

CCBHS does not currently track their AOT referral investigation process electronically or in a spreadsheet format; this information only exists as hard copies of their field notes. In order to analyze the investigation and outreach and engagement process more robustly in future reports so that we can learn more about the consumer profiles of who is and is not referred to MHS for AOT enrollment, it is imperative that, at a minimum, CCBHS begin to transfer data from field notes into an electronic platform.

A large amount of PAF, KET, and 3M data were also not available via the County's DCR data system for this evaluation. It appears that PAF data is only available for consumers' first assessment, so for AOT consumers who have already had assessments entered into the system there is no way to pull this data from the DCR. Significant amounts of KET and 3M data were also missing from the DCR. Moving forward, MHS should enter PAF, KET, and 3M data into the DCR on a daily, weekly, and/or monthly basis to ensure these data are up-to-date and available for each evaluation period. RDA will work with MHS to develop a process for collecting PAF data in a usable format for each evaluation period moving forward.

Appendices

Appendix I. AOT Eligibility Requirements[35]

In order to be eligible, the person must be referred by a qualified requestor and meet the defined criteria:

- The person is 18 years of age or older.
- The person is suffering from a mental illness
- There has been a clinical determination that the person is unlikely to survive safely in the community without supervision.
- The person has a history of lack of compliance with treatment for his or her mental illness, in that at least one of the following is true:
    a. At least 2 hospitalizations within the last 36 months, including mental health services in a forensic environment.
    b. One or more acts of serious and violent behavior toward himself or herself or another, or threats, or attempts to cause serious physical harm to himself or herself or another within the last 48 months.
- The person has been offered an opportunity to participate in a treatment plan by the director of the local mental health department, or his or her designee, provided the treatment plan includes all of the services described in Section 5348, and the person continues to fail to engage in treatment.
- The person's condition is substantially deteriorating.
- Participation in the assisted outpatient treatment program would be the least restrictive placement necessary to ensure the person's recovery and stability.
- In view of the person's treatment history and current behavior, the person is in need of assisted outpatient treatment in order to prevent a relapse or deterioration that would be likely to result in grave disability or serious harm to himself or herself, or to others, as defined in Section 5150.
- It is likely that the person will benefit from assisted outpatient treatment.

[35] Welfare and Institutions Code, Section 5346

Appendix II. Description of Evaluation Data Sources

CCBHS Referral Log: This spreadsheet includes the date of each AOT referral, as well as the demographic characteristics of each individual referred to AOT and the disposition of each referral upon CCBHS' last contact with the individual referred (e.g., unqualified requestor, open AOT investigation, voluntarily accept MHS services, court involved MHS participation).

Using these data RDA identified the total number of referrals to the County's AOT program from February 1, 2016 – July 31, 2016, as well as the number of referrals made to AOT each month, and the number of individuals who have received more than one AOT referral.

CCBHS Blue Notes: RDA staff converted CCBHS's Blue Notes (i.e., field notes from successful outreach events) into a spreadsheet tracking the date, location and length of each CCBHS Investigation Team outreach encounter. RDA used these data to assess the average length of time (i.e., days) between AOT referrals and the County Investigation Team's first contact with referrals, as well as the average length (i.e., days and encounters) of outreach and engagement provided by the CCBHS Investigation Team per referral.

MHS Outreach and Engagement Log: This spreadsheet tracks the date and outcome of each MHS outreach encounter, including information on who provided outreach (e.g., family partner, peer partner, clinician) to whom (consumer or collateral contact such as friend, family, or physician), and the location and length of each outreach encounter.

RDA used these data to calculate the average number of outreach encounters per month the MHS team provided each referral, as well as the average length of each outreach encounter, the type (who provided outreach and who received outreach) and location (e.g., community, secure setting, telephone) of outreach provided, and the average number of days of outreach provided for reach referral.

Contra Costa County PSP Billing System (PSP): These data track all services provided to AOT participants, as well as diagnoses at the time of each service. Using PSP service claims data RDA identified the clinical diagnoses of AOT participants at enrollment, as well as the types and costs of services consumers received pre- and post-AOT enrollment (e.g., outpatient, inpatient, residential, and crises), the average frequency with which consumers received AOT FSP services, and the average duration of each service encounter.

Data Collection & Reporting (DCR) Files: RDA attempted to and was unable to collect reliable Partnership Assessment Form (PAF), Key Event Tracking (KET) and Quarterly Assessment (3M) data from the DCR. Instead RDA staff converted MHS' paper forms into excel spreadsheets to include all PAF, KET, and 3M data utilized in this report to generate consumer profile measures and self-reported changes in outcome measures such as homelessness, arrests, and incarcerations pre- and post-AOT enrollment.

MHS Outcomes Files: These files include assessment data for a number of clinical assessments MHS conducts on AOT participants. For the purposes of this evaluation, RDA utilized information from the Brief Psychiatric Rating Scale (BPRS), High Risk Assessment (HRA), and Self Sufficiency Matrix (SSM) to calculate

baseline measures to serve as proxies for symptomology (BRPS), violent behaviors (HRA), and social functioning, independent living, and victimization (SSM). RDA did not assess changes in assessment measures over time because the majority of participants had only been enrolled in AOT long enough to conduct baseline assessments.

CCBHS Financial Data: Financial data provided by CCBHS indicate the County's allocated AOT budget, as well as actual expenses paid for MHS ACT services, County Counsel, Civil Court, and Public Defender services. RDA used these data to calculate the AOT costs incurred by the County, as well as revenue generated through Medi-Cal billing.