City of Albuquerque Assertive Community Treatment Team Program Evaluation Report

Prepared for:
The Department of Family and Community Services
The City of Albuquerque

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EXECUTIVE SUMMARY

ACT teams are generally intended to serve individuals with serious mental illnesses using a team approach to provide comprehensive, community-based psychiatric treatment, rehabilitation, and support. The ACT team in Albuquerque began accepting clients in May 2005 and the program is designed to serve an average of 68 individuals annually in its full program and an additional 32 individuals in a step down program that consists of less intensive services. Currently, because the program is not at capacity, only the full program is in place. The ACT team provides services 24 hours a day, 7 days a week.

The program has received 117 referrals through March 2007 (an average of 5 referrals a month), accepted 67 as participants, and 18 participants left the program.

The majority of referrals met eligibility criteria based on the diagnosis and criteria dealing with serious functional impairments and continuous high service needs. Out of a possible 3 serious functional impairments referrals had an average of almost 2 impairments and out of a possible 9 continuous high service needs referred individuals had an average of almost 3 needs. While not part of the eligibility criteria the ACT team also collected some information on acute concerns. More than 75% of individuals referred had an acute safety concern, 67% had an acute shelter concern, 64% an acute medical concern, and 53.5% an acute food concern. The other category primarily included concerns with clothing. On average, referred individuals had 3.1 (5 possible) acute concerns.

Approximately 70% of referred individuals reported illicit drug use and only 41% reported ever receiving substance abuse treatment. More than 50% had a history of suicide attempts, individuals had an average of 2.7 hospitalizations (range 0 – 15) in the past year, and almost 75% of the individuals had a chronic medical illness. At the time of their referral 16% of the individuals were on pre-trial supervision and 41.4% of the individuals were awaiting charges, trial or sentencing.

On average, individuals who became participant's maintained adequate hygiene, adequate diet and recognized and avoided common dangers "considerably well". Participants, on average, can make and keep appointments, follow health care advice, manage medication, take care of their own possessions, handle personal finances, shop, access and use transportations, prepare or obtain meals, and access and use community services "moderately well". A small number of participants scored "not at all" or "somewhat" in the categories indicating some individuals lacked some basic abilities.

The team also rated the participant's ability in a number of categories that focus on psychosocial adjustment. On average participants communicated clearly, asked for help, responded to social contact, formed and maintained support networks, engaged in social family activities, and trusted another person "moderately well". On average participants scored "somewhat" on affectively handling conflict, managing assertiveness and anger, and managing leisure time.

The ACT team also collects information on a measure called "stage of change". This measures change in a variety of problem behaviors including mental health in five stages. For participants for whom this information was available the largest percent were in the "pre-contemplation"

stage. This stage is defined as the stage in which there is no intention to change behavior in the foreseeable future. Often in this stage individuals are unaware or "underaware" of their problems. Similar percentages of participants were in the contemplation stage (aware and seriously considering commitment) and active changes stage. Only 1 participant each was in the maintenance stage (working to prevent relapse and consolidate gains) and the relapse stage.

Regarding adherence to their medication regimen the largest percentage of participants were listed as taking their medication most of the time, followed by rarely takes medication as prescribed. Information was missing for 17 participants and was listed as "other" for 4 participants.

During the course of this research project the ACT team has not been fully staffed. For example, the team leader position has been vacant 8 of the last 9 months. In FY 2006 the program was without a psychiatrist for approximately 4 months and currently the program is short two staff positions (case manager and the substance abuse specialist).

While the team is required to collect certain types of information for treatment as well as research purposes the collection of this information has not been consistent. The City is aware of this issue and has been working with ACT team staff to improve efforts. We recommend further standardizing referral information, baseline and follow up information. The implementation of a web based information system designed by the ISR in collaboration with ACT team and City staff will improve data collection. Other available strategies include regular meetings with referral agencies to discuss issues regarding referrals and researching how other ACT teams in the country have dealt with this issue.

It is not clear why the ACT team has not yet been able to enroll enough clients to meet their design capacity. We recommend a census of the eligible population to better understand the number of potential clients in the community. This may also allow the ACT team to target specific individuals and provide additional rational for an additional ACT team.

We also recommend on-going research to continuing documenting and tracking the development of the ACT team program as well as an outcome assessment of the program.

BACKGROUND AND INTRODUCTION

Assertive Community Treatment (ACT) is a team treatment approach designed to provide comprehensive, community-based psychiatric treatment, rehabilitation, and support to persons with serious and persistent mental illnesses that include schizophrenia, bipolar disorders, and major depression. ACT teams have been in existence since the 1970s and have been widely implemented across the U.S. and other countries. Assertive community treatment is distinguished from traditional approaches by: a multidisciplinary team, low client/staff caseloads enabling more intensive contact, community-based services that are directly provided by the team rather than by a number of different and often unconnected agencies, and 24 hour, 7 days a week coverage by the treatment team.

ACT teams contain professionals from a variety of backgrounds including social work, counseling, nursing, psychiatry and rehabilitation. Among the services provided by ACT teams are case management, psychiatric services, medication monitoring, assessments, substance abuse treatment services and other services necessary for living successfully in the community.

Individuals are often characterized by:

- frequent use of psychiatric hospitals and emergency rooms
- frequent involvement with the criminal justice system
- frequent alcohol or substance abuse

The ACT program uses a recovery-oriented and client-driven treatment model. A large body of research has demonstrated ACT's effectiveness in treating persons with severe mental illness (Coldwell and Bender, 2007).

Services provided by the Albuquerque ACT Team seek to address all aspects of a person's functioning. The nurturing of their life goals and integration into the community are central to that goal. The Albuquerque ACT team is composed of a team leader, psychiatrist, case managers, substance abuse specialist, psychiatric nurses, peer specialist, administrative assistant, and program coordinator/director. Recently, a case manager position was filled and the substance abuse specialist position remains vacant. The team leader position was also recently filled after being vacant for 8 of the last 9 months.

