Allegheny County

HealthChoices Program

The Implementation of Community Treatment Teams in Allegheny County

An Overview of the Status of Consumers Pre- and Post-Implementation of CTTs

presented by

Allegheny HealthChoices, Inc.
444 Liberty Avenue, Pittsburgh, PA 15222
Phone: 412/325-1100 Fax 412/325-1111

January 2003

AHCI is a contract agency for the Allegheny County Department of Human Services' HealthChoices Program

Introduction

Over the past 40 years, treatment approaches for persons with serious mental illness have been continuously changing. In response to the deinstitutionalization movement of the 1950's and 1960's and the introduction of more effective psychotropic medications, the locus of treatment has shifted more and more away from inpatient settings, particularly state hospitals, to community settings, specifically community mental health centers. As professionals began to understand more and more about the needs of individuals, these professionals recognized the need for a wider range of services to serve a diverse population. (Mueser et al, 1998).

While the late 1960's and 1970's saw significant growth in the availability of community mental health services, there was increasing concern that these services were becoming too directed toward less seriously ill individuals, most of whom had never experienced a hospitalization, especially in a state facility, as a result of their mental illness. The Federal government, which was the primary funding source for community mental health centers, established a new initiative, the Community Support Program (CSP), with the primary function of improving the coordination of community mental health services for adults with serious mental illness (Turner and TenHoor, 1978). At about the same time, Federal dollars were converted to block grants and states were required to develop state plans that increasingly focused on establishing systems of care for adults with serious mental illness.

As systems developed, they became more complicated and difficult to navigate for consumers. This was particularly true for adults with serious mental illness. As a result, a new service function was developed -- case management. Over the past several years, the role of the case manager has evolved although it has always included some core functions around ensuring that services for consumers are integrated and coordinated. There have been various models of case management developed and these models are reviewed in several publications (Mueser et al, 1998; Hodge and Draine, 1993).

One of the most effective models was developed by Stein and Test (1980) in Madison, Wisconsin. This program, the Program for Assertive Community Treatment (PACT), was designed as a specialized care model to meet the needs of adults with more severe mental illness. This approach is now more commonly known as assertive community treatment (ACT) and is designed to go far beyond traditional case management or treatment models.

Allegheny County has had a system of case management for several years, but had not adopted an assertive community treatment approach until it made the decision to develop Community Treatment Teams based on the ACT model.

A Community Treatment Team (CTT) is a comprehensive service-delivery model that functions as the primary provider of services for people with serious and persistent mental illnesses. CTTs should not be viewed as enhanced case management or other community-based programs that coordinate linkages to services by connecting individuals to mental health, housing, or rehabilitation agencies or services. Rather, CTTs provide highly individualized services directly to consumers. These services are provided by team members who are on-call 24 hours a day, seven days a week, 365 days a year.

Target Population

CTTs are indicated for individuals in their late teens to their elderly years who experience symptoms of their illness over a long period of time and experience impairments that produce distress and major disability in their daily functioning (e.g., employment, self-care, and social and interpersonal relationships).

Consumers who participate in CTTs usually are people diagnosed with schizophrenia, other psychotic disorders (e.g., schizoaffective disorder), and bipolar disorder (manic-depressive illness) who are determined to have a serious mental illness. They may also experience significant disability as a result of their mental illnesses, and generally have not been helped by traditional outpatient models. These individuals may have difficulty getting to appointments on their own, often have limited natural support systems and/or have not benefited from the traditional service delivery system.

Principles of Community Treatment Teams

The Assertive Community Treatment Association has developed the following as principles to use in developing Community Treatment Teams. These principles reflect the model that is being implemented in Allegheny County.

- **Primary Provider of Care:** The multidisciplinary team consists of Peer Support Counselors, a Psychiatrist, Nurses, Social Workers, Rehabilitation Specialists, Drug and Alcohol Specialists, and Vocational Specialists. The ideal ratio is one provider to ten or twelve consumers with a total capacity per team of 100 to 120 consumers. Both of these factors allow the team to provide most services with minimal referrals to other services or providers. Team members are not assigned a specific caseload; instead, the team accepts responsibility to meet all aspects of the consumer's needs.

- **Services Provided in Community Settings**: Seventy-five percent or more of the services provided by the team occur outside of the CTT office. Examples of community settings include: the consumer's home, bank, local stores, and neighborhood facilities, such as the park and library.

- **Highly Individualized Services:** The team helps each consumer to identify personal goals based on his/her strengths and hopes for the future. The plan is then updated continuously with input from the consumer as s/he moves through stages of recovery.

- **Assertive Approach:** The teams work proactively with consumers to help them live independently, engage in treatment, and move through the recovery process.

- **Long-Term Services:** Due to the long-term nature of these forms of mental illness and the severity of impairment, CTT services are intended to be used on a long-term basis. The CTT recognizes that recovery may occur over a period of years and that the illnesses, by their very nature, are cyclical. Therefore, they require long-term, titrated services, that is, services available when consumers need them, where they need them, and at the level they need them.

- **Emphasis on Vocational Expectations:** The team expects and encourages consumers to participate in meaningful activity. Vocational services are considered a core element of the rehabilitation services provided by the CTT.

- **Specialized Services**: Many of the CTT participants encounter barriers and challenges as a result of having both a mental illness and problems with drug and/or alcohol abuse and addiction. The teams provide specialized treatment and services to address these issues.

- **Psycho-Educational Services**: The team establishes a collaborative relationship in the treatment process with the consumer and his/her family or significant other. Consumers are taught how to build upon their strengths to achieve their life goals. This includes teaching consumers about their mental illness and skills that will help them.

- **Family Support and Education:** The team works to include the consumer's natural support system, family members, or significant other, in the treatment process including providing them with education about mental illness and the services the team provides. This approach often helps to improve family relationships by decreasing conflicts and increasing consumer autonomy.

- **Community Integration**: The team works with the consumers to reduce their social isolation by helping them participate more in community activities. Peer Counselors, as a part of the team, are often effective in this role.

- **Attention to Health Care Needs:** The team coordinates care for medical issues and provides health and wellness education.

The Implementation of Community Treatment Teams in Allegheny County

The HealthChoices program in Allegheny County has been designed to achieve several goals, including a shift in utilization from more intensive and/or restrictive services to less intensive services over time. In order to facilitate the accomplishment of this goal, Allegheny County chose to use HealthChoices reinvestment and County CHIPP funds to initiate its own approach to assertive community treatment – Community Treatment Teams. This allows both HealthChoices and non-HealthChoices consumers to benefit from the service. This also provides a seamless approach to service since over time it is expected that the majority of these consumers will become HealthChoices eligible.

Through a competitive bidding process, the County and Community Care selected three agencies to develop four Community Treatment Teams, one for transition age youth and three for adult consumers. These teams are staffed by Western Psychiatric Institute and Clinic (transition age and one adult team), Mercy Behavioral Health (one adult team), and Residential Care Services (one adult team).

As part of the start-up process, the teams received extensive and in-depth training on a variety of topics, including the principles and operations of CTTs, dialectic behavioral therapy, and mental illness/substance abuse treatment. Additionally, a consultant employed by the County continues

to offer hands-on technical assistance to the teams in a variety of areas including discharge planning, treatment planning, and day-to-day team operations. The consultant also facilitates a regularly scheduled meeting with team leaders, Community Care, County, and AHCI staff to discuss the team operations and systemic issues that they may be encountering.

One of the first tasks of start-up was identifying consumers who would benefit from CTT services. Some of the consumers initially targeted for CTT were well known to Community Care as HealthChoices members who had associated high utilization costs and were identified in a previous AHCI report on recidivism. Added to this list were the names of individuals who were planning for discharge from the state mental hospital at the end of 2001 and the beginning of 2002.

As of June 30, 2002, the CTTs were operating at about one half of their expected consumer capacity. The County and Community Care have been careful to work with the teams to assign consumers on a relatively gradual basis. This approach to consumer assignment has been shown to allow for the time needed to help the teams develop their approach to working as a team and engage the consumers.

It is also important to recognize the differences between mature teams as described in the national model and the teams serving Allegheny County. Generally, an established team will contain a case mix with: one third of consumers who are relatively new to the team and require a significant amount of crisis intervention and skill development; one third of consumers who are learning to apply their new skills in the community; and one third who are living independently in the community, are employed, and have achieved some of their goals.

