Evaluation in the Evolution of a System of Care

A Case Study of Colorado's Cornerstone Initiative

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Glossary of Terms and Acronyms

Here are definitions of the many terms and acronyms in this monograph which may be unfamiliar to the reader.

Access—A Microsoft Office computer software program that manages databases.

Attrition—a reduction in number or strength. In the Cornerstone evaluation, this term refers to the number of children and families who left the system of care or dropped out of the evaluation.

Baseline—refers to the first time an evaluation survey or questionnaire is administered, before the participant has received any services or taken part in the program being evaluated. The person's initial score is then compared with his/her responses to subsequent administrations of the same questionnaire or survey. This allows evaluators to measure changes that may have occurred as a result of receiving service or participating in a program.

CASSP—see Child Adolescent Service System Program.

Center for Mental Health Services (CMHS)—the federal agency responsible for administering the Comprehensive Community Mental Health Services for Children and Their Families Program. CMHS is part of the Substance Abuse and Mental Health Services Administration (SAMHSA) of the federal Department of Health and Human Services

Child Adolescent Service System Program (CASSP)—the first federal program to provide support for system of care development for children with serious emotional disturbance from 1984 to 1992.

CMHC—see Community Mental Health Center

CMHS—see Center for Mental Health Services

Colorado Division of Mental Health (DMH)—the state agency responsible for managing Colorado's community mental health system. DMH is part of the Colorado Department of Human Services.

Colorado Federation—see Federation of Families for Children's Mental Health—Colorado Chapter.

Community Mental Health Center—an organization responsible for providing publicly funded mental health services for residents of a specific geographical area in Colorado.

Comprehensive Community Mental Health Services for Children and Their Families Program—a program administered by the federal Center for Mental Health Services which provides grants to state and local governments, Indian tribes, and tribal organizations to develop community-based systems of care for children with serious emotional disturbance and their families.

Conceptual Model—see Logic Model

Cultural Competency—when used in referring to systems of care, this term means "the integration of knowledge, information, and data about culturally diverse individuals and groups of people into clinical standards, skills, service approaches and supports, policies, measures, and benchmarks." (Cross, Bazron, Dennis & Issacs, 1989; Davis, 1997).

DCP—see Denver Collaborative Partnership

Denver Collaborative Partnership (DCP)—an interagency team composed of administrators, managers, and family representatives which provides integrated recommendations to Denver's juvenile court for youth identified for commitment, long-term out-of-home placement or psychiatric hospitalization.

DMH—see Colorado Division of Mental Health

DU—University of Denver, a Cornerstone evaluation contractor

Dyad—a term for the team that delivered direct services to Cornerstone children and families. Each team was composed of one service coordinator and one family advocate (see definitions for these direct service providers below).

Family Advocacy Network—a group composed of representatives of family advocacy organizations, family advocates, and other family members responsible for: recruiting youth and family representatives to the Cornerstone Governing Board and Local Coordinating Councils, working with Cornerstone family organizations on family support matters; and ensuring that youth and families had a voice in the system of care.

Family Advocate—one of the two direct service providers who comprise the Cornerstone dyad (see definition above). Family advocates are paid staff who have a family member with serious emotional disturbance. They work with the service coordinator to develop the Wraparound Team (see definition below) and are primarily responsible for working with family members, providing support, advocacy, and instrumental assistance.

Family Empowerment Scale—a 34-item survey used in both the national and local evaluations which measures the degree to which caregivers feel that they can solve problems effectively, advocate for their own and their child's needs, and influence agencies and the community about children's mental health.

FAN—see Family Advocacy Network

Federation of Families for Children's Mental Health—Colorado Chapter—the Colorado chapter of a national family advocacy organization. This organization served as a contractor responsible for the family advocacy component of the Cornerstone system of care during the early years of the initiative. In Year Six, the Federation provided technical assistance to the three family organizations that had been developed through Cornerstone.

FES—see Family Empowerment Scale

Flex Funds—Funds made available to Cornerstone families to meet basic needs (e.g., car repairs, school clothes), crisis needs (e.g., overdue rent), or access non-traditional services (e.g., recreation programs, specialized therapy) which could not be paid for in any other way and were tied to the child and family's service plan.

Formative Evaluation—collects information and data about programs and interventions while they are being developed. This type of evaluation focuses on how to improve these programs and interventions during the implementation process.

IEP—see Individualized Educational Plan

Individualized Educational Plan—The Individuals with Disabilities Educational Act (IDEA), which is a federal law, is intended to ensure a free and appropriate education to school-age children with disabilities. Under Part B, appropriate educational and placement services for eligible children (ages 3 through 21 with disabilities) is achieved through the development and implementation of an "individualized educational plan," commonly referred to as an IEP. The IEP sets forth goals, objectives, and specific special education and related services to meet the individualized needs of each student.

InNET—a non-profit Colorado managed care organization which served as a contractor responsible for overall management and service coordination during the early years of the Cornerstone initiative.

Institutional Review Board (IRB)—a committee of experts made up of scientists, doctors, non-scientists, and community members that is responsible for reviewing all research studies before they are conducted and, often, while they are in progress. The primary purpose of these reviews is to assure the protection of the rights and welfare of the human "subjects" who are participating in the research. IRBs may be affiliated with an academic institution or research hospital, or they may be an independent entity formally designated by the organization conducting the research

IRB—see Institutional Review Board

LCC—See Local Coordinating Council

Local Coordinating Council—Local governing bodies for Clear Creek/Gilpin, Denver, and Jefferson counties responsible for developing, coordinating, and overseeing the systems of care in each Cornerstone community.

