

OVERVIEW OF THE CHEROKEE MENTAL HEALTH INSTITUTE



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Prepared by the Iowa Department of Human Services
Office of the Deputy Director for Field Operations

Table of Contents

Introduction.....	3
History.....	3
Today	7
Operational Beds.....	7
Catchment Areas.....	8
Buildings and Grounds	8
Leased Space.....	9
Training & Community Involvement	9
Populations Served.....	11
Diagnosis.....	11
Commitment Type	13
Key Demographics of Individuals Served in FY2009	15
Adult psychiatric populations	15
Child psychiatric populations	17
Adolescent psychiatric populations	19
Admission Trends	20
Restraint & Seclusion Reductions	21
Lengths of Service	22
Adult Psychiatric.....	23
Child Psychiatric.....	23
Adolescent Psychiatric.....	25
Average Daily Census.....	26
Discharge Trends	27
Adult Psychiatric.....	27
Child Psychiatric.....	27
Adolescent Psychiatric.....	28
Treatment Services Provided	28
Outcomes Measurement.....	29
Global Assessment of Functioning.....	29
Rehospitalization.....	30
Occupancy Rate	32
Aftercare & Discharge Planning.....	33
Elopement Rate.....	34
Human Resources	35
Finances	36
FY2010 Budget.....	36
Cost per Day	38
Financing.....	38
Revenue Sources.....	39
Appendix A – Cherokee MHI Campus Map	41
Appendix B – Cherokee MHI Training & Community Involvement.....	42
Appendix C – Cherokee MHI FY2009 Admissions by County	45
Appendix D – Cherokee MHI Table of Organization	47

Introduction

The Cherokee Mental Health Institute (MHI) represents one of four state-operated MHIs, with the others being located in Clarinda, Independence, and Mount Pleasant. Cherokee MHI provides critical access to quality acute psychiatric care for Iowa's adults and children needing mental health treatment, and provides specialized mental health related services.

As an integral part of Iowa's mental health service delivery system, Cherokee MHI provides services to individuals who are unable to receive necessary evaluation or treatment services in the community. Treatment services and programs provide a safe, therapeutic environment for stabilization allowing individuals to return home as soon as possible.

Cherokee MHI's purpose is to operate as a regional mental health institute providing:

- Person-centered treatment, training, care, habilitation and support services for individuals with mental illness or a substance abuse problem that supports the individual's treatment plan; and
- Facilities, services and other support to the communities located in the region being served by a mental health institute so as to maximize the usefulness of the mental health institutes while minimizing overall costs.

The Iowa Code establishes the purpose, location, general operating requirements, admission requirements, payment responsibilities and other regulations for the Cherokee MHI and its sister institutions.

Key chapters include:

- Official Designation and Purpose is outlined in Chapter 226
- Oversight is outlined in Chapter 218
- Hospitalizations and Admissions (Voluntary and Involuntary) are outlined in Chapter 125, Chapter 229, Chapter 812, and Chapter 901
- Payment responsibility is outlined in Chapter 230 and Chapter 331

Cherokee MHI is licensed as a hospital under Iowa Code §135B, and is also accredited by The Joint Commission (formerly known as the Joint Commission on the Accreditation of Healthcare Organizations).

History

The Cherokee Mental Health Institute opened its doors for business on August 15th, 1902. On August 26th, 306 individuals were transferred from the hospital at Independence; two days later 252 from the hospital at Clarinda. These individuals were brought by special trains and were met with teams and hayracks that transported them from the train depot to the hospital. A total of 1,022 individuals were admitted to the hospital in the first year of operation.

The early years of treatment at Cherokee MHI consisted of individuals working on the farm and other jobs within the hospital. Over the years, various treatment modalities were tried, including hydrotherapy and massage, which were carryovers from the Roman days and continued to be popular in the early years. Electrotherapy and insulin coma were developed in the 1930's and first used at Cherokee MHI in the early 1940s. Psychosurgery, an operation on the brain, was

also practiced for a few years at Cherokee MHI, mostly in 1954 and 1955. In the early 1950s, the discovery of medications specifically effective in individuals with mental illness radically altered their care and treatment. Medications continued to progress over the years and resulted in the improvement of many individual's lives.

In 1955, Cherokee MHI began a three (3)-year Psychiatric Residency Program accredited by the American Medical Association (AMA) for physicians specializing in Psychiatry. The program began with two physicians emphasizing diagnosis, medical management through the use of psychotropic medications, and the fundamentals of the interpersonal process. Cherokee MHI became known as a progressive training facility.

The 1960s saw many progressive changes in the hospital. The census began to decrease due to the medications that were effective in the treatment of mental illness. Cherokee MHI's census in 1960 was 1,010, and by 1961 the census had decreased to 835. In May of 1966, the hospital became accredited by The Joint Commission. The day following the Joint Commission survey, Medicare came for their first survey. The hospital passed both surveys and continues to maintain accreditation today.

Additional changes during the 1960s included the addition of a 34 bed children's unit for boys and girls ages 6 to 16. The census continued to decrease as individuals improved and were able to leave the hospital. By 1969, the census was 332.

Changes continued into the 1970s with the addition of 46 adolescent beds for 16 to 20 year olds. In 1971, the hospital changed its focus from custodial to an active treatment model. Immediately after admission, the individual was examined, evaluated, and an individual treatment program was implemented. Individuals who remained in the hospital for longer periods of time were reviewed periodically and their treatment program adjusted to meet their current needs.

The hospital was one of the first in the nation to institute the open door policy, and involve individuals in a "Patient Council". The Council worked in cooperation with the therapeutic treatment team. Also at this time, an intensive program to increase home visits was implemented with the focus of placing individuals back into the community. As soon as an individual started to improve, they were released and placed in outpatient treatment, either at Cherokee MHI, community clinics, or under the care of general practitioners in their community. The hospital units were organized to provide a continuity of care for both inpatient and outpatient treatment. If rehospitalization became necessary, the individual returned to the same unit where staff were familiar with the person's history and treatment needs.

Improved treatment methods, increased staff education, and changes in the hospital environment made it possible to reduce the census from a peak of 1,729 patients in 1945 to an average daily census of approximately 300 in the 1970's. Yet, during the same period the number of admissions almost doubled. More individuals received treatment, the hospital stay was shorter, many continued as outpatients, and some did not require hospitalization at all.

During the 1980s, the focus was to hire more Registered Nurses to ensure each hospital unit would have a nurse assigned and directly oversee the care provided by the Licensed Practical Nurses and Resident Treatment Workers. In 1989, the census had decreased to 198. Another change that occurred in 1989 was the three-year Physician Residency Training Program changed

the accreditation from the AMA to the American Osteopathic Association. This change introduced osteopath physicians to the psychiatric residency training program.

Change continued into the 1990s. The 51-bed Chemical Dependency unit was transferred to the Mount Pleasant MHI, and in December of 1991, the Geropsychiatric unit was transferred to Clarinda MHI. Additionally in 1991, the focus began to reduce the number of long-term individuals being treated at Cherokee MHI by locating appropriate placement in the community, thereby improving the quality of life. This also allowed the hospital to better utilize the beds to meet the needs of individuals in an acute phase of their illness.

In 1994, the hospital continued to focus on an active treatment model. Staff were reorganized and the Psychiatric Rehabilitation Program was implemented. Active treatment focused on educating individuals regarding their illness, teaching life skills, and providing coping strategies to assist with reintroduction into the community.

In 1996, the three-year Physician Residency Training Program was discontinued due to university requirements and funding. During the years of operation, from 1955 to 1996, Cherokee MHI graduated 191 psychiatrists. During the years of the program's existence, both staff and individuals treated benefited from the rich progressive training environment the program offered. Following the loss of this program, hospital leaders immediately began to research other training opportunities to continue the long-standing tradition of being a teaching hospital.

In 1999, Cherokee MHI established the first in the nation Physician Assistant Fellowship Program specializing in psychiatry. The focus of the program is to train midlevel practitioners, both Physician Assistants (PAs) and Advanced Registered Nurse Practitioners (ARNPs), to meet the needs of the underserved areas in Iowa following graduation. To date, the program has graduated twelve (12) PA's and four (4) ARNP's.

The year 1999 saw a focus to reduce the use of restraint and seclusion. A workgroup was established to research and develop methods of care that would result in decreased use and thereby improve quality of care. In 1999, the total restraint and seclusion use hours were 12,165, and had been reduced to 3,438 hours of use by 2001.

In 2002, Cherokee MHI celebrated its 100th year of providing progressive, quality treatment. New medications continue to be developed which result in improved treatment outcomes that coincide with the care and education provided to individuals during their hospitalization at Cherokee MHI. There is a continued focus on reducing the use of restraint and seclusion; rates continue to decline with current usage well below the national average. The number of hospital admissions per year remains greater than 500. The hospital staff believe that all individuals should live in the least restrictive setting that is able to manage their illness. This leads to an improved quality of life for the individuals served.

Today

Operational Beds

During Fiscal Year (FY) 2009 and year-to-date in FY2010, Cherokee MHI has sustained an operating capacity of 58 beds (Table 1), representing 20.2% of the total operational MHI beds in the State. This level has been sustained despite a 1.5% across the board reduction, and an additional 2.0% reduction in operating budgets in FY2009, as well as an additional 4.8% and 6.5% reduction in FY2010.

Table 1
Cherokee Operational Bed Capacity, FY2010

Program	# of Beds	% of State MHI beds
Adult	46	38.3 %
Child	6	28.6 %
Adolescent	6	37.5 %
MHI Total Beds	58	20.21 %

It is important to note how the beds are configured between open and locked wards (Table 2). The use of open or locked wards is based on need and physical plant. All of Cherokee's patient wards are coed.

Table 2
Cherokee Operational Bed Configuration, FY2010

Program	Open Wards		Locked Wards	
	Ward	Beds	Ward	Beds
Adult	North 7	22	North 4 North 9	12 12
Child & Adolescent	-	-	North 6	12
MHI Total Beds	22		36	

Catchment Areas

Beginning in FY1992, and current to today, the State’s catchment areas for adult psychiatric services were realigned to account for the change in operational capacities at the MHIs and Cherokee’s adult catchment area is shown in Chart 1. Cherokee’s catchment area for children and adolescents is shown in Chart 2.

