The Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances Program

Report to Congress 2016

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
www.samhsa.gov

The Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances Program

Report to Congress 2016

U.S. Department of Health and Human Services
Alex M. Azar II, Secretary

Substance Abuse and Mental Health Services Administration
Elinore F. McCance-Katz, MD, PhD, Assistant Secretary for Mental Health and Substance Use

Center for Mental Health Services
Paolo del Vecchio, MSW, Director

Division of Service and Systems Improvement
Luis A. Vasquez, LICSW, Director

Child, Adolescent and Family Branch
Gary M. Blau, PhD, Branch Chief

The Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances Program, Report to Congress, 2016 was written by staff at ICF Macro pursuant to a contract (contract number 283-07-0708) and prepared by Westat pursuant to a contract (contract number 283-12-1105) under the direction of the Child, Adolescent and Family Branch, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.

PEP18-CMHI2016

Introduction

The Substance Abuse and Mental Health Services Administration (SAMHSA) is pleased to present the *Report to Congress 2016* for the Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances Program. The Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances Program, also known as the Children's Mental Health Initiative (CMHI), is administered by the Child, Adolescent and Family Branch, Center for Mental Health Services (CMHS), SAMHSA in the U.S. Department of Health and Human Services. Authorized by Public Law 102–321 and re-authorized by Public Law 114-255, (the 21st Century Cures Act), the CMHI provides funds to public entities to promote recovery and resilience for children and youth[1] who have been diagnosed as having a serious emotional disturbance (SED),[2] and their families. The evaluation of these grantees provides a resource to identify service practices that are best suited to meeting the unique needs of children, youth, and families, and to learn about the costs associated with providing a comprehensive array of behavioral health services. From 1993 through FY 2015, SAMHSA provided funds to a total of 300 grantees through the CMHI. Since 1993 the CMHI has funded a total of 173 demonstration grants in states, territories, counties, and federally recognized tribal entities. From FY 2011 to FY 2015, SAMHSA moved to support expansion of systems of care, and funded an additional 127 grants. These included 50 one-year Expansion Planning grants, as well as 77 four-year system of care *Expansion and Sustainability* grants to stimulate the widescale adoption of the system of care approach. These grants promote the expansion of system of care services and supports, including infrastructure development and collaboration and partnership between child-serving systems (e.g., child welfare, education, juvenile justice, primary care and substance abuse services and systems, and strategic financial planning), so that the system of care framework can be brought to scale and sustained after grant funding has ended.

This report presents outcomes from the national evaluation of the cohort of nine demonstration grants, initially funded in FY 2010. The report also presents information about the FY2011–2015 Expansion and Sustainability grants. Grantees' success in implementing systems of care based on core values—cultural and linguistic competence, family-driven and youth-guided care, community based, and least restrictive environment—is also highlighted in this report.

[1] Throughout this report, the term *child* refers to someone younger than 11 years old, whereas the term *youth* refers to someone 11-22 years of age.

[2] The authorizing legislation for the CMHI uses the phrase *serious emotional disturbance* (SED). Hereafter, this report uses the term *serious emotional disorders*, except when referring directly to the original authorizing legislation.

Highlights

➔ **The children and youth served by CMHI grantees demonstrate the need for systems of care services and supports:**

- The CMHI grantees initially funded in 2010 served 3,218 children and youth birth to age 22.
- Almost two-thirds of children and youth served were living below the federal poverty level when they entered services.
- The CMHI has been successful in providing services and supports to populations where health and other disparities exist, including Hispanic (32.6 percent), Black or African American (31.2 percent), and American Indian or Alaska Native (10.8 percent) children and youth.
- Most of the children and youth served lived in a household with someone who showed signs of depression (71.9 percent) and had at least one biological family member who had experienced a drug or alcohol problem at some point in their lives (55.3 percent).
- Children and youth served had high rates of adverse childhood experiences, including exposure to domestic violence at some point in their lives (39.6 percent), and experience of domestic violence in the 6 months prior to entering services (29.0 percent).
- Over two thirds (69.2 percent) of children and youth served had an identified health issue within six months prior to intake.
- Over 20 percent of children and youth who entered system of care services did not attend school at least 80 percent of the time, 47.2 percent had been suspended or expelled, and 34.3 percent received D's and F's.

➔ **The children and youth served by CMHI grantees significantly benefited from systems of care services and supports:**

- Across CMHI grantees, the services and supports most frequently used within the first 6 months of receiving services were individual therapy, assessment/evaluation, case management, and medication monitoring.
- There were significant improvements in behavioral and emotional symptoms and functioning among children and youth. Total mean symptom scores significantly improved by over five points from 68.5 at intake to 63.3 at 12 months. The proportion of children and youth with clinical levels of impairment in functioning dropped from 70.6 percent at intake to 56.4 percent at 12 months.
- Thoughts of suicide and suicide attempts among children and youth served fell significantly from intake to 12 months as reported by caregivers, children, and youth respondents. Thoughts of suicide dropped from 19.4 percent to 12.2 percent, a 37.5 percent decrease in suicidal ideation. Suicide attempts dropped from 9.1 percent to 1.7 percent, an 80.8 percent decrease in suicidal attempts.
- The proportion of children and youth who attended school regularly, and who received grades of C or better, significantly increased from intake to 12 months. Attendance increased from 70.6 percent to 83.1 percent, a 17.6 percent improvement. The proportion receiving grades of C or better increased from 58.2 percent to 74.5 percent, a 28.1 percent improvement.
- Youth served by CMHI-funded grantees reported a significant decrease of 42.6 percent (68.8 percent at intake to 48.2 percent at twelve months) in unlawful activities.

➔ **The CMHI grantees demonstrated reductions in hospitalization and arrest costs:**

- CMHI grantees reduced average per-child inpatient hospitalization costs by 10.1 percent, from $1,949 to $1,752. This translates to an estimated savings of $31,384 across the CMHI grantees.
- CMHI-funded grantees reduced average arrest costs by 40 percent, from $1,475 to $885. This translates to an estimated savings of $304,368 across the CMHI grantees.

What Is a System of Care?[3]

Between 1993 and 2015, CMHS funded a total of 300 grants in states, territories, counties, and federally recognized tribal entities. Grantees used their funding to create and/or expand systems of care that serve children and youth with serious emotional disturbances, and their families.

The term refers to a coordinated network of community-based services and supports organized to meet the challenges of children and youth and their families. The following are important components of the system of care services:

- family driven;
- individualized, strengths based, and evidence informed;
- youth guided;
- culturally and linguistically competent;
- provided in the least restrictive environment;
- community based;
- accessible; and
- collaborative and coordinated across an interagency network.

