Contra Costa County Assisted Outpatient Treatment (AOT)

Annual Report for the California Department of Health Care Services

Reporting Period: January 1 - December 31, 2018

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March 2019

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Introduction

Background Information

In 2002, the California legislature passed Assembly Bill (AB) 1421 (also known as "Laura's Law"), which authorized the provision of Assisted Outpatient Treatment (AOT) in counties that adopt a resolution for its implementation. 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. AOT uses an expanded referral and outreach process that may include civil court involvement, whereby a judge may order participation in outpatient treatment. The California Welfare and Institutions Code[1] defines the target population, intended goals, and specific suite of services required to be available for AOT consumers in California (see Appendix I).

On February 3, 2015, the Contra Costa County Board of Supervisors adopted a resolution to authorize the implementation of AOT. Currently, 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. Contra Costa's AOT program represents a collaborative partnership between CCBHS, the Superior Court, County Counsel, the Public Defender, and MHS. Community mental health stakeholders and advocates have remained involved in providing feedback and supporting the program to meet its intended objectives. The County's AOT program became operational on February 1, 2016 and accepted its first consumer in March 2016.

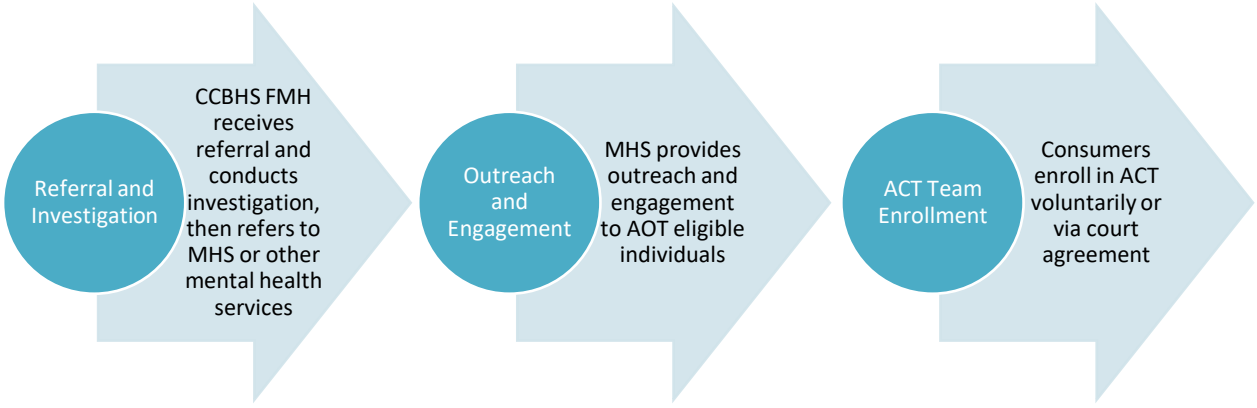
ACT is an evidence-based service delivery model for people with serious mental illness who are at-risk of or would otherwise be served in institutional settings or experience homelessness. ACT has the strongest evidence base of any mental health practice for people with serious mental illness and, when 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 responds to the needs of its communities and exceeds the requirements set forth in the legislation. The Contra Costa County AOT program includes a Care Team comprised of CCBHS Forensic Mental Health (FMH) and MHS staff. Figure 1 below depicts the County's AOT program stages from pre-enrollment (Referral and Investigation; Outreach and Engagement) through enrollment.

[1] Welfare and Institutions Code, Section 5346

Figure 1. Contra Costa County AOT Program Stages



AOT Process

As originally designed, the first stage of engagement with Contra Costa County's AOT program is through a telephone call referral whereby any "qualified requestor" can make an AOT referral.[2] Since October 2017, the County has also conducted frequent outreach meetings with the Martinez Detention Center, the Psychiatric Inpatient Unit at Contra Costa Regional Medical Center (4C), and Contra Costa County Health, Housing, and Homeless Services (H3) in order to identify additional potentially eligible consumers to be referred. Within five business days, a CCBHS mental health clinician connects with the requestor to gather additional information on the referral and then reaches out to the referred individual to begin determining if they meet AOT eligibility criteria (see Appendix I).

If the person initially appears to meet eligibility criteria, a CCBHS investigator from the FMH staff facilitates a face-to-face meeting with the consumer and/or support networks to gather information; attempts to engage the consumer; and develops an initial care plan. If the consumer continues to meet all nine eligibility criteria, FMH investigators share the consumer's information with the MHS team. MHS then conducts outreach and engagement activities with the consumer to encourage their participation in ACT. If at any time the consumer accepts voluntary services and continues to meet eligibility criteria MHS begins the ACT enrollment process. If the person does not meet all nine AOT eligibility criteria but is in need of mental health services, FMH staff work to connect them to the appropriate type and level of behavioral health services. Such service linkages include connections to:

- FSPs;
- Clinical case management and/or medication management;
- Private providers or Kaiser;
- Medical care; and
- Alcohol and other drug services.

[2] 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.

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 complete a declaration and request that County Counsel 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. At the first hearing, the consumer has the option to enter into a voluntary settlement agreement with the court to participate in AOT.

If the consumer continues to refuse AOT and is unwilling to enter into a voluntary settlement agreement, then he/she may be court ordered into AOT for a period of no longer than six months at the second court hearing. After six months, if the judge deems that the person continues to meet AOT criteria, they may authorize an additional six-month period of mandated participation. Consumers may also choose to voluntarily continue with services. At every stage of this process, CCBHS' FMH and MHS staff continue to offer the individual opportunities to engage voluntarily in services. Conversely, the AOT Care Team may recommend a 72-hour 5150 hold if the consumer meets existing criteria and is resistant to services.

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 Findings
- ACT Enrollment Findings
- 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 findings from our evaluation of Contra Costa County's processes for AOT referral, investigation, and outreach and engagement in the *Pre-ACT Enrollment Findings* section. The *ACT Enrollment Findings* section then 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 AOT implementation during the 2018 calendar year.