Logic Model (also called a Conceptual Model)—a tool used by planners, managers, and evaluators to illustrate the theoretical framework for a system, program, or intervention. It is usually a diagram or chart showing the linkages among the resources available to the program, its environment and conditions, its strategies and activities, and its short-term outcomes and long-term impact (SAMHA, 2005). The logic model is used a blueprint to guide planners and evaluators in implementing and evaluating the system, program or intervention.

Mental Health Assessment and Service Agency (MHASA)—This is the former term for an organization responsible for managing Medicaid mental health services in a specific geographic area in Colorado. The same type of organization is now called a Behavioral Health Organization (BHO); however, at the time the Cornerstone evaluations were being conducted, the term MHASA was used.

MHASA—see Mental Health Assessment and Service Agency

Monograph—is a scholarly piece of writing, such as an article, paper or book on a single topic.

ORC Macro (Macro International Inc.)—the national evaluation contractor for the federal Comprehensive Community Mental Health Services for Children and Their Families Program. ORC Macro provides management and oversight for the national evaluation for the Center for Mental Health Services.

Outcomes—the desired results of an intervention, program or system.

Processes—within systems of care, this term refers to the people involved in the system; their roles, rights and responsibilities; and how they communicate, negotiate, work together, and collaborate with one another in both formal and informal ways (Pires, 2002).

Program Evaluation—refers to the function of collecting and analyzing information and data about a program, or some aspect of a program, in order to make necessary decisions about that program. Evaluation can be used to determine whether a program or intervention is being delivered according to plan, how well it is being implemented, whether it is achieving the expected results, what its costs and benefits are, and how stakeholders perceive its services and interventions.

Qualitative Research/Evaluation—involves the use of non-numerical data to study, understand, and explain social phenomena. Qualitative data sources may include observation and participant observation (fieldwork), interviews and questionnaires, review of documents and other media, and the researcher's impressions and reactions.

Quantitative Research/Evaluation—involves the collection and analysis of coded or other numerical data to study, understand, and explain a process, function, or program. Statistical methods are generally used to analyze quantitative data.

RCI—see Reliable Change Index

Reliable Change Index—a statistical test which is used in repeated measures analyses, which compare changes over time for each person in the evaluation study.

RTC—Residential Treatment Center

Restrictiveness of Living Environments and Placement Stability Scale (ROLES)—an instrument used in the national evaluation which measured the number of youth in three types of out-of-home placements—psychiatric hospitals, juvenile justice/detention settings, and residential treatment centers—and tracked these out-of-home placements over time.

Retention—in the Cornerstone evaluation, this term refers to the number of children and families who remained in the system of care and/or the evaluation over time.

ROLES—see Restrictiveness of Living Environments and Placement Stability Scale

SED—see Serious Emotional Disturbance

Serious Emotional Disturbance (SED), also Severe Emotional Disturbances—a diagnosable mental health condition that affects a child's or youth's ability to function at home, in the community, or in school. Defined by the Colorado Division of Mental Health as "an emotional or behavioral disorder that impacts a child's or youth's ability to function at home, at school, or in the community, and that this impact has lasted or is expected to last for one year or more."

Service Coordinator—one of the two direct service providers who comprise the Cornerstone dyad (see definition above). Service coordinators are paid staff with professional education and experience working with children and youth with serious emotional disturbance. They work with the family advocate to develop the Wraparound Team (see definition below) and are primarily responsible for linking the youth to the services and supports identified in the Wraparound Plan.

Significant—see Statistically Significant

Social Marketing—"use of commercial marketing techniques to encourage healthy or pro-social behavior in a specific population, a community, or the entire society" (Kline Weinreich, 1999, p. 3).

Stakeholder—a person or organization that is involved or has an interest in a project or program. Stakeholders in systems of care generally include children and youth, family members, friends, child-serving agencies (both public and private), faith communities, schools, government and elected officials, the judiciary, and others in the community.

Statistically Significant, also Significant—a term used by researchers and evaluators when a research result has a high probability of being true or reliable. Researchers use statistical methods to determine how likely it is that a particular finding happened by chance rather than as a result of the intervention being tested. In statistics, a finding is generally said to be "**significant**" or "**statistically significant**" if the statistical tests show that there is at least a 95% chance that the intervention being tested had an impact. Conversely, a result is said to be **not significant** if there is more than a 5% chance that it is due to chance. Since the 95% probability level is such a high standard, many research results still have a high likelihood of being true, but are not considered significant.

Structure—in systems of care, this term refers to those functions that need to be organized in a defined arrangement so that the system of care can function well. For example, one function that needs to be structured is how children are enrolled in and discharged from the system of care (Pires, 2002).

Summative Evaluations—concentrate on making statements about a program or intervention's long-term effectiveness and impact, usually after it has been in place for an extended period of time.

Sustainability—the ability of programs or systems of care to assure that their structures, services, and supports will continue. Sustainability requires ongoing funding, strong organizational and service delivery structures, and staff and volunteers who are knowledgeable about system values and practices.

System of Care—First defined by Stroul and Friedman (1986) as: "A comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the multiple and changing needs of children and adolescents with severe emotional disturbances and their families." This term has expanded to encompass frameworks of services and supports that are organized to address the needs of children and youth with complex needs (not just those with mental health issues) and their families.

Technical Assistance and Coordination Team (TACT)—a group composed of the Cornerstone Project Manager, Team Leader/Training Coordinator and Administrative Assistance during the early years of the initiative.

Tracking Systems of Care (TSOC)—a service utilization tracking system and database which includes admissions, discharges, and services provided through the Cornerstone System of Care Initiative.

TSOC—see Tracking Systems of Care

UCD—University of Colorado at Denver, a Cornerstone evaluation contractor

Wraparound—a comprehensive, child- and family-centered way of assessing and planning services, based on the idea that youth can be served most effectively by "wrapping" individualized services and supports around them in their homes and communities.

