Contra Costa County Assisted Outpatient Treatment (AOT)

2017 Report for the California Department of Health Care Services

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Introduction

In 2002, the California legislature passed AB 1421 (also known as "Laura's Law"), which 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.

On February 3, 2015, the Contra Costa County Board of Supervisors adopted a resolution to authorize the implementation of AOT. The County's AOT program became operational on February 1, 2016 and accepted its first consumer in March 2016. Contra Costa County Behavioral Health Services (CCBHS) 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 service delivery model 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. Such results include decreased negative outcomes (e.g., hospitalization, incarceration, and homelessness) and improved psychosocial outcomes (e.g., improved life skills and increased involvement in meaningful activities).

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 reaches out to the individual referred to begin to identify whether they meet AOT eligibility criteria (see Appendix I).

[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.

If the person appears to initially meet eligibility criteria, a CCBHS investigator from the Care Team staff facilitates a face-to-face meeting with the family and/or consumer to gather information, attempts 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, they are 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 eligibility 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 one to two court hearings to determine if criteria for AOT are met. At this time, the consumer may enter into a voluntary settlement agreement with the court for AOT or be ordered to AOT for a period of no longer than six months; the ACT team, operated by MHS, provides the community mental health treatment for AOT consumers. 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 voluntarily engage in services and may recommend a 72-hour hold, at any stage of the process, if the consumer meets existing criteria.

Organization of the Report

The following report of Contra Costa County's AOT program implementation and outcomes is broken into four sections, highlighted below:

- Methodology
- Pre-ACT Enrollment
- ACT Enrollment Period
- Summary of Findings

The "Methodology" section provides a brief description of the data sources and analysis techniques used to address the required DHCS outcomes. This is followed by a discussion of Contra Costa County's processes for AOT referral, investigation, and outreach and engagement in the "Pre-enrollment" section. Section 3, "Enrollment Period," describes the consumer profile in Contra Costa County, as well as consumers' service engagement and outcomes during ACT enrollment. Finally, the "Summary of Findings" section highlights key findings from the County's first 11 months of AOT implementation (February – December 2016).

Section 1. Methodology

The following sections highlight the data sources used to compile Contra Costa County's 2017 AOT program update report to DHCS, as well as the analysis techniques used for reporting the data in meaningful ways. It should be noted that, given the current size of the AOT program, this document reports findings for consumer groups of less than five consumers; therefore, this DHCS report cannot be publicly disseminated without redaction of any consumer groups of less than five.

Data Sources

RDA worked with CCBHS and MHS staff to obtain the data necessary to address the DHCS reporting requirements for the period spanning February 1, 2016 – December 31, 2016. Table 1 below presents the data sources utilized for this report, highlighting which sources were used to report on each DHCS required outcome. Appendix II provides a detailed description of each data source, including a description of the data and how it was used in this report.

Table 1. DHCS Reporting Requirements and Corresponding Data Sources

DHCS Reporting Requirement	Data Source
The number of persons served by the program	Contra Costa PSP Billing System
The extent to which enforcement mechanisms are used by the program, when applicable	CCBHS Care Team (FMH and ACT teams) Interview
The number of persons in the program who maintain contact with the treatment system	Contra Costa PSP Billing System
Adherence/engagement to prescribed treatment by persons in the program	Contra Costa PSP Billing System
Substance abuse by persons in the program	Contra Costa PSP Billing System
Type, intensity, and frequency of treatment of persons in the program	Contra Costa PSP Billing System
The days of hospitalization of persons in the program that have been reduced or avoided	Contra Costa PSP Billing System
The number of persons in the program with contacts with local law enforcement, and the extent to which local and state incarceration of persons in the program has been reduced or avoided	FSP Partnership Assessment Form (PAF) and Key Event Tracking (KET)
The number of persons in the program able to maintain housing	FSP PAF and KET
The number of persons in the program participating in employment services programs, including competitive employment	FSP PAF and KET Care Team and ACT Team Communications
Social functioning of persons in the program	Self Sufficiency Matrix (SSM)
Skills in independent living of persons in the program	Self Sufficiency Matrix (SSM)

DHCS Reporting Requirement	Data Source
Victimization of persons in the program	MacArthur Violence Instrument[2]
Violent behavior of persons in the program	MacArthur Violence Instrument[2]
Satisfaction with program services both by those receiving them and by their families, when relevant	Focus Groups with Consumers and Family Members CCBHS Consumer Satisfaction Survey[2]

In addition to the data sources listed in Table 1, several other sources of data were used to understand the Contra Costa County's AOT investigation and outreach and engagement processes:

- **CCBHS AOT Request Log**: This spreadsheet is populated by CCBHS forensic mental health staff and includes the date of each AOT referral, demographic characteristics of those referred, information on the individual making the referral (e.g., family, mental health provider, law enforcement), and the team's recommendations based on their investigation (e.g., AOT ineligible, refer to MHS). For this report, this data source was used to inform discussion of how and when consumers are referred to AOT and the disposition of each referral.
- **CCBHS Blue Notes Log**: CCBHS staff converted all 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. This source was used to assess the average number and duration of investigation encounters with AOT consumers, as well as the locations of these encounters.
- **MHS Outreach and Engagement Log**: This spreadsheet tracks the date, location, length, 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). Data from this source were used to assess the average number and duration of outreach and engagement encounters, as well as their location.

Data Collection and Analysis

RDA worked closely with CCBHS and MHS staff throughout the data collection process. 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. RDA matched clients across a number of disparate data sources and utilized descriptive statistics (e.g., frequencies, mean, median, and mode) for all analyses in this report to describe the data and highlight pre and post-enrollment outcomes, wherever appropriate. In future reports with larger sample sizes and longer enrollment periods for consumers, both descriptive and inferential statistics will be used to explore AOT implementation and consumer outcomes.

[2] The Care Team is in the process of implementing these assessments, so data were unavailable during this reporting period. These assessment tools will be used for future reports.