The National Evaluation of the CMHI

National evaluation of the CMHI is mandated by the authorizing legislation Section 565 of the Public Health Service Act for the purpose of describing, monitoring, and chronicling the progress of the program. The goal is to assess the outcomes of children and youth and their families who are served by CMHI grantees. Details on "longitudinal studies of outcomes of services provided by such systems, other studies regarding such outcomes, the effect of activities under this subpart on the utilization of hospital and other institutional settings, the barriers to and achievements resulting from interagency collaboration in providing community-based services to children with a serious emotional disturbance, and assessments by parents of the effectiveness of the systems of care" are required by law (Public Law 102–321, 42 U.S.C. § 290ff–4[c][1]).

Additionally, the law mandates that "the Secretary shall, not later than 1 year after the date on which amounts are first appropriated under subsection (c) of this section, and annually thereafter, submit to the Congress a report summarizing evaluations carried out pursuant to paragraph (1) during the preceding fiscal year and making such recommendations for administrative and legislative initiatives with respect to this section as the Secretary determines to be appropriate" (Public Law 102–321, 42 U.S.C. § 290ff–4[c][2]).

[3] Stroul, B., Blau, G., & Friedman, R. (2010). Updating the system of care concept and philosophy. Washington, DC: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health.

Case Study

Tiwahe Glu Kini Pi (Rosebud Sioux)

Providing culturally and linguistically competent services often presents challenges for system of care partners. For the **Tiwahe Glu Kini Pi** system of care that serves children and youth in Lakota Nation, this meant looking first to the cultural practices of the Lakota people. According to Marlies White Hat, director of **Tiwahe Glu Kini Pi**, "The first thing that our program did was to call all the people we serve relatives rather than clients. It puts a whole new spin on your work. We are all on equal footing, whether it's with other people or the rest of creation. It's just one way of making sure that the services that are provided are culturally and linguistically responsive to the needs of the community."

In honor of the Lakota culture, system of care staff have embraced cultural events such as naming ceremonies, during which children and youth receive a Lakota name, and the use of sweat lodges. Because horses play a key role in Lakota culture, **Tiwahe Glu Kini Pi** focused on working with horses to provide positive experiences for children and youth. Using these experiences as a compliment to evidence supported practices, served to infuse Lakota and system of care values into established services provided by a Lakota elder and therapist, and helps to calm children when they are upset.

The story of Hotah, a young boy who was bullied at school, speaks to the success of the program. After working with his horse for several months, Hotah became so attached to his horse that one day he cried all the way home. When asked the reason for his tears, he told his grandmother that he missed working with his horse. Because of his attachment to his horse and what he had learned during his therapy sessions, Hotah was able to cope with the bullying he experienced from his peers at school. When confronted by the bullies, Hotah's initial instinct was to fight with them, but thinking about his horse helped him to stay calm and not fight with the bullies.

Horses also help to break down the discrimination in the community against seeking mental health services. Staff regularly take the horses to community events as this creates a natural way to engage families who might need services, but are hesitant to ask. As a way to honor the work of the horses, local artists created and presented regalia to the horses on National Children's Mental Health Awareness Day.

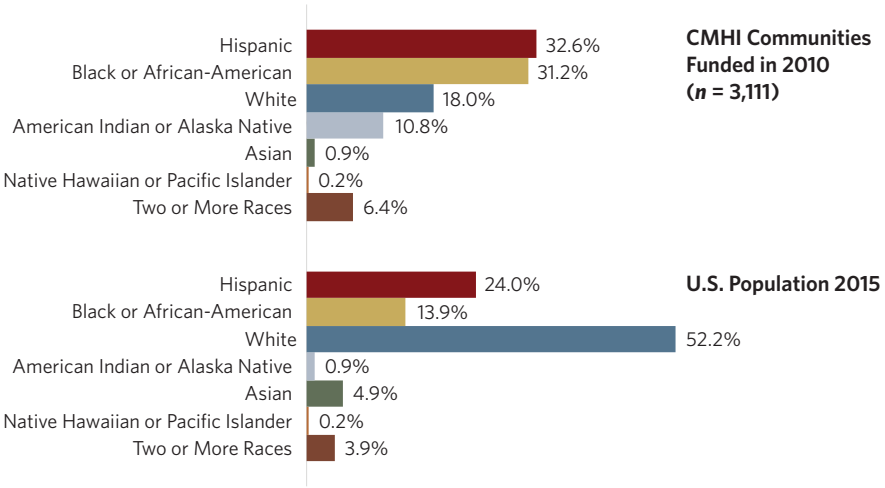
Description of Children, Youth, and Their Families

The demographic characteristics of children and youth at intake into CMHI-funded system of care services differed from those of the general population in the United States. In comparison to children and youth of similar age nationally, children and youth receiving CMHI services were more likely to be male. The proportion of children from birth to 5-years enrolled in the CMHI was greater than that of the same age group in the general U.S. population. This was due primarily to the fact that two of the nine grantees served only young children age birth to 5-years.

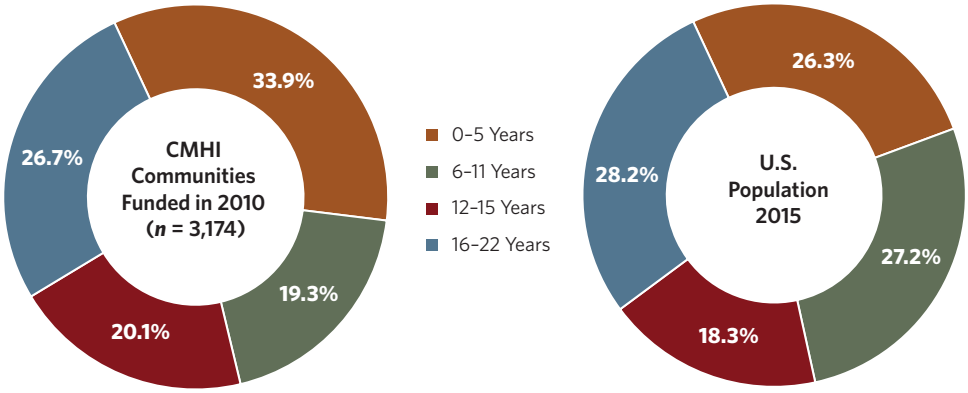
The CMHI has been successful in providing services and supports to some populations where health and other disparities exist. For example, Exhibit 1 shows the proportion of American Indian/Alaska Native children and youth served was almost 12 times greater than the proportion in the U.S. population. This difference is largely attributable to the fact that two of the nine grantees are tribal organizations. The proportion of African American children and youth was more than double the percentage in the U.S. population.

Exhibit 1. Who Are the Children and Youth Served in Systems of Care?