Chart 1
Cherokee Adult Catchment Areas

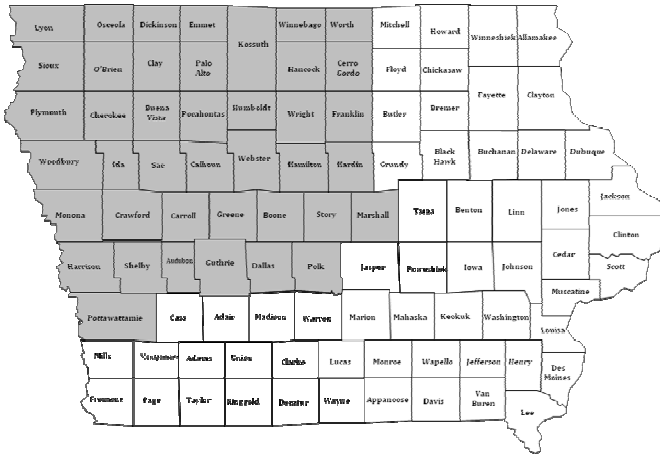
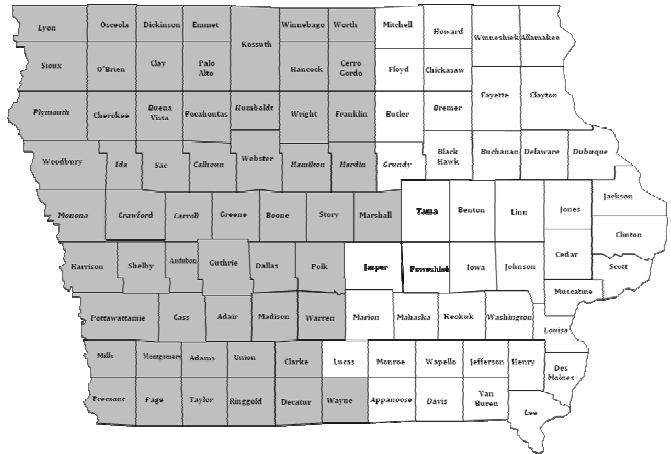


Chart 2
Cherokee Child & Adolescent Catchment Areas



Buildings and Grounds

Cherokee MHI has approximately 637,000 square feet of building space in campus buildings and structures. In addition, the campus is situated on approximately 209 acres of land as noted in Table 3.

Table 3
Cherokee Acreage and Square Footage, FY2009

Facility	Total Acres	% of State MHI Acreage	Acres Farmed by DOC	Square Footage of Buildings and Structures	% of State MHI Square Footage
Cherokee	209.00	29.6 %	0.00	637,038	33.8 %

Appendix A contains a detailed map of the Cherokee campus.

Leased Space

Cherokee MHI currently leases space to other agencies/entities as noted in Table 4. Note that the MHI’s generated income from leases includes the entire value of the lease, inclusive of rent charges and provision of services.

Table 4
Cherokee Lessees, FY2009

Lessee	Brief Description	Time on Campus	Square Footage Utilized	Income Generated (FY2009)
Iowa Vocational Rehabilitation Services Office	State-run services for citizens requiring vocational rehabilitation.	1993 – present	530	\$ 5,313
The Pride Group	Private non-profit organization working with sub-acute mentally-ill patients.	1993 – present	6,018	\$ 100,399
Youth Emergency Services	13 county consortium-ran facility for detention of youths prior to trial.	1993 – present	4,776	\$ 32,304
Jackson Recovery Center	Private non-profit substance abuse rehabilitation center.	1999 – present	8,774	\$ 64,335
Juvenile Court Service Office (<i>paid by Cherokee County Board of Supervisors</i>)	State-run office working with juveniles within the court system.	1999 – present	666	\$ 1,084
DHS Quality Control	DHS field operations, verifies clients’ financial information.	2001 – 2009	0	\$ 784
DHS Targeted Case Management Offices	DHS field operations, works with communities and individuals requiring support.	2004 – present	2,227	\$ 13,071
Northwest Community Empowerment	Works with family health issues within the county.	2007 – present	779	\$ 1,480
MHI Totals			23,770	\$ 218,770

Although not technically a lessee of space, the Department of Human Services (DHS) has operated the Civil Commitment Unit for Sexual Offenders (CCUSO) on the Cherokee MHI campus since FY2004, when the program moved from the Oakdale campus. CCUSO is a DHS-operated civil commitment program for sexually violent predators who have served their prison terms, but in a separate civil trial have been found likely to commit further violent sexual offenses. Cherokee MHI shares a number of staff with CCUSO via a cost allocation process.

Training & Community Involvement

In 1999, Cherokee MHI started the Physician Assistant/Advanced Registered Nurse Practitioner (PA/ARNP) post-graduate psychiatry training program through a Federal grant. The grant continued until 2003, when the Federal money was exhausted. Beginning in FY2005, Cherokee re-established the program out of the MHI’s operating budget; from FY2007 through the present the program is funded by a Legislative appropriation administered through a Memorandum of Understanding with the Iowa Department of Public Health. To date, the program has graduated twelve Physician Assistants (42% of which currently practice in the state), and four ARNPs (100% of which currently practice in the state).

Cherokee MHI provides extensive training to students in a variety of disciplines. Private facilities tend to not work with students or to charge fees; therefore Cherokee MHI has become an increasingly popular destination for student training. Cherokee MHI provides services to nursing schools, PA schools, pharmacy schools, ARNP schools, and social work schools, and serves approximately 200 students on an annual basis.

Cherokee MHI further collaborates with regional colleges and universities to provide practicum experience and field training for social work students at either the bachelors or masters level of education, and field experience for nursing students from multiple programs. Cherokee MHI also supports Clinical Pastoral Education by providing training facilities and support within the hospital.

Beginning in the spring of 2000, the Cherokee MHI began offering semi-annual educational conferences to mental health providers and educators across the state. To date, twenty-one conferences have been held on topics covering a variety of mental health issues, providing education to over 2,000 participants.

Appendix B contains a detailed listing of the various ways in which Cherokee MHI provides training-for and interacts-with the local community.

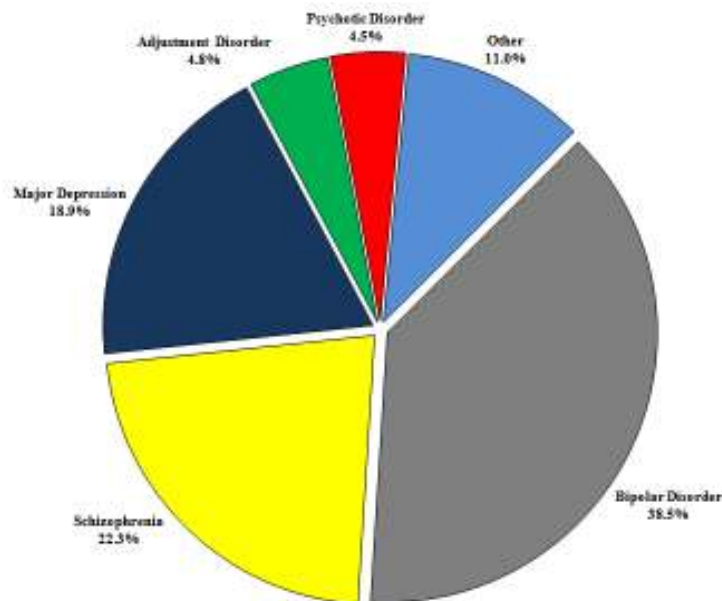
Populations Served

Diagnosis

Adult admissions to Cherokee MHI typically have one or more diagnoses that would be described as serious and chronic in nature. These include depression, schizoaffective disorder, bipolar disorder, schizophrenia paranoid type, intermittent explosive disorder and psychotic disorder. Many of these individuals have co-occurring mental illness and substance abuse and a small percentage have a dual mental illness/mental retardation diagnosis.

Principal diagnoses of individuals admitted to Cherokee's adult psychiatric program in FY2009 are illustrated in Chart 3. FY2009 is similar to previous years in terms of trending.

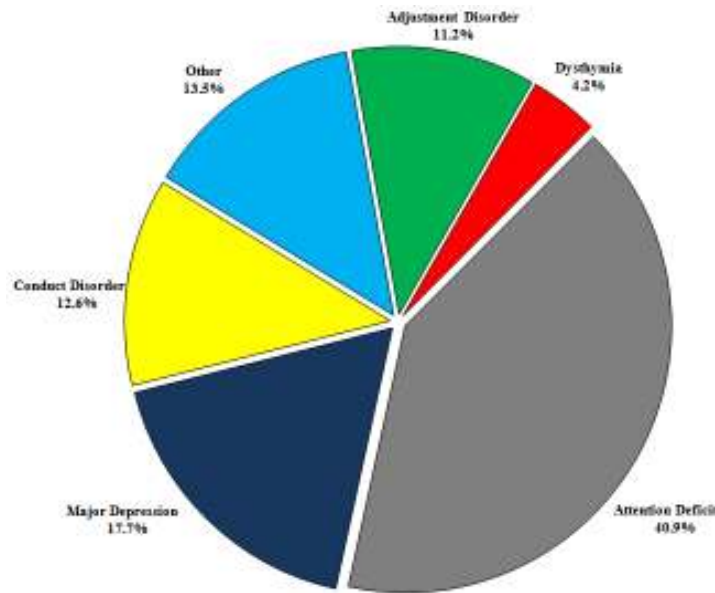
Chart 3
Cherokee Principal Diagnosis at Time of Admission, Adult Psychiatric, FY2009



Child and adolescent admissions to Cherokee MHI typically have diagnoses such as attention deficit hyperactivity disorder, conduct disorder, major depression, and adjustment disorder.

Principal diagnoses of individuals admitted to Cherokee’s child and adolescent psychiatric program in FY2009 are illustrated in Chart 4. FY2009 is similar to previous years in terms of trending.

Chart 4
Cherokee Principal Diagnosis at Time of Admission, Child & Adolescent Psychiatric, FY2009



Commitment Type

The majority of the individuals admitted to Cherokee MHI are involuntarily committed by the court because of their danger to self or others. The percentage of individuals involuntarily committed is noted in Table 5.

Table 5
Cherokee Involuntary Commitments by Program, FY2009

Program	Cherokee
Adult	77.7 %
Child	89.0 %
Adolescent	83.1 %
MHI Overall	80.8 %

Additional admissions include court orders to complete an evaluation of individuals who have committed a crime to determine competency to stand trial (Iowa Code §812). Such evaluations are also performed by the Department of Corrections at the Iowa Medical & Classification Center. Community providers may perform an evaluation if the court determines an individual does not pose a threat to public peace or safety and is eligible for pre-trial release. Also, the Court may order to an MHI an individual who has been found to be not guilty by reason of insanity (Iowa Rule of Criminal Procedure 2.22).

Key Demographics of Individuals Served in FY2009

Adult psychiatric populations

Of the FY2009 adult psychiatric admissions, males accounted for 66.0% and females for 34.0%; this percentage has remained relatively consistent as shown in Chart 5. In FY2009, 77.7% of individuals were involuntarily admitted, and this percentage has increased 21.2% since FY2000 as shown in Chart 6.