The Albuquerque ACT Team is designed to serve an average of 68 individuals annually in its full program and an additional 32 individuals in a step down program that consists of less intensive services. Currently, because the program is not at capacity, only the full program is in place. Like most ACT teams services are available 24 hours a day, 7 days a week. ACT team members meet daily during the work week to discuss each client and ACT team staff members are on call during the weekend.

RESEARCH DESIGN

The research conducted during this study was guided primarily by a solicitation (Solicitation Number: RFP2005-030-SV) released by the City of Albuquerque in May 2005 to which we submitted a response by the proposal due date of June 9, 2005. The contract was awarded to the Institute for Social Research for a one-year period to begin July 1, 2006. The final contract was

signed by the City of Albuquerque in late August 2006 and delivered to the University of New Mexico in early September 2006. An account, allowing Institute staff to formally begin work, was completed in late September 2006.

Under the contract a data collection and analysis plan was required to be completed. This plan was part of a preliminary report delivered to the City of Albuquerque in November 2006. Additionally, the Institute continued the development of a web based information system begun under a separate agreement (July 2005 – June 2006) that is designed to collect referral, baseline assessment, service, follow-up assessment, monthly checklist, and discharge information on participants referred, accepted, served, and discharged by the program. This application has been developed in collaboration with ACT staff and City of Albuquerque staff. For various reasons, described later, the process of designing, developing, testing, and implementing this web application took longer than expected and required more resources.

The plan approved by the City of Albuquerque includes the following components:

A. Observation of various program meetings (i.e. ACT Team, other systems of care that the ACT Team coordinates, and other related meetings). These observations will include the use of an ISR designed observation form that is designed to collect information regarding the dynamics of the different meetings.
B. Surveys, interviews and/or focus groups with different groups of stakeholders (clients, ACT team staff, staff of other systems of care, community members, etc.) may be conducted. These may be done in order to document the development and implementation of the program.
C. Official client level data will be collected that is maintained by the ACT team that will allow us to report on the status and progress of clients. This will include the type and duration of provided services.
D. Interviews with clients at or near admission into the program and then at standard periods, not to exceed more than six months from the baseline interview date through discharge from the program and follow-up post discharge will be conducted by program staff. The interview will be designed to measure change in client functioning over time and include quantitative and qualitative questions.
E. Official arrest histories will be collected and probation information (i.e. technical violations) for those on probation will be collected.

Information System

We have also continued to develop the web based information system. Discussions regarding the information system began in June 2005. In July 2005 the City of Albuquerque signed an agreement with the ISR to begin work on the development of the information system. Prior to designing the information system it was necessary to complete the design of hard copy data collection forms that would form the basis of the automated system. The design of the hard copy forms were protracted and finalized hard copies of the referral form, progress note form, baseline assessment form and follow-up assessment form were not completed until between October 2006 and early 2007. This occurred for a variety of reasons. First, because the program is relatively new it has taken some time to stabilize how it operates and what information is needed. For example, only recently the team revised the progress note form based upon recent training it

received from another established ACT program located outside of New Mexico. Second, the ACT team has been more focused on enrolling participants and delivering services to these participants and has not had the time necessary to devote to the design and development of the information system. Related to this is that up until recently ACT team staff have not understood the potential of the information system in helping with their job. Third, while we have been developing the information system we have also been collecting and automating information from ACT team hard copy records for the research that follows later in this report. We have not been able to mount a sustained effort on the information system. Fourth, and related to the third, is the delay of almost three months between the end of the first contract (June 30, 2006) and the beginning of the next contract in late September 2006. Fifth, the ISR experienced some turnover in its' programming staff that caused unanticipated delays. Sixth, Health Insurance Portability and Accountability Act (HIPAA) participant privacy and confidentiality of individual health data concerns raised by UNM's Psychiatric Center delayed the development and deployment of the information system.

The long-term benefit and potential of the information system is great and perhaps key to improving the team's ability to collect required information in a timely and thorough manner. The information system is designed to be user friendly and will be useful for the City of Albuquerque as well. The completed application will allow the program to track the progress of its participants and will help ensure program staff completes required information regarding referrals, assessments, progress notes, monthly checklists and discharges. The information system can by used by the City of Albuquerque to help audit the program and ensure compliance with contractual requirements regarding the status of participants. This could include the number of referrals, the time in days between events (i.e. completion of baselines and follow-ups), and the number of services provided. Also, the information can be used for research. Rather than having to collect participant level information from hard copy client records, information collected and stored in the secure information system can be utilized.

At the time of this report the information system has been deployed and is being used by program staff. The information system includes a functional referral form and progress note form. Several reports had been added including a report that allows ACT staff to print their progress notes in a format required by UNM Hospital.

Other required forms including the baseline assessment, follow-up assessment, monthly checklist, and discharge form are nearly complete and are being tested. The full information system should be deployed within the next 60 days. Once completed the Institute will maintain the system, add reports for the ACT team and City of Albuquerque staff, revise the public view, and add functions as agreed upon.

This year's evaluation has focused on collecting data from program participant files that includes referral information, baseline assessment information, follow-up information and discharge information. This information is presented in a later section. Client files contained referral information on items such as the date individuals were referred to the program, the referring agency, the referring diagnosis, referring program eligibility criteria, health information, criminal justice information and substance use. Baseline assessment information includes only referred individuals who were accepted as participants and includes demographics and participants

abilities. There was not a sufficient amount of follow-up information available to be reported and in time for this report we were not able to collect and analyze service or discharge information.

DATA ANALYSIS

Referral Information

This section includes information on referrals that occurred between April 2005 and March 2007. During this time the program received 117 referrals.