The distribution of consumers described above is not an accurate description of the local teams' case mix. It will require a significant amount of time for consumers to move into the stable category. Factors that influence this include: discharge from the state mental hospital following a prolonged or recurrent admission; recent release from prison and inadequate mental health services/treatment during incarceration; and the teams working within a service system that does not yet fully understand the CTT model and how to interact with the CTTs. This latter point is illustrated further in the report.

Expected Outcomes

There is a considerable body of literature describing the highly favorable outcomes that CTTs and other models of assertive community treatment have achieved. These favorable outcomes may be one factor that prompted the Robert Wood Johnson Foundation to identify CTTs as one of six evidence-based treatments for people with severe and persistent mental illness. The team model was also endorsed as an essential treatment in the Surgeon General's Report on Mental Illness. Other proponents of CTTs include: the National Institute of Mental Health (NIMH) and the Agency for Health Care Policy and Research (AHCPR).

Some of the research studies conducted compare the impact of CTTs to intensive case management. These studies show that people who participate in CTT are less likely to be hospitalized and more likely to maintain their housing than consumers who access intensive case management services. In the CTT model, the team, not an individual intensive case manager,

serves the consumer. The team assists the consumer to navigate within the community not within the service delivery system. Focusing on the consumer's strengths, flexibility of the team's interventions, and capitalizing on the synergy of the team members' expertise contributes to the CTT's efficacy.

Another expected outcome with CTTs is the reduction of the consumer's use/reliance on outpatient services such as outpatient mental health, outpatient drug and alcohol, medication management, and resource coordination/intensive case management, since the teams provide these services directly. The teams also coordinate efforts to educate the consumer about his/her illness and management of the illness. For example, Sylvia (fictitious name) had difficulty adhering to her prescribed medication regime. The CTT filled a pillbox for Sylvia on a weekly basis and taught her about the importance of taking her medication and recognition of the potential side effects. Sylvia is now able to get her medication refills at the pharmacy and take her medications independently. She knows that if she becomes confused or has questions that she can call the team for help and support rather than going to the hospital emergency room.

Prior to enrollment on one of the teams, Jenny (fictitious name) was hospitalized on a monthly basis. Initially, Jenny called the team several times a day in crisis. Through crisis management assistance, anger management, and dialectic behavioral therapy, Jenny was able to distinguish a crisis situation and identify ways to resolve or prevent the situations. Since enrollment, Jenny experienced only one brief hospitalization.

The importance of stable housing is well documented in multiple studies that compare CTT to intensive case management services. The CTTs formulate housing plans based on the consumer's preference and prior experience. If a consumer is known to dislike a specific type of housing or not to have done well in a certain type previously, it is likely that they will not stay in that environment. In an effort to respect consumer choices and to instill confidence, trust, and a feeling of success, the team will work with the consumer to find the desired environment and provide the necessary support.

Sara (fictitious name) is an example of successfully working to get a consumer in his/her desired environment. Sara wanted to live independently in an apartment. Most professionals on the state hospital discharge team were skeptical of discharging her directly to her own apartment, especially since she struggled with substance abuse. Sara agreed to attend groups and participate in random drug testing. Sara is actively involved with a peer support group and learned to capitalize on her strengths by submitting her writings and poetry in the CTTs newsletter. In addition, she has been drug-free for five months and has not been hospitalized.

The following sections present an overview of the status of consumers who were assigned to and are being served by CTTs in Allegheny County. It also presents changes in consumer status pre- and post-implementation of the CTTs. It is hoped that the following data will put into context and exemplify the principles and outcomes discussed above.

Methodology

AHCI analyzed demographic and utilization data to establish a picture of the cohort of CTT consumers and to identify baseline trends related to the implementation of the CTT program. Since this report serves as the basis for a longitudinal study, the timeframe for this study includes the first and second quarters of 2001, (defined as pre-implementation of CTTs), and the first and second quarters of 2002 (defined as post-implementation of CTTs). This was done so that utilization patterns and outcomes could be compared for consumers prior to and after enrollment in a CTT.

Data sources for this report include:

- **CTT Application** -- Prior to implementation, Community Care, Allegheny County, and representatives of the CTTs collaborated on the development of a database to house CTT consumer and other event information. Each team enters data into the application on a daily (or every other day) basis. AHCI manages the information contained in the application. Information extracted from the application for this report includes:
  - Demographic characteristics;
  - Living arrangements;
  - Non-behavioral health supports;
  - CTT treatment interventions; and
  - CTT crisis interventions.

  For demographic analysis, the last month of each quarter was used as it more accurately reflects enrollment than the quarterly average.
- **Claims Data** – Data from adjudicated claims was used to provide information on diagnosis and utilization of HealthChoices (Medicaid) funded services.
- **eCAPS** – AHCI used the Allegheny County eCAPS data warehouse as the source for data on diagnosis and service utilization of County-funded (non-HealthChoices) services.
- **PCIS** – The state's PCIS (state mental hospital) data warehouse was used for information on the utilization of state mental hospitals.
- **CTT Staff** -- A meeting was conducted to receive feedback from CTT team leaders regarding AHCI's analysis of the data. The team leaders also discussed the successes and challenges they faced during the initial implementation of the CTT program.

Demographics

Demographics, such as age, race and gender, provide an overview of the characteristics of the consumers utilizing CTTs. Other information, such as enrollment and diagnosis, helps to define further the population or cohort for the study.

CTT Enrollment

As of June 30, 2002, a total of 167 consumers were enrolled in three adult CTTs and one transition age CTT. Each team had the following number of members in June 2002: 41 for the transition age CTT, and 46, 41, and 39 for each of the adult CTTs.

Of the total number of consumers enrolled in CTT, 153 were HealthChoices eligible and 14 were not eligible during the time period. Participation in the CTT program is not contingent upon HealthChoices eligibility, although it is expected that many consumers will become eligible for HealthChoices over the course of their engagement with the CTTs.

During the study period, the number of consumers enrolled in the transition age CTT increased by 34% (from 27 to 41 people), while the number of consumers on the adult CTTs increased by 29% (from 89 to 126 people).

Age

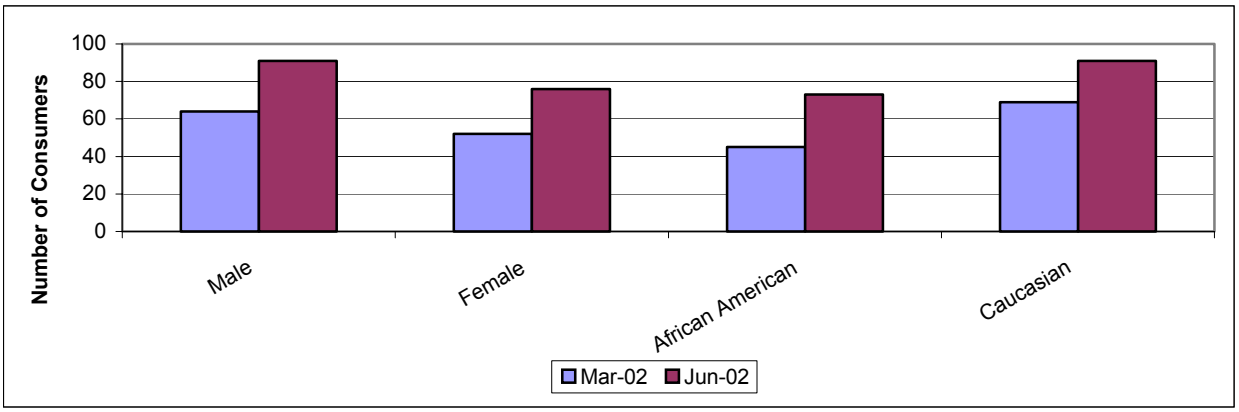
In the second quarter 2002, transition age CTT consumers ranged in age from 17 to 25 years old, with a median age of 20. During that time, adult CTT consumers ranged in age from 21 to 82 years old, with a median age of 42.

Gender and Race

Chart 1.0 depicts demographic characteristics of the consumers enrolled in the transition age and the adult CTTs. The last month of each quarter was used as it more accurately reflects enrollment than the quarterly average.

Chart 1.0

Demographic Characteristics of CTT Consumers in March and June of 2002



The percent of CTT consumers by gender remained stable, with 55% male and 45% female during both timeframes. Distribution by race became more balanced over time. In March 2002, the percent of consumers by race was 39% African American and 59% Caucasian. This gap decreased in June 2002, with 44% African American consumers and 54% Caucasian consumers engaged in the CTT programs.

In addition to looking at aggregate numbers, AHCI also analyzed the composition of the two types of teams (adult and transition age youth) by race and gender. Table 1.0 delineates the percent of CTT consumers designated by race and gender in June 2002.