Chart 5
Cherokee Adult Admissions, by Sex

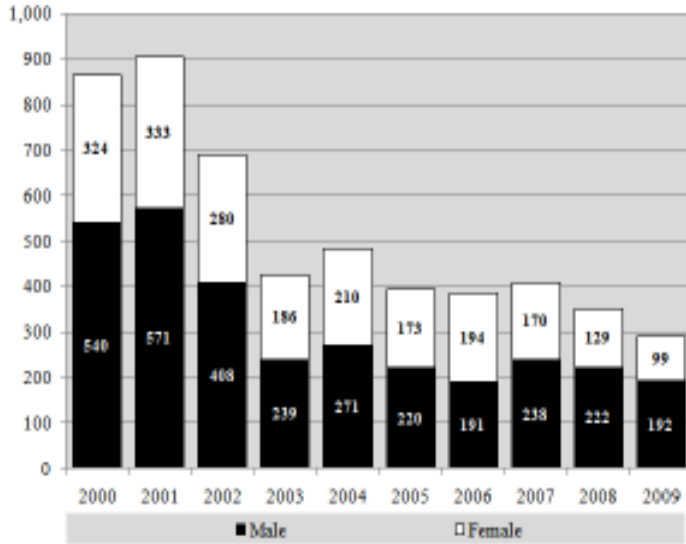
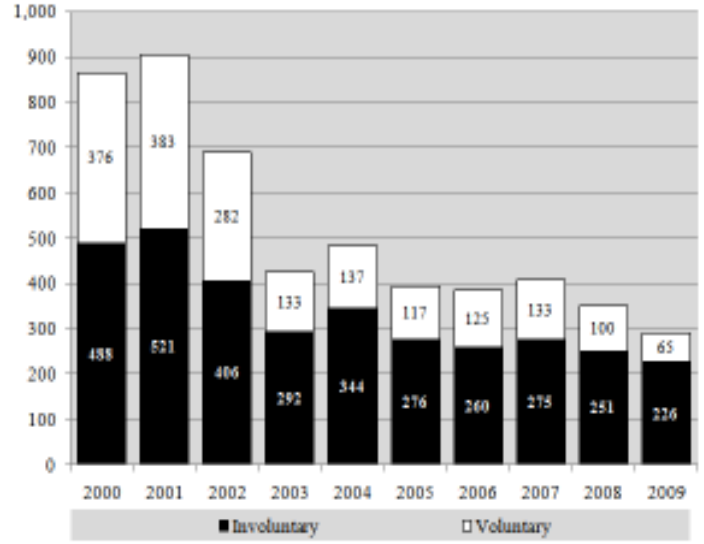
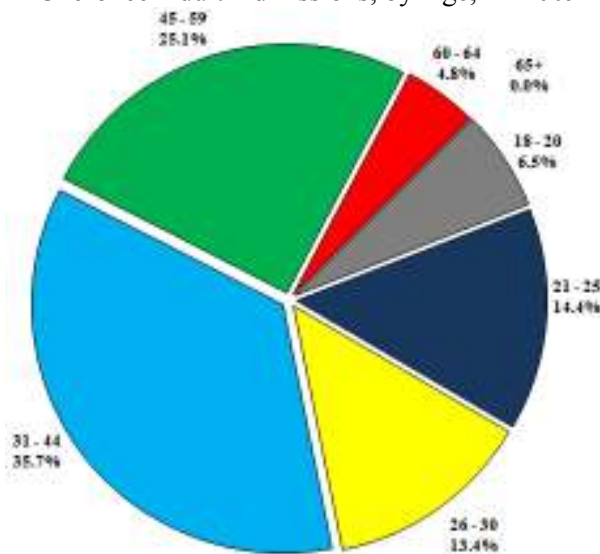


Chart 6
Cherokee Adult Admissions, by Legal Status



The average age at time of admission was 37.9 years in FY2009, with adult psychiatric admissions ranging in age from 18 to 64 years of age as shown in Chart 7.

Chart 7
Cherokee Adult Admissions, by Age, FY2009



Child psychiatric populations

Of the FY2009 child psychiatric admissions, males accounted for 68.5% and females for 31.5%; this percentage has remained relatively consistent as shown in Chart 8. In FY2009, 89.0% of individuals were involuntarily admitted, and this percentage has increased 42.9% since FY2000 as noted in Chart 9.

Chart 8
Cherokee Child Admissions, by Sex

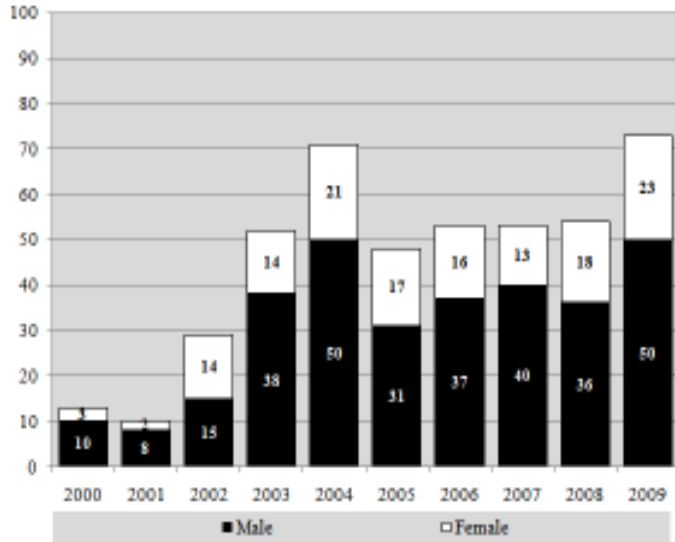
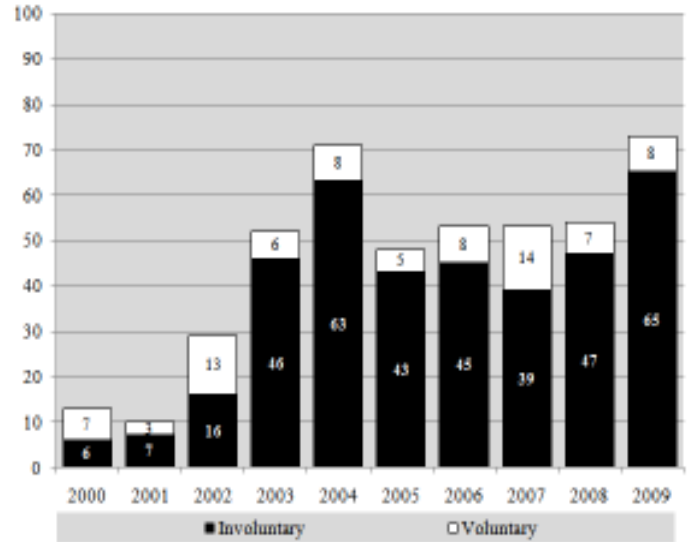
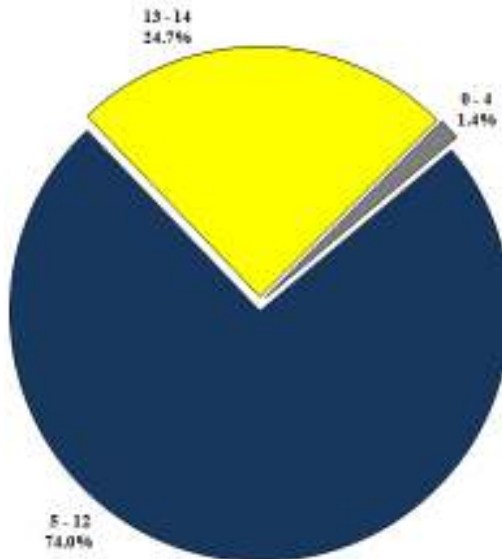


Chart 9
Cherokee Child Admissions, by Legal Status



The average age at time of admission was 10.8 years in FY2009, with child psychiatric admissions ranging in age from 4 to 14 years of age as shown in Chart 10.

Chart 10
Cherokee Child Admissions, by Age, FY2009



Adolescent psychiatric populations

Of the FY2009 adolescent psychiatric admissions, males accounted for 45.8% and females for 54.2%; this percentage has remained relatively consistent as shown in Chart 11. In FY2009, 83.1% of individuals were involuntarily admitted, and this percentage has remained consistent since FY2000 as noted in Chart 12.

Chart 11

Cherokee Adolescent Admissions, by Sex

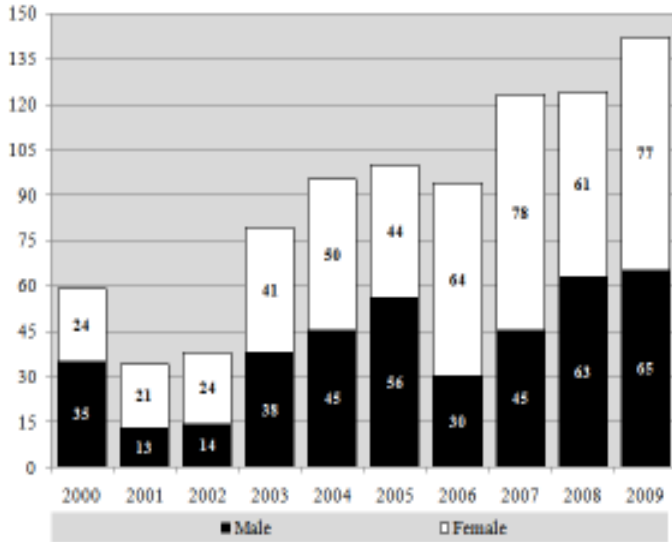
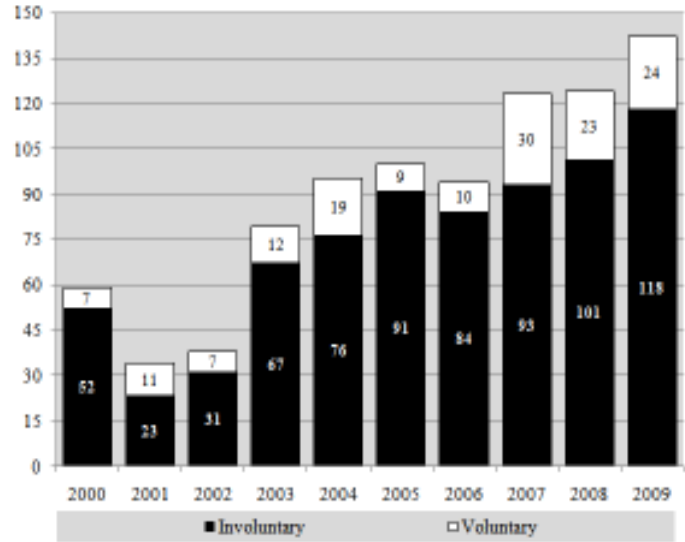


Chart 12

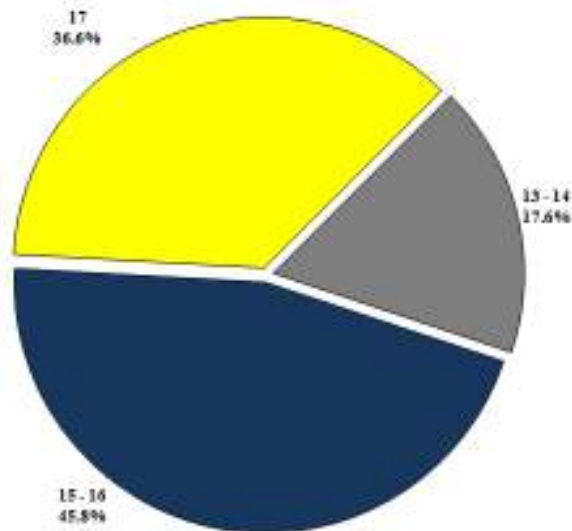
Cherokee Adolescent Admissions, by Legal Status



The average age at time of admission was 16.0 years in FY2009, with adolescent psychiatric admissions ranging in age from 13 to 17 years of age as shown in Chart 13.