Table 1 – Referrals by Quarter		
	Count	Percent
April 2005 – June 2005	16	8.8
July 2005 – Sept. 2005	22	16.9
Oct. 2005 – December 2005	14	13.8
Jan. 2006 – March 2006	27	19.4
April 2006 – June 2006	8	11.9
July 2006 – Sept. 2006	6	11.3
Oct. 2006 – December 2006	3	11.9
Jan. 2007 – March 2007	5	6.3

Missing – 16

Table 1 reports the referrals by three month time periods. Fifteen referrals were missing a referral date. The number of referrals generally increased for the first four time periods and beginning during the fifth time period beginning in April 2006 referrals decreased.

The program is designed to take 6 referrals a month and on average has been receiving approximately 5 referrals a month.

Table 2 – Referral Source		
	Count	Percent
Metropolitan Detention Center Psychiatric Services Unit	19	19.6
UNM Psychiatric Center	50	51.5
Pathways	3	3.1
St. Martins	8	8.2
Transitional Living Services	8	8.2
Healthcare for the Homeless	9	9.3

Missing – 20

The largest number and percent of referrals have come from the Psychiatric Center at UNM (51.5%) followed by referrals from the Bernalillo County Metropolitan Detention Center (19.6%). These two referral sources accounted for 71.1% of all referrals.

According to program eligibility criteria applicants are eligible for service if they are residents of Bernalillo County, have been diagnosed with severe and persistent mental illness that seriously

impairs their functioning in the community, and have continuous high service needs. Serious functional impairment and continuous high service needs must be demonstrated.

Priority is given to program applicants who have a diagnosis of schizophrenia or other psychotic disorders that may include schizoaffective disorder, bipolar disorder, and/or major or chronic depression with psychotic features.

Individuals who have been convicted of a sexual offense as well as individuals currently charged with sexual offenses are not eligible for the program.

Table 3 and Table 4 report serious functional impairment and continuous high service need information. Twenty referred individuals (17.1%) were missing both serious functional impairment and continuous high service need eligibility criteria information. Sixty-five (55.6%) of the referred individuals were missing serious functional impairment information and 29 (24.8%) of the referred individuals were missing continuous high service need information. This finding is somewhat surprising given that this is the primary eligibility information. Without this standardized information it is unclear whether some individuals are eligible.

Table 3 – Referral Criteria on Serious Functional Impairments

	Count	Percent
Inability to consistently perform practical daily living tasks required for basic adult functioning in the community without significant support or assistance from others such as friends, family or relatives	41	78.8
Inability to be consistently employed at a self-sustaining level or inability to consistently carry out the homemaker role	31	59.6
Lack of therapeutic response to case management services if available	27	51.9

Missing - 65

The most common serious functional assessment for which individuals were referred dealt with their inability to consistently perform practical daily living tasks required for basic functioning. Almost 80% of individuals referred for whom this information was available were referred for this serious functional impairment. Almost 60% were referred for an inability to be consistently employed at a self sustaining level or inability to consistently carry out the homemaker role. Slightly more than 50% were referred for a lack of therapeutic response to case management services. Referred individuals for whom this information is available appear to have serious functional impairments that make them eligible for the ACT program. Combined with information from Table 4 regarding continuous high service needs it appears that many of the referred individuals have not been able to succeed in traditional case management.

Table 4 – Referral Criteria on Continuous High Service Needs		
	Count	Percent
Inability to participate or succeed in traditional, office-based services or case management	43	48.9
High use of acute psychiatric hospitals (two hospitalizations within one year or one hospitalization of 60 days or more)	34	38.6
High use of psychiatric emergency or crisis services	21	23.9
Persistent severe major symptoms (e.g.; affective, psychotic, suicidal or significant impulse control issues)	41	46.6
Coexisting substance abuse disorder (duration greater then six months)	31	35.2
Current high risk or recent history of criminal justice involvement	31	35.2
Inability to meet basic survival needs, homeless or at imminent risk of becoming homeless	33	37.5
Residing in an inpatient facility or community residence but clinically assessed to be able to live in a more independent setting if intensive community services are provided	3	3.4
Currently living independently but clinically assessed to be at immediate risk of requiring a more restrictive living situation without intensive community services	7	8.0

Missing – 29

Almost half of all the individuals referred were referred for an inability to participate or succeed in traditional case management services followed by 46.6% who were referred for persistent severe major symptoms. Four high service needs accounted for a similar percentage of referral criteria. These four high service needs, high use of psychiatric hospitals, coexisting substance abuse disorder, current high risk or recent history of criminal justice involvement, and an inability to meet basic survival needs accounted for between 35% and 39% of referral reasons. Two high service needs (currently living independently but clinically assessed to be at immediate risk of requiring a more restrictive living situation and residing in an inpatient facility or community residence but clinically assessed to be able to live in a more independent setting if intensive community services are provided) each accounted for less than 10% of referral reasons.

Given the serious mental illnesses of the clients it is somewhat surprising that a larger number of referred individuals do not meet the individual criterion and more of the total criteria of the continuous high service needs listed above.

Table 5 – Number of Serious Functional Impairment and Continuous High Service Needs		
	Average	Range
Serious Functional Impairments	1.9	1 to 3
Continuous High Service Needs	2.8	1 to 7

On average individuals referred to the program had an average of 1.9 serious functional impairments and 2.8 continuous high service needs. In total, referred individuals had an average of 5 referred serious functional impairments and continuous high service needs. As noted in Table 4 it is somewhat surprising that referred individuals do not meet a larger number of the continuous high service needs.

Table 6 – Referral Criteria on Acute Concerns		
	Count	Percent
Safety	77	77.0
Food	53	53.5
Shelter	67	67.0
Medical	64	64.0
Other	23	23.5

Missing - 17

While not mandatory criteria as indicated by program eligibility criteria, the program collected information on acute concerns. More than 75% of individuals referred had an acute safety concern, 67% had an acute shelter concern, 64% an acute medical concern, and 53.5% an acute food concern. The other category primarily included concerns with clothing (because this was an item on the original version of the referral). On average, referred individuals had 3.1 acute concerns (range 1 to 5).