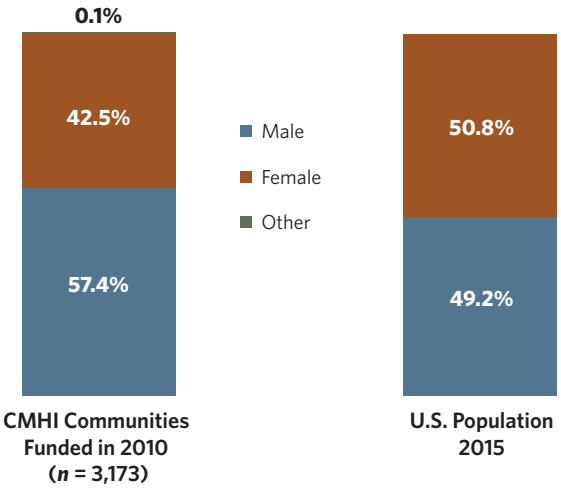
Race/Ethnicity



Age



Gender



Top 5 Mental Health Diagnoses at Intake (*n* = 2,338)

29.3%	**Mood Disorders**
24.9%	**Attention-Deficit/Hyperactivity Disorder**
15.8%	**Oppositional Defiant Disorder**
15.3%	**Adjustment Disorders**
12.6%	**PTSD or Acute Stress Disorder**

Most children and youth under the age of 18 years who were served by CMHI-funded grantees were in the legal custody of parents, adoptive parents, or relatives (91.5 percent) (Exhibit 2). At intake, 42.3 percent were in the legal custody of their biological mother only. An additional 3.7 percent were in the legal custody of their biological father only. Of the children and youth who were not in the legal custody of their parents, 9.4 percent were in the legal custody of other relatives (e.g., grandparents, aunts and/or uncles, or siblings).

The remainder of children and youth were either wards of the state (6.1 percent), lived with an adult family friend (0.3 percent), or were in another custody status (2.0 percent).

Exhibit 2. Custody Status at Intake (n=970)	%
Biological Mother	42.3
Two Biological or One Biological and One Step or Adoptive Parent	31.2
Grandparents	7.5
Ward of the State	6.1
Adoptive Parent(s)	4.9
Biological Father	3.7
Aunt and/or Uncle	1.5
Siblings	0.4
Adult Friend	0.3
Other	2.0

Life Experiences and Environmental Challenges of Children and Youth Entering Services in CMHI-Funded Systems of Care

At entry into services, caregivers of children and youth provided information about their child's life experiences. Caregivers' responses show that many children and youth have been exposed to multiple adverse childhood experiences:

Adverse Childhood Experiences
61.6 percent of children and youth had a biological family member who had previously been diagnosed with depression, and 71.9 percent lived in a household with someone who showed signs of depression in the past 6 months.
55.3 percent of children and youth had at least one biological family member who had experienced a drug or alcohol problem at some point in their lives, and 35.7 percent lived in a household where someone had a drug or alcohol problem.
44.6 percent of children and youth had a biological family member diagnosed with a mental illness other than depression at some point in their lives.
39.6 percent of children and youth had been exposed to domestic violence at some point in their lives, and 29.0 percent had experienced domestic violence in the 6 months prior to entering services.
Environmental Challenges
83.6 percent of caregivers reported problems within their child's primary support group.
51.7 percent of caregivers reported problems related to the child's social environment.
21.5 percent of children and youth had run away from home.
47.8 percent of children and youth experienced educational problems.
19.3 percent of caregivers reported economic problems.
17.0 percent reported problems related to the child's interaction with the legal system or crime.
16.7 percent had problems with housing.

School Attendance and Performance

Over 20 percent of children and youth who entered system of care services did not attend school at least 80 percent of the time in the 6 months prior to intake. More than one-third of children (34.3 percent) who received traditional letter grades were reported to have received average grades of D or F on their most recent report card.

Disciplinary Absence

Nearly half (47.2 percent) had been either suspended or expelled in the 6 months prior to intake.

Mental Health Status and Substance Use History of Children and Youth at Intake

Children and youth entered system of care services with a variety of behavioral and emotional symptoms and met the criteria for a range of clinical diagnoses assigned by professionals, as defined by the fourth and fifth editions of the *Diagnostic and Statistical Manual for Mental Disorders* (DSM–IV–TR; American Psychiatric Association, 2000; DSM-5; American Psychiatric Association, 2013).

The most common DSM-IV-TR diagnoses assigned to children at intake were mood disorders (29.3 percent), attention-deficit/hyperactivity disorder (24.9 percent), oppositional defiant disorder (15.8 percent), adjustment disorders (15.3 percent), posttraumatic stress disorder (PTSD) or acute stress disorder (12.6 percent), disruptive behavior disorder (9.7 percent), anxiety disorders (not including PTSD or acute stress; 8.9 percent), and schizophrenia and other psychotic disorders (2.9 percent). Caregivers reported that 20.7 percent of youth aged 11 and older had a history of substance use disorder at some point in their lives, and 15.0 percent had used substances within the 6 months prior to entering services. Children and youth were asked about their substance use history and 34.8 percent reported having used drugs or alcohol in the past 6 months. In addition, 10.9 percent of children and youth were reported to have ever attempted suicide.

Health Status and Medication Use of Children and Youth at Intake

Caregivers reported that 69.2 percent of children and youth with intake data on health issues were taking or had taken medication for physical ailments within the 6 months prior to intake. The most common health problems impacting children and youth at intake were: allergies (33.8 percent), asthma (32.4 percent), and migraine headaches (7.9 percent). About a third (34.1 percent) of children and youth were currently taking psychotropic medications, or had within the past 6 months.

Poverty Status of Children, Youth, and Caregivers

About two-thirds of children and youth (64.2 percent) served by CMHI grantees were living below the federal poverty level.[4] When asked about having money for basic needs, 20.5 percent of caregivers reported only sometimes having enough money for basic needs, 12.8 percent had enough money about half the time, and 2.8 percent reported never having enough money for basic needs. One-half of the caregivers (50.9 percent) had not been employed in the 6 months prior to their child entering system of care services; 11.2 percent attributed their lack of employment to their child's emotional problems. These numbers improved after entering services.

[4] See http://aspe.hhs.gov/2015-poverty-guidelines. The actual poverty threshold for a family of four in 2015 was $24,250, dependent on their location.

Outcomes of Children, Youth, and Families

There was significant overall improvement in behavioral and emotional symptoms as well as improved functioning from intake to 12 months among children and youth served in systems of care. Exhibit 3 shows that from intake to 12 months, according to caregiver report, internalizing and externalizing symptoms declined significantly. Total symptoms also decreased over time (Child Behavior Checklist [CBCL]; Achenbach & Rescorla, 2000; 2001).[5]

Reduction in Suicidal Thoughts and Suicide Attempts

Exhibit 4 shows that according to the combined reports of caregivers and children and youth, thoughts of suicide among children and youth fell significantly over time. In addition, reports of suicide attempts in the past 6 months showed a significant reduction from intake to 12 months.