As with all real-world evaluations, there are limitations to note. First, the evaluation period captures the first 11 months of Contra Costa County's AOT program implementation; natural programmatic developments and modifications took placement over the initial months that have impacted data accessibility and quality. In addition, only 31 ACT consumers had spent, on average, only 158 days enrolled in ACT, with participation ranging from 15 to 302 days through December 31, 2016.[3] This is important as baseline data for outcome measures such as homelessness and psychiatric hospitalizations and crisis stabilization episodes are recorded for 12 months and 36 months before enrollment, respectively. To account for differences in the pre- and post-time periods, RDA standardized outcomes measures to rates per 180 days. Nevertheless, because consumers have spent much less time, on average, in ACT compared to their pre-enrollment periods, there is less opportunity for them to experience outcomes such as hospitalization, arrest, and/or incarceration. As a result, these outcomes may be underestimated if a large number of consumers experienced zero negative outcomes during shorter periods while they were enrolled in ACT. On the other hand, if consumers experienced a number of negative outcomes for lengthy periods during their ACT enrollment period, these estimations may be overestimated.

Finally, this report relies on consumer self-reported measures of criminal justice involvement to identify criminal justice outcomes during ACT. While self-report measures may serve as an accurate proxy, they are not ideal measures and limit the precision of the analyses. In future reports, Superior Court and Sheriff's Office data will be used to assess consumers' criminal justice involvement before, during, and after ACT.

[3] Though 32 consumers were enrolled in AOT during the evaluation period, one was enrolled at the end of December and received no ACT services in their brief enrollment; therefore, they are not included in any service engagement or outcomes analysis in this report.

Section 2. Pre-Enrollment

The following sections report on Contra Costa County's processes for AOT referral, investigation, and outreach and engagement, and highlight key findings across each area.

Referral for AOT

A majority (64%) of AOT referrals came from consumers' family members.

CCBHS received 189 total AOT referrals from February 1, 2016 – December 31, 2016 (see Figure 1). Of these 189 referrals for AOT, 181 were for unique individuals. Those who were referred multiple times 1) did not meet AOT eligibility criteria, 2) were connected with other services, or 3) were still under investigation at the conclusion of the evaluation period.

Figure 1. Consumers Referred to AOT by Month (N = 189)

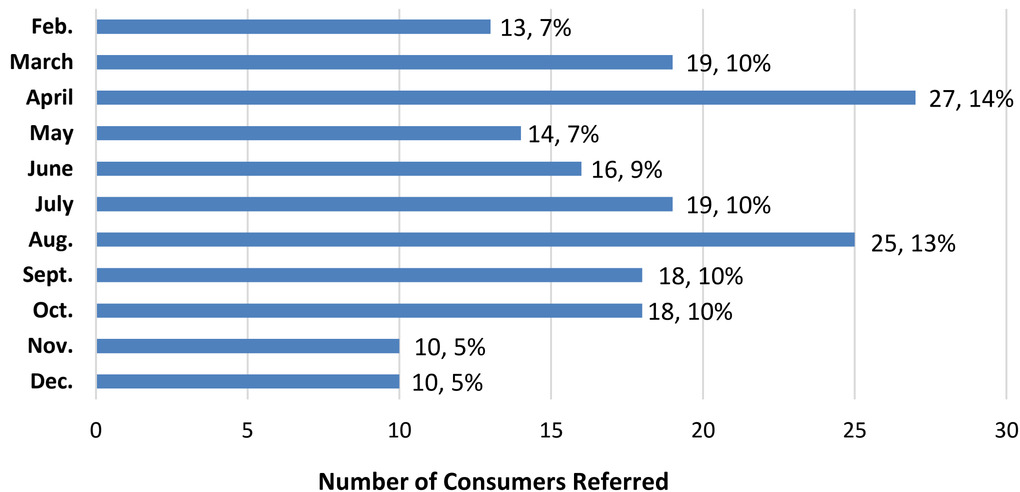


Table 2 below depicts the percentage of referrals made by each category of qualified requestor. Family members made the majority of referrals (64%, n = 121), while smaller percentages were made by their treating or supervising provider (17%, n = 33) and law enforcement (12%, n = 22), among others.

Table 2. Summary of Requestor Type[4]

Requestor	Percent of Total Referrals (N = 189)
Parent, spouse, adult sibling, or adult child	64%
Treating or supervising mental health provider	17%
Probation, parole, or peace officer	12%
Adult who lives with individual	2%
Director of hospital where individual is hospitalized	1%
Director of institution where individual resides	1%
Not a qualified requestor or "other"	4%

Investigation, Outreach, and Engagement

The Care Team conducts an investigation for each AOT referred consumer to determine each individual's eligibility for AOT (see Appendix I for AOT eligibility requirements) and then conducts intensive outreach and engagement to enroll consumers in ACT services. Contra Costa County's Care Team is responsible for these efforts; CCBHS's Forensic Mental Health team conducts the investigation, and MHS's ACT team conducts the outreach and engagement. On average, it took the Care Team about 84 days from the date of initial referral to enroll consumers in ACT.

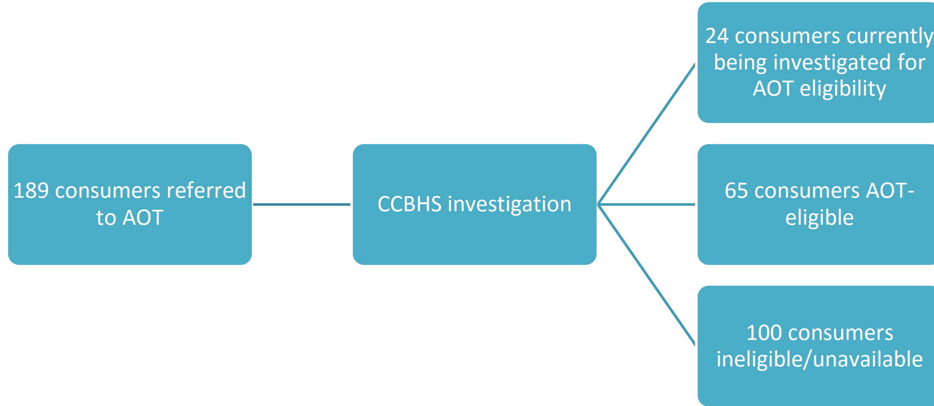
Investigation

Approximately one-third (34%, n = 65) of consumers referred for AOT are identified as eligible following initial investigation.