Wraparound Plan, also Wrap Plan—sets forth a unique set of community services and natural supports which are individualized based on the child's and family's culture, strengths, and needs. The Wraparound Team, which includes the child and family, develops the plan.

Wraparound Team, **also Wrap Team**—an organized group of people who helps a child and family develop and carry out a Wraparound Plan. Generally composed of four–eight people chosen by the family, including neighbors, friends, relatives, members of faith communities, and professionals involved with the family from schools, mental health, juvenile justice, and child welfare agencies.

I. Executive Summary

The Colorado Cornerstone System of Care Initiative began in 1999 through a grant to the Colorado Division of Mental Health from the federal Center for Mental Health Services. Its goal was to build a system of care in four Colorado counties—Clear Creek, Denver, Gilpin, and Jefferson—for youth with serious emotional disturbance who were involved or at-risk of involvement with juvenile justice and their families.

Evaluation was an integral part of the system of care from the beginning. One of its primary goals was to provide continuous feedback to the communities and project staff based on the evaluation findings. Local evaluators conducted qualitative and quantitative studies that guided development of, and midcourse corrections to, the initiative's governance, management, and service delivery structures and processes. They also partnered with national evaluators to study key outcomes for children, youth, and families who received services from the system of care.

Now, as federal grant funding ends, this monograph seeks to share what we have learned from evaluating the Colorado Cornerstone System of Care Initiative during its first five years. In doing so, we hope to offer guidance to others involved in system of care and system integration projects on how to use the information gleaned from these evaluation activities to improve their ongoing efforts. Specifically, we want to convey what we have learned through our studies and how they informed and affected Cornerstone. Also, we want to describe the contributions that evaluation can make to the creation of a detailed blueprint that directs system development, the mid-course adjustments necessary for improved effectiveness and efficiency, and the ongoing sustainability of the system of care.

Cornerstone is currently in its seventh year. In Year Six, the Division of Mental Health made significant changes to Cornerstone's design and operations. It is important to note that the evaluation studies described in this monograph are limited to Cornerstone's first five years.[1] This monograph therefore, does not address system of care efforts beyond Year Five.

A. Evaluation Findings for Key System of Care Processes and Functions

The key processes and structures listed below have been identified by national experts as being essential to successful systems of care (Pires, 2002). Evaluation can play a key role in designing and providing continuing feedback in each of these areas. Most chapters in this monograph focus on what the Cornerstone evaluation had to say about these processes and functions. Following are our conclusions, based on these evaluation findings:

1. The Planning and System Design Process:

The evaluations offered guidance and feedback on all elements of Cornerstone's planning and system design process. These elements included: values and principles, characteristics of the population to be served, characteristics of the services to be delivered, and desired goals and outcomes.

[1]One study was conducted at the beginning of Year 6. Its purpose was to document key stakeholder reflections on the first years of Cornerstone. This study was called "The Cornerstone Experience" in Building the System of Care in Colorado: Evaluation Findings from the Cornerstone Initiative" (Potter & Bussey, 2005).

These studies confirmed the importance of a strengths-based model that involved families as equal partners in the service delivery process and empowered them to become self-sufficient. Another important goal was to develop an accessible, integrated, culturally competent model that uses a wraparound, collaborative approach to reduce redundancy, gaps, barriers between service providers, and service conflicts.

Evaluation participants identified the following outcomes as critical for project success:

- Reduction in juvenile justice involvement, school failure, and out-of-home placements for youth
- Increased family involvement with services, better access for families, increased family satisfaction, and improved family functioning;
- Strong agency collaboration, less redundancy in services, improved quality of services, fewer service gaps, and ongoing support for the Cornerstone System of Care Initiative.

2. The Service Delivery Model:

Since the service delivery model was one of Cornerstone's most important and innovative elements, the evaluators used a variety of methods to study it. Findings from these studies indicated that the model was based on a strong, well-understood set of values and goals, and that services were delivered accordingly.

Specific components of the model also received positive feedback, most notably the combination of family advocates with service coordinators in a "dyad" model, and the use of flex funds to pay for basic needs and alternative services. Respondents identified the following four elements, which they felt were different from and superior to other service delivery models:

- respect—parents felt they were treated as partners
- a different relationship with service providers—through services delivered in the home and community settings
- the right level of care—based on the child and family's needs
- services "outside the box"—in addition to traditional services.

The evaluations did raise concerns, however, about the expectation that Cornerstone families would remain on the caseload indefinitely, rather than transitioning to less intensive community supports when they were ready. As a result, it was recommended that Cornerstone "clarify endings" with youth and families who were ready to be transitioned.

Despite the generally favorable responses to the service delivery model itself, however, many studies found that there were difficulties in implementing it. Early on, there was concern about a lack of training and clear definitions of roles and responsibilities for the dyad members. Later evaluations noted communication difficulties between the service coordinators and family advocates within the dyads, and between some dyads and the families they served. Further, some families identified needs for improved reliability and follow through, and a lack of regular contacts with the dyads and other Cornerstone staff.

3. Family Involvement, Support, and Development:

According to the evaluations, the ability to involve and support families was one of the most successful parts of the Cornerstone System of Care Initiative. Because family involvement is a key guiding principle in systems of care, many studies examined this issue from a variety of perspectives. These studies came to the following conclusions:

- Principles of family involvement, support, and development had been successfully incorporated into Cornerstone's system of care model.
- Family members were well integrated into Cornerstone's policy-making and management processes. However, some identified a need for improved training, mentoring, and instrumental support such as child care and transportation.
- Family support was perceived to be one of the strongest aspects of Cornerstone's service delivery model. Families felt that they were respected partners in service planning and delivery, and appreciated the instrumental support (such as being accompanied to court dates and education meetings) they received from the dyads.

According to the evaluations, the ability to involve and support families was one of the most successful parts of the Cornerstone System of Care Initiative.