Methodology

RDA worked closely with CCBHS and MHS to assess the implementation of the County's AOT program, as well as the extent to which individuals receiving AOT services during 2018 experienced decreases in hospitalization, incarceration, and homelessness, and improvements in psychosocial outcomes such as social functioning and independent living skills. This evaluation is intended to meet regulatory DHCS requirements. In order to report on these requirements for consumers receiving AOT services during 2018, the following consumers were included in the analysis:

- **Evaluation Period:** January 1, 2018 through December 31, 2018
- **Consumers Included:** Any consumer who was referred to FMH, found to be AOT eligible, and received ACT services during the evaluation period
- **Consumers Excluded:** Any consumer who was referred to FMH and closed to the AOT process before the end of the evaluation period

This report includes findings for all consumers in Contra Costa County's AOT program, followed by findings for court-involved AOT consumers only. As previously stated, this version of the report contains protected health information (PHI) and should not be distributed publicly.

Data Measures and Sources

RDA worked with CCBHS and MHS staff to obtain the data necessary to address the DHCS reporting requirements for the 2018 calendar year from several data sources. Table 1 presents the County departments or agencies that provided data for this evaluation, as well as the data sources and elements captured by each data source. Appendix II provides additional information on each data source.

Table 1. Data Sources and Elements

County Department/Agency	Data Source	Data Element
Contra Costa County Behavioral Health Care Services	CCBHS FMH AOT Request Log	• Individuals referred • Qualified requestor information
	CCBHS FMH AOT Investigation Tracking Log	• CCBHS investigation attempts
	Contra Costa County PSP and ShareCare Billing Systems	• Behavioral health service episodes and encounters, including hospitalizations and crisis episodes • Consumer diagnoses and demographics
Mental Health Systems	MHS Outreach and Engagement Log	• Outreach and engagement encounters

County Department/Agency	Data Source	Data Element
	FSP Forms in Microsoft Access Database	• Residential status, including homelessness • Employment • Education • Financial support
	MHS Outcomes Spreadsheet	• Social Functioning • Independent Living • Recovery
Contra Costa County Sheriff's Office	Sheriff's Office Jail Management System	• Booking and release dates • Booking offense

In order to ensure the reporting process met the requirements stated in Section 5348 of the Welfare and Institutions Code, RDA mapped the data source onto each reporting requirement (see Table 2).

Table 2. DHCS Reporting Requirements and Corresponding Data Sources

DHCS Reporting Requirement	Data Source
The number of persons served by the program	Contra Costa PSP and ShareCare Billing Systems
The extent to which enforcement mechanisms are used by the program, when applicable	CCBHS Care Team (FMH and ACT teams) Communications
The number of persons in the program who maintain contact with the treatment system	Contra Costa PSP and ShareCare Billing Systems
Adherence/engagement to prescribed treatment by persons in the program	Contra Costa PSP and ShareCare Billing Systems
Substance abuse by persons in the program	Contra Costa PSP and ShareCare Billing Systems, and CCBHS Care Team Communications
Type, intensity, and frequency of treatment of persons in the program	Contra Costa PSP and ShareCare Billing Systems
The days of hospitalization of persons in the program that have been reduced or avoided	Contra Costa PSP and ShareCare Billing Systems
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	Contra Costa County Sheriff's Office Jail Management System
The number of persons in the program able to maintain housing	FSP Partnership Assessment Form (PAF) and Key Event Tracking (KET)
The number of persons in the program participating in employment services programs, including competitive employment	FSP PAF and KET and Care 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 Abbreviated Community Violence Instrument
Violent behavior of persons in the program	MacArthur Abbreviated Community Violence Instrument
Satisfaction with program services both by those receiving them and by their families, when relevant	MHS Consumer Satisfaction Surveys

Data Analysis

Throughout the data analysis process, RDA collaborated with CCBHS and MHS staff to vet analytic decisions and findings. RDA matched clients across the disparate data sources described above and used descriptive statistics (e.g., frequencies, mean, and median) for all analyses, including pre- and post-enrollment outcome analyses. As the Contra Costa County's AOT program has been active since February 2016, some consumers have had the opportunity to engage in the program, close, and re-enroll. In order to accurately capture the variation in their experiences, RDA made the following analytic choices regarding consumers with multiple enrollments:

- **Service Participation**: Consumers' multiple enrollments were treated as unique enrollments to determine the intensity and frequency of their service experiences.
- **Consumer Outcomes**: The date of consumers' first ACT enrollment was used to distinguish pre- and post-enrollment consumer outcomes for individuals with multiple enrollments. This means that for all consumers, outcomes (e.g., hospitalization) that occurred after a first enrollment were treated as post-enrollment outcomes.

In order to compare pre- and post-enrollment outcomes (i.e., hospitalizations, crisis episodes, and criminal justice involvement), RDA analyzed the rate (per 180 days) at which consumers experienced hospitalization, crisis, and incarceration outcomes prior to and after enrolling in ACT. To calculate rates of occurrence in the three years prior to a consumer's enrollment, RDA identified the oldest hospitalization, crisis, and jail bookings for that consumer that took place within three years of their program enrollment date. Starting with this first date of occurrence, the number of pre-enrollment days were determined and used to standardize the rate of occurrence prior to AOT enrollment (per 180 days). During enrollment, the rate of occurrence was determined by the number of days a consumer was enrolled in the ACT program.

RDA did not conduct this standardization with any self-reported data. Additionally, when conducting the service participation analyses, RDA removed consumers who had less than 30 days of enrollment data. These consumers were included in consumer outcomes analyses.

Limitations and Considerations

As is the case with all "real-world" evaluations, there are important limitations to consider when reading this report. One important limitation is that Contra Costa County implemented a new billing system during 2018, shifting from the PSP billing system to ShareCare on July 1, 2018. According to data RDA received from the PSP and ShareCare systems, there were substantially fewer MHS encounters per consumer after July 1 compared to the first half of the year. However, it is unclear whether these differences demonstrate true differences in the number of encounters consumers experienced, if data from ShareCare underestimated consumer encounters due to issues with data entry or data extraction from the new system, or whether it is a combination of both. Contra Costa County will look further into this issue for the 2020 report to DHCS; however, data on service intensity, frequency, type, and adherence should be interpreted cautiously in this report.

Another consideration is that only 85 consumers participated in the AOT treatment program during 2018. While this number is in alignment with the County's expectations for program participation, the relatively few individuals enrolled in 2018 can lead to significant shifts in the data based on the experiences of relatively few individuals. This is particularly true when assessing the proportion of individuals who experienced crisis, hospitalization, and criminal justice involvement. Thus, findings should be interpreted with caution.