Following referral by a qualified requestor, the CCBHS forensic mental health 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 an 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 2 depicts the referral process for Contra Costa County's AOT program during the evaluation period.

[4] Source: CCBHS Care Team AOT Request Log

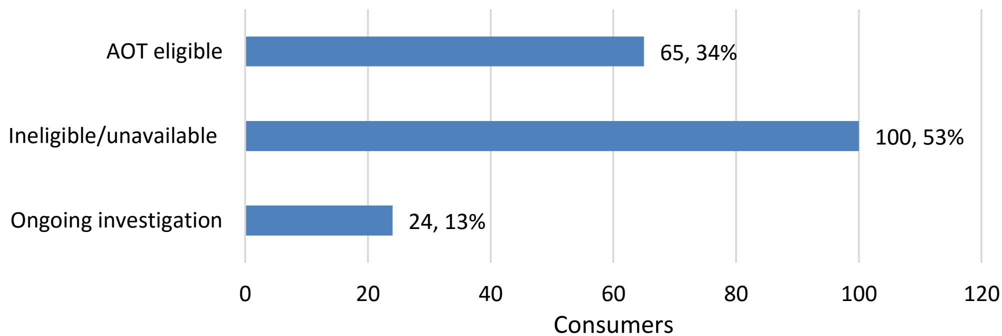
Figure 2. Referral to AOT Process



As shown in Figure 3, approximately one-third of consumers were confirmed to be eligible for AOT (34%, n = 65) and referred to MHS for outreach and engagement. An additional 13% (n = 24) were still under investigation, while 53% (n = 100) were unavailable for the investigation or otherwise ineligible. Consumers who were unable to be located or who were hospitalized or incarcerated for a period were deemed unavailable. Consumers were determined to be ineligible because the qualified requestor withdrew the request or was unable to be contacted; the consumer did not meet defined AOT eligibility criteria; or the consumer had a previous or existing relationship with other mental health services likely to meet the consumer's needs and was willing to re-engage with the service provider. For those who did not meet AOT criteria, CCBHS worked to connect those individuals to the appropriate level of mental health treatment. For those who had previous or existing relationships with other mental health services CCBHS worked with the referred consumer to reconnect the individual to the previous or current provider.

See Appendix I for a detailed description of the requirements that govern the AOT eligibility determination process.

Figure 3. Eligibility Determination of all Referred Consumers (Duplicated; N = 189)



Outreach and Engagement

MHS provided outreach and engagement to 62 consumers, 32 of whom enrolled in ACT.

Once CCBHS makes an eligibility determination, they connect eligible consumers with MHS, who provides intensive outreach and engagement to enroll consumers in ACT services. Following investigation, 62 unique consumers (three of whom were referred twice) were identified as AOT-eligible and were connected to MHS between February 1 and December 31, 2016.

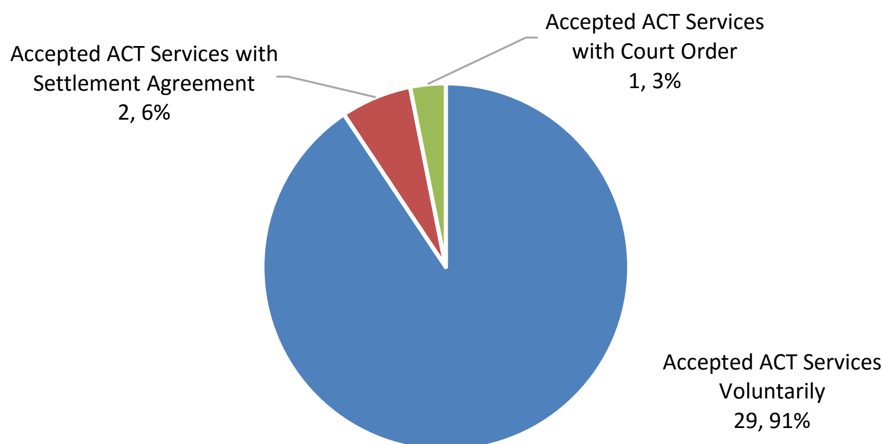
Table 3 describes the status of the 62 unique consumers who received outreach and engagement services from MHS during the evaluation period. Those who enrolled in ACT services did so 1) voluntarily without court involvement, 2) with a voluntary settlement agreement with the court, or 3) with a court order. Consumers considered "closed" are those who were closed by CCBHS's Forensic Mental Health team during the outreach and engagement period, typically for changes in eligibility status, including agreement to re-engage with a previous service provider who could appropriately meet their needs.

Table 3. Status of All Eligible Consumers at Conclusion of Evaluation Period (N = 62)

Consumer Status	Number of Consumers	% of Total Eligible Consumers
Enrolled in ACT Services	32	52%
Enrolled Voluntarily	*29*	--
Enrolled Settlement Agreement	*2*	--
Enrolled with Court Order	*1*	--
Active Outreach and Engagement	10	16%
Closed	20	32%

As shown in Figure 4, the majority of consumers (91%, n = 29) enrolled in ACT services voluntarily. The remaining 9% (n = 3) had some form of court involvement, either a settlement agreement or court order.

Figure 4. Consumer Enrollment Process (N = 32)



The CCBHS Care Team conducts persistent investigation and outreach with consumers and their families in order to enroll consumers in the County's AOT program.