Chart 13

Cherokee Adolescent Admissions, by Age, FY2009



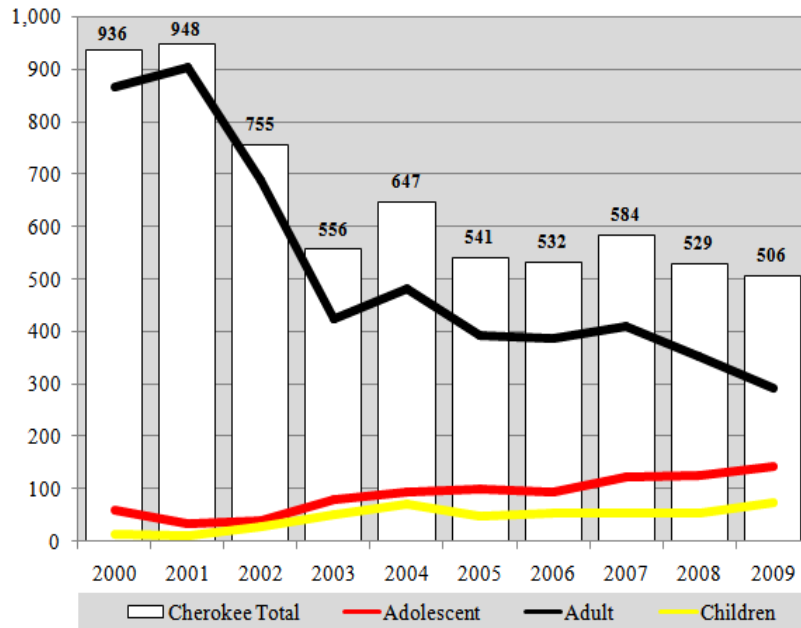
Admission Trends

Typically, Cherokee MHI admissions come from counties within its individual catchment area. However, the MHI does admit from counties outside its catchment area when there is a bed shortage in the originating MHI’s catchment area. Use of the adult psychiatric and child and adolescent beds are directly related to the availability of alternative community based treatment options.

In FY2009, the Cherokee MHI performed nine (9) court-ordered evaluations for individuals to determine competency to stand trial.

There has been a 45.9% decrease in admissions (from 936 to 506) during the past nine years (Chart 14).

Chart 14
Cherokee Total Admissions by Program, FY2000 – FY2009



Individual program admissions have increased/decreased as noted in Table 6:

Table 6
Cherokee Change in Admissions, by Program, FY2000 – FY2009

Program	Increase / Decrease
Adult	(66.3 %)
Child	461.5 %
Adolescent	140.7 %
MHI Overall	45.9 %

Appendix C identifies the counties of admission to the Cherokee MHI programs, listed both by utilization rates per 100,000 (based on 2005 estimated census data) and number of admissions.

For FY2010, it is estimated that Cherokee MHI admissions will stay fairly constant; however this is largely dependent on local capacity to continue to serve individuals with challenging and complex issues.

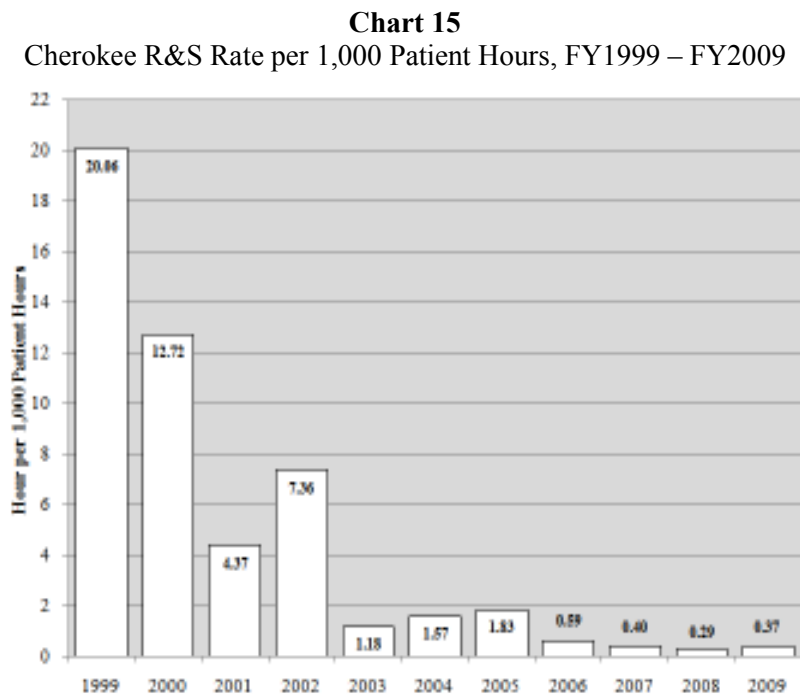
Restraint & Seclusion Reductions

The State of Iowa is committed to ensuring the safety and dignity of those served at its state-operated facilities, and to this end, the DHS has worked closely with Cherokee MHI to identify and implement today's standards of practice that are reflective of this commitment to eliminate the use of restraint and seclusion (R&S).

By utilizing a standard calculation, it is possible to demonstrate how the commitment to restraint and seclusion elimination has resulted in lower instances of this emergency intervention. The R&S Rate per 1,000 Patient Hours measures the use of restraint and seclusion against a standard measure to correct for fluctuations in number of individuals being served at any given time.

The DHS monitors the R&S Rate per 1,000 Patient Hours for each program within the MHI by dividing the total number of hours of restraint and seclusion utilized in a given reporting period by the total number of inpatient hours (divided by 1,000) during that same reporting period.

In FY2009, the R&S Rate per 1,000 Patient Hours for the Cherokee MHI was 0.37, representing an overall decrease in restraint and seclusion rate of use of 98.14% since FY1999 (Chart 15).



Lengths of Service

The length of service or stay within a program is a key measure for understanding some of the trends involving the type of individual served and the availability of step-down services or lower levels of care. Length of service is affected by the acuity of the individual and the availability of an appropriate discharge placement.

The average length of service (ALOS) is increased when discharge cannot occur because an appropriate level of care cannot be located. A single extended length of service for an individual can impact the average length of service, as noted in Table 7's illustrative example. Therefore, the median length of service (MLOS) is provided to illustrate a value that excludes the outliers on either end of the length of service spectrum. The median length of service represents the middle value when arranging the lengths of service from shortest to longest.

Table 7
Example Average vs. Median Length of Service Comparison

Individual	Length of Stay (days)
A	3
B	8
C	15
D	31
E	146
AVERAGE	41
MEDIAN	15

Key impacts on the length of service include the individual's acuity level, commitment status, and personal resources and supports, and the capacity and availability of community based services.

Adult Psychiatric

In the past nine years, the average length of service for individuals served in Cherokee’s adult psychiatric program has increased 34.4%, from 27 days in FY2000 to 36 days in FY2009. During that same reporting period, the median length of service has increased 120.0%, from 10 days in FY2000 to 22 days in FY2009 (Charts 16 and 17).

Chart 16

ALOS – Cherokee Adult, FY2000 – FY2009

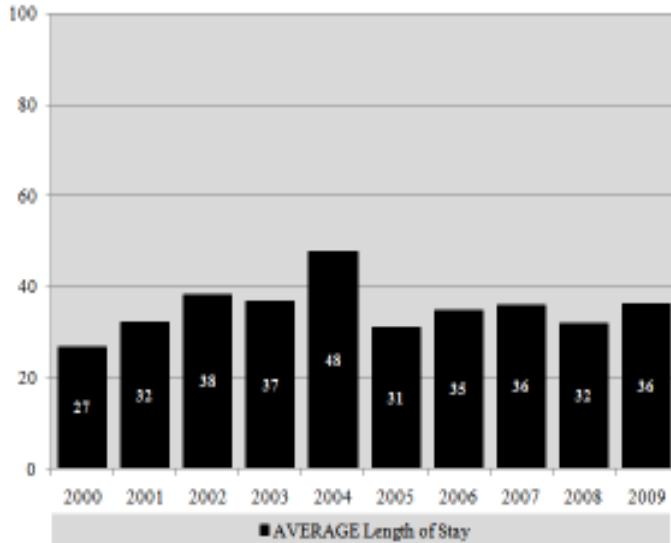
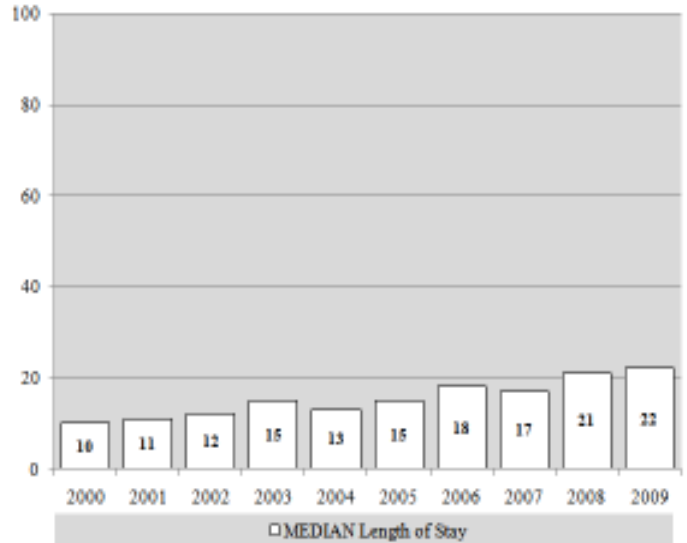


Chart 17

MLOS – Cherokee Adult, FY2000 – FY2009



Child Psychiatric

In the past nine years, the average length of service for individuals served in the child psychiatric program has decreased 68.9 %, from 56 days in FY2000 to 17 days in FY2009. During that same reporting period, the median length of service for individuals served in the child psychiatric program decreased 79.2 %, from 53 days in FY2000 to 11 days in FY2009 (Charts 18 and 19).