Table 1.0

Comparison of the Percentage of Consumers in the Transition Age & Adult CTTs by Race and Gender in June 2002

	Transition Age	Adult
African American Males	10%	25%
African American Females	27%	21%
Caucasian Males	37%	30%
Caucasian Females	24%	22%

As depicted in Table 1.0, both the transition age and adult CTTs engaged Caucasian male consumers at the highest percent. Both the transition age and adult CTTs had an almost equal percent of Caucasian and African American female consumers.

Diagnosis

AHCI analyzed the diagnoses reported for CTT consumers from claims paid during the second quarter 2002. The number of consumers reported for a given diagnosis is a duplicate count because the various claims for each consumer could provide different diagnoses.

The most common diagnosis for all CTT consumers was schizophrenia (90 consumers). Bipolar disorder was the second most common diagnosis reported (36 consumers), followed by major depression (34 consumers).

Twenty CTT consumers had a diagnosis of other substance abuse disorder, and a diagnosis was not identified for 23 CTT consumers who were not HealthChoices eligible. Additionally:

- The most prevalent diagnoses for the transition age CTT consumers were bipolar disorder (14), schizophrenia (12), and major depression (11).

- The most prevalent diagnoses for the adult CTT consumers were schizophrenia (78), major depression (23), and bipolar disorder (22).

CTT Functions and Services

As the primary service provider, CTTs provide consumers with rehabilitation, support and treatment services. The desired outcome of these activities is to build on consumers' strengths to improve their functioning and, ultimately, their quality of life. The following is a discussion of some of the services the CTTs provided, consumer utilization of these services, and any trends that were identified.

Living Arrangements and Residential Treatment Options

Often times, one of the first goals that the CTT and consumers work on is acquiring safe and appropriate housing. This includes working with the consumer to determine what type of living arrangements s/he has had in the past, what has worked well and what hasn't, and what type of living arrangement the consumer is interested in now. The team and the consumer are then able to work toward securing appropriate housing that meets the consumer's needs.

During the report study period, CTT consumers utilized a variety of living arrangements, some of which have a treatment component attached to them. Charts 1.1 and 1.2 depict living arrangements for the total number of consumers enrolled in the transition age and adult CTTs, respectively, during the study period. Many of the consumers represented in Charts 1.1 and 1.2 were transitioned from an involuntary setting, such as a state mental hospital, to a community-based living arrangement.

Chart 1.1
Living Arrangements for the Transition Age CTT Consumers in March and June of 2002

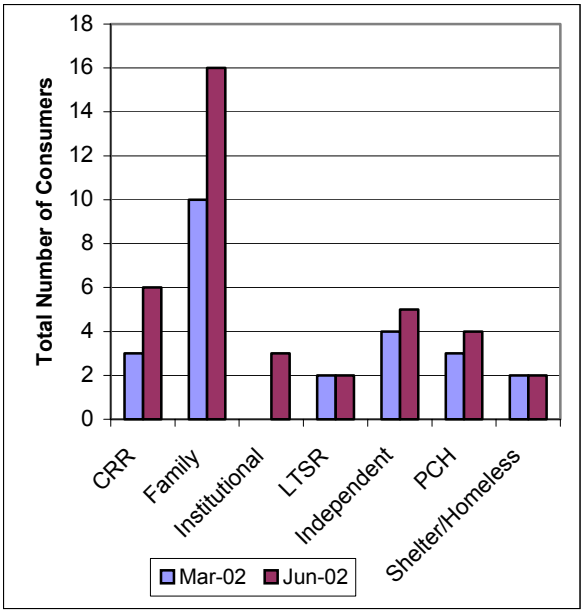
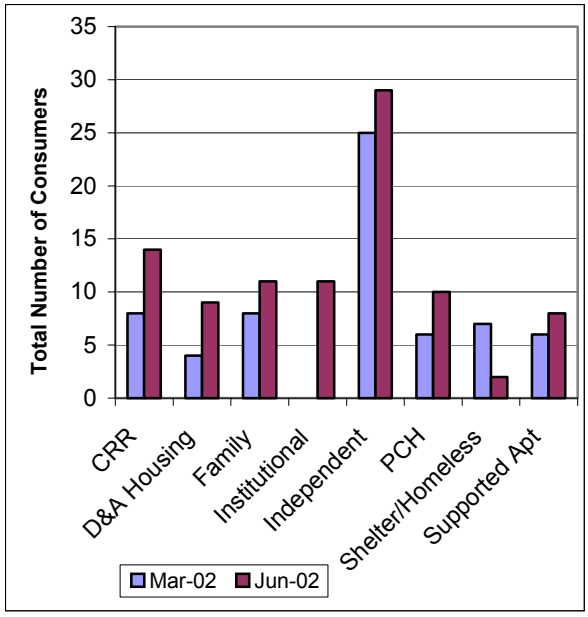


Chart 1.2
Living Arrangements for the Adult CTT Consumers in March and June of 2002



Key:
CRR *Community residential rehabilitation*
Family *Living in a private home*
Institutional *Involuntary setting*
LTSR *Long-term structured residence*
PCH *Personal care home*
Note: For complete definitions of the various types of living arrangements, please refer to Appendix A.

These charts indicate that most consumers enrolled in the transition age CTT lived with their family or a friend, while most adult CTT consumers lived independently during the study period.

AHCI expects that as consumers participate in the teams over time, they should move towards more independent living situations. This is made possible, in part, through funding that Allegheny County provides to CTT consumers for housing. The County funds living arrangements such as personal care homes, long-term structured residences (LTSRs), and supervised apartments. It also provides housing vouchers that allow consumers to choose the type of apartment and neighborhood in which to live. Housing vouchers are often an integral component in fostering consumer choice with regard to living arrangements, as well as promoting more independent living options. Even with the County programs, the teams report that consumers prefer independent supported living and that there is not enough available. This is consistent with information reported to the County in various planning processes.

While the goal is to work towards the most independent living arrangement possible, there are some consumers who require a more structured setting at times, such as a drug and alcohol rehabilitation facility to treat co-occurring disorders or inpatient hospital care to treat acute symptoms of mental illness. This is especially true for consumers who have not been stable for a long period of time and those who have had extended stays at a state mental hospital. This may account for the number of consumers in Charts 1.1 and 1.2 in more restrictive settings.

Additionally, the CTTs have reported difficulty for some consumers in maintaining a stable living arrangement or residential placement. In most cases, this has been due to the structure and requirements of some residential programs, such as required abstinence from alcohol even if alcohol dependence is not an issue, participation in structured day programs for a substantial portion of each day, and discharge planning that places consumers in living arrangements in which they have not succeeded in the past and are not interested in participating. While program requirements serve a distinct purpose and discharge planning efforts are well intentioned with regard to a consumer's abilities and safety, they sometimes do not fully take into account a consumer's history, illness (with regard to cognitive functioning and structured programs), or preference.

One of the CTTs was introduced to Robert (fictitious name) during a community hospital admission. The team discovered that Robert had been discharged from the state mental hospital to a community residential rehabilitation facility. Robert eloped after one day at the facility since he did not want to be there because he found it too restrictive. He moved into an apartment with another CTT consumer. Robert is now actively involved in groups and receives weekly medication deliveries by the team.

As noted in the box above, living arrangements can change over time. The following analysis depicts the changes in CTT consumer living arrangements. These findings could include duplicate counts because some CTT consumers changed living arrangements more than once during the second quarter of 2002.

- Nine transition age CTT consumers changed living arrangements in the second quarter 2002.
  - Seven of these changes were from a more restrictive to a less restrictive setting:
    - One from a long term structured residence (LTSR) to a community residential rehabilitation (CRR) program;
    - One from an institutional setting to an LTSR;
    - One from a family setting to living independently;
    - One from a community-based living arrangement to a supported apartment;
    - One returned home to his family after residing in a CRR; and
    - One from a drug and alcohol community-based residential setting to a personal care home.
  - One consumer was homeless, but the CTT assisted him/her in returning home.
  - One transition age consumer lived with her family and one lived independently prior to becoming homeless in the second quarter of 2002.