Table 4 shows the Care Team activities from investigation through outreach and engagement and the total efforts made to enroll the 32 consumers in ACT. Successful encounters included both contacts with consumers and collateral contacts (e.g., with family members or other providers). In total, it took an average of 17 successful investigation and outreach encounters per consumer to connect them to ACT services. These efforts lasted an average of 36 minutes per encounter. Outreach and engagement occurred wherever the consumer was willing to meet, with the majority of the encounters occurring at either the providers' offices or any mental health clinic (n = 169), or in the field or community (n = 118).

Table 4. Care Team Investigation, Outreach, and Engagement Efforts

	Investigation	Outreach & Engagement	Total
Total Successful Encounters	353	175	528
Average Number of Successful Encounters per Consumer	11 per consumer	5.5 per consumer	16.5 per consumer
Average Duration of Successful Encounters[5]	43 minutes	22 minutes	36 minutes
Location of Successful Encounters[6]			
In Person - Field/Community	85	33	118
In Person – Court or Correctional Facility	17	19	36
In Person - Office/Clinic	126	43	169
In Person – Hospital, Inpatient, or Licensed Care Facility	45	29	74
In Person – Shelter	3	6	9
In Person – Consumer's Home	3	21	24
Phone or Email	68	15	83
Other or Unknown	26	0	26

[5] Only some MHS outreach and engagement data accounted for travel time in the reported duration; therefore, RDA calculated the proportion of time spent traveling for the available data and subtracted the same proportion from the total duration of encounters that did not specify travel time.

[6] Some CCBHS investigation encounters occurred at multiple locations, so the total exceeds the number of total contact attempts.

Section 3. Enrollment Period

At the conclusion of the evaluation period, 32 consumers were enrolled in ACT services with MHS. The Enrollment Period section provides information on the profile of enrolled consumers as well as service engagement and consumer outcomes during enrollment.

Consumer Profile

The following section describes consumers' demographic characteristics, as well as their diagnoses, employment status, and sources of financial support prior to and at the time of enrollment.

Contra Costa County is reaching the identified target population.

Demographic Information

As shown in Figure 5 and Figure 6, half of consumers are male and half are female. The majority of consumers identify as White/Caucasian (58%, n = 19), while 25% (n = 8) identify as Black/African American and 16% (n = 5) identify as Hispanic.

Figure 5. Gender (N = 32)

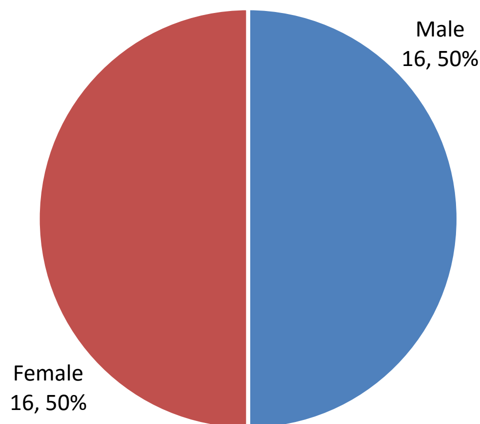
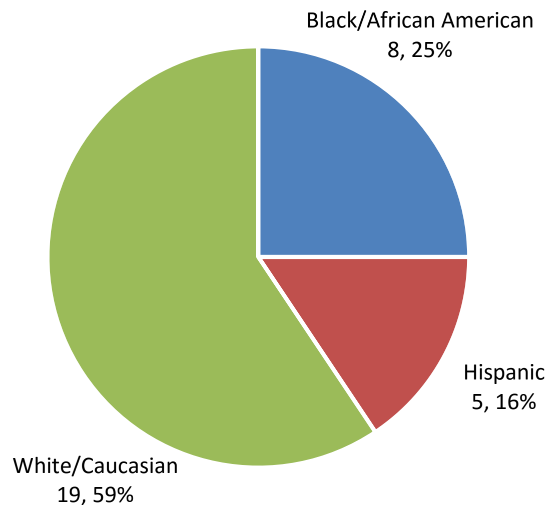


Figure 6. Race/Ethnicity (N = 32)



Diagnosis and Substance Use

Figure 7 below demonstrates that enrolled consumers are reflective of the intended AOT population. The majority of consumers (75%, n = 24) have a primary diagnosis of a psychotic disorder, including schizophrenia and schizoaffective disorders; the remaining 25% (n = 8) have a primary diagnosis of a mood disorder or another diagnosis combined with a co-occurring substance use disorder. As shown in Figure 8, 30% (n = 10) of consumers were diagnosed with some form of substance use disorder (e.g., alcohol abuse or drug dependence) at the time of enrollment. The majority of consumers (70%, n = 22) had either no secondary diagnosis or a deferred secondary diagnosis.

Figure 7. Primary Diagnosis (N = 32)

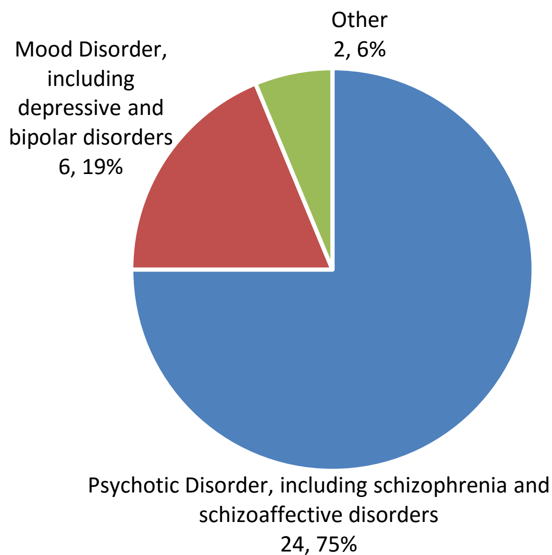
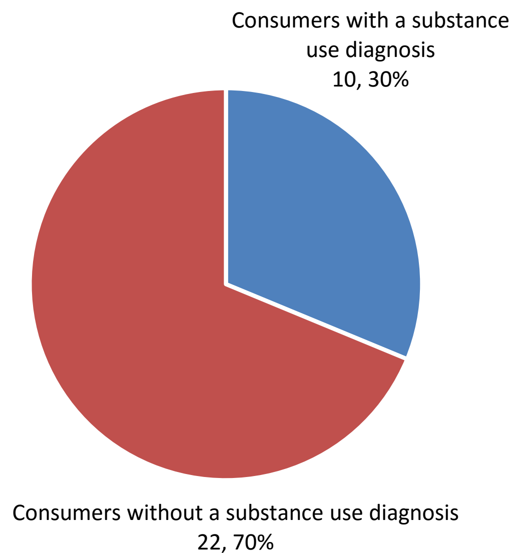