Table 7 – Diagnosis		
Diagnosis	Count	Percent
Bipolar	9	8.7
Schizophrenia	68	65.4
Schizoaffective	16	15.4
Depression	4	3.8
PTSD	3	2.9
Alcohol/Drug Dependence	0	0.0
Other	4	3.8

Missing - 15

Almost two-thirds of those referred to the program had a schizophrenia diagnosis. Schizoaffective (15.4%) and bipolar (8.7%) diagnoses accounted for the next two largest categories. The other category includes 4 individuals diagnosed with Psychosis NOS (“not

otherwise specified") according to the referral source. By themselves Depression, PTSD and Alcohol/Drug Dependence are not qualifying diagnoses. It may be useful to further analyze available information to better understand the combination of referring serious functional impairments, continuous high service needs, diagnoses and acute safety concerns that referred individuals have at the time of referral. In time for this report we were not able to complete this type of analysis.

Table 8 – Demographics		
Variable	Count	Percent
Age		
Average Age	39.6	
Missing	68	
Sex		
Female	36	35.6
Male	65	64.4
Missing	16	
Ethnicity		
Anglo	40	41.7
Hispanic	36	37.5
American Indian	2	2.1
African American	12	12.5
Other	6	6.3
Missing	21	
Employed		
Yes	0	
No	82	
Missing	35	
Marital Status		
Single	65	72.2
Married	4	4.4
Separated	3	3.3
Divorced	18	20.0
Missing	27	
Education		
Average	11.7	
Missing	28	

Available demographic information is included in Table 8. Average age was 39.6 years of age. Age was missing for 68 individuals. Males comprised 64.4% of the referred individuals. Together Anglos (41.7%) and Hispanics (37.5%) comprised almost 80% of all the referrals and almost 75% of the referred individuals were single. Average education of referred individuals was almost 12 years.

Of importance is the amount of missing data for some demographic variables including age and employment.

Table 9 – List of Drugs Used				
	Yes		No	
	Count	Percent	Count	Percent
Heroin	8	8.6	85	91.4
Marijuana	29	31.2	64	69.8
Alcohol	40	43.0	53	57.0
Cocaine	22	23.7	71	76.3
Crack	22	23.7	71	76.3
Methadone	4	4.3	89	95.7
Amphetamine	8	8.6	85	91.4
Methamphetamine	4	4.3	89	95.7
Benzodiazepines	4	4.3	89	95.7
Other Substance	4	4.3	89	95.7

Missing - 24

Most commonly individuals referred to the program, who reported using substances, reported using alcohol (43%), followed by marijuana (31.2%), cocaine (23.7%), and crack (23.7%). This information was missing for 24 individuals.

Table 10 – Number of Drugs Used		
	Count	Percent
None	29	31.2
One	24	25.8
Two	19	20.4
Three	10	10.8
Four	7	7.5
Five or More	4	4.4

Missing – 24

Interestingly 31.2% of individuals referred to the program reported no drug or alcohol use. It would be useful to try to confirm this information. Most frequently individuals reported using one (25.8%) or two (20.4%) drugs.

Table 11 – Substance Abuse Treatment		
	Count	Percent
Yes	34	41.0
No	49	59.0

Missing – 34

Thirty four (41%) of the individuals referred to the program reported having ever received substance abuse treatment. Information was missing for 29.1% of the cases.

Table 12 – Health Information		
	Count	Percent
Current Suicidal Ideation		
Yes	12	13.2
No	79	86.8
Missing	26	22.2
History of Suicide Attempts		
Yes	42	53.2
No	37	46.8
Missing	38	32.5
Hospitalizations Past Year		
Average	2.7	
Missing	35	29.9
Chronic Medical Illness		
Yes	68	72.3
No	26	27.7
Missing	23	19.7

Table 12 reports health information concerning suicidal ideation, history of suicide attempts, hospitalizations in the past year and if the individual had a chronic medical illness.

At time of referral 12 (13.2%) individuals reported current suicidal ideation, 53.2% had a history of suicide attempts, and individuals had an average of 2.7 hospitalizations (range 0 – 15) in the past year. Almost 75% of the individuals had a chronic medical illness.

Each variable was missing information for between 20% and 32% of the cases.

Table 13 – Criminal Justice Information		
	Count	Percent
Awaiting Charges, Trial or Sentencing		
Yes	24	41.4
No	34	58.6
Missing	59	50.4
On Pretrial Supervision		
Yes	8	16.0
No	42	84.0
Missing	67	57.3

Table 13 reports criminal justice information. Importantly, criminal justice information was missing for more than 50% of all cases for both variables. At the time of their referral 16% of the individuals were on pre-trial supervision and 41.4% of the individuals were awaiting charges, trial or sentencing.

Table 14 – Variables Missing a Minimum of 40% of Cases
Learning Disability
Number of Places Lived
Months and Years at Current Living Situation
Days Incarcerated/Institutionalized
Days Homeless on the Street
Days Homeless in Shelter
Days in Group Home
Days Independent in Motel
Days with Family
Days Independent Living
Days Other
Lifetime Psychiatric Hospitalizations
Own Firearms
Income
How Pay for Medications
History of Domestic Violence in Current Household

This table reports other variables included within the referral form we did not report because they had at least 40% missing data.

Admission Baseline Assessment Information

This section describes information for those participants who received a baseline assessment. The program requires that each participant accepted into the program receive a baseline assessment that is completed within 40 days of the intake date. Of the 117 individuals referred to the program between April 2005 and March 2007, 67 individuals were admitted as participants. Thirty-nine of these participants were administered a baseline assessment out of 63 participants who were eligible (four individuals had recently been accepted and at the time of this report their completed baseline assessment was not yet due). We do not know why 24 participants (38.1%) were not assessed using the mandated baseline assessment. Our current review of participants admitted to the ACT program is based upon an analysis of available baseline assessment data. While it was not practical for this contract period it may be possible, to collect from ACT team hard copy client records limited intake and assessment information for those clients who did not receive a baseline assessment. Additionally, as will be shown in the following tables many of the baseline assessments that were administered were incomplete.