Chart 18

ALOS – Cherokee Child, FY2000 – FY2009

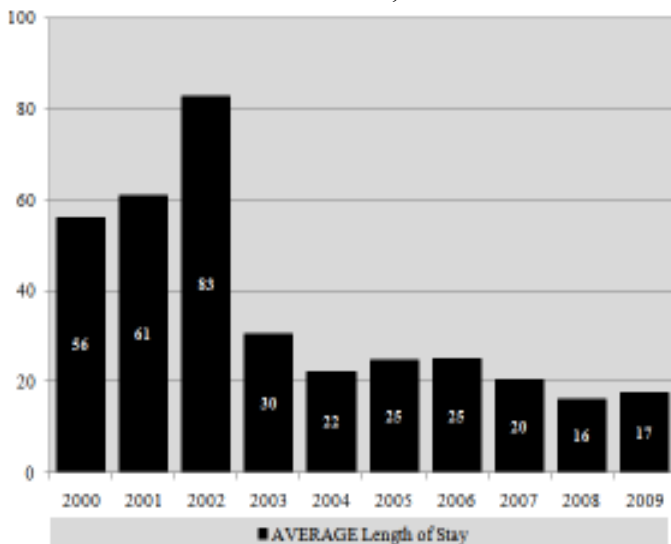
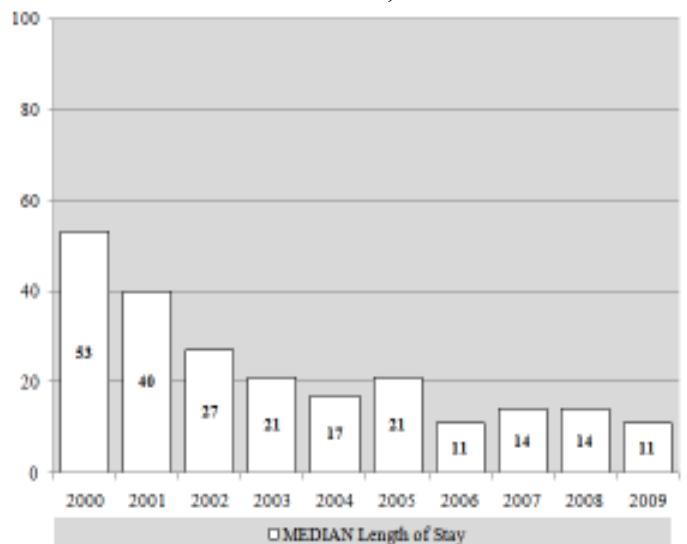


Chart 19

MLOS – Cherokee Child, FY2000 – FY2009



Adolescent Psychiatric

In the past nine years, the average length of service for individuals served in the adolescent psychiatric program has decreased 63.0 %, from 38 days in FY2000 to 14 days in FY2009. During that same reporting period, the median length of service for individuals served in the adolescent psychiatric program decreased 57.7 %, from 26 days in FY2000 to 11 days in FY2009 (Charts 20 and 21).

Chart 20

ALOS – Cherokee Adolescent, FY2000 – FY2009

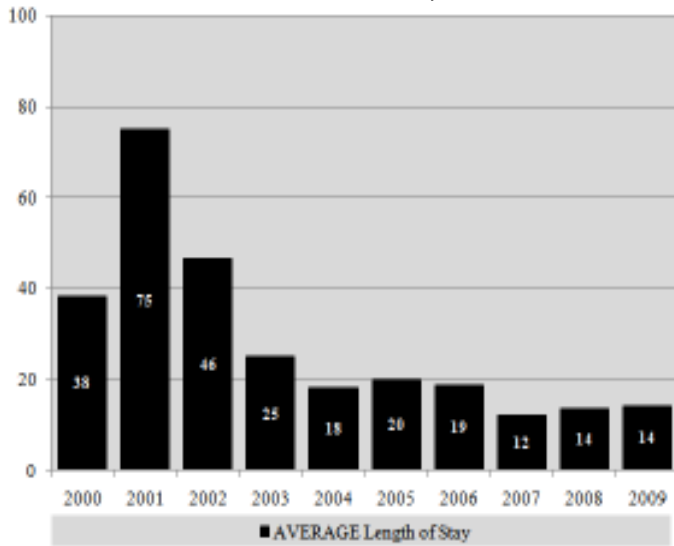
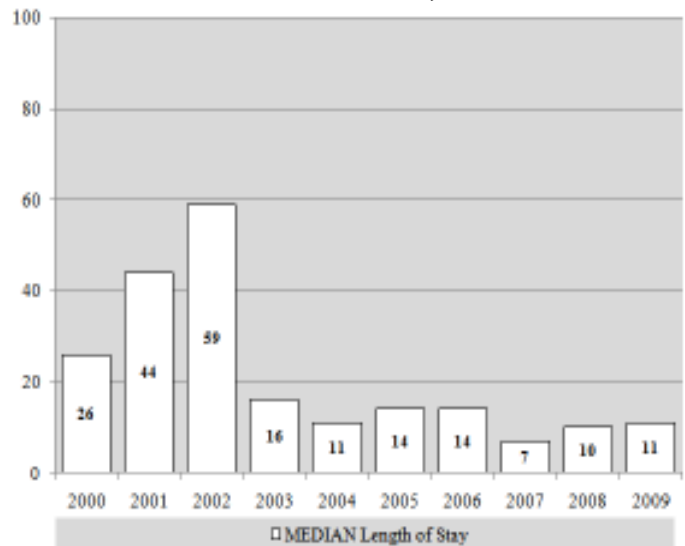


Chart 21

MLOS – Cherokee Adolescent, FY2000 – FY2009

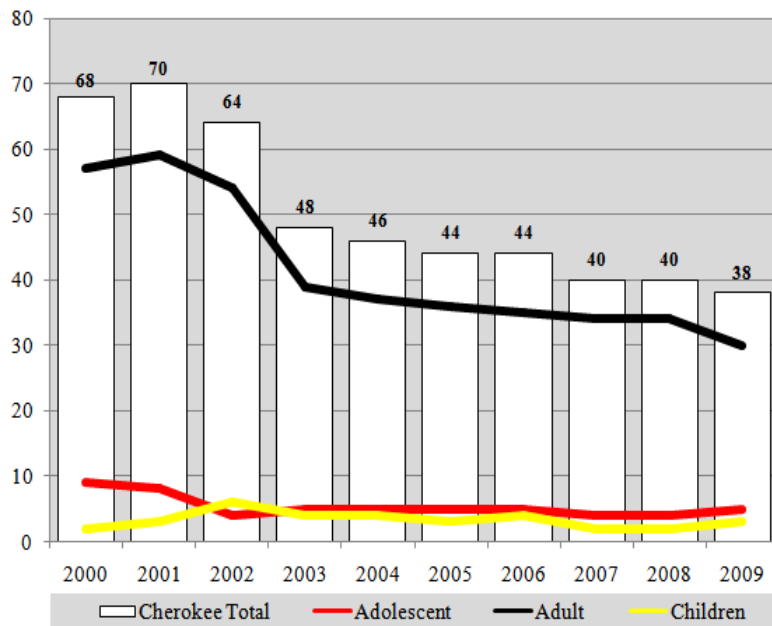


Average Daily Census

The average daily census within a program is another key measure for understanding some of the trends involving both the type of individual served, and the availability of step-down services. Average daily census is the average number of individuals within the institute over a specific period of time.

In the past nine years, Cherokee’s overall average daily census has decreased 44.1%, from 68 in FY2000 to 38 in FY2009 (Chart 22). The decrease in the average daily census is largely attributed to the corresponding 38.3% decrease in operational capacity that occurred in 2002-2003.

Chart 22
Cherokee Average Daily Census by Program, FY2000 – FY2009



Individual program average daily censuses have increased/decreased as noted in Table 8:

Table 8
Cherokee Change in Average Daily Census, by Program, FY2000 – FY2009

Program	Increase / Decrease
Adult	(47.4 %)
Child	50.0 %
Adolescent	(44.4 %)
MHI Overall	(44.1 %)

Discharge Trends

When individuals enter a treatment program at an MHI, the planning for their successful discharge begins that same day. Effective discharge planning is critical to minimizing recidivism, as well as ensuring the necessary supports are in place when the individual is ready to leave.

Adult Psychiatric

In FY2009, individuals served by the Cherokee adult psychiatric programs were discharged to the following locations (Table 9). FY2009 is similar to the previous nine years in terms of trending.

Table 9
Cherokee Adult Psychiatric Discharge Locations, FY2009

Discharge Location	% of Individuals
Spouse / Family / Relative	33.6%
Residential Care Facility	20.6 %
Lives Alone	18.6 %
Other (<i>Supervised Apartment, Nursing Home, etc.</i>)	14.8 %
Live with Friend	6.9 %
Group Care	5.5 %

Child Psychiatric

In FY2009, individuals served by the Cherokee child psychiatric program were discharged to the following locations (Table 10). FY2009 is similar to the previous nine years in terms of trending.

Table 10
Cherokee Child Psychiatric Discharge Locations, FY2009

Discharge Location	% of Individuals
Family / Relative	79.1 %
Group Care / Psychiatric Medical Institution for Children (PMIC)	9.7 %
Foster Home	5.6 %
Other (<i>Shelter Care, Detention Center, etc.</i>)	5.6 %

Adolescent Psychiatric

In FY2009, individuals served by the Cherokee adolescent psychiatric program were discharged to the following locations (Table 11). FY2009 is similar to the previous nine years in terms of trending.

Table 11
Cherokee Adolescent Psychiatric Discharge Locations, FY2009

Discharge Location	% of Individuals
Family / Relative	67.8 %
Group Care / PMIC	16.8 %
Other (<i>Shelter Care, Detention Center, etc.</i>)	11.2 %
Foster Home	4.2 %

Treatment Services Provided

Cherokee MHI provides diagnostic evaluations and both sub-acute and acute-care treatment services based on the medical model. Evaluations are conducted primarily by psychiatrists, and treatment services are provided via a multidisciplinary team comprised of clinicians such as psychiatrists, psychologists, social workers, nurses, activity specialists, residential treatment workers, etc. The treatment modalities include psychotropic medication, counseling and discharge planning, psychiatric rehabilitation classes, leisure skills development and recreational activities.

The therapeutic effort is a comprehensive one, ranging from the use of medication to psychotherapy to the action-oriented therapies. Each individual admitted to the Cherokee MHI has an individual treatment plan which focuses on his or her individual issues and also takes into account his or her individual assets. The major aspects of the plan include physical, psychological, educational/vocational, and social/cultural concerns. Each individual has a number of rights and privileges, which safeguard one's personal dignity and respect one's cultural, psychosocial, and spiritual values.