Figure 8. Substance Use (N = 32)



Employment and Financial Support

Data on consumers' employment experiences were available for 29 consumers in Contra Costa County. Of those 29 consumers, 83% (n = 24) were unemployed between four and 12 months prior to enrolling in ACT (see Figure 9). As shown in Figure 10, 93% (n = 27) of the consumers with available data were unemployed when they were enrolled in ACT services.

Figure 9. Employment 12 months before ACT (N = 29)

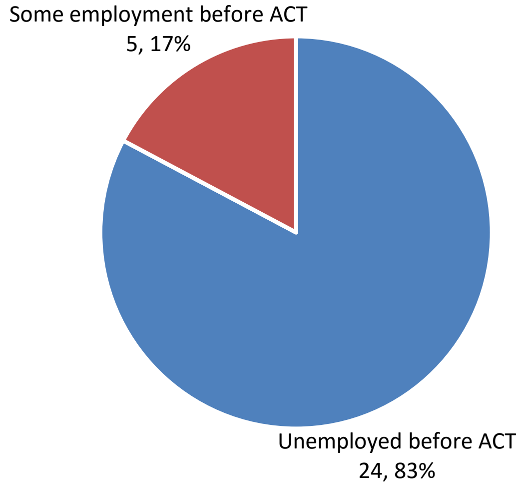
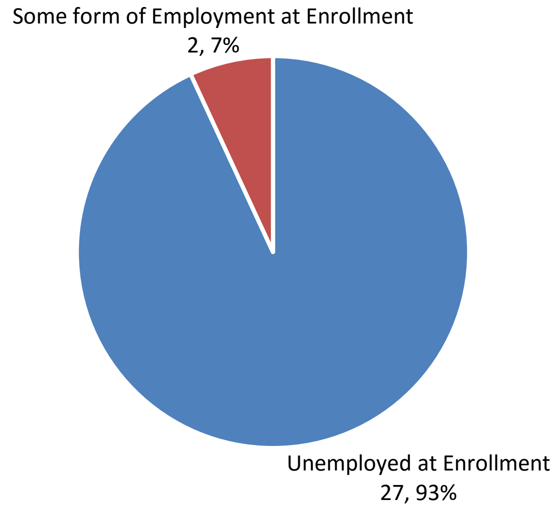


Figure 10. Employment at ACT Enrollment (N = 29)



Financial support data were available for 28 consumers. Table 5 depicts the different sources of financial support and income for consumers in the 12 months before enrollment and at the time of enrollment. The majority of consumers (66%, n = 19) received Supplemental Security Income (SSI) prior to and at the time of enrollment. Fourteen percent (14%, n = 4) of consumers reported having no financial support or income at the time of enrollment; this was the case for 10% (n = 3) of consumers in the 12 months prior to enrollment as well.

Table 5. Sources of Financial Support for ACT Consumers (N = 28)

Source of Financial Support	Received in the 12 Months Prior to Enrollment	Receiving at Enrollment
Supplemental Security Income	19 (66%)	19 (66%)
Support from family or friends	2 (7%)	2 (7%)
Retirement/Social Security	2 (7%)	2 (7%)
Other (including Tribal Benefits and Food Stamps)	2 (7%)	1 (3%)
No Financial Support	3 (10%)	4 (14%)

Service Participation

The following sections describe the type, intensity, and frequency of service participation, as well as adherence to treatment. Of the 32 consumers enrolled in ACT from February 1, 2016 – December 31, 2016, one was enrolled at the end of December 2016 and did not receive any ACT services during the evaluation period. This individual is omitted from the following service engagement analyses.

Type, Intensity, and Frequency of Treatment

The ACT team is providing intensive services to consumers.

Consumers in Contra Costa County receive services from a multidisciplinary ACT team who provide intensive wrap-around behavioral health services. When implemented to fidelity, ACT produces reliable results including decreased negative outcomes, (e.g., hospitalization, incarceration, and homelessness) and improved psychosocial outcomes. From February – December 2016, the 31 consumers who were enrolled in and receiving ACT services were enrolled for an average of 158 days. Table 6 indicates that while enrolled in ACT, consumers received an average of 31 service encounters per month, lasting an average of 54 minutes per encounter. The range of encounters per month varies substantially across consumers, from three to 104 encounters per month.

Table 6. ACT Service Engagement (N = 31)

	Average	Range
Length of ACT Enrollment	158 days	15 – 302 days
Frequency of ACT Service Encounters	31 encounters per month	3 – 104 encounters per month
Intensity of ACT Services Encounters	54 minutes	1 – 422 minutes

Treatment Adherence and Retention

The majority (94%) of consumers were adherent with ACT services.

Given that AOT provides a mechanism to compel eligible consumers to participate in outpatient mental health services, consumers were considered "treatment adherent" if they engaged in at least one face-to-face contact per week. As shown in Table 7, 94% (n = 29) of consumers met this baseline adherence requirement, with the majority (52%, n = 16) receiving between five and seven contacts per week, on average. Six percent (6%, n = 2) of the ACT population had less than one face-to-face encounter per week and were determined to be "non-adherent."