Numerous versions of the instrument have been used by the ACT team. At least 4 drafts over time (June 2005, October 2005, December 2005, and June 2006) have been used by the ACT team. This has resulted in limited consistency in the data available for collection and analysis. Because of the lack of consistency among the versions it was difficult and in some cases not possible to capture all of the information currently in the most recent version. For example, drug and alcohol use information changed substantively among the different versions of the baseline assessment instrument. The most recent version asks about drug use in the past 30 days, age at first use, and number of years used lifetime. Prior versions did not ask about drug use in this format. For this reason, in this example, there is not a sufficient amount of comparable drug and alcohol use available for analysis in this report.

This should not occur in the future because the baseline instrument is now largely finalized and stable and being more consistently used. The web application will further stabilize the use and timing of the instrument.

Table 15 – Referral Source

	Count	Percent
Bernalillo County Metropolitan Detention Center Psychiatric Services Unit	17	28.3
UNM Psychiatric Center	18	30.0
Pathways	1	1.7
St. Martins	7	11.7
Transitional Living Services	8	13.3
Healthcare for the Homeless	9	15.0

Missing – 3

Table 15 reports the referral source for clients. An almost equal number and percent of individuals referred by the Metropolitan Detention Center and UNM Psychiatric Center became clients.

Table 16 – Demographics		
Variable	Count	Percent
Age		
Average Age	37.6	
Missing	20	
Sex		
Female	19	51.4
Male	18	48.6
Missing	2	
Race/Ethnicity		
Anglo	13	33.3
Hispanic	15	38.5
American Indian	2	5.1
African American	4	12.9
Other	2	5.1
Missing	3	
Marital Status		
Single	19	54.3
Married	3	8.6
Separated	2	2
Divorced	11	31.4
Missing	4	
Education		
Average	13.6	
Missing	11	
Veteran		
Yes	2	7.1
No	26	92.9
Missing	11	
Employed Part Time		
Yes	2	5.1

Table 16 reports available demographic information for the 39 clients who had a completed baseline assessment. The average age of clients was 37.6 years old and almost equal numbers were male and females. Slightly more clients were Hispanic compared to Anglos and more than half of the participants were single. Participants had on average almost 14 years of education, very few were veterans, or were employed.

Table 17 - Receive Medicaid Services		
	Count	Percent
Yes	22	81.5
No	5	18.5

Missing - 12

Twenty-two participants (81.5%) received Medicaid services. This information was missing for 12 participants or 30.8% of the cases.

Table 18 – Participant Abilities						
	Average	Not at All (1)	Somewhat (2)	Moderately Well (3)	Considerably Well (4)	Extremely Well (5)
Does Participant…						
Maintain adequate hygiene	4.0	1	4	6	6	16
Maintain adequate diet	4.0	0	3	9	7	14
Recognize and avoid common dangers	4.0			12	8	13
Make and keep necessary appointments	3.3	4	5	6	9	6
Follow health care advice	3.2	4	5	6	10	4
Manage medication	3.1	5	6	7	8	6
Take care of own living space	3.1	3	8	6	6	6
Take care of own possessions	3.3	2	7	8	8	6
Handle personal finances	3.0	5	7	5	7	5
Shop for food, clothing and personal needs	3.3	3	5	9	5	7
Prepare or obtain meals	3.6	1	4	8	8	8
Access and use transportation	3.3	4	6	7	6	9
Access and use community services	3.0	5	6	10	5	5

Missing – 6

This table describes participant abilities regarding a number of domains using a 5 point likert scale ranging from “not at all” (1) to “extremely well” (5). This information is based upon the team’s knowledge of the participant. The average response is reported as well as the actual response. On average participants maintain adequate hygiene, adequate diet and recognize and

avoid common dangers “considerably well”. Participants, on average, make and keep appointments, follow health care advice, manage medication, take care of their own possessions, handle personal finances, shop, access and use transportations, prepare or obtain meals, and access and use community services “moderately well”. The table shows that a small number of participants scored at “not at all” or “somewhat” in all categories indicating some individuals lacked some basic abilities. It appears that clients on average perform moderately to considerably well in the majority of the abilities measured. Given the severity of these clients regarding their mental illness we are concerned with the reliability of the scale in measuring participant abilities. It may also be that the instrument is not consistently applied to all individuals. It would be worthwhile to train ACT team members in the purpose and use of the scale to ensure it is being reliably and consistently used.

Table 19 – Participant’s Abilities

	Average	Not at All (1)	Somewhat (2)	Moderately Well (3)	Considerably Well (4)	Extremely Well (5)
Participant’s ability to…						
Communicate clearly	3.0	4	9	7	9	4
Ask for help	3.2	1	8	10	11	3
Respond to social contact	3.2	1	6	9	15	
Form and maintain support networks	2.8	2	11	12	4	2
Engage in social family activities	2.8	2	7	17	4	1
Affectively handle conflict	2.3	9	9	11	2	1
Manage assertiveness and anger	2.3	7	13	9	3	1
Manage leisure time	2.5	4	12	11	3	1
Trust another person	3.0	3	6	15	4	4

Missing – 6 to 8

This table is similar to Table 18 and is from a separate section of the baseline that has the team rate the participant’s ability in the above categories that focus on psychosocial adjustment. The same 5 point likert scale is used and is reported here similar to Table 18 above. On average participants communicated clearly, asked for help, responded to social contact, formed and maintained support networks, engaged in social family activities, and trusted another person “moderately well”. On average participants scored “somewhat” on affectively handling conflict, managing assertiveness and anger, and managing leisure time.