4. Cultural Competency:

All levels of a system of care must be responsive to the unique culture, values, and needs of the youth and families served in order to be successful. Six evaluation studies looked at cultural competency on Cornerstone's service delivery and governance/management levels. These evaluations found that, for the most part, staff had been culturally competent when working with youth and families.

Two evaluations found, however, that there was confusion over what it meant to be culturally competent. The researchers therefore recommended that Cornerstone develop a working definition of cultural competence and then regularly monitor progress towards achieving it. Training on cultural competence, especially training that would be useful for dyad staff in working with diverse youth and families, was also recommended.

Finally, one Cornerstone goal was to serve a high proportion of minority youth. The reason was that youth of color are overrepresented in the juvenile justice system and Cornerstone's focus was on serving youth with mental health needs involved or at risk of involvement with this system. The evaluation found that results were mixed across the three Cornerstone counties in achieving this goal.

5. Child and Family Characteristics, Outcomes, and Predictors of Change:

Quantitative data from the national system of care evaluation produced the large majority of evaluation information in this area. This study showed that the children served by Cornerstone were primarily male, mostly aged 12–14 years, and had somewhat higher levels of behavior and family history problems than youth in the national database. More Cornerstone youth were referred by courts and corrections compared to national study youth, and fewer were referred by mental health. This is probably due to Cornerstone's emphasis on serving youth with mental health needs involved or at-risk of involvement with juvenile justice.

Outcome data showed significant reductions in mental health symptoms and level of problems, although corresponding increases in the youths' strengths were not found to be significant. Cornerstone youth also improved in their school functioning and some substance use measures, and family members reported significant reductions in overall caregiver strain. Not surprisingly, the study found a strong relationship between the level of improvement in youths' functioning and reductions in caregivers' feelings of strain over time.

6. The Interagency Collaboration Process:

Because children and families in systems of care require services from multiple agencies, special attention needs to be paid to engaging, supporting, involving key child and family serving agencies. Several studies looked at interagency collaboration in the Cornerstone System of Care Initiative. From these studies, several themes emerged. These included the need for: family/agency partnership, coalition building, and decision-making and conflict strategies. It became apparent through these studies that Cornerstone was experiencing many challenges to achieving and maintaining interagency collaboration.

A particular challenge that seemed to escalate over time was the degree of dissension and conflict within Cornerstone. This caused key stakeholders to withdraw their agencies' participation and/or commitment to building and sustaining the system of care. Ultimately, the conflict and dissension was seen as impacting Cornerstone's ability to reach its goals.

7. Sustainability:

Cornerstone conducted one major study on financing and costs, and addressed issues related to sustaining the system of care in several other qualitative studies. The cost study looked at overall costs for the initiative and also compared costs across the three counties where services were provided. It found that the annual cost for each youth enrolled in Cornerstone was $7,102. Of this total, 46% was used for direct services to children and families, 39% was spent on supporting and sustaining these services (e.g., supervision and training), and 15% was directed to activities associated with the broader grant initiative (e.g., federal reporting). The evaluator concluded that these estimates underscored the importance of understanding and documenting the costs associated with the Cornerstone Initiative. She also noted that linking these results to youth severity, the intensity of services provided within and beyond Cornerstone, and youth and family outcomes would provide critical information about cost effectiveness.

Respondents to the qualitative evaluations found that issues of community visibility and investment were closely associated with sustainability. They recommended that Cornerstone increase its marketing and communication efforts with local leaders, noting that these leaders would be

unwilling to sustain the system of care without clear evidence of efficient operations and positive outcomes for children and youth. Near the end of the initiative, a retrospective study concluded that Cornerstone should have done a better job at focusing on sustainability from "day one," and that earlier local control would have made it easier to develop support and resources to sustain the model.

8. Leadership and the Process of Strategic Change:

Effective leadership is a necessary element to guide and manage the strategic change process. Leaders provide stakeholders with a vision and sense of purpose based on system of care values and principles. They also create support for that vision by listening and incorporating the ideas of others. The studies described in this chapter informed the Division of Mental Health that substantial changes needed to be made to the Cornerstone model and its operations if there was to be any chance that the local systems of care would be sustained beyond federal funding. In particular, Cornerstone's infrastructure and decision-making processes were found to be overly complex. Also, interpersonal conflicts had posed a significant leadership challenge. As a result it became clear that responsibility for leading and sustaining the systems of care needed to be shifted to the community level.

B. Conclusions and Recommendations

Based on our review of the Cornerstone evaluation studies and their influence on the key system of care processes and functions described above, we developed the following conclusions from the Cornerstone experience and recommendations for other system of care initiatives:

1. What Worked Well:

- The Cornerstone evaluation facilitated and incorporated broad representation and participation from all critical stakeholders, including state and local administrators and managers, family members and youth, academic researchers, and direct care staff.
- The Evaluation Steering Committee was effective in guiding the design and implementation of the studies, and in analyzing and communicating key issues raised by their findings.
- The evaluation team's effective work with family members resulted in positive perceptions of evaluation among families, facilitating data collection and analysis.
- Most studies were carefully designed and produced findings that were relevant and useful.
- Family involvement, one of the most important system of care principles, was extensively studied through the evaluation. These studies produced a wealth of information about the roles of families at all levels of the system of care.
- Evaluation produced information that was used by system planners, service delivery staff, decision-makers and the evaluators themselves.
- Ultimately, findings from the studies were used as the basis for the major changes in the project as outlined in the Year Six Action Plan.

2. Major Challenges:

- There was no agreed-upon process on how to use the findings from the Cornerstone evaluation to make midcourse improvements. As a result, although the studies identified many issues throughout the course of the initiative, changes were not made in a timely way.
- Usable cost and outcome data were not available for sustainability discussions until Year Five.
- The cost and outcome data produced may not have addressed all the information needs of the local decision-makers who were most responsible for sustaining the system of care.