Table 7. Average Number of Face-to-Face ACT Encounters per Week (N = 31)

Adherence	Number of Contacts	Consumers
Not adherent	< 1	6% (n = 2)
Adherent	1 – 4	13% (n = 4)
	5 – 7	52% (n = 16)
	8 – 10	10% (n = 3)
	11+	19% (n = 6)

Ten percent (10%, n = 3) of consumers were discharged from ACT during the evaluation period. According to the ACT team, one of these discharges was the result of successful completion of the program. The remaining two consumers had changes in their service engagement and may be re-enrolled in the future.

ACT Consumer Outcomes

The following sections provide a summary of consumers' experiences with psychiatric hospitalizations, crisis episodes, criminal justice involvement, and homelessness before and during enrollment. Readers should note that, on average, consumers were enrolled for 158 days in the ACT program, with participation ranging from 15 - 302 days through December 31, 2016. This is important because baseline data for outcomes measures such as homelessness, arrests, and incarcerations are recorded for the entire year prior to enrollment (and for three years prior to enrollment for psychiatric hospitalizations and crisis stabilization episodes). To account for differences in the pre- and post-time periods, RDA standardized outcomes measures to rates per 180 days. Nevertheless, because consumers have spent much less time, on average, in ACT compared to their pre-enrollment periods, there is less opportunity for them to experience outcomes such as hospitalization, arrest, and/or incarceration.

Additionally, given the current size of the ACT program in Contra Costa County, some consumer outcome categories in this report include less than five consumers; therefore, this DHCS report cannot be publicly disseminated without redaction of any consumer groups of less than five.

Psychiatric Hospitalizations and Crisis Episodes

This section describes consumers' psychiatric hospitalizations and crisis stabilization episodes before and during ACT enrollment. The County's PSP Billing System was used to identify consumers' hospital and crisis episodes in the 36 months prior to and during AOT enrollment.

The majority of consumers experienced fewer psychiatric hospitalizations and crisis episodes during ACT, although a subset of consumers continues to experience hospitalization.

The majority (74%, n = 23) of ACT consumers were hospitalized at least once during the 36 months prior to enrollment. Almost all consumers (97%, n = 30) also had at least one crisis episode before ACT enrollment. Table 8 below depicts the following key findings about ACT consumers' hospitalization and crisis episodes prior to ACT enrollment:

- Among consumers with at least one hospitalization prior to enrollment (n = 23, 74%), each consumer experienced an average of 1.07 hospitalization episodes per 180 days, lasting approximately one week per episode.
- On average, consumers experienced over three (3.31) crisis episodes per 180 days, for approximately one day per episode.[7]

[7] The average crisis episodes per consumer are slightly inflated due to three consumers who had more crisis episodes than the other consumers.

Table 8. Consumer Psychiatric Hospitalizations and Crisis Episodes prior to ACT Enrollment

	Average	Range
Hospitalizations (n = 23)		
Episodes	1.07 episodes per 180 days	< 1 – 8 episodes per 180 days
Length of Episodes	7 days	1 – 95 days
Crisis Stabilization (n = 30)		
Episodes	3.31 episodes per 180 days	< 1 – 16 episodes per 180 days
Length of Episodes	1 day	1 – 5 days

During enrollment, 22% (n = 5) of the 23 consumers hospitalized prior to ACT were hospitalized again during ACT. An additional two consumers who were not hospitalized prior to ACT were hospitalized after enrolling in ACT, for a total of seven consumers who experienced psychiatric hospitalizations during ACT. Of the 30 consumers who experienced a crisis episode before ACT, almost two-thirds (63%, n = 19) experienced a crisis episode during ACT. Table 9 highlights the following key findings about consumers' hospitalization and crisis episodes after enrolling in ACT:

- Consumers who were hospitalized during ACT (23%, n = 7) experienced approximately 2.86 episodes per 180 days, with each episode lasting approximately 11 days per consumer.[8]
- Consumers who experienced a crisis episode during ACT (61%, n = 19) had less than one episode (0.53) per 180 days, and each episode lasted approximately one day.

Table 9. Consumer Psychiatric Hospitalizations and Crisis Episodes during ACT Enrollment

	Average	Range
Hospitalizations (n = 7)		
Episodes	2.86 episodes per 180 days	< 1 – 8 episodes per 180 days
Length of Episodes	11 days	3 – 30 days
Crisis Stabilization (n = 19)		
Episodes	.53 episodes per 180 days	< 1 – 2 episodes per 180 days
Length of Episodes	1 day	1 – 2 days

Taken together, the findings from this section preliminarily suggest that ACT participation is helping to stabilize consumers. In particular, fewer consumers experienced psychiatric hospitalization and/or crisis episodes during their ACT enrollment compared to prior; however, there is a subset of consumers who continue experiencing hospitalization. As the program matures and there are longer periods of enrollment, inferential analyses can help isolate the effects of service participation on these outcomes.

[8] The average number of episodes during ACT is slightly inflated due to three consumers who were hospitalized more frequently than the other consumers.

Criminal Justice Involvement

A small subset of consumers is continuing to experience criminal justice involvement after ACT enrollment.

Given limitations in self-reported criminal justice data, the following section describes consumers' arrest and incarceration experiences during ACT. Data were unavailable for one consumer; therefore, findings are reported for 30 consumers.

Of the 30 consumers for whom there were data, 23% (n = 7) were arrested and incarcerated during ACT. All consumers who were arrested during ACT were also incarcerated; therefore, the average number of arrests and incarcerations among individuals who were arrested and incarcerated while enrolled in ACT were the same. Table 10 highlights the following findings:

- Consumers who were arrested and then incarcerated during ACT (23%, n = 7) were arrested and incarcerated at a rate of 4.13 times every 180 days. [9]
- The length of consumers' incarcerations ranged between one and 19 days, for an average of 17 days per incarceration.

Table 10. Incarcerations during to ACT Enrollment

	Average	Range
Arrests (n = 7)		
Average	4.13 arrests per 180 days	1 – 9 arrests per 180 days
Incarcerations (n = 7)		
Average	4.13 incarcerations per 180 days	1 – 9 incarcerations per 180 days
Length of incarcerations	17 days	1 – 19 days

Future investigation of consumers' criminal justice involvement will use data from the Sheriff's Office and Superior Court; therefore, future reports will explore consumers' justice involvement before and during enrollment.