Outcomes Measurement

The DHS recognizes the need for regular feedback on outcomes to help the MHIs improve their service delivery. Outcome measurement is a process by which the DHS can help meet these needs.

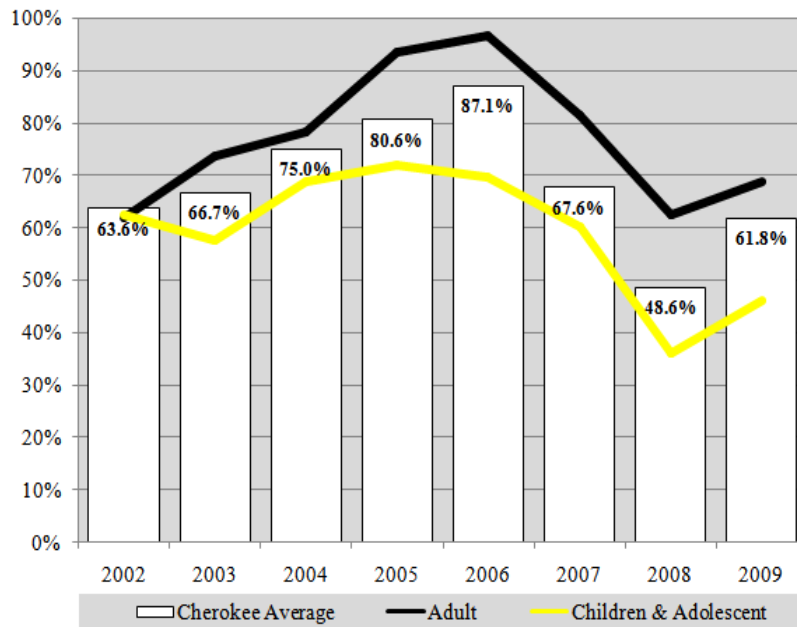
Global Assessment of Functioning

The Global Assessment of Function (GAF) tool is used for reporting a clinician's judgment of an individual's overall level of functioning and carrying out activities of daily living. This information is useful in developing individualized treatment plans and in measuring the treatment's impact. The GAF scale is a 100-point scale that measures an individual's overall level of psychological, social, and occupational functioning on a hypothetical continuum.

A GAF score is obtained on each individual at the time of admission, and again at the time of discharge from the program.

In FY2009, individuals discharged from the Cherokee MHI improved an average of 61.8% on the GAF assessment as noted in Chart 23.

Chart 23
Cherokee Percentage Improvement in GAF Scores from Admission to Discharge, FY2002 – FY2009



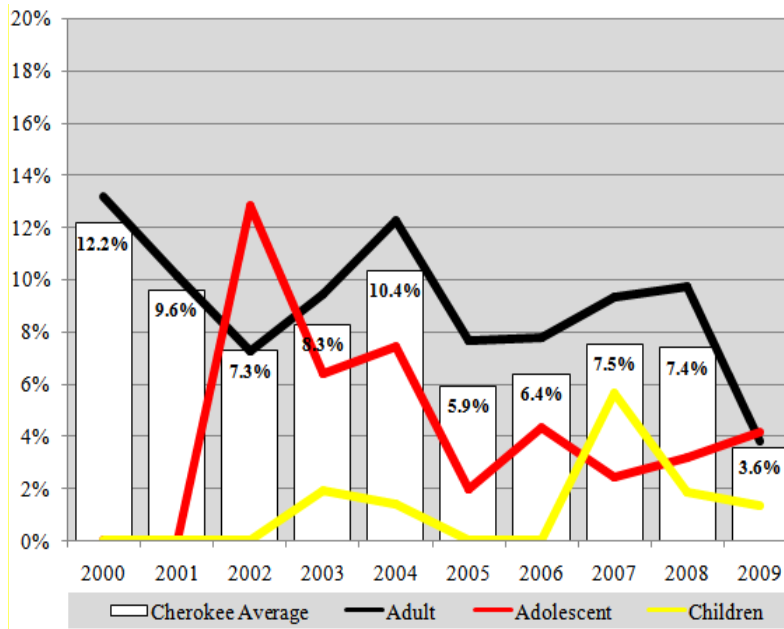
Rehospitalization

Another outcome measurement that may be used to evaluate the effectiveness of treatment interventions is the rate at which individuals are readmitted to an MHI following their discharge. The DHS monitors the readmission rate to the MHI, or rehospitalization rate, for individuals up to thirty (30) days post-discharge.

Similar to the factors that may affect lengths of stay, rehospitalization rates may be affected by an individual’s acuity level, commitment status, personal resources and supports, and the capacity and availability of community based services.

In FY2009, 3.6% of individuals discharged from the Cherokee MHI were rehospitalized at the MHI within thirty (30) days of discharge as shown in Chart 24.

Chart 24
Cherokee Percentage of Rehospitalization within 30 Days of Discharge, FY2000 – FY2009



Individual program rehospitalization rates have increased/decreased as noted in Table 12:

Table 12
Cherokee Change in Percentage of Rehospitalization within 30 Days of Discharge, by Program, FY2000 – FY2009

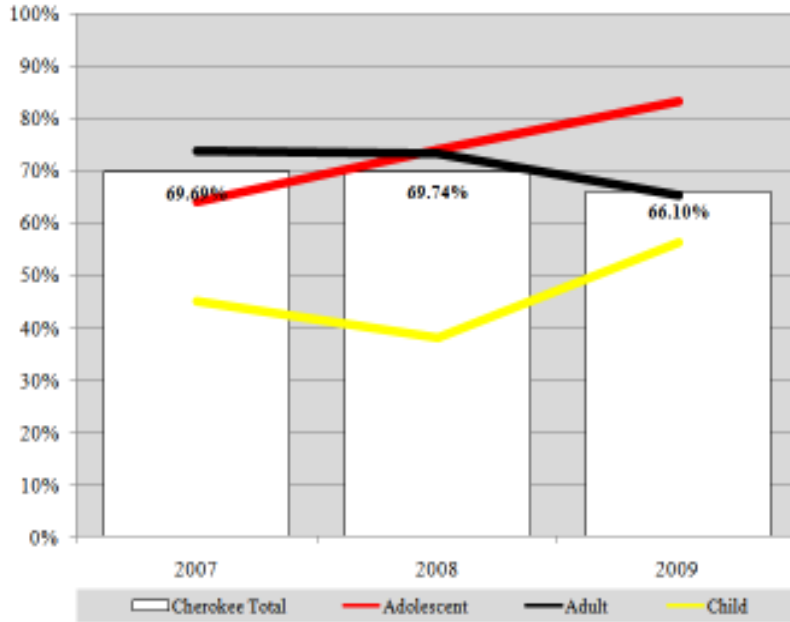
Program	Increase / Decrease
Adult	(71.1 %)
Child (since 2003)	28.4 %
Adolescent (since 2002)	67.5 %
MHI Overall	(70.8 %)

Occupancy Rate

Another outcome measurement that may be used to demonstrate the utilization of an MHI is the rate at which the operational beds are occupied. The DHS monitors the occupancy rate for each program within the MHI by dividing the total number of bed days available in a given reporting period by the total number of inpatient days of care during that same reporting period.

In FY2009, 66.10% of the total available bed days were occupied by an individual as shown in Chart 25.

Chart 25
Cherokee Occupancy Rate, FY2007 – FY2009



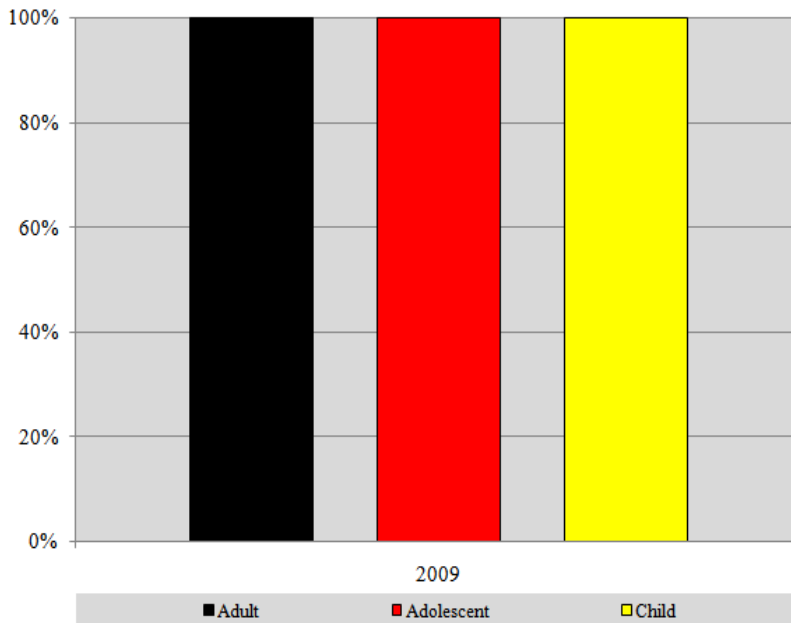
Aftercare & Discharge Planning

Following discharge from the Cherokee MHI, follow-up appointments, or aftercare, is crucial in improving the individual’s likelihood of success in the community. A critical component of effective discharge planning is ensuring that follow-up appointments are set to assist the patient in their continued recovery.

The DHS monitors the aftercare planning rate for each program within the MHI by dividing the total number of individuals discharged in a given reporting period by the total number of individuals discharged with an aftercare plan in place during that same reporting period.

In FY2009, 100.0% of the total individuals discharged from the Cherokee MHI were discharged with an aftercare plan in place as shown in Chart 26.

Chart 26
Cherokee Aftercare Planning Rate, FY2009

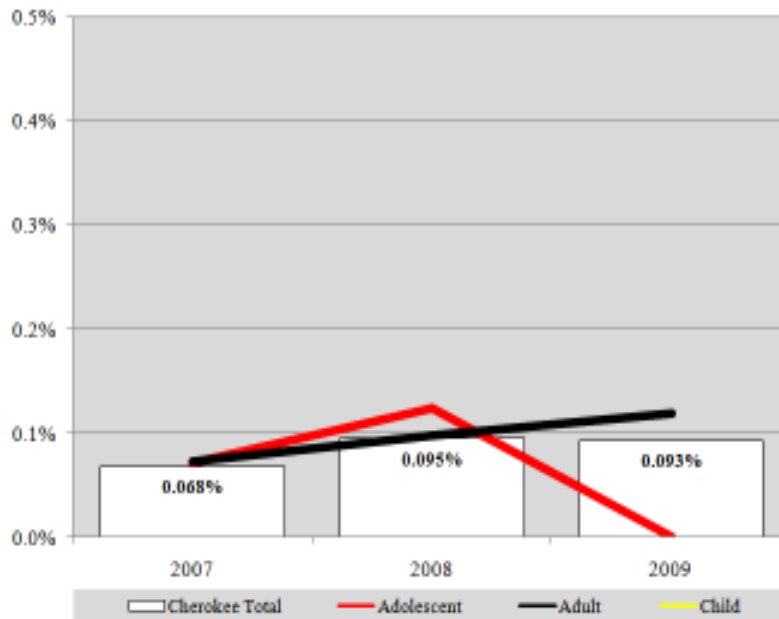


Elopement Rate

Another outcome measurement that is monitored is the rate of elopement within a facility and program. An elopement occurs when an individual's location is unknown by staff responsible for oversight of the individual. The DHS monitors the elopement rate for each program within the MHI by dividing the total number of elopements in a given reporting period by the total number of inpatient days of care during that same reporting period.