3. Lessons Learned:

- Local leadership and decision-making is critical to develop, enhance, and sustain community-based systems of care that are integrated within the existing service systems. Therefore, local leaders need to be key players in the design of evaluation studies, and in the dissemination process when findings are produced.
- From the beginning, evaluators and managers should ask decision-makers what information they need to make decisions about their agencies' involvement and willingness to help sustain the system. High priority should be placed on collecting data to meet these information needs early on.
- Evaluators should develop strategies to provide constant, useful feedback about program outcomes and other study results to project staff and stakeholders. This strategy should include education to equip leaders and stakeholders to understand and use these results.
- At the outset, evaluators and system of care managers should establish a continuous quality improvement process to allow evaluation results to inform and provide the basis for midcourse adjustments in the development of the system of care. It is important that these midcourse adjustments be documented so that there is a clear understanding as to how evaluation results impacted the development of the system of care. This also requires that evaluators and system of care managers work together to develop an environment where the exchange of ideas and the giving and receiving of feedback is encouraged and welcomed.

4. Recommendations:

- It is important for system of care communities to establish an agreed-upon feedback loop between the evaluation and operations structures, so that study findings can be used in a timely manner to inform midcourse adjustments in system of care efforts. These midcourse adjustments should be documented by evaluators and project management.
- At the beginning of the project, evaluators and system builders should place a high priority on developing rapid methods to estimate costs and other outcomes important to decision-makers. These data are critical to sustaining the system of care.
- In addition to developing new data collection efforts, evaluators should plan to tap all existing data sources that could be used to inform the system of care, including state and provider databases from multiple systems (e.g., mental health, Medicaid, child welfare).
- Formative evaluations should be conducted not only through the first few years, but should extend to the project's end. This type of evaluation can provide an early warning system about deviations from the project's design and other issues that need to be addressed.
- System builders should use evaluation studies to discern and address the differences between "productive" conflict, which is part of the change process, from "unproductive" conflict, which could threaten relationships and progress within the system of care.
- Evaluation plays an important part in sustainability efforts. It provides the data can be used to promote and sustain the system of care through "social marketing" efforts. As such, evaluation and social marketing must be closely aligned in working together to sustain systems of care. Effective social marketing depends on those midcourse adjustments being made so that improved outcomes are realized.

Building a system of care requires leadership, commitment, creativity, and courage to venture into uncharted territories where there often are no easy answers or quick fixes. Evaluation is a useful tool that can help system of care leaders stay the course and make the necessary adjustments. And, if evaluation findings are not as positive as one would like, policymakers should not automatically abandon the project and start all over again. Instead, these findings can be used to identify successful elements, such as the Cornerstone family organizations, that should be retained and supported and to modify less successful elements.

II. Introduction and Background

A. Introduction

In 1999, the Colorado Division of Mental Health received a federal grant from the Center for Mental Health Services to build a system of care in Clear Creek, Denver, Gilpin, and Jefferson counties for youth with serious emotional disturbance involved, or at-risk of involvement, with juvenile justice and their families. The grant project is known as the Colorado Cornerstone System of Care Initiative. As of the date of this monograph, the federal grant project is nearing its end. However, all four counties are still working diligently to sustain and enhance different components of their local system of care.

This monograph now seeks to share what we have learned from evaluating the Colorado Cornerstone System of Care Initiative over its first five years of planning and operations. Specifically, we want to convey the results of our studies of key system of care processes and functions, and how these studies informed and affected Cornerstone's development. In doing so, we hope to offer guidance to other system of care and system integration efforts for children and families in Colorado and across the nation on how to plan and implement evaluation activities, and on how to use the information gleaned from these activities to improve their ongoing efforts.

Cornerstone is currently in its seventh year of operation. In Year Six of the grant, the Division of Mental Health made significant changes to Cornerstone's design and operations. It is important to note that the evaluation studies described in this monograph are limited to Cornerstone's first five years. This monograph therefore does not address system of care efforts beyond Year Five.[2]

We used three methods to develop this monograph. We consulted with the Colorado Division of Mental Health's evaluation team for guidance and recommendations on the monograph's purpose, content and organization. Thereafter, the state evaluation team provided ongoing consultation, reviewed drafts and provided invaluable insight and advice throughout the monograph's development. We also reviewed the literature, including the works of national leaders in the field of system of care development, to help set the context and background for the monograph.

Next, we reviewed, compiled, and analyzed the numerous Cornerstone evaluation studies that form the basis of this monograph. We also studied other Cornerstone written materials, such as the grant application and reapplications, evaluation committee meeting minutes, and federal and state reports, to further enhance the information conveyed through the monograph. What follows is a brief review of the literature to provide some background on the history and development of the system of care movement in this country.

[2]One study was conducted at the beginning of Year 6. Its purpose was to document key stakeholder reflections on the first years of Cornerstone. This study was called "The Cornerstone Experience" in Building the System of Care in Colorado: Evaluation Findings from the Cornerstone Initiative" (Potter & Bussey, 2005).

B. Systems of Care for Children and Families

The concept of a system of care originally arose as a framework to address the needs of children and youth with serious emotional disturbance and their families. Children with serious emotional disturbance are those who have a diagnosable mental health condition that affects their ability to function at home, in the community and/or in school. Today, systems of care are viewed as a framework through which to address the needs of children and youth with complex needs, not just those with serious emotional disturbance, and their families (Pires, 2002). One of the major factors that influenced how mental health services should be organized and delivered was the recognition that children and youth with serious emotional disturbance were not receiving the care they needed. In 1982, the landmark publication *Unclaimed Children* (Knitzer, 1982) revealed that millions of these children and youth were receiving no treatment at all or were being improperly placed out of their homes because few services existed in their homes and communities. At the time, most children and youth who needed intensive mental health care received treatment in hospitals or other out-of-home placements where they were frequently away from their homes for months or even years.