- Eighteen adult CTT consumers changed living arrangements 24 times in the second quarter 2002.
  - Thirteen of these changes were from a more restrictive environment to a less restrictive environment:
    - One from a CRR to a personal care home;
    - Two from an institutional setting to a CRR;
    - One from an institutional setting to a personal care home;
    - One from a community-based setting to living independently;
    - One from a drug and alcohol residential rehabilitation facility to a supported apartment;
    - One from a drug and alcohol residential rehabilitation facility to a family setting;
    - One from an enhanced personal care home to living independently; and
    - One from a LTSR to living independently.
  - Six of the changes were from a less restrictive environment to a more restrictive environment:
    - One from living independently to a drug and alcohol non-hospital residential rehabilitation facility;
    - Two from a supported apartment to a drug and alcohol non-hospital residential rehabilitation facility;
    - Two from a community-based living arrangement to a drug and alcohol community-based residential facility; and
    - One from a family setting to a CRR.
  - Three of the changes occurred from one setting to another that provided the same environment:
    - One from a drug and alcohol non-hospital residential rehabilitation facility to another rehabilitation facility;
    - One from one single room occupancy to another single room occupancy; and
    - One from living independently to another independent living arrangement.
  - Two adult CTT consumers lived with their families prior to becoming homeless in the second quarter of 2002.
  - Three of the changes were from homelessness to moving to a living arrangement/treatment setting:
    - One was homeless, but the CTT assisted him/her in locating housing in a single room occupancy;
    - One was homeless, but the CTT assisted him/her in accessing drug and alcohol residential rehabilitation services; and
    - Two were homeless, but the CTT assisted them in locating supported apartments.

It is important to note that changes from a less restrictive to a more restrictive living arrangement are not always negative. For example, five such changes on the adult CTTs resulted in consumers receiving important drug and alcohol services that addressed their mental health and substance abuse (MISA) issues.

Non-Behavioral Health Supports

The teams also work with consumers to identify and cultivate a support network above and beyond the support that the CTT staff provides. This could include friends, family members, self-help groups, and peers.

While most people take for granted the wide array of support they receive from various sources (co-workers, friends, religious affiliations, etc.), many consumers do not have such support for various reasons, such as the symptoms of their illness (paranoia, delusions) that interfere with their interactions with others, or the chronicity of their illness straining familial relationships and personal friendships. This leads consumers to rely primarily on clinical staff for support over the course of their illness. While this is appropriate to an extent, the principles of recovery and rehabilitation encourage consumers to develop the diverse supports that people without behavioral health issues have. In support of these principles, the teams work with consumers to develop communication/interpersonal skills that assist them in building a solid support network.

Charts 1.3 and 1.4 illustrate the types of supports that both transition age and adult CTT consumers utilized during the study period. It is expected that consumers will utilize these supports with increasing frequency as they integrate into the community.

Chart 1.3
Non-Behavioral Health Supports Utilized by Transition Age CTT Consumers

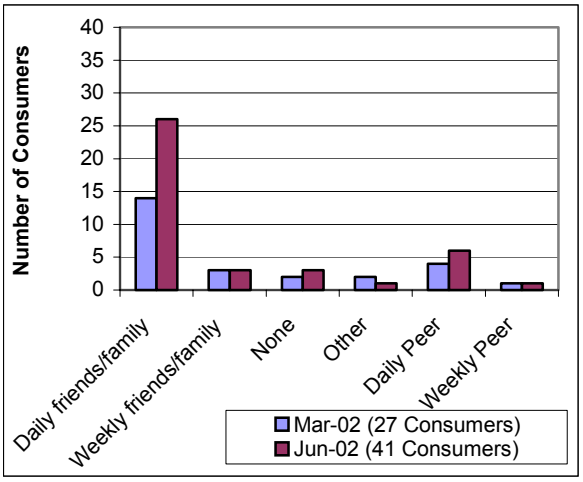
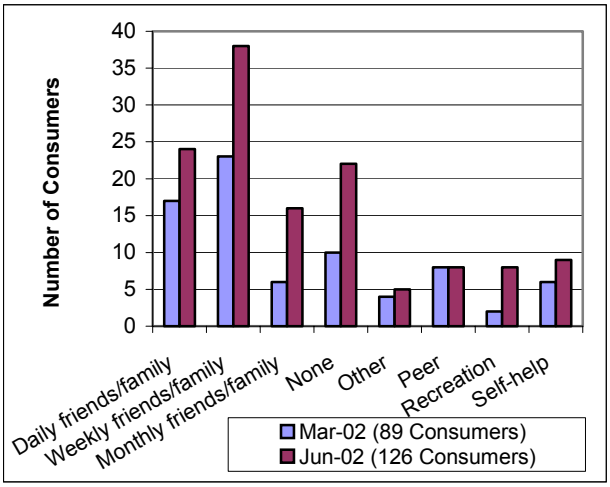


Chart 1.4
Non-behavioral Health Supports Utilized by Adult CTT Consumers



Note: Definitions for the supports listed on Charts 1.3 and 1.4 are found in Appendix B.

Of the 167 consumers enrolled in CTT at the end of June 2002, 113 consumers (68%) utilized supports from family and friends. As indicated in the previous section, most consumers enrolled in the transition age CTT lived with their family or a friend. Therefore, the utilization of non-behavioral health supports would be centered on friend/family activities. Additionally:

- The utilization of professional Peer Support Counselors was very low for transition age and adult CTT consumers.

  - The CTTs reported difficulty in recruiting and training Peer Support Counselors who both relate well with the consumers and understand the case management aspect of the position.
  - In addition to professional peer support, the CTTs encourage informal peer support among CTT consumers. The number of informal interactions was not depicted in Charts 1.3 and 1.4.

- Twenty adult CTT consumers (16%) and one transition age CTT consumer utilized more than one non-behavioral health support during the month of June 2002.

- Of the 167 consumers enrolled in CTT, 24 consumers (14%) did not utilize any non-behavioral health supports during the month of June 2002.
  - These consumers were not HealthChoices eligible in June 2002. This was due to incarceration or time spent at a state mental hospital. It should be noted that most of the state mental hospital stays led to consumers' initial engagement with the CTTs.

Employment and Educational Status

As part of the rehabilitation and recovery principles on which CTTs are based, the teams emphasize employment and education readiness and opportunities for consumers who identify these areas as part of their goals.

During the second quarter 2002, the teams reported the following with regard to consumers' employment and educational status:

- Of the 38 transition age CTT consumers eligible for employment (18 years and older), five were employed.
- Of the 21 transition age CTT consumers under the age of 22 who were eligible to participate in secondary or post-secondary educational programming, 10 consumers enrolled in the transition age CTT attended school.
- Of the 126 consumers in the adult CTT, 11 were employed and 4 attended school.
- Six adult consumers were actively seeking employment.

The CTTs reported that the lack of participation in educational programs and employment by CTT consumers was related to a variety of factors, such as fear of rejection/failure, anxiety, behavioral instability, and consumers' lack of motivation. Additionally, systemic and environmental issues also affect employment and education efforts. This includes issues such as the limited availability/capacity of existing vocational and educational programs, difficulty engaging local employers because of stigma, and problems finding employment opportunities that offer adequate flexibility for consumers.

Since the end of the study period (June 2002), some of the CTTs began addressing the need for employment and educational opportunities by hiring Vocational Specialists to assist consumers who chose to participate in such endeavors. As such, AHCI expects to see an increase in the number of consumers who engage in employment and education related activities in future studies.

While the use of employment and educational supports has been slow with the start-up of the teams, there have been some successes. In addition to independent employment, some teams have also provided informal work assignments for CTT consumers in preparation for possible external employment opportunities. For example, some CTT consumers will clean apartments rented by other CTT consumers or assist CTT consumers who are moving. The CTT consumers who complete the work receive food vouchers as compensation from the team. This allows CTT consumers to practice job readiness skills such as punctuality, responsibility, and time management, while also reaping the benefits of "payment" in the form of vouchers.

Jack (fictitious name) is one of the older CTT consumers and has spent a significant part of his life in the state mental hospital. Understanding this, the CTT spent time learning about Jack's like and dislikes, and his strengths and weaknesses. They learned that one of Jack's goals was to learn more about computers. The team focused their energies on helping Jack to develop the skills required to take computer courses. He is now taking computer courses and working at a local grocery store, where he has been employed for six months.

Treatment

Treatment through the CTTs happens in two primary ways. First, through individual and group treatment regarding mental health and MISA issues, including pharmacotherapy. Second, through learning opportunities presented in everyday interactions with consumers.

Data analyzed from the CTT application includes information on the first type of treatment discussed above (individual and group treatment). While most consumers have used treatment to help them achieve different goals, the amount of treatment provided depends on the need, desire, and willingness of the consumer to participate in the specific service. The number of hours of CTT therapeutic services utilized is charted on the graphs below.