Housing Status

Half of consumers were in stable housing at the conclusion of the evaluation period.

Self-reported housing data from before and during ACT were available for 26 consumers.[10] As shown in Figure 11, 23% (n = 6) of consumers obtained housing while enrolled in ACT, while 27% (n = 7) maintained the housing they had before enrollment. The remaining 50% of consumers either lost their housing while in ACT (n = 3) or never had nor gained stable housing (n = 10).

[9] The average number of incarcerations is slightly inflated due to some consumers who experienced more incarcerations during ACT.
[10] RDA used the Department of Housing and Urban Development (HUD) definition of stable housing to determine which categories from the FSP PAF and KET forms should be considered "housed."

Figure 11. Consumers' Housing Status before and during ACT

Consumers who obtained housing	Consumers who maintained housing	Consumers who were not stably housed
• 23% of consumers who were not housed before ACT obtained housing while enrolled	• 27% of consumers who were housed before ACT continued to maintain housing while enrolled	• 12% of consumers were housed before ACT but did not maintain housing during ACT • 38% of consumers were not housed before or during ACT enrollment

Employment Service Engagement

All ACT consumers have access to employment services provided by the ACT team. During the evaluation period, nine ACT consumers accessed employment services through ACT. Employment services included: support developing résumés, searching for job openings, preparing for interviews, and submitting applications. The ACT team also worked with consumers to identify their vocational goals and discuss how employment can lead to independent living for consumers.

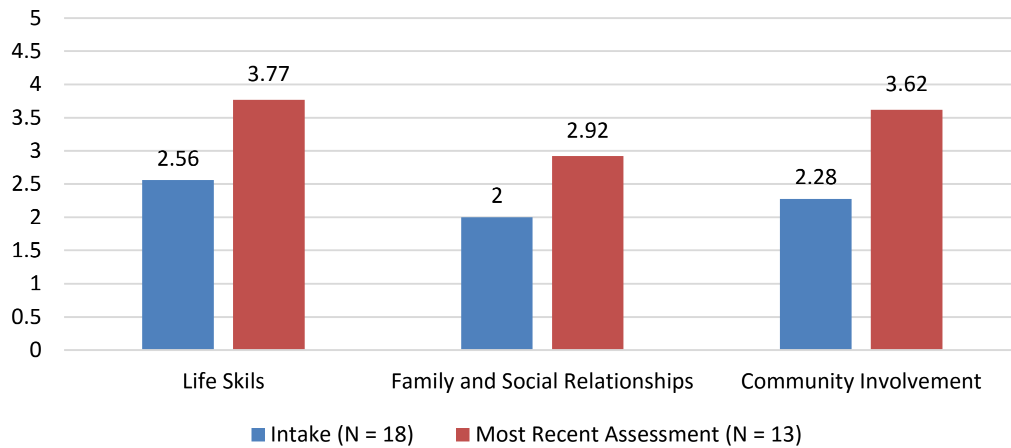
Social Functioning and Independent Living

Consumers experienced positive changes in their life skills, relationships with friends and family, and community involvement.

The Self Sufficiency Matrix (SSM) was used to assess consumers' social functioning and independent living. The SSM consists of 18 domains scored on a scale of one ("in crisis") to five ("thriving"). Clinicians assessed consumers at intake, every 90 days, and upon discharge. Intake data were available for just over half (56%, n = 18) of the ACT consumers, 13 of whom also had a reassessment. Figure 12 below shows consumers' average scores at intake, and for those who were reassessed, their most recent average scores on the life skills, family and social relationships, and community involvement domains.[11] The "life skills" domain evaluates the extent to which consumers are able to meet basic activities of daily living. The "family/social relations" domain assesses the level of support consumers receive from family and friends, while the "community involvement" domain evaluates the degree to which consumers are socially isolated or actively involved in their community. On average, consumers with a reassessment increased across each domain, indicating that consumers are experiencing increases in social functioning and independent living skills during program enrollment.

[11] The most recent assessment was either consumers' 90-day or 180-day assessment, depending on their length of enrollment.

Figure 12. Changes Life Skills, Relationships, and Community Involvement Domains during ACT



Change scores were calculated for consumers who had both an intake and re-assessment (n = 13). As shown in Table 11, consumers experienced positive change in each domain, with the greatest increase in community involvement.

Table 11. Average Change in Social Function and Life Skills Domains among Consumers with Re-Assessment (N = 13)

Domain	Average Change
Life Skills	1.42
Family and Social Relationships	1.08
Community Involvement	1.67

Taken together, these findings indicate that, at the time of reassessment, consumers had made some improvements in social function and independent living. According to the SSM scoring, consumers were able to, on average meet most of their daily living needs without assistance (life skills). They also had some support from family and friends (family and social relationships). Finally, though they made some improvement in their community involvement (i.e., improving from social isolation and an absence of motivation), they still lacked knowledge of ways to become involved in their community, on average.

AOT Enforcement Mechanisms

No AOT enforcement mechanisms were used during the first 11 months of program implementation.

The primary enforcement mechanism occurs when AOT consumers (e.g., consumers who have a voluntary settlement agreement or AOT court order) refuse to engage and a judge issues a mental health evaluation order at a designated facility for a consumer who does not meet 5150 criteria established in the Welfare and Institutions Code. No enforcement mechanisms have been used.

Consumer and Family Satisfaction

RDA conducted focus groups with ACT consumers and their family members in August 2016. Feedback from consumers and their families suggest that they are generally appreciative of the ACT program and believed that participating in ACT was beneficial. Consumers highlighted several strengths of the program, including staff responsivity and emphasis on shared decision-making; the professionalism of the ACT team; and the ACT team's inclusive approach to services, including their ability to support consumers obtaining and attending appointments, taking medication, navigating the legal system, and engaging in activity-based and recovery-oriented groups. Consumers and their family members also provided feedback on program improvement, suggesting that the ACT team could provide additional meaningful activities to reduce the amount of consumers' free time; more support for family members; and more support with housing supervision.