Over the years, further studies found that children and youth with serious emotional disturbance were often delayed educationally; had histories of psychiatric hospitalizations and dangerous behavior; lived in poverty; and were involved in multiple systems. It was estimated that about two-thirds of these children and youth were involved with child welfare and special education, and that 10%–25% had prior involvement with the juvenile justice system (Stroul, 1993).

Educational outcomes for children and youth with serious emotional disturbance were often negative as well. These children failed more classes, had lower grades and were retained at the same grade level more than others with disabilities. Further, appropriate, coordinated services for these children and youth were found to be lacking in education, child welfare, juvenile justice, and mental health (Tuma, 1989; MacIntyre, 1993; Trupin, Tarico, Low, Jemelka & McCellen, 1993; U.S. Department of Education, 1995; Friesen & Poetner, 1995).

1. Federal Initiatives in Children's Mental Health

These studies helped set the stage for the development and continued support of systems of care for children and youth with serious emotional disturbance across this country. Beginning in the mid-1980s, the federal government launched several initiatives to promote creation of these systems of care. In particular, three federal programs have rendered the most comprehensive support for system of care development. The first was the Child Adolescent Service System Program (CASSP), which became part of the National Institute of Mental Health in 1984. This program promoted family participation, cultural competence, and community-based systems of care (Lourie, Katz-Leavy, DeCarolis & Quinlan, 1996).

The Comprehensive Community Mental Health Services Program for Children and Their Families (system of care grants) followed CASSP in 1992. The Child, Adolescent and Family Branch of the Center for Mental Health Services administers this program by providing grants to state and local governments, Indian tribes, and tribal organizations. The purpose of these grants is to develop community-based systems of care for children with serious emotional disturbance and their families. Through this program, the Center for Mental Health Services has provided leadership and financial support to more than 100 communities throughout the United States. The Colorado Cornerstone System of Care Initiative is one such grant-funded initiative. It serves

youth with serious emotional disturbance who are involved, or at-risk of involvement, with juvenile justice and their families. Project BLOOM, an early childhood system of care initiative in Colorado, is another. (Please see Appendix D for a map of the United States indicating the names and locations of the other sites as of 2004.)

The Child, Adolescent and Family Branch of the Center for Mental Health Services also administers a third federal initiative, the Circles of Care Program. The purpose of this infrastructure development program is to provide tribal and urban Indian communities with tools and resources to design systems of care to support mental health services for children, youth, and families in American Indian and Alaska Native communities. This program has awarded 23 grants since 1998, including one for "Keeping the Circle Whole," a project of the Denver Indian Family Resource Center which serves Indian children, youth, and families in the Denver metropolitan area (Substance Abuse and Mental Health Services Administration, 2005).

Finally, in 2003, another division of the federal Department of Health and Human Services, the Administration on Children and Families, awarded seven demonstration grants. The purpose of these grants is to improve outcomes for children and youth involved in child welfare through a system of care approach. Jefferson County Department of Social Services in Colorado is the recipient of one of these grants. This project's name is "Communities Connecting for Kids."

2. Foundation Support for Systems of Care

In addition to the federal government, two foundations have been instrumental in supporting the growth of systems of care for children with serious emotional disturbance and their families. They are the Robert Wood Johnson Foundation and the Annie E. Casey Foundation. Both are large private foundations that promote innovative strategies to address national health and human service issues.

From 1989 to 1990, the Robert Wood Johnson Foundation granted $20.4 million to state mental health agencies through its Mental Health Services Program for Youth. This initiative funded 12 states and cities and has greatly contributed to the body of knowledge about community-based systems of care (Pires, 2002). In 1992, the foundation provided funding to an additional 15 states and localities.

In 1992, the Annie E. Casey Foundation launched the Mental Health Initiative for Urban Children. This program helped communities rethink how mental health services were designed and delivered at the neighborhood level. System-building efforts focused on using family resource centers as the center of the system of care. These efforts also recognized natural helpers as partners in service delivery, and family and community members as equal partners in governing the system of care (Pires, 2002).

3. System of Care Model

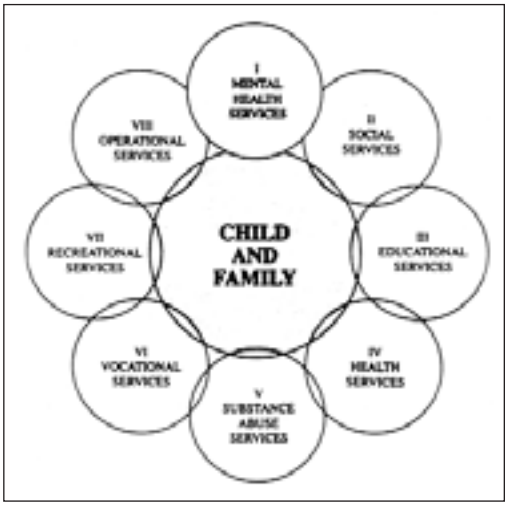
In 1986, Beth Stroul and Robert Friedman developed the system of care model with support from CASSP. This model was designed to meet the multiple and changing needs of children and youth with serious emotional disturbance and their families. In their 1986 monograph, *A System of Care for Children and Youth with Severe Emotional Disturbances*, Stroul and Friedman defined a "System of Care" as: **A comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the multiple and changing needs of children and adolescents with severe emotional disturbances and their families** (Stroul & Friedman, 1986).

The system of care model is illustrated in Figure 1 below. In a system of care, child- and family-serving systems and services, community resources, and informal supports all work together to form this coordinated network (Stroul & Friedman, 1996).