Exhibit 3. Mean CBCL-Scaled Scores Among Children and Youth, Grantees Initially Funded in FY 2010

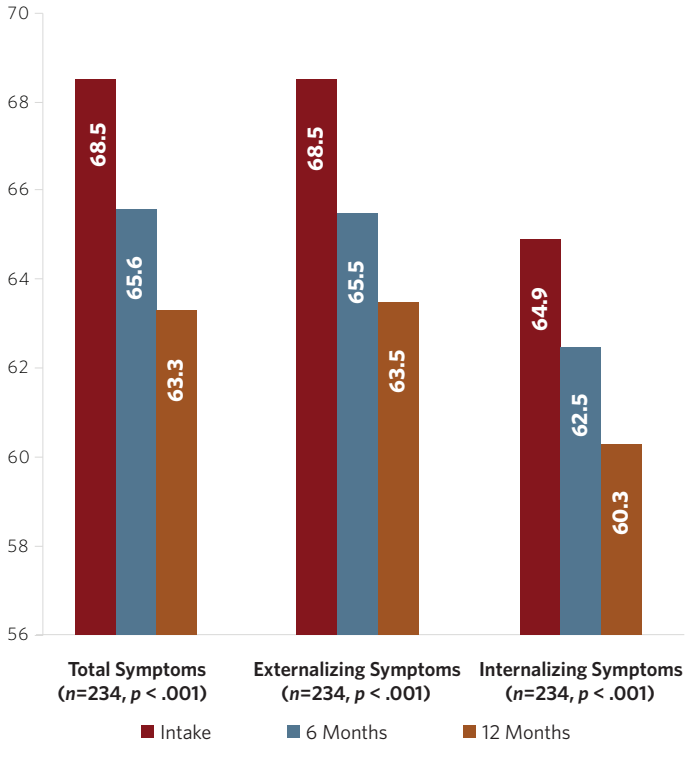
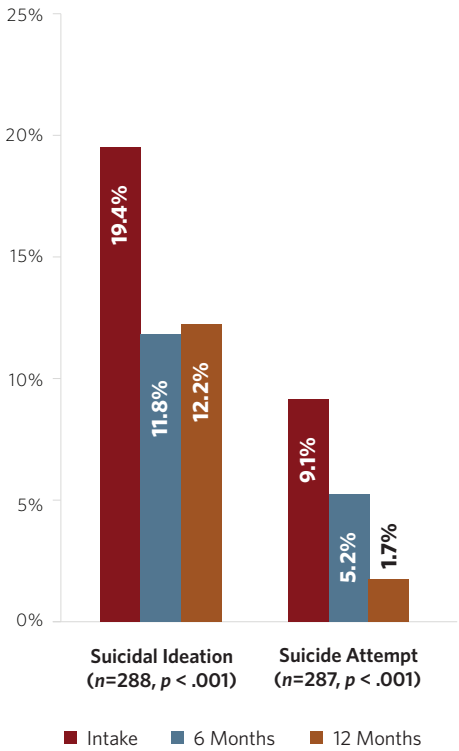


Exhibit 4. Rates of Suicidal Ideation and Suicide Attempts in Previous 6 Months, Grantees Initially Funded in FY 2010



[5] Child Behavior Checklist (CBCL) Total Symptom scores less than 60 are considered in the normal range, 60-63 represent borderline scores, and scores greater than 63 are in the clinical range.

Improvement in Functioning

At the entry into system of care services, children ages 2 to 19 completed the Columbia Impairment Scale (CIS)[a] and 70.6 percent were in the clinically impaired range. Within 6 months of receiving services, this percentage was reduced to 56.4 percent, and remained steady at 56.4 percent at 12 months ($p < .001$).

Improvement in Anxiety Symptoms

At intake, children ages 11 to 18 completed the Revised Children's Manifest Anxiety Scale and 25.7 percent of youth reported symptoms of anxiety that were clinically significant.[b] After 6 months, this proportion fell slightly (20.0 percent) and by 12 months the proportion was 19.0 percent ($p<.10$).

Improvement in Living Situations

Prior to entering system of care services, caregivers reported that 78.3 percent of children and youth had lived in one place in the previous 6 months. This proportion increased to 82.3 percent after 6 months and 86.3 percent after 12 months ($p < .01$).

Improvement in Behavioral and Emotional Strengths

From intake to 6 months, 28.8 percent of youth reported significant improvement in their overall strengths on the BERS,[c] and at 12 months, that proportion increased to 36.4 percent.

Caregivers also reported increased strengths among the children and youth who received system of care services. More than a quarter (26.7 percent) of caregivers rated their child as showing significantly more strengths after 6 months than they did at intake. After 12 months, this proportion increased to 28.7 percent.

Improvement in Educational Outcomes

The proportion of children and youth who attended school regularly (defined as attending 80 percent or more of scheduled days) increased from 70.6 percent in the 6 months prior to intake to 83.1 percent ($p < .01$) after 12 months. The proportion of children and youth who received good grades (defined as an average grade of C or better on the previous report card) increased from 58.2 percent prior to intake to 66.3 percent after 6 months. After 12 months, the proportion increased to 74.5 percent ($p < .01$).

Improvement in Depression Symptoms

Prior to intake into services, children ages 11 to 21 completed the Reynolds Adolescent Depression Scale and 22.9 percent of youth reported symptoms of depression that were above the clinical threshold.[d] After 6 months, this proportion fell to 15.0 percent, and this improvement held steady with 14.3 percent reporting symptoms above the clinical threshold after 12 months ($p < .05$).

[a] Columbia Impairment Scale (Bird et al., 1993)
[b] Revised Children's Manifest Anxiety Scale, Second Edition (Reynolds & Richmond, 2008)
[c] Behavioral and Emotional Rating Scale—Second Edition (Epstein, 2004)
[d] Reynolds Adolescent Depression Scale, Second Edition (Reynolds, 1986)

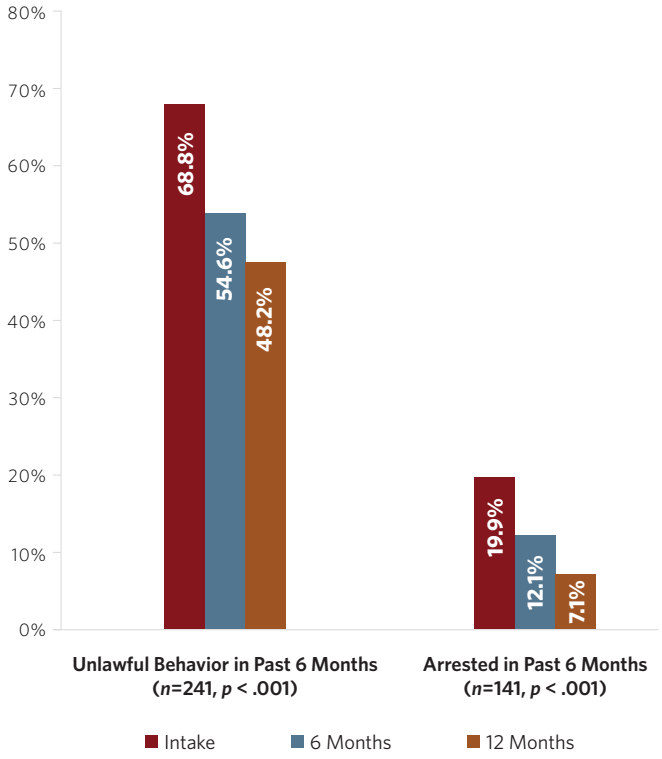
Reduction in Youth Self-Report of Unlawful Behavior and Involvement in the Criminal Justice System

Youth aged 11 years and older were asked how often they engaged in unlawful behaviors such as taking items from a store without paying, destroying property, selling drugs, or taking things from another person by force. They were also asked about their involvement with the juvenile and adult criminal justice systems. Exhibit 5 shows that the proportion of youth reporting involvement in these activities decreased significantly from intake to 12 months (p<.01).