It is also important to note that there is more data available for the longer pre-enrollment periods compared to the shorter post-enrollment periods. Therefore, ACT consumers had greater opportunities to experience various outcomes prior to program enrollment than after program enrollment. To account for differences in the pre- and post-time periods, RDA standardized outcomes measures to rates per 180 days for all data that were not self-reported. Nevertheless, because most consumers spent less time in ACT than in the pre-enrollment period, there is less opportunity for them to experience outcomes such as hospitalization, arrest, and/or incarceration during their ACT participation period. 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.

Lastly, for the assessment of housing and employment outcomes for ACT consumers relied on self-reported data. Self-reported data often have reliability and validity issues, as consumers may not be able to recall experiences or be willing to share them for fear of stigmatization or negative consequences. This limitation is primarily a concern for measuring consumers' pre-enrollment experiences. MHS staff did closely track changes in consumers' housing and employment statuses while they were enrolled in ACT.

Findings

Pre-ACT Enrollment Findings

In 2018, Contra Costa County received 201 referrals to AOT for 174 unique individuals.[3] Approximately two-thirds of those consumers were either still under investigation or were connected to mental health services. 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

The majority of AOT referrals (55%) continue to come from consumers' family members.

As Table 3 demonstrates, almost 95% of all referrals to AOT were made by family members, mental health providers, or law enforcement officials. Family members made over half (55%) of the 201 referrals to AOT, while mental health providers and law enforcement officials made 29% and 11% of referrals to AOT, respectively. An additional 5% of referrals came from a director of a hospital, another adult that lives with the individual, an unknown requestor, or an unqualified requestor.

Table 3. Summary of Requestor Type (N = 201)

Requestor	Percent of Total Referrals (N = 201)
Parent, spouse, adult sibling, or adult child	55% (n = 111)
Treating or supervising mental health provider	29% (n = 58)
Probation, parole, or peace officer	11% (n = 22)
Director of hospital where individual is hospitalized	2% (n = 4)
Not a qualified requestor	1% (n = 2)
Adult who lives with individual	1% (n = 2)
Other/Unknown	1% (n = 2)

Care Team

Contra Costa County's Care Team consists of CCBHS' FMH and MHS staff. CCBHS FMH receives all AOT referrals and conducts an investigation for each individual referred in order to determine AOT eligibility (see Appendix I. AOT Eligibility Requirements). CCBHS FMH refers AOT-eligible consumers to MHS staff, who conduct outreach and engagement to enroll consumers in ACT services.

[3] In 2018, FMH experienced a fire that compromised some data. Data that FMH sent to RDA indicates there were 201 request calls for AOT received in 2018. However, data from MHS' Outreach and Engagement log shows an additional 10 consumers who received an AOT referral and received Outreach and Engagement in 2018 that are unaccounted for in the FMH data.

Investigation

After CCBHS receives an AOT referral, the FMH team conducts an investigation to determine if the individual meets the eligibility criteria for the AOT program. In addition to consulting prior hospitalization and mental health treatment records for the individual and gathering information from the qualified requestor, the FMH investigation team also attempts to make contact with the referred individual in the field.

Approximately 31% (n = 63) of consumers were identified as eligible for AOT and referred to MHS for outreach and engagement.

As shown in Table 4, FMH received and investigated 201 referrals for AOT in 2018. Of those referrals, approximately one-third (31%, n = 63) were referred to MHS for outreach and engagement and potential enrollment in ACT. FMH connected or re-connected 33 (16%) consumers to a mental health provider, while 40 (20%) consumers were still under investigation at the end of the year.

Table 4. Outcome of CCBHS Investigations for Consumers Referred in 2018 (N = 201)

Investigation Outcome	Referred Consumers	% of Referred Consumers
Referred to MHS	63	31%
Engaged or Re-Engaged with a Provider	33	16%
Investigated and Closed	65	32%
Ongoing Investigation	40	20%

Approximately one-third of individuals (32%, n = 65) referred to AOT were investigated and closed. Of those 65 consumers determined to be ineligible, the majority either did not meet all nine eligibility requirements (34%, n = 22) or were unable to be located (37%, n = 24). The remaining 19 consumers (29%) were closed for one of the following reasons:

- They were unable to be assessed for eligibility (i.e., moved out of County, extended incarceration, or extended hospitalization);
- The qualified requestor withdrew the referral; or
- The qualified requestor could not be reached.

CCBHS FMH worked to connect individuals who were ineligible for AOT to the appropriate level of mental health treatment and also provided resources and education for family members of these individuals.

The County's investigation team was persistent in their efforts to locate consumers, determine consumers' eligibility for AOT, and connect eligible consumers to MHS.

In order to capture the complete efforts of the FMH team, RDA included all investigation data for consumers who were under investigation in 2018; so if a consumer's eligibility investigation began in late 2017 and carried over into 2018, RDA included all of that consumer's investigation data. On average, CCBHS FMH's investigation team made six contact attempts to reach each individual referred to AOT. The

investigation team worked to meet consumers "where they're at," as evidenced by the variety of locations where investigation contacts occurred. Investigation teams attempted to connect with consumers in the field 17% of the time. They also met consumers at inpatient or licensed care (9%) and correctional (4%) facilities, as well as consumers' homes (7%). Just over half (56%) of investigation encounters occurred either over the phone or in a County office. One-fourth of these phone or office contacts represent the initial two contact attempts made by the FMH investigation team.

Outreach and Engagement

If the CCBHS FMH team determines that a consumer is eligible for AOT, the consumer is connected with MHS. The MHS team then conducts outreach and engagement activities with those individuals and their family to engage the individual in AOT services. As per the County's AOT program design, MHS is charged with providing opportunities for the consumer to participate on a voluntary basis. If, after a period of outreach and engagement, the person remains unable and/or unwilling to voluntary enroll in ACT and continues to meet AOT eligibility criteria, MHS may refer the individual back to FMH to file a petition to compel court ordered participation.

MHS' diverse team provided intensive outreach and engagement to consumers in a variety of settings.

During 2018, MHS served 114 consumers in some capacity, either providing outreach and engagement or ACT services. While some consumers only received outreach and engagement services in 2018, others were also enrolled in ACT at some point during the year. As shown in Table 5, 73 consumers received outreach and engagement services in 2018.[4] Of those who received outreach and engagement services in 2018, 44 enrolled in ACT. Another 41 consumers received outreach and engagement prior to 2018 and were ACT-enrolled during 2018.