Another important aspect of the system of care model is that it is based on and driven by a set of core values and guiding principles. In their 1986 monograph, Stroul and Friedman set forth the following core values:

- ***Child centered and family focused***, with the child and family's needs dictating the types and mix of services provided
- ***Community based***, with services located at the community level
- ***Culturally competent***, with agencies, programs and services that are responsive to the cultural, racial and ethnic differences of the children and families they serve.

Figure 1: System of Care Components



Source: Stroul and Friedman (1986)

According to the guiding principles, systems of care should provide children with serious emotional disturbance and their families with a comprehensive array of services that are individualized, culturally sensitive and integrated across systems. These services should be provided in the least restrictive, most natural and clinically appropriate setting.

Systems of care should also promote early identification and intervention to enhance the potential for positive outcomes and ensure a smooth transition to the adult service system as youth reach maturity. Finally, children, youth, and their families should receive case management and effective advocacy and be recognized as full participants in service planning and delivery in the system of care (Stroul & Friedman, 1986).

4. The Wraparound Process in Systems of Care

Systems of care exist at both the community and the individual child and family levels. To implement such a system, communities across the country, including Colorado, are using the wraparound process because it shares the same core values and guiding principles as the system of care. As a result, "wraparound" has become a major service delivery approach in systems of care today. Its practice has grown significantly since the time that Stroul and Friedman wrote their definitive work in 1986.

Wraparound is a comprehensive child-centered/family-focused way of assessing and planning services. It involves a shift away from the traditional service delivery model where service providers are viewed as experts, to seeing families and service providers as partners (Malysiak, 1997). In wraparound, children and families are viewed as the key to solving problems, rather than being viewed as the problem itself (VanDenBerg & Grealish, 1996). The term "wraparound" came from the idea that youth could be best served by "wrapping" individualized services and supports around them in their homes and communities.

In wraparound, families identify the areas of their life that they would like to address, such as school, recreation, home, health, employment or other life domains. Families also choose the members of their wraparound team. These teams generally consist of the 4–8 people who know the child and family best. They include both informal supports, such as neighbors, friends or relatives, and professionals from agencies involved with the family, such as schools, mental health, or child welfare. Ideally, wraparound teams have no more than 50% professionals on them. The reason for this is that professionals will come and go in a family's life whereas informal supports will generally stay with the family.

Together with their team, families develop their wraparound plans. These plans set forth a unique set of community services and natural supports that are individualized for each child and family based on their culture, strengths, and needs (Burns & Goldman, 1999). The wraparound team meets periodically to develop, review, and adjust the plan as needed. At the system level, wraparound requires that there be a community team whose charge is to develop a seamless system of care for the community. This team is comprised of community, family, and agency representatives. Most community teams develop subcommittees that oversee the development and implementation of the wraparound process (Rast & VanDenBerg, 2000).

C. History of Colorado Cornerstone System of Care Initiative

1. Introduction

In spring, 1999, CMHS issued a grant announcement for the third phase of funding for the Comprehensive Community Mental Health Services Program mentioned above. The Division of Mental Health (DMH), Colorado Department of Human Services, in partnership with four Colorado counties, responded to this announcement with the Cornerstone grant application. This application was successful, and Colorado became of one of 20 grantees during this phase of the program. In October 1999, DMH began receiving funding for the Colorado Cornerstone System of Care Initiative. Its stated purpose was to develop and implement a system of care for children and youth with serious emotional disturbance at-risk or involved with juvenile justice and their families in Clear Creek, Denver, Gilpin, and Jefferson counties.

Colorado Cornerstone received federal funds over a period of six years to build these local systems of care. As of the date of this monograph, Cornerstone was in its seventh year of operation, having been granted a no-cost extension to spend down the remaining federal funds during its final grant year.

THE CORNERSTONE VISION:

Positive system change for children who have mental health needs and are in, or at-risk of involvement in, the juvenile justice system and their families!

THE CORNERSTONE MISSION:

To create a comprehensive and seamless system of care through community partnerships formed by families, youth, family-serving agencies and systems!

2. The Cornerstone Communities

The four contiguous counties that comprised the Cornerstone System of Care represent a broad, diverse region generally reflective of the entire state. These counties have low-income, middle class and affluent areas, and have substantial African American, Anglo, Asian, Latino, and Native American populations. The site also spanned the range from inner city, urban, and suburban areas in Denver and Jefferson counties to exurban and rural mountain communities in Jefferson, Clear Creek, and Gilpin counties. In addition to these diverse demographic characteristics, communities within the site varied greatly in the types of services available, thus allowing for the evaluation of the initiative's effectiveness across multiple contexts.

In Year Two, Gilpin County withdrew from Cornerstone. At the time, Gilpin County leaders believed that their county did not have a sufficient numbers of children and youth with serious emotional disturbance to justify participation in the initiative. In Year Six, Gilpin reversed its earlier decision and rejoined Cornerstone.

3. Governing Board

During the first year of the initiative, family members and agencies worked to develop a centralized governing board with representatives from all four counties. In the beginning, this group of family members and agencies acted as the Interim Governing Board until a permanent governing board could be put in place.