Reductions in Caregiver Strain

The Caregiver Strain Questionnaire (Brannan, Heflinger, & Bickman, 1998) assesses three related dimensions of caregiver strain: subjective externalizing strain (e.g., expressing anger or resentment toward one's child), subjective internalizing strain (e.g., feeling worry or guilt), and objective strain (e.g., observable disruptions in family life such as lost work time) as part of a total global strain score. More than one quarter (28.2 percent) of caregivers reported significant improvement in global strain after 6 months, and 37.4 percent reported significant improvement after 12 months (p<.01).

Exhibit 5. Proportion of Youth Aged 11 and Older Who Engaged in Unlawful Behavior and Who Were Arrested, Grantees Initially Funded in FY 2010



Families' Perceptions of Grantees' Implementation of System of Care Values

The Eight System of Care principles were developed with a distinct philosophy to guide service delivery. Systems of care are founded upon four core values: family driven, youth driven, culturally and linguistically competent, and community based services (Stroul, Goldman, Pires, & Manteuffel, 2012). Data gathered from youth and caregivers show that systems of care have been successful in building systems consistent with the core values. *Family driven* means that families are the primary decision makers in the care of their children as well as determining the policies governing their children's care. The majority of caregivers have been engaged in making decisions regarding the care of their child. Overall, 88.8 percent of caregivers agreed that they were able to participate in their child's care. More specifically, 83.4 percent agreed that they were able to help choose their child's services, 87.9 percent agreed that they helped choose their child's treatment goal, and 95.2 percent agreed that they were able to participate in their child's treatment.

Youth driven means that young people have the right to make decisions about their care and the policies and procedures that govern the care of all youth. The majority of youth age 11 years and older who were interviewed reported that they were engaged in decisionmaking regarding their care. Among these youth, 61.5 percent reported that they helped choose their own services, and 77.9 percent reported that they helped choose their own treatment goals. Overall, 87.8 percent believed that they participated in their own treatment.

Cultural and linguistic competence means the acceptance and attention to the dynamics of understanding cross-cultural differences, the ongoing development of cultural and linguistic knowledge, and the resources and flexibility within service models to meet the needs of the populations served. To address the *cultural and linguistic competence* needs of the populations served, agencies, programs, and services must respond to cultural, racial, and ethnic differences. Data collected at intake show that caregivers felt that the cultural competence of providers was important to them. Within 6 months of receiving system of care services, a majority (64.3 percent) of caregivers reported that it was either "very important" or "extremely important" that their provider understands the family's culture, and 54.0 percent wanted the family's culture[6] incorporated into the services. More than four-fifths (89.4 percent) of caregivers reported that their service providers understood the family's beliefs about mental health "most of the time" or "always," and 89.2 percent reported that their service providers "always" spoke the same language that they did. The majority (63.1 percent) of caregivers reported that providers "often" or "always" asked about the family's cultural beliefs when planning services and 81.4 percent were attentive to the family's cultural needs.

To be *community based*, the management and decisionmaking responsibility for services must be located within the community. The array of system of care services have been expanded to include cost-effective home- and community-based interventions in locations that are convenient to families. Within 6 months of receiving system of care services, caregivers reported that the most common service locations were private mental health practices (77.9 percent), schools (51.0 percent), and child welfare offices (34.3 percent). Among the families who received services in these settings, 92.3 percent of caregivers rated the location of the mental health practices as convenient, 96.0 percent rated school-based locations as convenient, and 87.0 percent rated locations in child welfare offices as convenient.

[6] Culture is defined as "the integrated pattern of human behavior that includes thoughts, communication styles, actions, customs, beliefs, values, and institutions of a racial, ethnic, religious, or social group." Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed. Washington, DC: CASSP Technical Assistance Center, Georgetown University Child Development Center.

Service Use, Satisfaction, and Services and Costs

Service Use and Satisfaction with Services

The services and supports most frequently used within the first 6 months of receiving services were individual therapy (71.3 percent), assessment/evaluation (61.9 percent), case management (47.8 percent), and medication monitoring (43.4 percent). Among caregivers and youth surveyed at 6 months after entering system of care services, 69.8 percent of caregivers and 64.4 percent of youth reported overall satisfaction with the services that they received. Systems of care were also rated highly by caregivers and youth for providing culturally and linguistically competent services.

The majority of caregivers (89.4 percent) reported that their service providers "most of the time" or "always" were understanding of the family's cultural beliefs about mental health and mental health treatment. Additionally, 63.1 percent of caregivers reported that their providers asked them about their cultural beliefs while providing services, and 81.4 percent of providers were responsive to the cultural needs of the family.

Services and Costs

Based on data submitted by seven grantees initially funded in FY 2010 describing 43,082 community-based support[7] and community-based therapeutic[8] services received by 1,120 children and youth between 2011 and 2016, the average total payment across all service sectors during this time period was $4,176.29 per child/youth (median = $1,204.78), or an average cost of $176.74 per child/youth per month (median = $50.27). Medicaid (88.7 percent), mental health agencies (6.6 percent), and CMHI grant funds (4.6 percent) contributed the majority of all payments, with unpaid informal services and private insurance accounting for less than 1 percent of all recorded payments.

Youth and Caregivers are Satisfied

- Overall, almost all of the responding youth (96.6 percent) and caregivers (98.7 percent) reported satisfaction with the cultural sensitivity[9] of the services received.
- Most caregivers (91.9 percent) reported that they were either "probably" or "absolutely" likely to recommend the program to others if they needed services.
- When asked whether they would revisit the program if their child needed services in the future, 88.4 percent responded that they "probably" or "absolutely" would do so.

[7] Community-based support services include caregiver support/family support, respite care, advocacy, legal support, recreational activity, training/tutoring/education/mentoring, social work service, vocational/life skills training, transportation, child protective service, case evaluation and monitoring, family preservation, and adoption service.

[8] Community-based therapeutic services include intake/screening/diagnosis/assessment, evaluation, consultation/meeting, case management/clinical coordination, service planning, crisis intervention/crisis stabilization, emergency room psychiatric service, early intervention/prevention, medication treatment/monitoring/administration, medical care/physical health care, day treatment, partial day treatment, individual therapy/counseling, group therapy/group counseling, family therapy/family counseling, psychosocial rehabilitation, diversion/prevention service, probation/monitoring, early intervention, preschool special education program, special education classes, physical/occupational/speech service, and teacher aide service.