In FY2009, the Cherokee MHI had a facility elopement rate of 0.093% as shown in Chart 27.

Chart 27
Cherokee Elopement Rate, FY2007 – FY2009



Human Resources

In FY2010, Cherokee MHI’s funded level of staff includes 206.00 Full Time Equivalent (FTEs) and 2.62 temporary and contract staff to provide services to individuals twenty-four hours per day, seven days per week (Table 13). Each staff person provides essential support either by providing direct service to individuals in the institute, or administrative and other types of critical support services to maintain the facility.

Appendix D includes a high-level table of organization for the Cherokee MHI.

Table 13
Cherokee FTE & Temporary/Contract Personnel, by Category, FY2010

Program	Cherokee		%
	FTE	Temp & Contract	
Direct Care	77.50	-	37.15 %
Professional Treatment	30.00	0.37	14.56 %
Medical Staff	4.00	1.50	2.64 %
Education / Vocational	3.00	-	1.44 %
Administration / Support	91.50	0.75	44.22 %
MHI Total	208.62		

Direct care staff = 37.15 % (77.50)

These staff include Resident Treatment Workers, Registered Nurses, Licensed Practical Nurses, and other direct care positions. Direct care staff assist in providing the range of program and support services identified in the person’s individualized treatment plan, and they are responsible for assuring that basic needs are met.

Professional Treatment staff = 14.56 % (30.37)

These staff include Pharmacists, Activity Specialists, Social Workers, Nurse Supervisors, Psychologists, and other professional treatment positions.

Medical staff = 2.64 % (5.50)

These staff include Physicians, Physician Assistants, and Advanced Registered Nurse Practitioners.

Educational staff = 1.44 % (3.00)

These staff include Educational Administrators, Educators, and Educational Aides.

Administrative and Support staff = 44.22 % (92.25)

These staff include Maintenance Repairers, Word Processors, Custodial Workers, Clerks, Food Service Workers, and other administrative and support positions.

Finances

FY2010 Budget

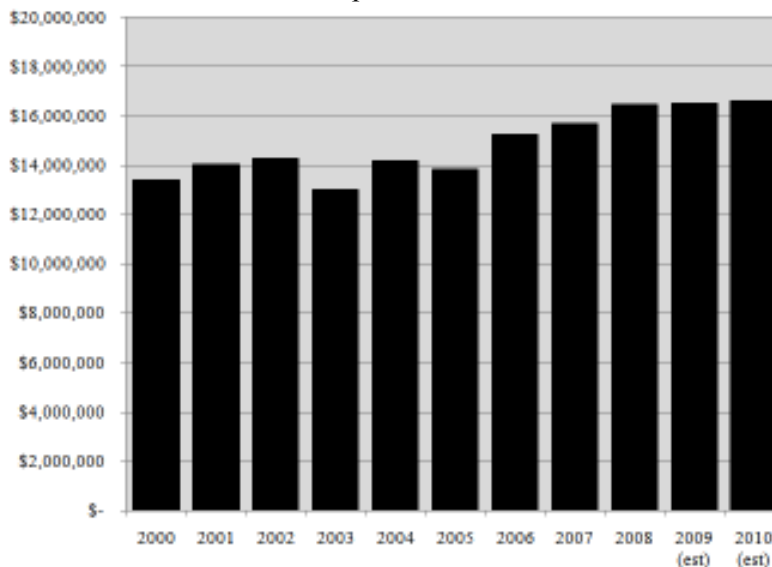
The Cherokee FY2010 MHI estimated budget is \$ 16,619,742:

- \$ 15,207,710 through General Fund appropriations (noteworthy in FY2010 is the inclusion of \$ 673,209 in Human Service Reinvestment Transfer funds (American Recovery and Reinvestment Act of 2009 (ARRA) Federal Stimulus) which helped offset major reductions in services);
- \$ 738,820 in CCUSO per diem;
- \$ 225,814 in rental, lease, and 28E agreements;
- \$ 150,734 in Routine Maintenance revenues;
- \$ 135,713 in PA/ARNP program revenues per a Memorandum of Understanding (MOU) with Iowa Department of Public Health;
- \$ 109,215 in Department of Education (Iowa Administrative Code Chapter 34) revenues; and
- \$ 51,736 in other revenue sources including medical record fees, United States Department of Agriculture (USDA) meal reimbursement, etc.

Eighty-four percent (84%) of the Cherokee MHI budget is utilized for salaries and sixteen percent (16%) for support. The support budget covers key items like medications, food, utilities, etc. In the past five years, Cherokee MHI has experienced a 55.6% increase in medication costs. Routine maintenance, infrastructure funds, and IAC Chapter 34 education funds are appropriated separately.

Between FY2000 – FY2008, Cherokee MHI expenditures increased by 22.6% (Chart 28). The increased costs are primarily due to increased costs of salaries and benefits and some inflation.

Chart 28
Cherokee Financial Expenditures, FY2000 – FY2010



Cost per Day

The Cherokee MHI FY2010 cost per day is noted in Table 14.

Table 14
Cherokee Per Diem Costs*, FY2008 – FY2010

Facility	Program	FY2008		FY2009		FY2010		
		Actual Per Diem Cost	Capped County Rate	Actual Per Diem Cost	Capped County Rate	Actual Per Diem Cost	Capped County Rate	County Payment
Cherokee	Adult	\$ 669.77	\$ 199.65	\$ 638.86	\$ 205.64	\$ 584.03	\$ 205.64	\$ 164.51
	Child	\$ 509.47	n/a	\$ 626.22	n/a	\$ 443.45	n/a	n/a
	Adolescent	\$ 509.47	n/a	\$ 626.22	n/a	\$ 443.45	n/a	n/a

* The capped County rates for the Mental Health Institutes do not reflect the actual cost of care, but rather the capped rate per Iowa Code. The county actually pays a percentage of this rate based on the program (Adult Psychiatric = 80%, Children or Adolescent Psychiatric= 0%).

Financing

The Cherokee MHI receives an upfront appropriation from the General Fund for its operations. The General Fund will be reimbursed a portion of this amount from other revenue sources.

In addition, when funds are available, Cherokee receives funding for routine and major maintenance from the Department of Administrative Services (DAS). The amount of routine maintenance is based on the total funding received by DAS and prorated across twelve state agencies. Major Maintenance is allocated by the State Vertical Infrastructure Advisory (VIAC) Committee. Additionally, Cherokee receives IAC Chapter 34, Individuals with Disabilities Education Act (IDEA), and other education funding from the Department of Education.

Cherokee MHI bills all relevant revenue sources such as Medicaid, Medicare, private insurance, counties, etc. Iowa Code specifies that counties pay 80% for adult programs (\$230.20), and County billings are reduced by other third party payments as applicable. All payments received except the state portion of Medicaid program payments are deposited into the General Fund.

Revenue Sources

If FY2010 projections hold true, up-front revenue sources are noted in Chart 29:

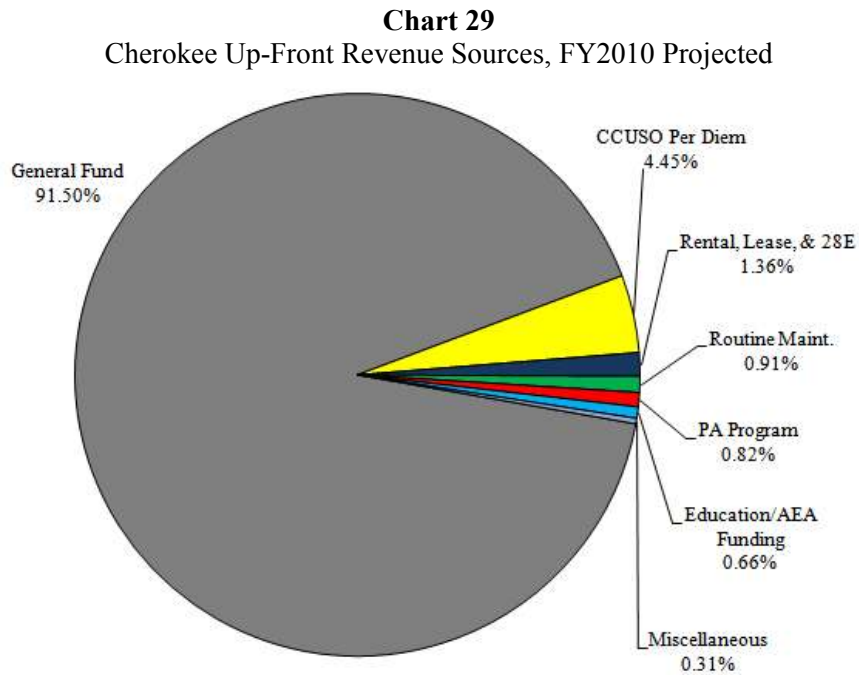
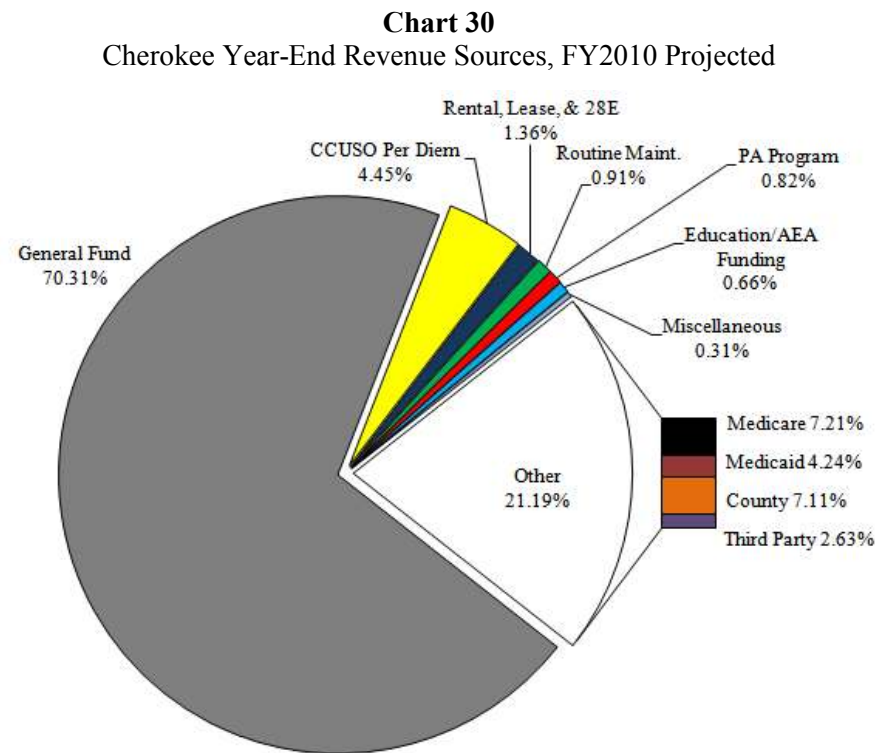


Chart 30 notes the actual funding sources utilized, once all billable entities are considered. At year end, \$ 3,521,948 is projected to be returned to the General Fund, reducing the actual impact by 23.2%.