Table 20 – Diagnosis of Stage of Change		
	Count	Percent
Pre-Contemplation	9	32.1
Contemplation	3	10.7
Active Changes	4	14.3
Maintenance	1	3.6
Relapse	1	3.6
Does not Apply	10	35.7

Missing – 11

The baseline also collects information on a measure called "stage of change". This scale is used to measure change in a variety of problem behaviors including mental health in five stages. For some unknown reason "does not apply" was marked for 10 participants and this information was missing for 11 participants. For participants for whom this information was available (including "does not apply") the largest percent were in the "pre-contemplation" stage. This stage is defined as the stage in which there is no intention to change behavior in the foreseeable future. Often in this stage individuals are unaware or "underaware" of their problems. Similar percentages of participants were in the contemplation stage (aware and seriously considering commitment) and active changes stage. Only 1 participant each was in the maintenance stage (working to prevent relapse and consolidate gains) and the relapse stage.

Table 21 – Adherence to Medication Regimen		
	Count	Percent
Never takes medication as prescribed	1	4.5
Rarely takes medication as prescribed	4	18.2
Sometimes takes medications as prescribed	2	9.1
Most of the time takes medication as prescribed	10	45.5
Always takes medications as prescribed	1	4.5
Other	4	18

Missing – 17

This table documents participant's adherence to their medication regimen. Information was missing for 17 participants and was listed as "other" for 4 participants. The largest percentage of participants were listed as taking their medication most of the time, followed by rarely takes medication as prescribed.

Table 22 – Variables Missing a Minimum of 40% of Cases
Do you receive VA services
Do you have a PCP
Been to sobering services
Number of times per week engaging in social/personal activities
Begin or end assessment date
Admit or end assessment date
Days housed in the last 6 months by type of housing
Does participant have a representative payee
Does patient have a chronic illness
Drug and alcohol use information

This table reports other variables included within the baseline assessment we did not report because they had at least 40% missing data.

DISCUSSION

ACT teams are generally intended to serve individuals with serious mental illnesses using a team approach to provide comprehensive, community-based psychiatric treatment, rehabilitation, and support. The ACT team in Albuquerque began accepting clients in May 2005 and the program is designed to serve an average of 68 individuals annually in its full program and an additional 32 individuals in a step down program that consists of less intensive services. Currently, because the program is not at capacity, only the full program is in place. Like most ACT teams, services are available 24 hours a day, 7 days a week. This discussion is limited to a description of available information contained in the available referrals and baseline assessments. This report does not analyze or report service information, follow-up information, or discharge information. The reasons for this are discussed elsewhere in the report.

Referrals

This section includes information on referrals that occurred between April 2005 and March 2007. During this time the program received 117 referrals and accepted 67 of these referrals as participants. Fifty-seven percent of the referred individuals became participants and on average 23.4 days elapsed between the referral date and admit date for participants. Eighteen of these participants were discharged and spent an average of 253.5 days in the program (range 39 days to 644 days) from admission date to discharge date.

The largest number and percent of referrals came from the Psychiatric Center at UNM (51.5%) followed by referrals from the Bernalillo County Metropolitan Detention Center (19.6%). These two referral sources accounted for 71.1% of all referrals.

According to program eligibility criteria applicants are eligible for service if they are residents of Bernalillo County, have been diagnosed with severe and persistent mental illness that seriously

impairs their functioning in the community, and have continuous high service needs. Serious functional impairment and continuous high service needs must be demonstrated.

Priority is given to program applicants who have a diagnosis of schizophrenia or other psychotic disorders that may include schizoaffective disorder, bipolar disorder, and/or major or chronic depression with psychotic features.

Individuals who have been convicted of a sexual offense as well as individuals currently charged with sexual offenses are not eligible for the program.

On average individuals referred to the program had an average of 1.9 serious functional impairments and 2.8 continuous high service needs. In total referred individuals had an average of 5 referred serious functional impairments and continuous high service needs.

Twenty referred individuals (17.1%) were missing both serious functional impairment and continuous high service need eligibility criteria information. Sixty-five (55.6%) of referred individuals were missing serious functional impairment information and 29 (24.8%) referred individuals were missing continuous high service need information.

The most common serious functional assessment for which individuals were referred dealt with their inability to consistently perform practical daily living tasks required for basic functioning. Almost 80% of individuals referred for whom this information was available were referred for this serious functional impairment. Almost 60% were referred for an inability to be consistently employed at a self sustaining level or inability to consistently carry out the homemaker role. Slightly more than 50% were referred for a lack of therapeutic response to case management services.

Almost half of all the individuals referred were referred for an inability to participate or succeed in traditional case management services followed by 46.6% who were referred for persistent severe major symptoms. Four high service needs accounted for a similar percentage of referral criteria. These four high service needs, high use of psychiatric hospitals, coexisting substance abuse disorder, current high risk or recent history of criminal justice involvement, and an inability to meet basic survival needs accounted for between 35% and 39% of referral reasons. Two high service needs (currently living independently but clinically assessed to be at immediate risk of requiring a more restrictive living situation and residing in an inpatient facility or community residence but clinically assessed to be able to live in a more independent setting if intensive community services are provided) each accounted for less than 10% of referral reasons.

While not mandatory eligibility criteria the program collected information on acute concerns. More than 75% of individuals referred had an acute safety concern, 67% had an acute shelter concern, 64% an acute medical concern, and 53.5% an acute food concern. The other category primarily included concerns with clothing (because this was an item on the original version of the referral). On average, referred individuals had 3.1 acute concerns (range 1 to 5).

Almost two-thirds of those referred to the program had a schizophrenia diagnosis. Schizoaffective (15.4%) and bipolar (8.7%) diagnoses accounted for the next two largest

categories. The other category includes 4 individuals diagnosed with Psychosis NOS ("not otherwise specified") according to the referral source.