[9] The challenge for the providers of services and supports is to develop those services and supports in a manner that links with the thoughts, communication styles, actions, customs, values, beliefs, and institutions to ensure that the needs of the children, youth, andfamilies are met within the context of their culturally informed world view (Stroul & Blau, 2008).

The average number of days that children and youth receiving system of care services spent in inpatient hospital care decreased from 0.69 days in the 6 months prior to intake to 0.62 days in the 6 months prior to the 12-month follow-up interview. The average charge per day for inpatient hospital care for children and youth between 1 and 18 years of age with a primary diagnosis of a serious emotional disorder is estimated to be $2,825.08.[10] When this daily rate is multiplied by the average number of days of inpatient psychiatric hospitalization of children and youth in a system of care between 6 months prior to intake and 12 months after intake, the average estimated total per-child inpatient hospitalization cost decreased from $1,949.31 to $1,751.55 over the year, representing a 10.1 percent reduction in average per-child inpatient hospitalization costs.

According to the Bureau of Justice Statistics the average number of arrests was calculated using data collected from 179 youth 11 years of age and older who provided information at intake and at the 12-month follow-up interview. The average number of arrests decreased from 0.25 in the 6 months prior to intake to 0.15 between 6 months and 12 months after intake.

The estimated average cost per juvenile arrest is $5,900.42 in 2016 dollars.[11] This estimate includes only the cost of processing an arrest and does not include other related costs such as the costs of juvenile detention or trial costs. When this cost per juvenile arrest is multiplied by the average number of arrests, the average estimated cost per youth due to arrest in the 6 months prior to entering CMHI-funded system of care services was approximately $1,475.10. This cost decreased to an average estimated cost per youth of $885.06 between 6 months and 12 months after intake. This represents a 40 percent reduction in average per-youth costs, or $590.04 less spent per youth.

Exhibit 6 shows the total payments by service category over time for children and youth with available payment data between intake and 12 months.

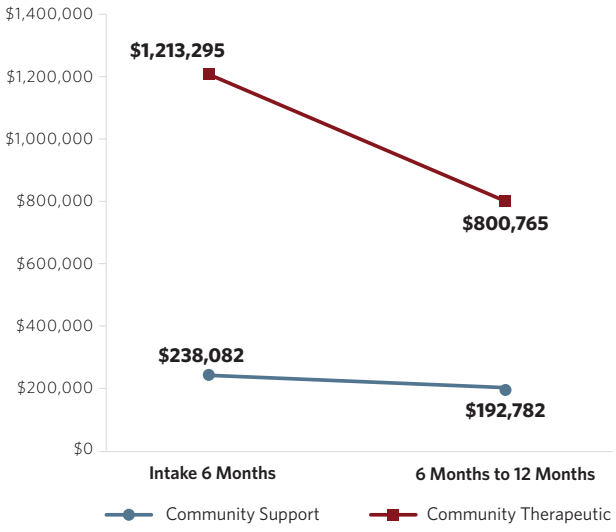
The total amount paid for services included in this analysis (community-based support and community-based therapeutic) declined by 31.5 percent over 12 months, from $1,451,377 to $993,547. This reduction was driven primarily by a decrease in payments for community-based therapeutic services.

Fewer Societal Costs

- Average per-child inpatient hospitalization costs are reduced by 10.1 percent.
- Average arrest costs are reduced by 40 percent.

Total payments for community-based therapeutic services followed a pronounced downward trend that resulted in a 34.0 percent total cost reduction over the first 12 months of services. Payments incurred for community-based support services represent a relatively smaller proportion of total payments and resulted in a 19.0 percent total cost reduction over 12 months.

Exhibit 6. Total Payments for Community-Based Support and Therapeutic Services from Intake to 12 Months between December 2, 2011, and February 9, 2016, in Seven Grantees Initially Funded in 2010



(*n* = 485 children and youth; 10,560 service events)
Note: Analysis is limited to only those children and youth whose payment data were available across both 6-month intervals.

[10] The cost estimate is provided by the Healthcare Cost and Utilization Project's 2011 Nationwide Inpatient Sample (NIS) of the Agency for Healthcare Research and Quality (Agency for Healthcare Research and Quality, 2011), and adjusted to 2016 dollars using the July 2016 Bureau of Labor Statistics Consumer Price Index Calculator (http://www.bls.gov/data/inflation_calculator.htm, retrieved July 22, 2016).

[11] The estimated cost comes from 2000 data from the Bureau of Justice Statistics (National Center on Addiction and Substance Abuse, 2004), and adjusted to 2016 dollars using the July 2016 Bureau of Labor Statistics Consumer Price Index Calculator (http://www.bls.gov/data/inflation_calculator.htm, retrieved July 22, 2016).

Case Study

Saginaw MAX (Saginaw County, Michigan)

Systems of care are designed to promote partnerships across child-serving agencies that care for children and youth with serious emotional disorders. These systems have routinely engaged sectors such as child welfare, social services, mental health, education, juvenile justice, and faith-based agencies. Less frequent contributions have been made by law enforcement, and agencies such as the Department of Natural Resources are almost never engaged. The work done by **Saginaw MAX** system of care, located in Saginaw County, Michigan, demonstrates how thinking in innovative ways results in a win-win situation that engages unusual partners and helps youth and families to succeed.

In seeking to develop services to build the job readiness skills of youth and young adults in the process of transitioning to adulthood, **Saginaw MAX** piloted a jobs program in partnership with the Department of Natural Resources. Youth and young adults enrolled in **Saginaw MAX** were employed to work at children's camps and in the state parks. During their employment they benefited from supported employment services that taught them about the workplace and helped them in building skills and experience. **Saginaw MAX** also partnered with several faith-based agencies in the community and trained their workers to recognize and respond to signs of trauma and mental health concerns among children and youth in their congregations and the community. Volunteers were also engaged as mentors to youth.

In conjunction with the faith-based communities, **Saginaw MAX** also implemented six new summer enrichment programs for children in neighborhoods where these were sparse and much needed. Another major achievement was the partnership between **Saginaw MAX** and the local police departments in starting the "Project Fish" initiative. As part of this initiative, uniformed police officers take youth on fishing trips and in the process develop friendships. Police officers also use the opportunity to discuss with youth practical and life-enriching topics, such as the laws related to fishing. At the end of each program, in addition to life lessons learned, each youth receives the gift of a fishing rod.

Saginaw MAX has clearly embraced the values of systems of care in novel ways. The program has demonstrated the true meaning of collaboration and partnership.