In order to capture the total effort of MHS's team, RDA included all outreach and engagement efforts for ACT-enrolled consumers who were enrolled in 2018 in the following analyses. In other words, for all consumers who were part of the ACT program in 2018 but received outreach and engagement services in 2017 or 2016, RDA included their outreach and engagement data. As shown in Table 5, 44 of the 73 (60%) consumers who received outreach and engagement during this time period subsequently enrolled in ACT services, and an additional 11 consumers (15%) were still in the outreach and engagement process as of December 31, 2018.

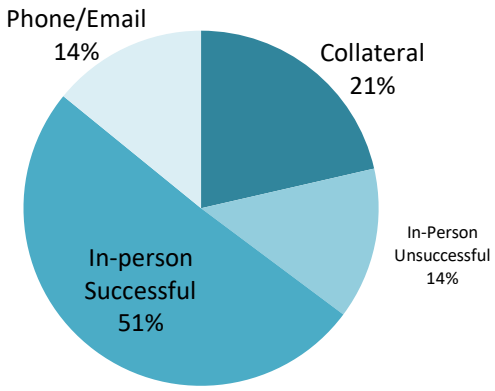
Table 5. MHS Service Summary (N = 114)

[4] MHS data indicates that 73 consumers received outreach in 2018, which is ten additional consumers than indicated in the FMH data.

Consumer Status	Number of Consumers	% of Consumers
Received Outreach in 2018	**73**	64%
Outreach is Ongoing	*11*	
Outreach Closed	*18*	
Enrolled in ACT	*44*	
Received Outreach in 2016/17; ACT services in 2018	**41**	36%

MHS provided outreach and engagement services to consumers and their support networks. MHS made 906 outreach attempts with the consumers either enrolled in AOT or referred to MHS for AOT in 2018. The ACT team conducted the majority (65%) of its consumer outreach attempts in-person. Just under one-quarter (21%) of their outreach efforts were with consumers' family members or other community service providers (see Figure 2).

Figure 2. MHS Outreach and Engagement Attempts (N = 906)



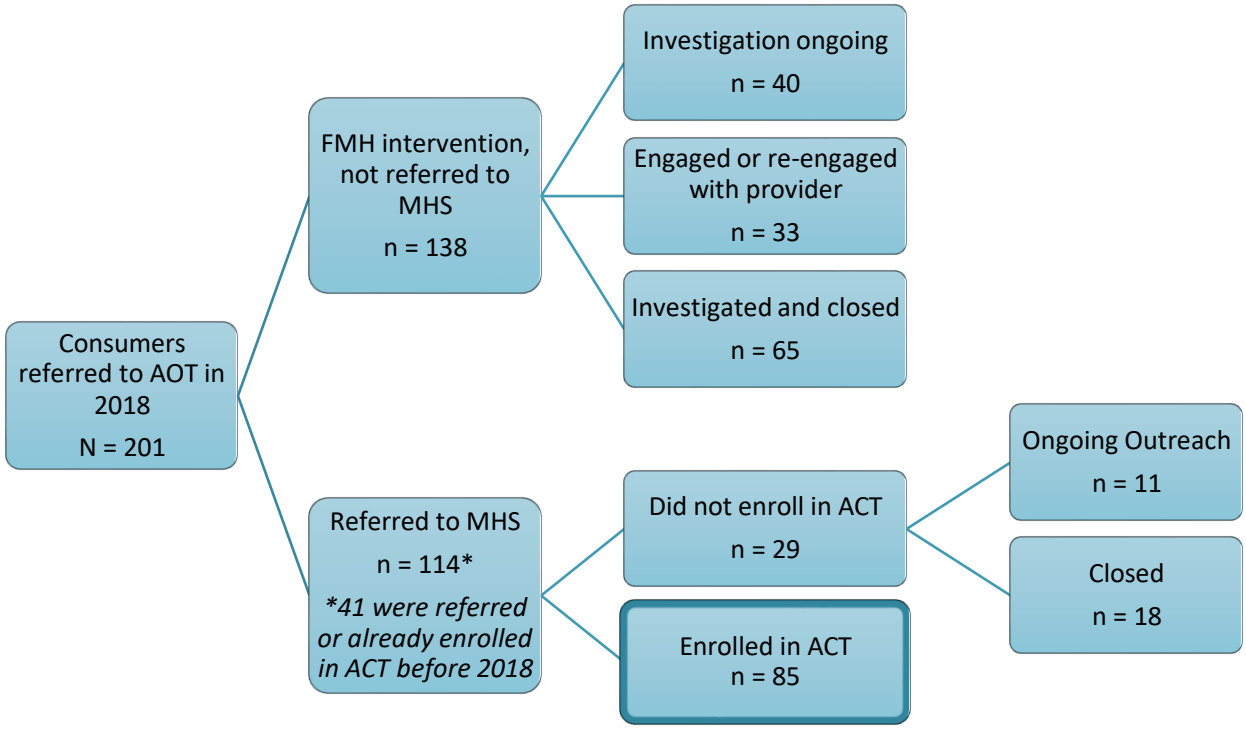
MHS relies on a diverse multidisciplinary team to conduct outreach and engagement. Just over half (52%) of outreach attempts were by a peer partner, while one in five outreach attempts were made by the ACT team leader (19%). A family partner, alcohol and drug specialist, clinician, nurse, psychiatrist, or team supervisor also made outreach attempts during the evaluation period. As with the County's investigation team, MHS persisted in their efforts to meet consumers "where they're at." One in five attempts (20%) occurred in the community, while about one in four (24%) attempts occurred at a consumer's home. The ACT team also attempted to connect with consumers at a hospital or crisis stabilization facility, other community service provider locations, and criminal justice sites, such as jail, police stations, and the courthouse.

Referral to Enrollment Summary

The average length of time from AOT referral to enrollment is 119 days, and most consumers (80%, n = 68) enrolled in ACT voluntarily.

Contra Costa County designed an AOT program model that sought to engage and enroll consumers in ACT within 120 days of referral. Collectively, it took the Care Team approximately 119 days to conduct investigation, outreach and engagement, and enrollment of consumers in AOT in 2018. Figure 3 summarizes the outcomes of all referrals to AOT following the Care Team's investigation, outreach, and engagement efforts. At the end of 2018, 85 consumers were enrolled in ACT. Of those 85 consumers, 20% (n = 17) enrolled with court involvement and the remaining consumers enrolled voluntarily.