Chart 1.5
Utilization of CTT Therapeutic Services Per Week by Percent of Transition Age CTT Consumers in June 2002

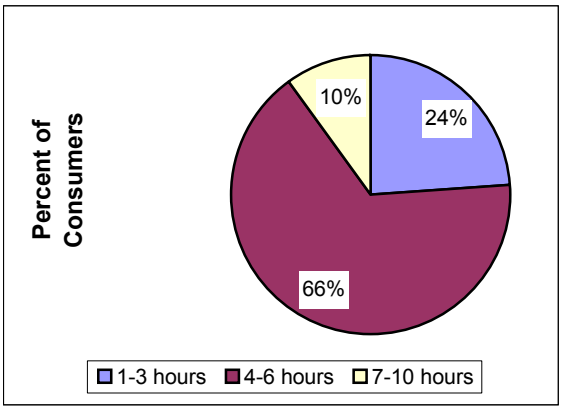
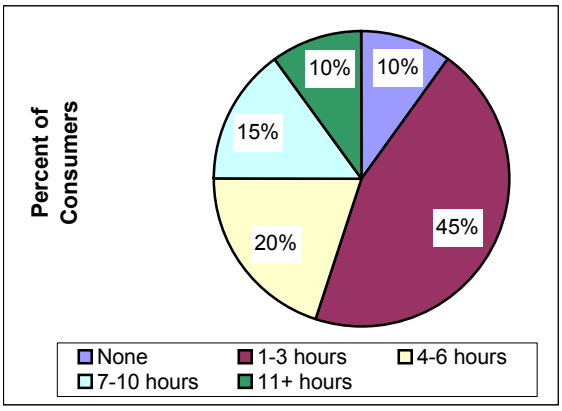


Chart 1.6
Utilization of CTT Therapeutic Services Per Week by Percent of Adult CTT Consumers in June 2002



Of the total number (41) of transition age CTT consumers, 27 (66%) utilized 4-6 hours of therapeutic services per week at the end of the second quarter 2002. Of the total number (126) of adult CTT consumers, 57 (45%) utilized 1-3 hours of therapeutic services per week.

Additionally, 20 adult consumers were reported as receiving no CTT therapy hours at the end of the second quarter 2002.

- Of the 20 people, six adult CTT consumers were admitted to a community hospital, three were admitted to a state mental hospital, one adult CTT consumer received respite care; and two adult CTT consumers were incarcerated; and
- The remainder could not be located by the CTT to engage them in treatment groups.

The teams continue to engage and retain people in therapeutic groups by using nontraditional treatment hours and locations. Consumers are involved in the identification and development of group treatment interventions. Consumers also chose the group sessions they will attend. Some of the teams contact consumers the day before a scheduled group session and transport the consumers to and from the group sessions to ensure attendance.

Crisis Interventions

As part of the repertoire of services the teams provide, they are available 24 hours a day and seven days a week to assist consumers who are in crisis. This includes helping consumers develop coping mechanisms to prevent situations from escalating to a crisis, identifying stressors, and learning about their illness so that they understand the benefits and side effects of their medications and can recognize signs of decompensation. The teams also provide traditional crisis interventions and services. Traditional crisis interventions include face-to-face contact, telephone contact, and contact when a consumer presents at a community hospital's emergency room.

Of the 167 consumers enrolled in CTT during the second quarter 2002, a total unduplicated count of 20 transition age CTT consumers and 34 adult CTT consumers utilized CTT crisis interventions. Table 1.1 delineates the types of CTT crisis interventions utilized by consumers and the number of occurrences reported during the second quarter 2002.

Table 1.1

The Types of CTT Crisis Interventions Utilized by Consumers and the Number of Occurrences in the Second Quarter 2002

	Number of Consumers	Occurrences
Face-To-Face	29	36
Hospital ER	22	29
Telephone	76	245

Note: The Hospital ER crisis intervention is a type of telephone or face-to-face interaction between the team and the consumer in a hospital emergency room.

The number of consumers indicated for each type of CTT crisis service is a duplicate count because one consumer may have utilized more than one type of crisis service within the second quarter of 2002.

It should be noted that the data on crisis is also somewhat inflated in that the teams were recording crisis interventions inconsistently within the CTT application (i.e., in terms of what constituted a crisis). This problem was identified at the end of the second quarter 2002 and the teams have worked to gain consistency in reporting these data elements.

Utilization of Non-CTT Services

While CTTs are the primary provider of services for CTT consumers, some consumers will continue to use other services during their transition to the teams and if they have a special need that the teams cannot meet. Additionally, while the teams work to help consumers maintain their community tenure, there may be instances where inpatient mental health services are still necessary.

The following narrative compares utilization of services for CTT consumers prior to the implementation of the teams (first and second quarters 2001) and after the implementation of the teams (first and second quarters 2002). It is expected that utilization of non-CTT services will decline as consumers benefit from the intensive and individualized services that the teams provide.

Community Hospital Services

The number of consumers who utilized community hospital services was analyzed for adult and transition age CTT consumers. Table 1.2 delineates the number of CTT consumers and the total number of days for community hospital stays.

Table 1.2

The Number of CTT Consumers and Total Number of Days for Community Hospital Stays During Pre- and Post-Implementation of CTT

	Q 1 2001	Q 2 2001	Q 1 2002	Q 2 2002
Number of Adult CTT Consumers with Admissions/Readmissions	37	43	49	36
Total Number of Days (Adult)	671	638	980	629
Number of Transition Age CTT Consumers with Admissions/Readmissions	8	13	14	7
Total Number of Days (Transition)	136	275	260	201

Note: The total number of days (adult) is the combined total number of days of the three adult CTTs.

Table 1.2 shows a slight decrease for the second quarter 2002 in the number of community hospital days for both adult and transition age consumers from pre- to post-implementation of the CTTs. The increases observed during the first quarter 2002 may be a result of consumers' initial engagement period with the CTTs. As people begin working with the CTTs, especially those leaving the structured environment of the state mental hospital, they need to develop trust in the CTT staff and work with them on symptom and crisis management. Until this occurs, consumers may revert to old patterns of behavior (i.e., utilization of hospital emergency room services).

In addition to the utilization of mental health inpatient services, CTT consumers also utilized other inpatient services for drug and alcohol treatment. The following is a summary of the findings:

- During pre-implementation of the CTTs, transition age CTT consumers did not utilize drug and alcohol inpatient services. During post-implementation, one transition age CTT consumer was admitted for inpatient detoxification services.
- Three adult CTT consumers utilized inpatient detoxification and rehabilitation services during pre-implementation of CTT and two consumers utilized inpatient drug and alcohol treatment during post-implementation.

This is comparable to the overall low utilization of inpatient drug and alcohol services for the entire HealthChoices membership.

The CTTs reported the following obstacles regarding attempts to the divert consumers from inpatient services:

- Of the 167 CTT consumers, 16 (10%) had Medicare as their primary insurance coverage during the study period. The CTTs and Community Care are not usually notified of the inpatient stay until discharge since HealthChoices or County funding are the payor of last resort;
- The CTT is usually notified of emergency room care by their affiliated hospitals only. For example, WPIC will notify the WPIC teams, Mercy Hospital will notify the Mercy team;
- Hospital personnel may not permit the team to see/talk to the consumer in the emergency room; and
- Hospital personnel most frequently contact the CTT and Community Care after the decision to admit has been determined and CTT interventions are no longer possible.

The teams have brought the issues with area hospitals to Community Care's attention in the hope of bringing some resolution to the situation. They are also working with consumers to encourage them to contact the CTT, when possible, prior to heading to the emergency room.

State Mental Hospital Services

Of the 167 total consumers enrolled in CTT by June 30, 2002, 91 consumers (or 54%) had a prior state mental hospital admission (between 1987 and 2002). Eleven consumers with a prior state hospital admission were part of the transition age CTT (27% of the 41 total). Eighty consumers with a prior state hospital admission were part of the adult CTTs (63% of the 126 total).

AHCI expected that the number of state mental hospital days per quarter would decline over the study period due to the services and interventions provided by the CTTs. Table 1.3 on the following page depicts the number of consumers and the total number of state mental hospital days per quarter. The end date of the inpatient stay was either the last day of the quarter or the discharge date, whichever came first.