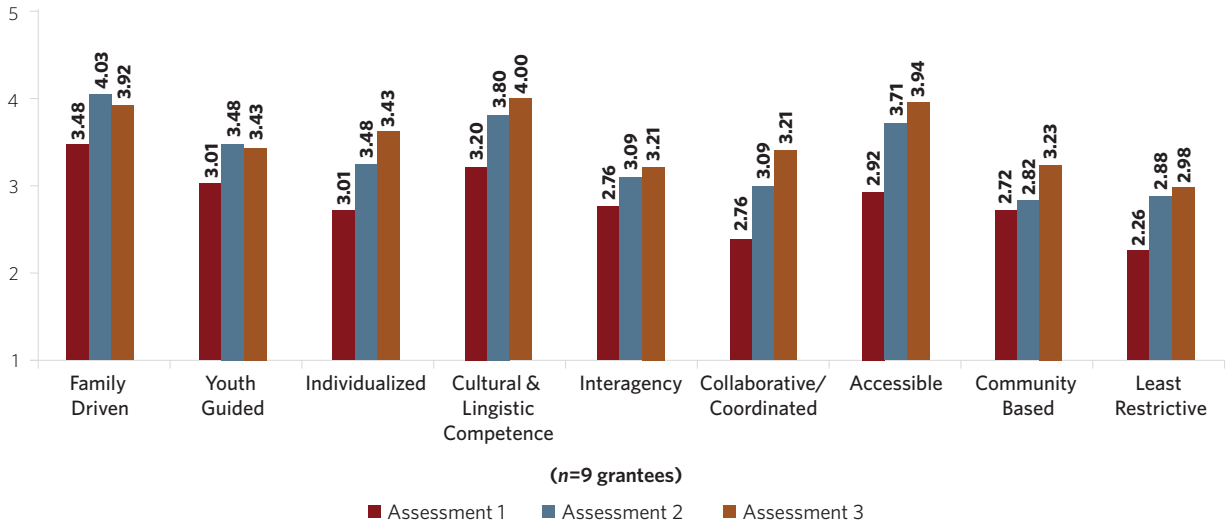
Assessment of System-Level Change

The system of care assessment assesses the extent to which each grantee has developed and implemented the system of care infrastructure and delivered services consistent with the system of care principles: family driven, youth guided, individualized care, cultural and linguistic competence, interagency collaboration, accessibility of services, community based, and least restrictive care.

The implementation of the system of care principles is measured across two domains: infrastructure and service delivery. The infrastructure domain consists of four components that address governance, management and operations, service array, and program evaluation. The service delivery domain also consists of four components: intake into services, service planning, service provision, and care review.

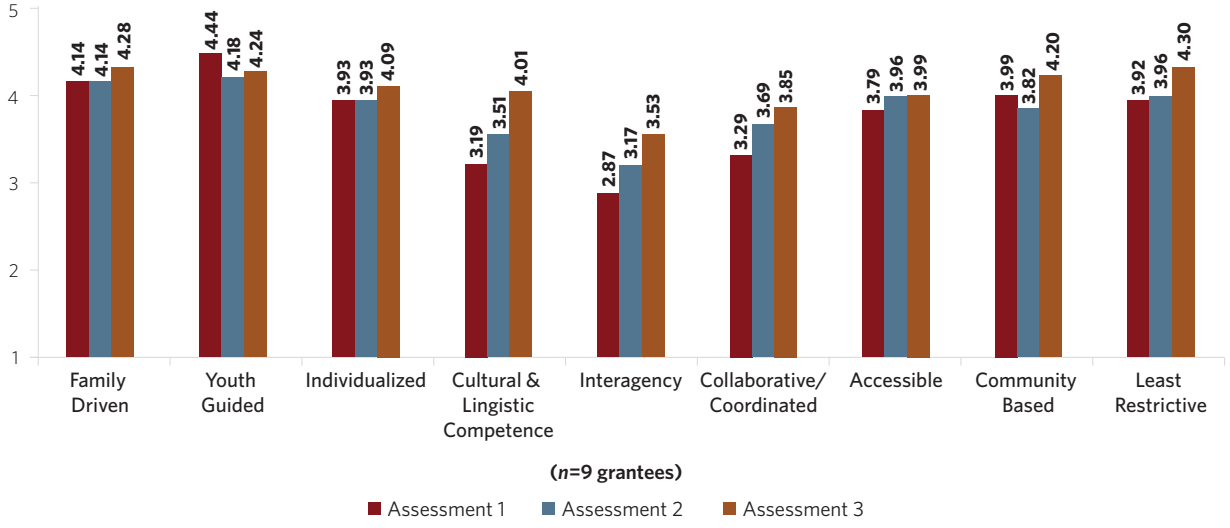
Nine grantees initially funded in FY 2010 completed their third and final assessment in FY 2016. As Exhibit 7 shows, from assessment point 1 to assessment point 3, system of care grantees initially funded in FY 2010 reported improvements in scores of systems of care principles across all nine areas assessed in the infrastructure domain. The principles of family-driven care and culturally and linguistically competent care consistently received the highest ratings. The greatest improvements over time were seen in the promotion of collaborative and coordinated care, and in providing care that was accessible.

Exhibit 7. Overall Infrastructure Ratings for System of Care Grantees Initially Funded in 2010, Assessment Points 1, 2, and 3



As Exhibit 8 depicts, from assessment point 1 to assessment point 3, grantees initially funded in 2010 improved in implementing their programs according to system of care principles in eight of the nine areas assessed in the service delivery domain. Within the service delivery domain, grantees in this cohort received their highest rating in implementing the principles of youth-guided, family-driven, and least restrictive care. Grantees showed the greatest improvement in the service delivery domain in providing culturally and linguistically competent care.

Exhibit 8. Overall Service Delivery Ratings for System of Care Grantees Initially Funded in 2010, Assessment Points 1, 2, and 3



Evaluation of the National System of Care Expansion

In 2011, SAMHSA adopted a new approach to the CMHI. The National System of Care Expansion Evaluation examines the effectiveness of this new approach. The CMHI expansion planning and implementation and expansion and sustainability grants[12] are intended to help achieve broader, more sustained implementation of the system of care model throughout the nation. Data collection for these grant types began in FY 2015, and preliminary evaluation findings are provided below.

Expansion Planning Grants: In FYs 2011–2014, SAMHSA awarded 50 one-year expansion planning grants to stimulate the widescale adoption of system of care services and supports through developing comprehensive strategic plans in larger jurisdictions. Unlike the previous CMHI grants implemented in individual communities across the country, these planning grants were designed to help larger jurisdictions such as states, multi-county areas, tribes, and territories develop and complete a comprehensive short- and long-term strategic plan to improve, implement, expand, and sustain systems of care across their jurisdiction.

Expansion Implementation Grants: In FYs 2012–2015, SAMHSA awarded 77 four-year expansion implementation grants. These 4-year grants are intended to help jurisdictions carry out plans for jurisdiction-wide implementation of the system of care framework. These grants promote the expansion of system of care services and supports, including infrastructure development and collaboration and partnership between child-serving systems (e.g., child welfare, education, juvenile justice, primary care, and substance abuse services and systems, and strategic financial planning) so that the system of care approach can be brought to scale and sustained after grant funding ends.