Figure 3. Referral to ACT Enrollment Summary[5]



ACT Enrollment Findings

The ACT team served 114 unique consumers in 2018, either by outreach and engagement, or enrollment in ACT. The following section provides information on the profile of enrolled consumers as well as service engagement and consumer outcomes during enrollment.

Consumer Profile

Contra Costa County is reaching the identified target population.

Demographic Information

As shown in Table 6, 41% of all consumers enrolled in ACT services during 2018 were female. The majority of consumers identified as White/Caucasian (53%, n = 45), while 19% (n = 16) identified as Black/African American and 13% (n = 11) identified as Hispanic. An additional 12% (n = 10) of consumers identified as some "Other" race and 4% (n = 3) did not report their race/ethnicity. The majority of consumers (64%, n = 54) were between the ages of 26 and 49 years old.

[5] As noted previously, in 2018 FMH experienced a fire that compromised some data. Data FMH sent to RDA indicates there were 201 request calls for AOT received in 2018. However, data from MHS' Outreach and Engagement log shows an additional 10 consumers who received an AOT referral and received Outreach and Engagement in 2018 that are unaccounted for in the FMH data.

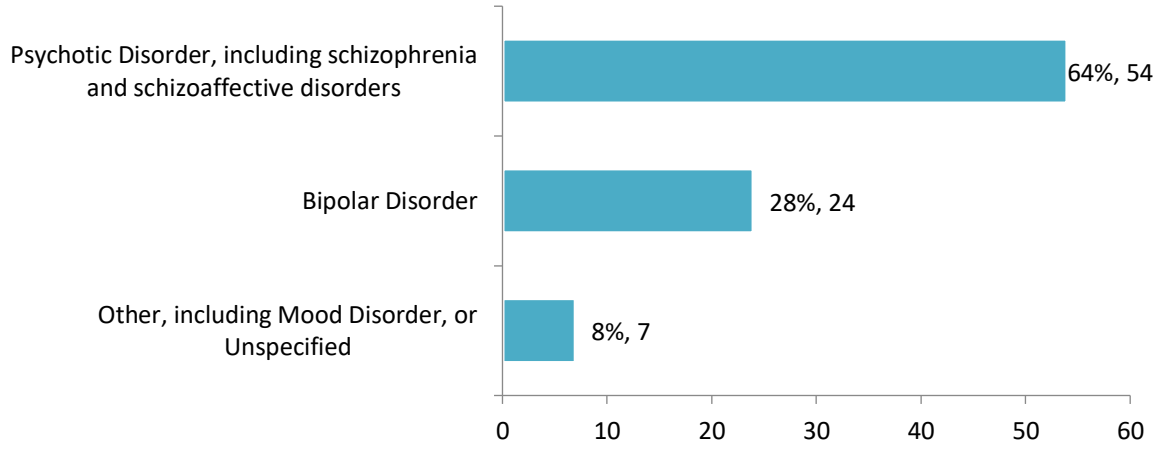
Table 6. AOT Consumer Demographics (N = 85)

Category	Percent of Consumers	Number of Consumers
Gender		
Female	41%	35
Male	59%	50
Race/Ethnicity		
White	53%	45
Black/African American	19%	16
Hispanic or Latino	13%	11
Other	12%	10
Unknown/Not reported	4%	3
Age		
18 – 25	21%	18
26 – 49	64%	54
50+	15%	13

Diagnosis and Substance Use

Consumers enrolled in ACT are reflective of the intended AOT population of individuals with serious mental illness (see Figure 4). The majority of consumers (64%, n = 54) had a primary diagnosis of a psychotic disorder, including schizophrenia and schizoaffective disorders. Another 28% (n = 24) had a primary diagnosis of bipolar disorder. Furthermore, 68% (n = 58) of consumers had a co-occurring substance use disorder.

Figure 4. Primary Diagnosis (N = 85)



Employment and Financial Support

Partnership Assessment Form (PAF) data were available for 83 ACT consumers. Of those 83 consumers, 74% (n = 72) were unemployed at some point in the 12 months prior to enrolling in ACT (see Figure 5). As

shown in Figure 6, 81% (n = 67) of the consumers with available data were unemployed when they were enrolled in ACT services.

Figure 5. Employment 12 months before ACT (N = 83)

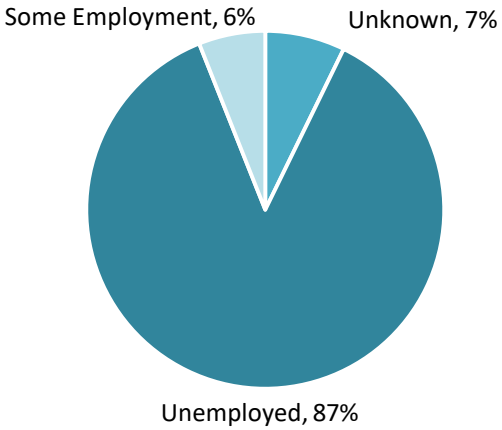
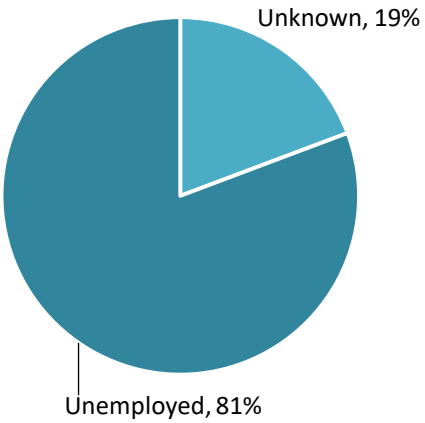


Figure 6. Employment at ACT Enrollment (N = 83)



Financial support data were available for 83 consumers. Table 7 depicts the different sources of financial support and income for consumers in the 12 months prior to enrollment, as well as at the time of enrollment. The "Other" category includes retirement/Social Security income, tribal benefits, wages or savings, housing subsidy, and food stamps. The majority of consumers received Supplemental Security Income/State Supplementary Payment (SSI/SSP) or Social Security Disability Income prior to (59%) and at the time of (55%) enrollment. Approximately 13% of consumers reported having no financial support or income prior to enrollment, while 16% of consumers reported having no financial support at the time of enrollment.