Table 1.3

The Number of CTT Consumers and Total Number of Days for State Hospital Stays During Pre- and Post-Implementation of CTTs

	Q 1 2001	Q 2 2001	Q 1 2002	Q 2 2002
Number of Adult CTT Consumers with Admissions/Readmissions	54	47	1	4
Total Number of Days (Adult)	4,077	3,802	51	202
Number of Transition Age CTT Consumers with Admissions/Readmissions	6	6	0	0
Total Number of Days (Transition)	516	470	0	0

Note: The total number of days (adult) is the combined total number of days of the three adult CTTs.
Note: The number of consumers and number of days for the post-implementation of CTTs includes only readmissions, not initial stays that may have led to discharge and enrollment in the CTTs.

Table 1.3 reveals that the total number of state hospital days for both adult and transition age CTT consumers significantly decreased from pre- to post-implementation of the CTTs.

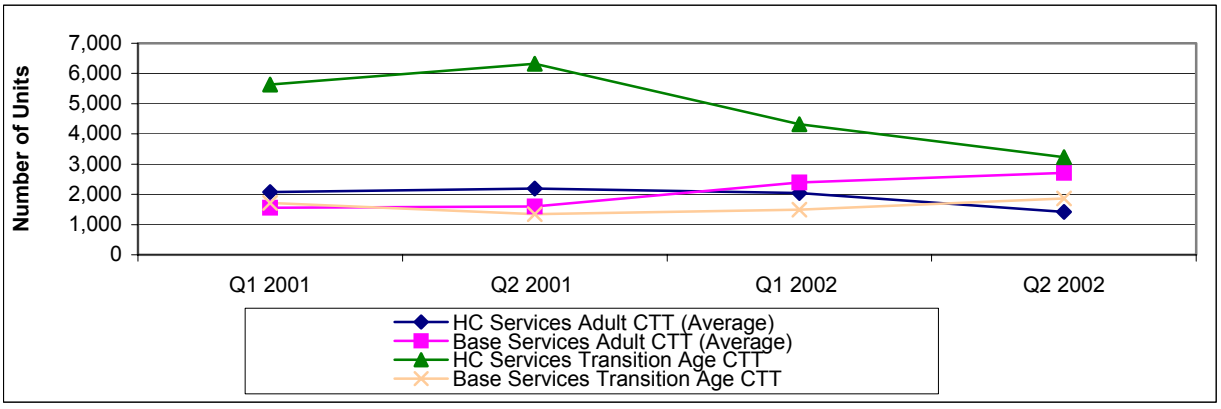
Behavioral Health Services

As stated previously, some consumers continue to use non-CTT behavioral health services as they transition to the teams or if they require a specialized service that the teams cannot provide. It is expected that as consumers become engaged in CTT services, there will be a decrease in the number of units for County-funded and HealthChoices in-plan services.

On the following page, Chart 1.7 provides a comparison of the number of units of behavioral health services for transition age and adult CTT consumers.

Chart 1.7

Comparison of the Number of Units of Service Utilized by Transition Age and Adult CTT Consumers Based on Funding Sources During Pre- and Post Implementation of CTT



***Key**:*
HC *HealthChoices* ***Base*** *County-funded*
Note: The graph reflects an average of the combined adult CTTs' total number of units.

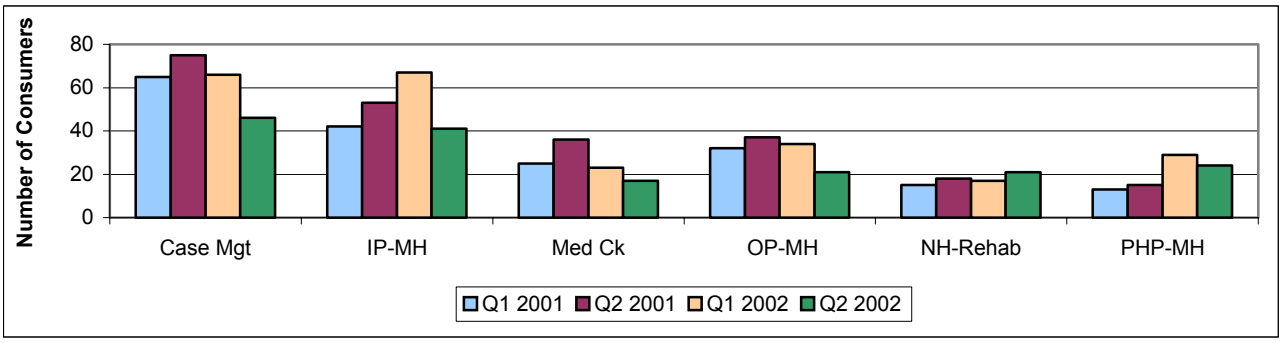
Based on the comparison of data from the second quarter 2001 and the second quarter 2002, a significant decline in the number of units occurred for transition age CTT consumers (from 6,327 to 3,231). The number of units utilized by the adult CTT consumers decreased from an average of 2,190 to 1,418 for HealthChoices services.

The increase in the number of units for County-funded services may be related to the increased use of housing services/vouchers. As mentioned previously, the County encourages teams to use housing vouchers and other County-funded housing options for CTT consumers.

Chart 1.8 provides a comparison of HealthChoices consumers who utilized case management, inpatient mental health, and outpatient services. These HealthChoices in-plan services were analyzed because they are the most frequently utilized types of care reported for HealthChoices consumers. Longitudinally, AHCI expects to see a substantial decline in the utilization of these services since the CTTs should be providing these types of service and support.

Chart 1.8

Number of CTT Consumers Who Received HealthChoices Services During Pre- and Post-Implementation of CTT



***Key**:*

Case Mgt *Case management*
Med Ck *Medication check*
NH-Rehab *Non-hospital rehabilitation*
IP-MH *Inpatient mental health*
OP-MH *Outpatient mental health*
PHP-MH *Partial hospitalization mental health*

Utilization for most levels of care decreased since the implementation of the CTTs. Specific findings include the following:

- The decrease in outpatient service utilization for HealthChoices consumers was simultaneous to an increase in the number of consumers who utilized therapeutic treatment hours offered by the CTTs.

- Community Care continues to authorize case management services up to 90 days following the initial authorization for CTT to assist with the transition. As such, the decrease in case management utilization may be slowed by the prolonged engagement period and transition to CTT services.

- The decrease in HealthChoices medication check services is a result of the increased utilization of the same service provided by the CTT.

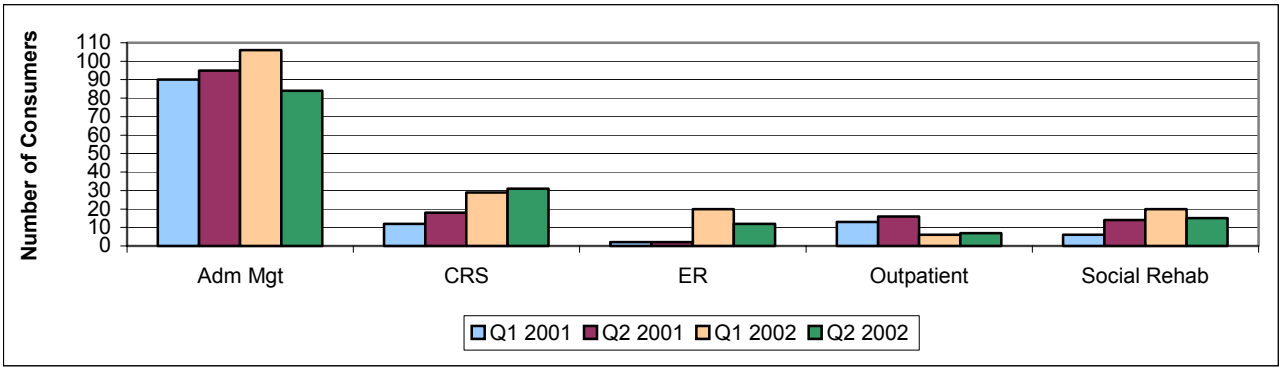
- In general, the number of consumers who utilized inpatient mental health services demonstrated a steady increase and then declined in the second quarter 2002.

- The use of treatment programs such as non-hospital rehabilitation and partial hospitalization increased slightly during the post-implementation period.
  - The CTTs reported that non-hospital rehabilitation services represent a standard track of treatment after discharge from inpatient care. Both providers and consumers are familiar with this course of treatment.
  - The CTTs also reported that the use of in-plan services is governed by the guidelines of state hospital discharge plans and by certain residential settings (i.e., CRRs). These entities often require that consumers participate in a structured day program, such as partial hospitalization services.