Interestingly 31.2% of individuals referred to the program reported no drug or alcohol use. Most frequently individuals reported using one (25.8%) or two (20.4%) drugs.

Most commonly individuals referred to the program reported using alcohol (43%), followed by marijuana (31.2%), cocaine (23.7%), and crack (23.7%). Thirty four (41%) of the individuals referred to the program reported having ever received substance abuse treatment. It would be useful to try to confirm drug use and substance abuse treatment information. One indication for the need to better collect and confirm this information is that 5 individuals reported no drug use but reported having received substance abuse treatment.

Individuals referred to the ACT team included limited health and criminal justice information Twelve (13.2%) referred individuals had current suicidal ideation, 53.2% had a history of suicide attempts, and individuals had an average of 2.7 hospitalizations (range 0 – 15) in the past year. Almost 75% of the individuals had a chronic medical illness. At the time of their referral 16% of the individuals were on pre-trial supervision and 41.4% of the individuals were awaiting charges, trial or sentencing.

Each health variable was missing information for between 20% and 32% of the cases and each of the two criminal justice variables was missing more than 50% of all cases.

In summary, between April 2005 and March 2007 (24 months) the ACT team received 117 referrals, accepted 67 clients and discharged 18 clients from the program. Since opening the team has not been at capacity. A slight majority of individuals were referred to the ACT team from two agencies: UNM Psychiatric Center and the MDC's Psychiatric Services Unit. Based on available program referral criteria all referred individuals appear to have met eligibility criteria. Future analyses should be conducted to profile accepted referrals compared to referrals that were not accepted. ACT team files do not contain readily available information that details the reason for non-acceptance or acceptance. We did not have sufficient time to more thoroughly review files for this information and there was not sufficient time to conduct this type of analysis.

On average individuals referred to the program had an average of 1.9 serious functional impairments and 2.8 continuous high service needs. In total referred individuals had an average of 5 referred serious functional impairments and continuous high service needs. Referred individuals also had an average of 3.1 acute concerns

Almost two-thirds of those referred to the program had a schizophrenia diagnosis. Schizoaffective (15.4%) and bipolar (8.7%) diagnoses accounted for the next two largest categories.

Slightly more than 30% of individuals referred to the program reported no drug or alcohol use. Most frequently individuals reported using one (25.8%) or two (20.4%) drugs and reported using alcohol (43%) and marijuana (31.2%).

More than half of all referred individuals had a history of suicide attempts, individuals had an average of 2.7 hospitalizations, 72.3% had a chronic medical illness, and 41.4% were awaiting charges, trial or sentencing.

Baseline Assessment

As noted elsewhere, between April 2005 and March 2007 67 referred individuals were accepted as participants and 18 were discharged. The review in this report is based on the review of baseline assessments administered to 39 participants out of 63 participants who were eligible. We do not know why 24 participants (38.1%) were not assessed using the mandated baseline assessment.

Almost 60% of the participants were referred by the Jail's PSU or the UNM Psychiatric Center. The remaining participants were referred from St. Martins, Healthcare for the Homeless, Transitional Living Services and Pathways.

The average age of participants was 37.6 years old and almost equal numbers were male and females. Slightly more participants were Hispanic compared to Anglos and more than half of the participants were single. Participants had on average almost 14 years of education, very few were veterans, were employed, or had children under 18 years of age that lived with them.

The baseline assessment also contains information measuring participant abilities regarding a number of domains using a 5 point likert scale ranging from "not at all" (1) to "extremely well" (5). This information is based upon the team's knowledge of the participant. On average participants maintain adequate hygiene, adequate diet and recognized and avoid common dangers "considerably well". Participants, on average, make and keep appointments, follow health care advice, manage medication, take care of their own possessions, handle personal finances, shop, access and use transportations, prepare or obtain meals, and access and use community services "moderately well".

Also, on average participants communicated clearly, asked for help, responded to social contact, formed and maintained support networks, engaged in social family activities, and trusted another person "moderately well". On average participants scored "somewhat" on affectively handling conflict, managing assertiveness and anger, and managing leisure time.

The baseline's "stage of change" scale is used to measure change in a variety of problem behaviors including mental health in five stages. For participants for whom this information was available (including "does not apply") the largest percent were in the "pre-contemplation" stage. This stage is defined as the stage in which there is no intention to change behavior in the foreseeable future. Often in this stage individuals are unaware or "underaware" of their problems. Similar percentages of participants were in the contemplation stage (aware and seriously considering commitment) and active changes stage.

Information documenting participant's adherence to their medication regimen was missing for 17 participants and was listed as "other" for 4 participants. The largest percentage of participants

was listed as taking their medication “most of the time”, followed by “rarely takes medication as prescribed”.

CONCLUSION AND RECOMMENDATIONS

The ACT team began accepting referrals and participants in April 2005 and at the time of this report has never reached its’ design capacity of 68 participants. The program has received an average of 5 referrals a month and has accepted 67 participants. Almost 40% of all referrals have been rejected and little information exists in client files detailing why this has happened. We recommend that as part of the referral process ACT team staff clearly and thoroughly document the reason(s) for acceptance and rejection into the program. While this is already a requirement for the ACT team it is not followed. The web based information system is designed to help accomplish this goal.

Future analyses could possibly be conducted that profile accepted and rejected referrals with the goal of understanding which variables help predict acceptance and rejection of referrals. The analyses would be limited by the large amount of missing referral data. The issue of missing data is covered in a later section.

The preliminary analyses included in this report suggest the majority of referrals met eligibility criteria based on the diagnosis and criteria dealing with serious functional impairments and continuous high service needs. Out of a possible 3 serious functional impairments referrals had an average of almost 2 impairments and out of a possible 9 continuous high service needs referred individuals had an average of almost 3 needs. While not part of the eligibility criteria the ACT team also collected some information on acute concerns. More than 75% of individuals referred had an acute safety concern, 67% had an acute shelter concern, 64% an acute medical concern, and 53.5% an acute food concern. The other category primarily included concerns with clothing. On average, referred individuals had 3.1 acute concerns.