Appendix B – Cherokee MHI Training & Community Involvement

Education & Training

- Sponsor two Continuing Education Courses annually (100 – 250 attendees per course)
- Operate one of only two Certified Post-Graduate Physician Assistant (PA) Residency Training Programs in the nation
- Consult on PA training nationally
- Provide training sites for:
 - Physician Assistant schools
 - Student nursing programs
 - Student social work internships
 - Advanced Registered Nurse Practitioner programs
 - Pharmacist internships
- Provide training in the Community for:
 - Law enforcement
 - Department of Corrections
 - Buena Vista University
 - The Pride Group
 - Kiwanis Club
 - Other hospitals
- Conduct a National Depression Screening Day
- Share training information with Resident Treatment Facilities & Residential Care Facilities
- Resource for regional schools on Children/Adolescent topics and classroom management

Disaster Planning / Emergency Management

- Listed with Cherokee County as an emergency housing center
- Conduct Emergency Response Training with area nursing homes
- Participate in:
 - Cherokee Fire Department training
 - County-wide emergency drill with the town of Larrabee
 - County-wide pandemic preparedness drills
 - Woodbury County Disaster Plan
- Approved Safe Shelter from storms and house a city fire/emergency vehicle.
- Cherokee MHI staff have attended storm spotter training. The Cherokee MHI has warning sirens on campus and work with the county Communication Center.
- Provided housing for the Midwest Christian Children’s Home for two months after a fire in their facility
- Agreement with Cherokee Work Services to assist in laundry services in emergency
- Regional Disaster Center
 - Cherokee County, City of Cherokee Disaster Recovery Plan for Emergency Housing
 - Provide ready to use space in case of a disaster for the local nursing homes with extra supplies and perform regular drills with those facilities.
 - Conduct mock emergency drills with the city and county and regional medical centers

Community Involvement

- Membership in:
 - Cherokee County Public Health Committee
 - District A Infection Control Committee
 - Chamber of Commerce – hold Chamber Coffee annually
- Provide staff representation on the Iowa Mental Health Planning Council
- Provide education and tours to local high school psychology classes, college students and public tours
- Coordinated efforts with the county landfill on a “Green Initiative”, we would heat our buildings with fuel derived from garbage. Solves environmental and energy concerns while creating new county jobs

Appendix B – Training & Community Involvement (cont.)

Community Involvement (cont.)

- Participation in:
 - Community Health Fair – providing education on mental health topics
 - Annual Winter Chamber Holiday Parade – assist city crew with hanging of downtown Holiday decorations
 - Cherokee Garden Club Tour of Gardens
 - City of Cherokee’s Sesquicentennial celebration
- Worked with Cherokee Economic Development and the B.E.S.T. Committee to promote growth in the county and obtain interest in the vacant buildings.
- DAS Annual Food Drive – goes to the local Mid-Sioux Opportunities in Cherokee
- Provide surplus clothing, bedding, and linens to the local Mid-Sioux Opportunities
- Provide surplus furniture to Cherokee Work Services
- Provide meeting/training site(s) for:
 - Local Central Point of Coordination (CPC) groups and Case Managers
 - Clinical Pastoral Education Program (CPE)
 - County Auditor voter training
 - DAS training
 - Other agencies utilize large auditorium
 - Sioux land Blood Bank for employees to donate blood
 - Highway Patrol conduct training exercises in a vacant building on grounds
 - Local ministers conduct church services for individuals and these are available to the other lessees on campus, as well as local community members
- Provided work and related training to individuals qualifying through Western Iowa Tech.
- Have provided work training site and housing for an AmeriCorps Team for Chamber
- The Washington High School Choir performs Holiday programs for individuals
- Hold annual retired and present employee dinner
- Purchase locally, i.e., Christmas gifts for individuals from monies donated
- Interface with the Cherokee Area Development Committee to maintain and establish new regional employment
- Host:
 - ICN conferences
 - Citizens Advisory Board
 - Register’s Annual Great Bike Ride Across Iowa (RAGBRAI) twice
- Provide staff to speak at engagements in the community
- Campus grounds are used by:
 - The Northwest Iowa District Cross Country Track Meet held on grounds
 - The Washington High School Golf Club uses the driving range
 - Provide tours of the grounds, cemetery, and museum to the public and several schools
 - Walking trail used by the public
 - Frisbee golf course open to the public
 - “Cherokee Welcomes Spring Geocaching Event” – hosted five states, utilizing MHI grounds for a portion of the event – 138 individuals attended.
 - County Conservation Board teaches and uses the trail for cross country skiing lessons
- Dietary proofs, bakes and frosts cinnamon rolls for Crazy Daze for the Chamber of Commerce. They also purchase the frozen dough and icing.
- Dietary makes 1,200 soy cookies for Ag Days for the local Pork Producers
- Cooperative efforts with individuals in town that volunteer their Master Gardener time in helping maintain the Cherokee MHI flower gardens. Many of the Cherokee MHI staff have attended Master Gardening classes through the extension office and volunteer extra hours to maintain the grounds.

Appendix C – Cherokee MHI FY2009 Admissions by County

Cherokee Adult Psychiatric

Ranked by Utilization Rate per 100,000		Ranked by # of Admissions	
Cherokee	245.16	Cherokee	30
Buena Vista	124.06	Buena Vista	25
Palo Alto	72.19	Woodbury	23
O'Brien	69.38	Cerro Gordo	22
Ida	67.76	Marshall	17
Osceola	59.76	Polk	14
Clay	53.26	Plymouth	11
Pocahontas	50.44	Webster	11
Cerro Gordo	49.28	O'Brien	10
Emmet	47.47	Pottawattamie	10
Sac	47.08	Clay	10
Plymouth	44.07	Story	9
Marshall	43.13	Palo Alto	7
Humboldt	30.08	Carroll	6
Dickinson	29.96	Ida	5
Carroll	28.53	Emmet	5
Webster	28.20	Sac	5
Winnebago	26.43	Dickinson	5
Woodbury	22.42	Dallas	5
Hardin	22.22	Osceola	4
Greene	20.07	Pocahontas	4
Calhoun	19.15	Hardin	4
Kossuth	18.59	Sioux	4
Crawford	17.76	Humboldt	3
Lyon	17.02	Winnebago	3
Shelby	15.83	Kossuth	3
Worth	12.87	Crawford	3
Sioux	12.39	Marion	3
Tama	11.16	Greene	2
Pottawattamie	11.14	Calhoun	2
Monona	10.50	Lyon	2
Story	10.01	Shelby	2
Dallas	9.66	Tama	2
Franklin	9.32	Boone	2
Marion	9.10	Linn	2
Guthrie	8.66	Worth	1
Boone	7.52	Monona	1
Wright	7.33	Franklin	1
Other	7.33	Guthrie	1
Cass	7.03	Wright	1
Butler	6.63	Other	1
Mills	6.54	Cass	1
Harrison	6.30	Butler	1
Hamilton	6.17	Mills	1
Page	6.15	Harrison	1
Polk	3.49	Hamilton	1
Warren	2.33	Page	1
Dubuque	1.09	Warren	1
Linn	1.01	Dubuque	1
Johnson	0.85	Johnson	1
Black Hawk	0.79	Black Hawk	1

Appendix C – Cherokee MHI FY2009 Admissions by County (cont.)

Cherokee Child Psychiatric

Ranked by Utilization Rate per 100,000		Ranked by # of Admissions	
Clay	82.85	Woodbury	19
Ida	54.21	Clay	14
Osceola	29.88	Buena Vista	5
Pocahontas	25.22	Ida	4
Buena Vista	24.81	Plymouth	4
Woodbury	18.52	Other	2
Lyon	17.02	Cherokee	2
Cherokee	16.34	Dickinson	2
Plymouth	16.03	Kossuth	2
O'Brien	13.88	Lyon	2
Kossuth	12.39	O'Brien	2
Dickinson	11.99	Osceola	2
Monona	10.50	Pocahontas	2
Palo Alto	10.31	Webster	2
Sac	9.42	Crawford	1
Hamilton	6.17	Des Moines	1
Crawford	5.92	Hamilton	1
Hardin	5.55	Hardin	1
Webster	5.13	Monona	1
Des Moines	2.45	Palo Alto	1
Warren	2.33	Polk	1
Polk	0.25	Sac	1
Other	-	Warren	1

Cherokee Adolescent Psychiatric

Ranked by Utilization Rate per 100,000		Ranked by # of Admissions	
Emmet	94.93	Woodbury	38
Osceola	59.76	Buena Vista	11
Cherokee	57.20	Emmet	10
O'Brien	55.50	Clay	8
Buena Vista	54.59	O'Brien	8
Clay	47.35	Cherokee	7
Sac	47.08	Plymouth	7
Monona	42.02	Crawford	6
Ida	40.66	Dickinson	6
Woodbury	37.04	Sac	5
Dickinson	35.96	Monona	4
Crawford	35.53	Osceola	4
Palo Alto	30.94	Sioux	4
Plymouth	28.05	Carroll	3
Fremont	25.78	Ida	3
Lyon	25.53	Lyon	3
Pocahontas	25.22	Palo Alto	3
Carroll	14.26	Fremont	2
Sioux	12.39	Pocahontas	2
Humboldt	10.03	Cerro Gordo	1
Union	8.35	Delaware	1
Hamilton	6.17	Hamilton	1
Delaware	5.55	Humboldt	1
Webster	2.56	Union	1
Warren	2.33	Warren	1
Cerro Gordo	2.24	Webster	1

Appendix D – Cherokee MHI Table of Organization