Table 7. Sources of Financial Support for ACT Consumers (N = 83)[6]

Source of Financial Support	Received in the 12 Months Prior to Enrollment	Receiving at Enrollment
Supplemental Security or Disability Income	59%	55%
Support from family or friends	23%	23%
Other	4%	2%
No Financial Support	13%	16%
Unknown	7%	8%

Service Participation

The following sections describe the type, intensity, and frequency of service participation, as well as adherence to treatment. Of the consumers enrolled in ACT during 2018, four were enrolled for less than one month, and 16 consumers had no MHS encounter data available to determine service participation. Therefore, the following analyses include service data for 65 out of 85 consumers who received MHS services in 2018.

[6] Total percentages are greater than 100 because some consumers had more than one source of support.

It is important to note that Contra Costa County implemented a new billing system during 2018, shifting from the PSP billing system to ShareCare on July 1, 2018. According to data RDA received from the PSP and ShareCare systems, there were substantially fewer MHS encounters per consumer after July 1 compared to the first half of the year. However, it is unclear whether these differences demonstrate true differences in the number of encounters consumers experienced, if data from ShareCare underestimated consumer encounters due to issues with data entry or data extraction from the new system, or whether it is a combination of both. Contra Costa County will look further into this issue for the 2020 report to DHCS; however, data on service intensity, frequency, type, and adherence should be interpreted cautiously in this report.

Type, Intensity, and Frequency of Treatment

The multidisciplinary ACT team provides wrap-around behavioral health services to consumers.

ACT consumers in Contra Costa County received services from a multidisciplinary ACT team who provide 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. In 2018, consumers were enrolled and receiving ACT services for an average of 437 days. On average, they received two in-person service encounters per week for a total average of two hours of in-person services per week (see Table 8).

Table 8. ACT Service Engagement (N = 65)

	Average	Range
Length of ACT Enrollment	437 days	52 – 1014 days
Frequency of ACT Service Encounters	2 face-to-face contacts per week	<1 to 10 face-to-face contacts per week
Intensity of ACT Services	2 hours of face-to-face contact per week	<1 – 9 hours of face-to-face contact per week

Treatment Adherence

Approximately one-third of consumers were adherent with ACT services.

Using the ACT fidelity guidelines as a reference, consumers were considered "treatment adherent" if they received at least one hour of face-to-face engagement with their ACT team at least two times per week. Twenty-three of 65 consumers included in the service analysis (35%) met this standard of adherence (see Figure 7 and Figure 8).[7] However, as noted above, these findings should be interpreted cautiously, because it is unclear whether the PSP and ShareCare billing data that RDA received to track MHS service participation reflects true service participation or whether service participation is underestimated due to errors in data entry or extraction from the new ShareCare system.

[7] 15 consumers met the standard for intensity but not frequency of service.

Figure 7. Intensity of ACT Contacts per Week

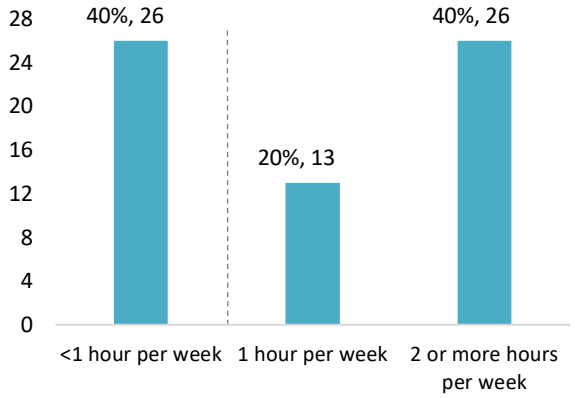
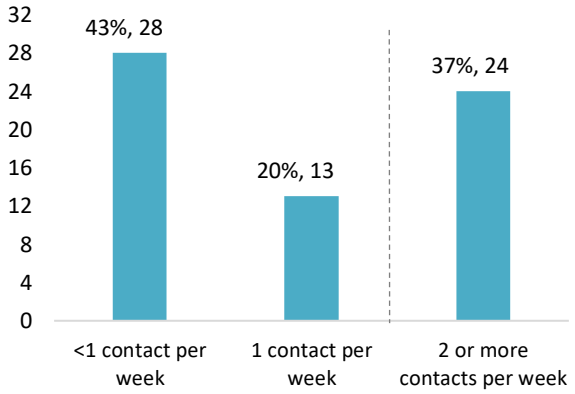


Figure 8. Frequency of ACT Contacts per Week



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 ACT enrollment. When appropriate, these outcomes are standardized to rates per 180 days in order to account for variance in length of enrollment and pre-enrollment data. All 85 consumers served during 2018 were included in the following outcomes analyses. To calculate rates of occurrence in the three years prior to a consumer's enrollment, RDA identified the oldest hospitalization, crisis, and jail bookings for that consumer that took place within three years of their program enrollment date. Starting with this first date of occurrence, the number of pre-enrollment days were determined and used to standardize the rate of occurrence prior to AOT enrollment (per 180 days). During enrollment, the rate of occurrence was determined by the number of days a consumer was enrolled in the ACT program.

Crisis and Psychiatric Hospitalization

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 through June 30, 2018. The County's new billing system, ShareCare, was used to identify consumers' hospital and crisis episodes from July through December, 2018.

The number of consumers experiencing crisis episodes and psychiatric hospitalization decreased during ACT.

The number of consumers experiencing a crisis episode decreased during ACT, as did the rate of their crisis experiences. Almost all consumers (94%, n = 80) experienced at least one crisis episode in the three years before ACT with episodes lasting an average of just over one day. Fewer consumers had a crisis episode during ACT (48%, n = 41). Among those who did have crisis episodes, they experienced approximately three episodes every six months both prior to and during ACT participation. The average length of crisis episodes remained steady prior to and during ACT enrollment (see Table 9).

Table 9. Consumers' Crisis Episodes before and during ACT

Crisis Episodes		
	Before ACT enrollment	**During ACT enrollment**
Number of Consumers (N = 85)	n = 80	n = 41
Number of Crisis Episodes	2.8 episodes per 180 days	3.1 episodes per 180 days
Average Length of Stay	1.2 days	1.2 days

Similar to those experiencing crisis episodes, the number of consumers who experienced a psychiatric hospitalization decreased during ACT. Approximately 53% (n = 45) of consumers were hospitalized in the 36 months before ACT, compared to 18% of consumers (n = 15) who experienced a hospitalization during ACT. Those with at least one hospitalization before ACT experienced approximately 1.1 hospitalizations every 180 days, lasting an average of 13.7 days each. Consumers were hospitalized fewer times (0.8 hospitalizations per 180 days) while enrolled in ACT, and the average hospitalization lengths were similar prior to (13.7 days) and while enrolled (15.8 days) in ACT (see

Table 10).