Other available (and limited) information further documents the presenting problems of the sample of referred individuals in this study. Approximately 70% reported illicit drug use and only 41% reported ever receiving substance abuse treatment. More than 50% had a history of suicide attempts, individuals had an average of 2.7 hospitalizations (range 0 – 15) in the past year, and almost 75% of the individuals had a chronic medical illness. At the time of their referral 16% of the individuals were on pre-trial supervision and 41.4% of the individuals were awaiting charges, trial or sentencing.

While the utility of this information is limited because of the amount of missing data and the information is self-reported and not confirmed this information is useful in documenting the backgrounds and eligibility of individuals referred to the ACT team.

City of Albuquerque staff in their audit of the ACT team program earlier this year documented some of the same issues discussed in this report. Additionally, during the course of this research project several meetings were held with ACT team staff where City of Albuquerque staff. While these meetings centered on discussions of the information system the issue of missing data and the ACT team not routinely completing baselines and follow-up assessments were included.

We also know that during the course of this research project the ACT team has not been fully staffed. For example, there was no team leader between approximately September 2006 and January 2007. The team leader hired in January left the ACT team after about one month on the job. In FY 2006 the program was without a psychiatrist for approximately 4 months and currently the program is short two staff positions (case manager and the substance abuse specialist).

Conversations with ACT team staff and City staff included standardizing referral information required from referring agencies and in fact a standardized referral form is required. The amount and type of referral information varied greatly and, over time, based upon several factors it was decided to require very little. Currently for the ACT team to receive a referral only the name of the referred individual is required to open a referral. This occurred for several reasons. First, because, at times, referral sources have been reluctant to submit referrals when they consider the amount of required information to be too much and imposes on them. Second, the team discovered and we were able to verify that often submitted referrals were incomplete and requiring referral sources to submit complete referrals was not practical or possible. Often times referral sources did not have required information and their ability to obtain reliable information was limited. Requiring less information from referral sources has forced the team to more completely investigate referred individuals to collect needed information to determine eligibility. For these reasons it was decided to limit required referral information from sources and make the vast majority of the referral information optional. This decision has pushed much of the information necessary to make a decision regarding acceptance/rejection to the ACT team. Based upon current circumstances that include the program being below design capacity this decision seems reasonable. We recommend that, in collaboration with City staff and referral agencies, the ACT team work towards standardizing required versus optional information. Available strategies include regular meetings with referral agencies to discuss issues regarding referrals and researching how other ACT teams in the country have dealt with this issue.

Discussions have also occurred regarding the use of the baseline assessment and follow-up assessment and have focused on strategies that will increase completion rates. The ACT team, by contract, is required to complete a comprehensive assessment of clients and collect this information. As reported earlier a significant minority (38.1%) of clients did not receive a mandatory baseline assessment. Baseline assessments that were done were often incomplete and were often not completed in the mandated 40 days. Follow-up assessments that are supposed to be completed every 6-months were also not routinely completed, were often incomplete and not done within the 6-month time frame. The new information system is designed to notify users and other staff when baseline and follow-up assessments are due and/or over-due.

Between April 2005 and March 2007 the ACT team used a number of different versions of the referral form, baseline assessment form and progress note form. At least 4 drafts of the baseline assessment (June 2005, October 2005, December 2005, and June 2006) were used by the ACT team. The latest version dated June 2006 is the most recent and final version. The use of different versions has resulted in limited consistency in the data available for collection and analysis. Because of the lack of consistency among the versions it was difficult and in some cases not possible to capture all of the information currently in the most recent version. For example, drug and alcohol use information changed substantively among the different versions

of the baseline assessment instrument. The most recent version asks about drug use in the past 30 days, age at first use, and number of years used lifetime. Prior versions did not ask about drug use in this format. For this reason, in this example, there is not a sufficient amount of comparable drug and alcohol use available for analysis in this report. Similarly, the progress note form was revised within the last two months.

Changes of this sort are somewhat normal and given the complexity of this program and the need to collect accurate and reliable information somewhat understandable. The current process that has allowed the forms to evolve over time should result in limited changes in the future. Additionally, the creation and use of an information system should further stabilize the use of program instruments. The use of an information system will also allow changes to be more easily tracked.

Another cause of missing information results from a lack of focus on the part of ACT team members to complete baseline assessments and follow-up assessments in a timely fashion. The information system is designed in such way that users are notified when a baseline assessment, follow-up assessment, and monthly checklist are due. The information system will also not allow a user to submit an incomplete form.

In our opinion it would be useful to conduct some type of census of the eligible population so that we can better understand how many potential clients are in the community. Several years ago a review of Jail Psychiatric Service Unit data conducted by the Institute found 164 of 2516 individuals admitted to the PSU in a two year period had four or more openings into the PSU and on average had 6.5 bookings into the Jail during the same period of time. We recommend an updated study be conducted using available data from the various referring agencies. This may provide some insight into why the program has not been able to receive and accept a sufficient number of participants to bring the program to capacity. It may also be useful to survey staff from referring agencies on strategies to improve the referral process.

The collection and analysis of information for this report was limited by the 8 months we had to complete this study and report, the increased emphasis that was placed on completing the web based information system, and the amount of missing data in the client records.

The data collected and reported here focuses on only a portion of the approved research plan. It will be necessary in additional years to complete the remainder of the research plan that will lead to the completion of a process evaluation and an outcome evaluation that reports on the effectiveness of the program.

It will also be necessary to maintain the information system, add reports for users (ACT team and City of Albuquerque), and to add functions (i.e. medication log). Use of the information system by users will also need to be tracked in order to ensure the system is being used according to its' design.

REFERENCES

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