Expansion and Sustainability Grants: Starting in FY 2015, the new expansion and sustainability grants encompass two levels of grants: (1) expansion and sustainability for states focused on statewide system of care implementation, and (2) system of care expansion and sustainability for local sites in political subdivisions of states, tribes, tribal organizations, or territories focused on implementation within their jurisdiction. The goals for these grants are the same as the previous expansion programs, but are focused on these two types of sites.

[12] For simplicity, the term "grant" is used here to describe the SAMHSA/CMHS SOC Expansion Planning grants, the Expansion Implementation Cooperative Agreements, and the Expansion and Sustainability Cooperative Agreements.

The National Evaluation Team conducted preliminary analyses from the stakeholder interviews. These structured interviews describe how system of care principles are implemented across various system components, including: governance, management, policies, procedures, support of local service delivery, and geographic area covered. A separate summary report of these interviews provides a better understanding of the factors influencing expansion efforts, including cross-site comparisons and lessons learned. This report is based on a combined set of stakeholders including project directors, youth, and family representatives in 14 implementation grantees across multiple jurisdictions (7 statewide, 3 tribal, 1 territory, 1 multi-county, 2 two single county). As an example of the findings from this report, the range of expansion efforts are described in Exhibit 9.

Exhibit 9. Results of Targeted Expansion Goals Based on Stakeholder Interviews

Expansion Goals	%
Strengthen embodiment of SOC principles	71
Expand population focus	57
Community outreach/anti-discrimination	50
Extend to new geographic areas	43
Broaden service array (including EBTs)	43
Workforce development	43
Improve interagency collaboration	29
Strengthen funding arrangements	29
Improve governance structure	14
Improve access	14
Improve use of data	14

Grantee Progress

All of the state-level grantees reported benefiting from previous CMHI system of care community-level cooperative agreements. Almost all (73%) of the tribal grantees participated in Circles of Care grants, which help American Indian/Alaska Native groups:

- Plan for the development of a community-based system of care model for children with serious emotional disorders and their families.
- Develop local capacity and infrastructure to assist tribal communities in obtaining funding and resources to implement a system of care model to improve the mental health and wellness of their children, youth, and families.

Administrative and Legislative Initiatives

Through its strategic initiatives, SAMHSA continues to promote awareness and understanding of behavioral health as part of the mission to reduce the impact of mental illness and substance use disorder in America's communities. The findings of this report highlight the need for administrative changes in the CMHI program, particularly as SAMHSA seeks to promote the expansion and widescale adoption of the program. Some of the changes to be considered include the following:

- Build on lessons learned and create policies and infrastructures that promote nationwide cross-agency collaboration among child-serving systems to bring the program fully to scale.
- Fund programs that build a workforce capable of effectively implementing age- and culturally appropriate evidence-based practices, including a workforce that includes family and youth peer support providers.
- Examine more systematic strategies to coordinate funding for prevention efforts across federal and state agencies through the development of meaningful partnerships.
- Develop and implement a services research demonstration based on CMHI data and the NIMH funded North American Prodrome Longitudinal Study (NAPLS) to examine the extent to which evidence based early interventions for young people at Clinical High Risk (CHR) for psychosis can be scaled up to mitigate or delay the progression of mental illness, reduce disability, and/or maximize recovery.

Conclusions

The National System of Care Expansion Grants program reflects the evolution of SAMHSA's CMHI from a community-based demonstration program to one that expands its scope and reach to larger geographic jurisdictions, with the ultimate goal of national coverage. The data obtained from the national evaluation demonstrates that the system of care approach produced positive outcomes that include self-reporting of:

- Fewer behavioral and emotional symptoms;
- Fewer thoughts of suicide and suicide attempts;
- Improved school attendance and academic performance;
- Fewer law enforcement contacts;
- Reduced in-patient hospitalization costs; and
- Reductions in caregiver strain.

The longitudinal, multi-level National System of Care Expansion Evaluation is the necessary next step to inform SAMHSA and other stakeholders about expansion efforts that are now being implemented as part of this program. The evaluation will focus on expansion and sustainability efforts, the successes of the program, and how the program can be improved to meet its goals of widespread adoption of the system of care framework. The evaluation is designed to assess system of care expansion activities at the jurisdiction, local system, and child and family levels. Data collection began in FY 2015, following approval from the Office of Management and Budget, and those additional evaluation findings will be published in next year's (2017's) *Annual Report to Congress*.

References

Achenbach, T., & Rescorla, L. (2000). *Manual for ASEBA preschool forms & profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Achenbach, T., & Rescorla, L. (2001). *Manual for ASEBA school-age forms & profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Agency for Healthcare Research and Quality. (2011). *HCUP databases. Healthcare Cost and Utilization Project (HCUP) nationwide inpatient sample.* Rockville, MD: Author. Retrieved from www.hcup-us.ahrq.gov/nisoverview.jsp.

Bird, H. R., Shaffer, D., Fisher, P., Gould, M. S., Staghezza, B., Chen, J. Y., & Hoven, C. (1993). The Columbia Impairment Scale (CIS): pilot findings on a measure of global impairment for children and adolescents. *International Journal of Methods in Psychiatric Research, 3,* 167–176.

Brannan, A., Heflinger, C., & Bickman, L. (1998). The caregiver strain questionnaire: measuring the impact on the family of living with a child with serious emotional disturbance. *Journal of Emotional and Behavioral Disorders, 5,* 212–222. doi: 10.1177/106342669700500404.

Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed. Washington, DC: CASSP Technical Assistance Center, Georgetown University Child Development Center.

Epstein, M. (2004). Behavioral and emotional rating scale: a strength-based approach to assessment. *Examiner's manual* (2nd ed.). Austin, TX: Pro-Ed.

National Center on Addiction and Substance Abuse (CASA) at Columbia University. (2004). *Criminal neglect: substance abuse, juvenile justice and the children left behind.* New York: Author.

Public Law 102–321, 42 U.S.C. 290ff–4(c). *Comprehensive community mental health services for children with serious emotional disturbances.*

Reynolds, C. R., & Richmond, B. O. (2008). *Revised Children's Manifest Anxiety Scale: Second Edition (RCMAS 2) manual.* Los Angeles, CA: Western Psychological Services.

Reynolds, W. (1986). *Reynolds Adolescent Depression Scale: Second Edition* (RADS2). Lutz, FL: Psychological Assessment Resources.

Stroul, B. A., & Blau, G. M. (2008). *The system of care handbook: Transforming mental health services for children, youth, and families.* Baltimore, MD: Paul H. Brookes Pub. Co.

Stroul, B., Goldman, S., Pires, S., & Manteuffel, B. (2012). *Expanding systems of care: improving the lives of children, youth, and families.* Washington, DC: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health.

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. (2015). *2015 poverty guidelines, 09/03/2015.* Retrieved from http://aspe.hhs.gov/2015-poverty-guidelines.

www.samhsa.gov • 1-877-SAMHSA-7 (1-877-726-4727)