Future reports will include consumer and family satisfaction survey results, in addition to focus group data collected from annual ACT fidelity assessments.

Violent Behavior and Victimization

CCBHS and MHS attempted to implement the Abbreviated MacArthur Community Violence Tool to assess violence and victimization. However, administering the tool with consumers has been challenging. At the time of this report, no consumers had completed the MacArthur tool. In Contra Costa's experience, this consumer population, who is often in the early stages of accepting treatment and recovery, has resisted the administration of additional assessments and refused to answer violence and victimization questions. The County and MHS will continue to try to implement the MacArthur tool as well as find new ways to obtain this information. However, given the commitment to engaging consumers in treatment and helping consumers progress in their recovery, they have focused more on administering the required assessments rather than disrupting relationship-building with additional tools and scales. If consumers consent to violence and victimization assessments in the future, this information will be included in later reports.

Section 4. Summary of Findings

In its first 11 months of AOT implementation, Contra Costa County received 189 total referrals for AOT from all categories of potential qualified requestors. The majority of consumers were referred by family members (64%, n = 121). Through investigation that involved engaging both consumers and their families, CCBHS connected 62 unique eligible referred consumers to MHS for outreach and engagement services. Of those who were not connected to MHS, 24 were still under investigation to determine their eligibility. The remaining 100 consumers were either unavailable (i.e., the qualified requestor withdrew the request or could not be reached; the consumer could not be found, was hospitalized or incarcerated; or the consumer re-engaged in other FSP services) or they did not meet AOT eligibility criteria.

Following referral to MHS, 62 consumers received intense outreach and engagement services from the ACT team, with the goal of connecting consumers and their families to voluntary mental health services. At the conclusion of the evaluation period, MHS successfully enrolled 32 consumers in ACT.[12]

- **ACT consumers reflected the target population for the AOT program.** The majority (75%, n = 24) had a primary diagnosis of a psychotic disorder and 30% (n = 10) had a co-occurring substance disorder. The majority of consumers experienced a psychiatric hospitalization (74%, n = 23) and crisis stabilization episode (97%, n = 30). Housing data were available for 26 consumers, 19 of whom (73%) were homeless in the 12 months before enrollment.
- **The majority (94%, n = 29) of consumers were adherent to ACT services.** In other words, consumers consistently averaged at least one face-to-face contact with the ACT team per week and received a range of services, including individual and group therapy, case management, employment and housing assistance, medication management, and support building independent living skills, wellness, and community engagement.
- **Overall, consumers experienced fewer hospitalizations and adverse outcomes; however, there remains a small subset of consumers experiencing hospitalizations and justice involvement.** Fewer consumers experienced psychiatric hospitalizations (23%, n = 7) and crisis stabilization stays (61%, n = 19) during ACT. Additionally, seven consumers were arrested and incarcerated while enrolled in ACT.
- **Housing support and assistance efforts can be improved.** While six consumers obtained housing and another seven maintained their housing while in ACT, half of consumers for whom there was data (n = 13) were not in stable housing at the end of the evaluation period.
- **Consumers experienced improvement in their social functioning and independent living.** On average, consumers who were in the program for at least 90 days and received an SSM assessment experienced positive changes in their life skills, family and social relationships, and community involvement.

[12] One consumer was enrolled at the very end of the evaluation period and therefore had not received any ACT services at the time of this evaluation).

- **Overall, consumers and their family members are satisfied with the ACT program.** While there is room for program improvement (e.g., providing additional opportunities for meaningful activity engagement, family support, and housing assistance), consumers and their families are pleased with the professionalism of the ACT team, the opportunities for self-determination and decision-making, and the team's comprehensive approach to services.

As Contra Costa County's AOT program matures, and larger numbers of consumers enroll in the program for longer periods, future reports will include additional information on consumers' outcomes and allow for more advanced statistical analyses to be utilized in order to better explore changes in Contra Costa County's ACT consumer outcomes over time.

Appendix I. AOT Eligibility Requirements[13]

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.

[13] Welfare and Institutions Code, Section 5346

Appendix II. Description of Evaluation Data Sources

CCBHS AOT Request 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).

These data were used to identify the total number of referrals to the County's AOT program from February 1, 2016 – December 31, 2016, as well as the number of referrals made to AOT each month, and the number of individuals who received more than one AOT referral.

CCBHS Blue Notes: CCBHS staff converted the 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. These data were used to assess the average length (i.e., days and encounters) of investigation attempts 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.

Data from this source were used to calculate the average number of outreach encounters the MHS team provided each consumer, as well as the average length of each outreach encounter, the location (e.g., community, secure setting, telephone) of outreach attempts, 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 ACT participants, as well as diagnoses at the time of each service. PSP service claims data were used to identify the clinical diagnoses of ACT participants at enrollment, as well as the types and costs of services consumers received pre- and during-ACT enrollment (e.g., outpatient, inpatient, residential, and crises), the average frequency with which consumers received ACT FSP services, and the average duration of each service encounter.

FSP Partnership Assessment Form (PAF), Key Event Tracking (KET), and Quarterly Assessment Form (3M): Though the PAF, KET, and 3M are entered into the Data Collection and Reporting (DCR) system, data queries were unreliable and inconsistent; therefore, MHS staff entered PAF, KET, and 3M data manually into a Microsoft Access database. These data were used in this report to generate consumer profile measures and self-reported changes in outcome measures such as homelessness before and during ACT.

MHS Outcomes Files: These files include assessment data for a number of clinical assessments MHS conducts on ACT participants. For the purposes of this evaluation, the Self Sufficiency Matrix (SSM) was used to assess consumers' social functioning and independent living. Future reports will include findings

from the MacArthur Abbreviated Community Violence Instrument to address consumers' experiences of victimization and violence.