Table 10. Consumers' Psychiatric Hospitalizations before and during ACT

Psychiatric Hospitalizations		
	Before ACT enrollment	**During ACT enrollment**
Number of Consumers (N = 85)	n = 45	n = 15
Number of Hospitalizations	1.1 hospitalizations per 180 days	0.8 hospitalization per 180 days
Average Length of Stay	13.7 days	15.8 days

Incarceration

This section describes consumers' criminal justice system involvement utilizing data from the Sheriff's Office to assess the number and the average lengths of jail bookings for each consumer in the 36 months prior to and during ACT enrollment.

The number of consumers incarcerated in County jails decreased during ACT.

Over half of ACT consumers (54%, n = 46) were arrested and booked into County jail at least once in the three years prior to ACT enrollment. On average, prior to ACT enrollment, they were arrested and booked into County jail approximately two times per 180 days and were in jail for an average of 23.8 days. During ACT participation, however, just over one-quarter of consumers (26%, n = 22) were arrested and booked into County jail. Among these individuals, on average, they were arrested and booked at slightly higher rates per 180 days during ACT enrollment, and the average length of their incarcerations following an arrest increased slightly as well, from 23.8 to 28.5 days (see Table 11).

Table 11. Consumers' Bookings before and during ACT

Bookings and Incarcerations		
	Before ACT enrollment	**During ACT enrollment**
Number of Consumers (N = 85)	n = 46	n = 22
Number of Bookings	2 bookings per 180 days	2.5 bookings per 180 days

Average Length of Incarceration	23.8 days	28.5 days

Over 80% of consumers were in stable housing at the conclusion of the evaluation period.

At enrollment, 61% of consumers were in stable housing.[8] RDA compared consumers' baseline housing status to their last known residence in 2018 to explore changes in consumers' housing status during ACT enrollment. Housing information was taken from consumers' Partnership Assessment Form (PAF) at intake and the subsequent Key Event Tracking (KET) form that were used to note changes in a consumer's status. This analysis contains information from 52 consumers due to limited data availability.[9] As shown in Figure 9, 79% (n = 41) of consumers had stable housing at the end of their ACT enrollment or the reporting period. The remaining 21% (n = 11) of consumers either lost their housing while in ACT or never had nor gained stable housing.

Figure 9. Consumers' Housing Status before and during ACT

Consumers who obtained or maintained housing	Consumers who were not stably housed
•**79%** of consumers were not housed before ACT but obtained housing while enrolled or were housed before ACT and continued to maintain housing while enrolled	•**21%** of consumers were not housed before or during ACT enrollment or were housed before ACT but did not maintain housing during ACT

Employment Service Engagement

ACT enrollment provides consumers with support for their employment and education.

All ACT consumers have access to vocational services provided by the ACT team. However, during the evaluation period, less than one-quarter of ACT consumers (n = 18) accessed these 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. The number of consumers with some form of employment (either part- or full-time, or volunteer work) increased during ACT. While no consumers had employment at enrollment, four consumers held competitive employment at some point during ACT in 2018. An additional five ACT consumers attended school or completed a degree in 2018.

[8] 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."
[9] Two consumers were missing a PAF and were not included in this analysis. An additional 23 consumers who were enrolled for more than two-months and did not have a KET were also excluded. Eight consumers housing status was unknown.

Social Functioning and Independent Living

When implemented to fidelity, ACT programs can enhance consumers' abilities to function independently and participate in activities of daily living. Throughout consumers' enrollment in ACT, the MHS team administered the Self Sufficiency Matrix (SSM) to assess consumers' social functioning and independent living on a quarterly basis. The SSM consists of 18 domains scored on a scale of one ("in crisis") to five ("thriving").

ACT consumers experienced slight increases in their self-sufficiency while enrolled in ACT.

The MHS team assessed consumers at intake, every 90 days, and upon discharge. Intake data were available for 48 consumers enrolled in ACT during 2018, 34 of whom also had at least one reassessment.

Table 12 reports the average scores for consumers at intake, as well as at 3, 6, 12, and 18 months after enrollment.[10]

Table 12. Self Sufficiency Matrix Scores

Domain	Intake Average Score	3-month Average Score	6-month Average Score	12-month Average Score	18-month Average Score
Housing	3.08	3.35	3	3	3.63
Employment	1.08	1.12	1.16	1.36	1.43
Income	1.79	2.24	1.97	2.73	2.25
Food	2.65	2.85	2.72	2.8	3.25
Child Care	4.5	4	4	4	3
Children's Education	4.75	5	5	5	5
Adult Education	3.6	3.21	3.41	3	3.25
Health Care Coverage	4.02	4.38	3.88	3.36	3.63
Life Skills	3	3.47	3.47	3.09	3.63
Family/Social Relations	2.56	3.94	2.78	2.82	2.5
Mobility	2.73	3.03	3.09	3.36	2.38
Community Involvement	2.42	3.12	2.44	3.27	2.38
Parenting Skills	3	2.6	3.67	1.67	4
Legal	3.74	3.94	4.17	3.64	4.57
Mental Health	2.15	2.15	2.25	2.91	2.38
Substance Abuse	3.17	3.15	3.25	3.27	4.13
Safety	3.73	4.06	3.94	3.64	4.38
Disabilities	2.52	2.47	2.6	3	2.88
Total Score	43.44	47.82	44.75	45.73	49.63
	n=48	n=34	n=31	n=10	n=7

[10] "n/a" indicates where no scores were given for SSM domains

Consumers' average scores across domains at each SSM administration were higher than the average scores at intake.

Violent Behavior and Victimization

Consumers who meet the eligibility requirements for AOT often have perpetrated violence towards others and/or experienced violence and victimization. The team administered the MacArthur Abbreviated Community Violence Instrument (MacArthur tool) at intake, every 180 days, and at discharge to determine if consumers were either perpetrators of violence and/or victims of violence. The assessment asks consumers about the following types of violence:

- Throwing things at someone
- Pushing, grabbing, or shoving someone
- Slapping someone
- Kicking, biting, or choking someone
- Hitting someone with a fist or object, or beating someone up
- Forcing someone to have sex against their will
- Threatening someone with a gun, knife, or other lethal weapon
- Using a knife on or firing a gun at someone

Consumers were asked if they had either perpetrated and/or been victims of each type of violence in the prior month.