In addition to looking at the utilization of HealthChoices services, AHCI also analyzed the utilization of County-funded services during the study period. Chart 1.9 details the results of this analysis for the levels of care with the highest utilization.

Chart 1.9

Number of CTT Consumers Who Received County-funded Services During Pre- and Post-Implementation of CTT



***Key**:*
***Adm Mgt** Administrative management*
***CRS** Community residential services (housing)*
***ER** Emergency room services*
***Social Rehab** Social rehabilitation*

As the chart shows, the most frequently used County-funded service was administrative management. As of the end of June 2002, administrative management was provided to assist in the transition from state mental hospital care to community-based services for 30% of the CTT consumers. This percent remained relatively stable during the study periods. After discharge, the CTTs continued to use hospital liaisons and forensic specialists to assist in the coordination of care. AHCI expects that utilization of this type of service would decrease significantly as the teams mature and they reach capacity.

Other findings include the following:

- The increase in community residential services was impacted by the increased use of housing options funded by the County.

- The increase in emergency room utilization by County consumers may be a reflection of people released from state mental hospitals who joined the teams in the first and second quarters of 2002. Historically, these consumers tend to rely on emergency room services and may need to develop a level of trust before relying on the CTTs for support when they are symptomatic.

While reviewing the number of CTT consumers utilizing behavioral health services, it is also important to look at the costs associated with these expenses. Charts 1.10 and 1.11 depict the average cost per consumer for the transition age and adult CTTs, respectively. The services, delineated in the charts, represent those with the highest total cost per quarter and/or those utilized by the highest number of CTT consumers. This data was available for the HealthChoices program and is depicted for in-plan services only.

Chart 1.10
Average Cost Per Transition Age CTT Consumer (HealthChoices)

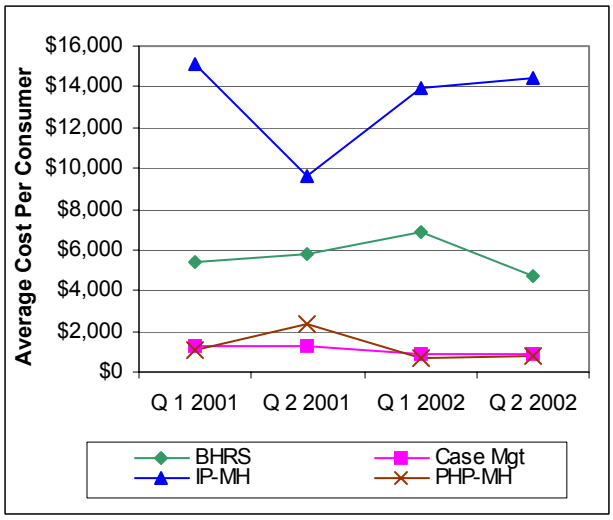
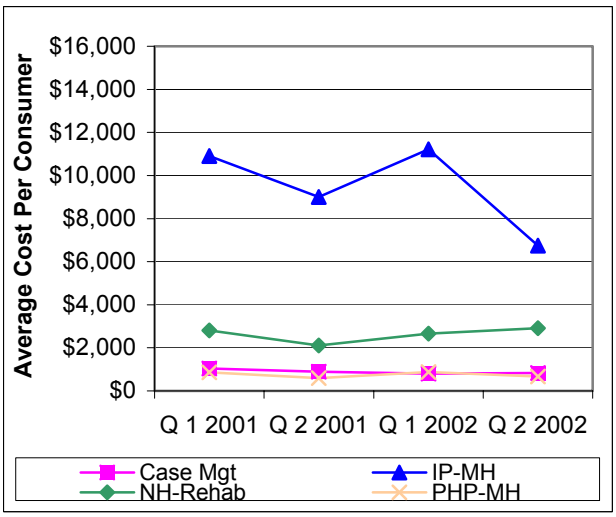


Chart 1.11
Average Cost Per Adult Consumers (HealthChoices)



Key:
BHRS *Behavioral health rehabilitation services*
IP-MH *Inpatient mental health*
PHP-MH *Partial hospitalization mental health*
Case Mgt *Case management*
NH-Rehab *Non-hospital rehabilitation*

As the charts indicate:

- The average cost per consumer for transition age and adult CTT consumers remained flat for case management services.

- The average cost per transition age CTT consumer for behavioral health rehabilitation services declined slightly from $5,793 in the second quarter 2001 to $4,728 in the second quarter 2002 (average of seven consumers per quarter).

- The average cost per consumer for inpatient mental health services demonstrated a sharp decline in the second quarter 2001 for transition age CTT consumers and in the second quarter 2002 for adult CTT consumers.

- Both the number of adult CTT consumers and the average cost per consumer for non-hospital rehabilitation increased slightly during the post-implementation period.

HealthChoices Supplemental Services

CTT consumers utilized HealthChoices supplemental services for drug and alcohol abuse/dependency treatment. AHCI expected that the number of HealthChoices consumers who utilized supplemental services would decrease as the number of consumers who engaged in CTT services increased. The number of consumers who utilized supplemental services for drug and alcohol intensive outpatient treatment declined from 10 consumers in the second quarter 2001 to four consumers in the second quarter 2002.

Discussion Of Findings

The previous sections have presented a thorough overview of the implementation of the first CTTs in Allegheny County, including the current status of consumers who are assigned to and being served by CTTs. It has also presented an overview of the overall functioning of the CTTs during their first several months of operation. Based on AHCI's analysis of both areas, we can conclude that the CTTs are developing in a way that is consistent with the principles of assertive community treatment upon which the CTTs are based. The issues that AHCI did identify are consistent with teams that are still in their developmental stages and not operating as more mature teams. The other issues identified are more systemic in nature and reflect problems or barriers the CTTs encounter in trying to work in the system with and on behalf of consumers. The identification of these types of issues should be expected as the teams develop; in many systems, the teams become the focus of system change because of their first hand experience in using the system to benefit consumers.

In addition, it would appear that the consumers being served by the teams are individuals the service system generally has not served well in the past. These individuals historically have been high utilizers of services, have lacked stable housing, and have been difficult to engage in services on a consistent basis.

While it is too early to draw any definite conclusions about outcomes, it would appear the CTTs are working with consumers to begin to bring about desired outcomes of stable housing, decreased hospitalization utilization, increased interaction with families and friends, and decreased utilization of non-CTT services. The data also suggest several ways in which improvements can be made to assist the CTTs in their work and help consumers achieve desired outcomes.

One of the most important concepts of CTTs and other forms of assertive community treatment is that it is not just more of a specialized form of case management; rather, it is an all encompassing clinical and rehabilitative service that includes aspects of case management. The

data suggest that the CTTs are being trained and are beginning to provide the type of clinical services envisioned. The teams also have developed several ways of providing clinical services to consumers in a group setting. Many of the groups identified to AHCI, however, appeared to be more socialization oriented in their focus. The CTTs should continue to work with their consumers in developing groups and other activities that meet the needs of the consumers. The CTTs should be cautious about using groups as their primary method of intervention because it is not appropriate for all consumers and/or they may not choose to participate.

The data also suggest the teams should begin to focus more on the rehabilitative aspects of their functions. This is particularly true when the issues of housing and employment are examined. For the most part, these consumers have not had successful histories of stable housing. They have been ejected from many if not most of the structured housing available in the County. The teams are now finding that many of these consumers want their own apartments and the teams are beginning to understand their role in helping consumers find and keep their own housing. In the area of employment, the teams seem to be slower in understanding their role in helping consumers find and keep jobs. Consumers repeatedly, however, talk about their desire to have a job or some meaningful activity in their lives. This is a key part of the recovery process. As the CTTs continue to develop and mature it will be important for them to work with each consumer on establishing personal goals around work or other activities that enrich their lives.

Another key component of the CTTs is the use of Peer Counselors as members of the team. Based on the data, including discussion with the teams, the teams continue to work on keeping the Peer Support position filled on the teams and on defining the role of that individual on the team.

With respect to overall service utilization, consumers on the team are using less HealthChoices in-plan and County-funded services than prior to team assignment. While the change is most evident in state hospital utilization it seems reasonable to expect that the downward trend in utilization of other services to continue. The data on crisis utilization, when looked at with data on community hospitalization and discussions with CTT members, suggests that further reductions in hospitalization may be achieved. Maximizing those reductions, however, will require more system changes, which are discussed in the next section.

It is not clear why, however, services such as administrative management continue to be used by such a large number of consumers. It is important to clarify the role and extent of involvement expected of Administrative Case Managers so as to reinforce the expectations that the CTTs will be the locus of responsibility for treatment and support.