Few ACT consumers perpetrated violence towards others and/or experience victimization.

The MacArthur tool includes 17 questions that assess the frequency of violence, victimization or perpetration of assaultive behavior by consumers during the last month. Victimization and violent behaviors include behaviors that cause physical or emotional harm to themselves or others. These behaviors can range from verbal abuse to physical harm to self, others, or property.

MHS administered the MacArthur Tool with 48 ACT clients during 2018. The majority of ACT clients at baseline reported that they had not been victimized nor perpetrated violence towards someone in the month prior to enrollment. No consumers (n = 28) reported being victimized or perpetrating violence in the prior month for MacArthur assessments taken between three and twenty-four months after ACT enrollment. However, given the sensitive nature of these questions and that very few individuals reporting experiencing either activity during both time points, these results are likely an underrepresentation of these outcomes and should be interpreted with caution.

Consumer Satisfaction

Understanding both consumers' satisfaction with ACT services is an important way to ensure ACT services are meeting the needs and expectations of the individuals the program serves. MHS' client satisfaction survey tool was used to assess consumer satisfaction with ACT services.

Overall, ACT consumers are very satisfied with ACT services and consumers' recovery while enrolled in ACT.

In 2018, MHS collected program satisfaction surveys from 42 consumers. Clients were asked to rate their overall satisfaction with the services they received from MHS on a scale of 1 to 5, 5 being the most positive. Forty-one consumers responded to this question with an average score of 4.7.

MHS connected consumers with many resources and supported them in acquiring assistance for their everyday needs. The greatest number of consumers noted that MHS helped them with the following resources:

- Housing (n = 25)
- Transportation (n = 28)
- Counseling (n = 30)
- Medication Support (n = 30)

AOT Enforcement Mechanisms

No AOT enforcement mechanisms were used during 2018.

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 orders the consumer to meet with the treatment team or 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. These enforcement mechanisms were not used in 2018 in Contra Costa County's AOT program.

Summary of Findings

This 2018 report to California's DHCS was written in recognition of the collaborative efforts of those involved in the implementation of the AOT program in Contra Costa County. The following discussion summarizes implementation activities and consumer accomplishments during 2018.

CCBHS FMH and MHS collaborate to identify and engage eligible consumers in ACT services.

After almost three years of implementation, FMH and MHS have made important strides in their collaborative efforts to effectively and efficiently identify and engage eligible AOT consumers. Both teams are persistent in their efforts to work with consumers who may be difficult to find and engage by nature of their diagnoses and co-occurring substance use disorders. The FMH and MHS teams meet consumers in a variety of locations and use cultural and age-specific approaches to engage both consumers and their support networks.

CCBHS FMH and MHS have a demonstrated commitment to this program and making data-driven improvements. They regularly assess ways to improve their collaboration in service of consumer needs. In 2018, FMH and MHS began joint case reviews on a monthly basis of every referred consumer who has not yet enrolled in the program to determine if and when court involvement should take place in order to ensure that consumers who require court involvement to participate are promptly identified. Furthermore, both FMH and MHS have strong and positive working relationships with the Contra Costa County Court system, which enables all parties to ensure consumers who are eligible for AOT services to receive the support they need.

The County's AOT program connected a majority (59%) of referred individuals to the appropriate level of mental health services, including ACT.

In 2018, the County received 201 referrals for AOT. At the conclusion of the year, 20% (n = 40) were still being investigated for AOT eligibility. Of those referrals that were closed, 33 were ineligible for AOT but connected to another provider, that they worked with in the past or a new mental health provider. This indicates that the AOT program in Contra Costa County also provides opportunities for consumers who are not eligible for AOT to access mental health services. Forty-four of the consumers referred to MHS in 2018 for outreach and engagement services were ultimately enrolled in ACT and 11 consumers were still receiving outreach and engagement at the end of the evaluation period. In 2018, less than a third of consumers were closed without connection to services; the majority of those who were closed either did not meet all of the nine AOT eligibility criteria, could not be located, or the qualified requestor was unavailable or withdrew the request.

Data limitations mostly stemming from the implementation of a new health care billing system (ShareCare) during 2018 impacted the quality of service data available for this report.

According to the data that RDA received from the PSP and ShareCare billing systems, there were substantially fewer MHS encounters per consumer during the second half of 2018 compared to the first half of the year. However, it is unclear whether these differences demonstrate true differences in the number of encounters consumers experienced, if data from ShareCare underestimated consumer encounters due to issues with data entry or data extraction from the new system, or whether it is a combination of both. From RDA's perspective, whenever new data systems are being implemented across large service agencies, it is natural for there to be data-related issues for both inputting and extraction. Contra Costa County will look further into this issue for the 2020 report to DHCS.

The majority of ACT consumers experienced benefits from participating in the AOT treatment program.

Consumers experienced a range of benefits from their participation in ACT. For the following outcomes, fewer consumers experienced these negative outcomes during their ACT enrollment compared to the years prior to their ACT enrollment:

- Crisis episodes,
- Psychiatric hospitalizations,
- Arrests and incarcerations,
- Homelessness,
- Victimization, and
- Violence towards others.

Additionally, ACT consumers' average total scores on their Self-Sufficiency Matrix (SSM) reassessments were higher than their average scores at intake, suggesting that consumers are improving in their social functioning and independent living skills through program participation. Lastly, consumers expressed satisfaction with ACT services while enrolled in ACT. In survey responses, consumers rated their level of satisfaction very high (4.7 on average on a scale of 1 - 5). In particular, ACT consumers noted that MHS helped them with housing (n = 25), transportation (n = 28), counseling (n = 30), and medication support (n = 30).

Appendices

Appendix I. AOT Eligibility Requirements[11]

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.

[11] 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 during.

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 frequency and 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 and ShareCare Billing Systems: These data track all services provided to ACT participants, as well as diagnoses. PSP and ShareCare service claims data were used to identify the clinical diagnoses of ACT participants at enrollment, as well as the types 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.

Contra Costa County Sheriff's Office Jail Management System: Data from this system included consumers' booking offenses, dates, and release dates for the three years prior to ACT-enrollment and

the time following ACT enrollment through the end of 2018. They were used to examine consumers' arrests and jail stays before and during ACT.