Recommendations

The data from this study suggest several recommendations that will enhance the functioning of the teams within the system. Some recommendations are focused on the operation of the teams themselves while others are systemic in nature.

Housing

The teams reported that the consumers were not having success in structured residential facilities such as CRRs and LTSRs. They cited program rules as being difficult for consumers to follow and, in fact, running contrary to some of the expectations of the CTTs and the needs of the consumers. In addition, they reported that consumers want their own places to live, free of arbitrary rules and regulations. Based on this, we offer the following recommendations:

- The County should continue its emphasis on the development of supportive or independent housing for consumers. This means that consumers have a choice of living arrangements, not tied to services, and that supports are provided by the CTTs at the level the consumer needs at a particular point in time.
- The County should develop "damp" housing as an alternative for consumers who drink and for whom substance abuse may or may not be a treatment issue.
- The rules/regulations for CRRs, LTSRs, and other residential facilities need to be reviewed to ensure they are consistent with the principles of assertive community treatment and the expectations of the CTTs. For example, requirements that consumers attend partial hospital or day treatment programs while residing in a CRR may prove to be counterproductive to the work of the team and may not be what the consumer chooses to do.

Employment/Rehabilitation Services

It would appear that the teams have uneven approaches to working with consumers around issues of employment. As part of the rehabilitation function of the teams, addressing issues of work is crucial. As the teams develop, it will be important for teams to address this issue.

- The teams should carefully consider and formalize an approach for addressing employment issues and goals with consumers. Consideration should be given to the hiring of Vocational or Rehabilitation Specialists for each team.
- As an expected part of the treatment/service planning process, employment related goals should be addressed.
- The teams should consider their need for specialized training in rehabilitation approaches, such as been done with the emphasis on dialectic behavioral therapy.
- The County should promote employment-related services as an initiative and key point of its efforts toward development of a recovery-oriented system.

Service Utilization

As noted in the previous sections, utilization of non-CTT services generally shows a downward trend as expected. However, utilization of administrative case management seems relatively high at this point. Also, it appears that there is a potential for further decreases in community hospitalizations if there is earlier and more frequent contact between the admitting hospital emergency room and the CTT to which the consumer is assigned. Recommendations to enhance teams outcomes in this area include:

- The County and Community Care should develop practice standards for hospital emergency rooms that require they contact the CTT to which a consumer is assigned within a specific period of time post arrival at the emergency room. Community Care

should be used as a resource in the event the emergency room is unaware of whether the consumer is assigned to a CTT. (Note: this recommendation can be extended to consumers with an Intensive Case Manager or Resource Coordinator).

- Prior to authorizing the admission of any CTT consumer, Community Care should ensure that the team has been notified of the pending admission and has had an opportunity to work with the hospital on diverting the consumer, if appropriate.
- The role and expectations of administrative case management should be clearly delineated for consumers assigned to CTTs. The role of the CTT as the primary locus for the treatment and support of the consumer should be reinforced with Administrative Case Managers and with other service providers across the system.

Peer Support

CTTs in Allegheny County are required to have Peer Support Specialists or Counselors as part of the team. Teams, however, report experiencing a variety of difficulties in keeping those positions filled and in determining that individual's role on the CTT. AHCI offers the following recommendations to help strengthen the role of the Peer Specialist.

- Peer Support Counselors/Specialists should be encouraged to meet with each other to provide support to one another and to share ideas about their work with the CTT.
- The CTTs should ensure the Peer Counselors/Specialists have information and/or access to information and resources to assist them in their jobs.
- Consumers assigned to the CTT should be given information about the Peer Counselor and have frequent opportunities to meet with them.

Future Study

Allegheny County is in the position of being able to collect a relatively large and comprehensive set of data on CTTs and the consumers they serve. This will allow for the evaluation of the CTTs' operations on a fairly frequent basis. AHCI will continue to monitor team performance in many of the areas addressed in this report, but will also have the ability to conduct more in-depth reviews of certain aspects of the team operations or to identify trends from the ongoing data analysis.

Appendix A

Housing and Residential Treatment Definitions

Definitions derived from the CTT Technical Manual and by the Allegheny County Department of Human Services, Office of Behavioral Health.

Institutional Setting
An involuntary setting such as a criminal justice facility, state mental hospital, or a community hospitalization that exceeds two weeks and places the individual at risk for losing their permanent housing.

Long Term Structured Residences (LTSR)
A highly structured therapeutic residential mental health facility for adults 18 years and older. LTSRs are designed to house people that do not meet medical necessity criteria for inpatient hospitalization but require mental health treatment and 24-hour supervision on an ongoing basis. Admissions may be voluntary or involuntary.

Nursing Home
A highly structured residence that provides 24-hour care for elderly people and those who are chronically ill.

Community-Based Drug & Alcohol Residential
An intensive drug and alcohol treatment program for adults 18 years and older that is staffed 24-hours. Detoxification services can be provided at licensed facilities.

Non-hospital Residential Rehabilitation
The same scope of services as provided by the community-based residential provider with the addition of a rehabilitation component.

Community Residential Rehabilitation (CRR)
A transitional residential program for adults 18 years and older with a mental health diagnosis. CRRs provide training and skill development to assist people to live independently in the community. A "full care" CRR provides 24-hour supervision and a highly structured therapeutic environment. A "partial care" CRR offers regularly scheduled visits by staff with a minimum of one-hour staff time and a maximum of eight-hours of staff time per day.

Personal Care Home (PCH)
A short term or long term living arrangement that offers shelter, food, and personal assistance in hygiene, nutrition, financial management, and administration of medications.

Enhanced Personal Care Home (EPCH)
A long-term living arrangement that exceeds the scope of the PCH by providing a variety of mental health services, social and recreational activities (twice weekly), and outreach team visits (twice a month).

Shelter or Mission
A temporary evening/night time shelter for homeless individuals. No daytime programming or treatment is provided.

Supervised Apartment
A provider-operated apartment with 24-hour on-site staff that provides assistance and support.

Supported Housing
An individualized housing model designed to assist individuals with a mental illness to live in the community and foster independence. The goals of supported housing include: to help an individual obtain safe, affordable, permanent housing; to improve community tenure; and increase reliance on natural and community supports.

Family Setting
Living in a private home of a friend or family for a period exceeding 24-hours. Food, cleaning, and laundry may or may not be provided.

Single Room Occupancy (SRO)
A provider-operated or an independent single room dwelling.

Living Independently
Living in an apartment or boarding room that was secured independently by the consumer.

Appendix B

Non-Behavioral Health Supports Definitions

Friends/Family
A relative or non-relative support that the consumer knows and has an interpersonal relationship, but who is not a provider of treatment or rehabilitation services to the consumer.

Recreational
A neighborhood, community or privately sponsored structured activity solely for the purpose of providing entertainment, exercise, relaxation or socializing.

Peer
Supports sponsored by an external non-professional and peer led group or organization for persons with a mental disorder for the purpose of providing social, mentoring, peer counseling, and educational services.

Self-Help
A support group that is non-professional, peer-led, and focuses on personal recovery.

None
No current involvement in non-behavioral health activities.

Other
Any other community-based, non-behavioral health supported or sponsored activity.

Bibliography

Assertive Community Treatment Association. From the website: www.actassociation.com

Dixon, L. B., Stewart, B., Krauss, N., Robbins, J., Hackman, A., & Lehman, A. F. (1998). The participation of families of homeless persons with severe mental illness in an outreach intervention. *Community Mental Health Journal,* 34: 251–259.

Hodge, H. and Draine, J. (1993). Development of support through case management services. In Flexer, R. and Solomon, P., Eds. *Psychiatric Rehabilitation in Practice*. Boston, MA: Andover Medical Publishers, 155-169.

Mueser, K.T.; Bond, G.R.; Drake, R. E.; and Resnick, S.G. (1998). Models of community care for severe mental illness: A review of research on case management. *Schizophrenia Bulletin*, 24(1): 37-74.

Stein, L.I., and Test, M.S. (1980). Alternative to mental hospital treatment: Conceptual model, treatment program and clinical evaluation. *Archives of General Psychiatry*, 37: 392-397.

Texas Department of Mental Health and Mental Retardation. (2002). Assertive community treatment. From the website: www.mhmr.state.tx.us/centraloffice/behavioralhealthservices/act.html

Turner, J.C. and TenHoor, W.J. (1978). The NIMH community support program: Pilot approach to a needed social reform. *Schizophrenia Bulletin*, 4(3): 319-348.