The governing structure that was ultimately adopted was a 20-member Governing Board, with 50% family members and 50% agency representatives who had the authority to impact local policy, services, and resources. This board was in place from Year Two until Year Six of the grant when it was disbanded as each local community assumed ownership and decision-making for its own local system of care. The former Governing Board included:

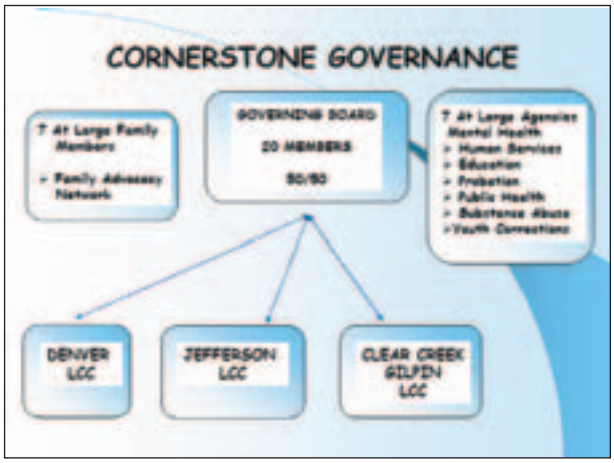
- Seven at-large agency representatives from Education, Human Services/Social Services, Mental Health, Probation, Public Health, Substance Abuse and Youth Corrections from across the four counties
- Seven at-large family members selected through the Family Advocacy Network, which was a network of family members, family advocates, and representatives of family organizations from across the four counties and the State
- Two representatives (one family member and one agency representative) selected from the Local Coordinating Councils (LCCs) in Clear Creek/Gilpin, Denver, and Jefferson counties. These LCCs were the local governing bodies responsible for developing, coordinating, and overseeing the system of care in each community.

The Governing Board provided overall leadership and oversight of the Cornerstone System of Care until Year Six of the grant. It had the following responsibilities:

- Monitor and ensure that the system of care vision, mission, core values, and guiding principles were followed
- Develop policies necessary to provide a common direction for Cornerstone operations
- Define expected outcomes for the initiative consistent with the expectations established by the federal grant

- Direct and monitor Cornerstone's evaluation activities to ensure that program operations were consistent with the system of care values and philosophy and that the envisioned outcomes were being achieved
- Coordinate and support the system of care in each county, including addressing barriers and challenges identified at the local level
- Plan and implement strategies designed to sustain the initiative beyond the federal grant.

Figure 2: Cornerstone Governance Structure



4. Local Coordinating Councils (LCCs)

There were three Cornerstone LCCs, one for Clear Creek and Gilpin, one for Denver, and one for Jefferson County. These LCCs were linked to the centralized Governing Board to ensure alignment with the Cornerstone vision and overall policies. They identified issues that needed to be resolved at the state and legislative levels, oversaw implementation of the local service delivery plans, and ensured that day-to-day service delivery operations were consistent with Cornerstone's overall goals.

The LCCs also provided a forum for addressing system gaps and provided solutions for the effective delivery of services to eligible and enrolled children and families in their communities. By involving key community stakeholders, these local bodies also focused on sustaining the system of care at the local level.

When the Governing Board was disbanded, the Cornerstone communities assumed leadership and decision-making for their local systems of care. Accordingly, each Cornerstone community reviewed and modified its local governance structure. This meant that in almost all cases the LCCs were modified as to purpose, focus, membership, and name. Additionally, Clear Creek and Gilpin Counties formed separate local governing bodies.

5. Other Governing and Management Committees

Given the magnitude of the Cornerstone System of Care Initiative, several committees were established. These committees were linked and had direct responsibility to the Governing Board. (See Appendix E for an organization chart.) Some committees were in place for the duration of the grant, while others were not. The major committees included:

- *Management Team*—This body served as the coordinating mechanism for the Colorado Division of Mental Health and its subcontractors. Those that served on the Management Team from the Division were the Project Director/Principal Investigator and the Cornerstone Evaluation Director. Those that served on the Management Team representing the state's subcontractors were the Project Manager and the Executive Directors of the family organizations, who served as Cornerstone's Family Advocacy Directors. Whereas the day-to-day operations and responsibilities were delegated to the subcontractors, the Management Team served as the central forum where these key players would come together to discuss system-level issues and procedures.

- ***Operations Team***—This team, made up of state and subcontractor staff, monitored Cornerstone's day-to-day service operations. It included the Project Manager, the Family Advocacy Coordinators, the Team Leader (who provided clinical supervision for the service dyads and later served as the Training Coordinator when clinical supervision was transferred to the community agencies employing the service coordinators), and the Evaluation Field Manager.
- ***Cultural Competency***—This committee undertook many activities to ensure that the system of care addressed age, race/ethnicity, cultural, socio-economic, and gender issues. It guided the development, maintenance, and monitoring of Cornerstone's cultural competence plan.
- ***Family Advocacy Network (FAN)***—The FAN consisted of representatives of family advocacy organizations, family advocates, and other family members. Its responsibilities included: recruitment of youth and families to achieve the goal of 50% family member representation on the Governing Board and LCCs; working with the Cornerstone family organizations on family support matters; and ensuring that youth and families had a voice in the system of care.
- ***Evaluation Steering Committee***—This committee had representation from diverse stakeholders, including family members, youth consumers, and local university and Division of Mental Health staff. It met regularly to provide advice and guidance regarding the evaluation of the Cornerstone System of Care. It is more fully described in Chapter III.
- ***Finance Committee***—This committee of the Governing Board was appointed to oversee the budget and contractual matters of the system of care. In addition, it was responsible for addressing sustainability issues.
- ***State Barrier Busting Team***—This state-level team assisted with funding integration, coordination of evolving state priorities, including managed care developments in mental health, health care, substance abuse, child welfare, and juvenile justice. The state team also focused on eliminating state-level barriers to the development of systems of care. The team consisted of representatives from state child welfare, juvenile justice, substance abuse, mental health, and developmental disabilities, which are all under the Department of Human Services. In addition, representatives from state education, the judicial system, health care, and families served on the team.
- ***Social Marketing/Technical Assistance Committee***—This committee was comprised of youth, families, local agencies, and representatives from the four Cornerstone communities. It worked with project staff to identify and address technical assistance needs in the grant communities and guided and participated in planning and implementing social marketing activities across the grant communities and statewide.
- ***Service Design Committee***—This group was established under the Interim Governing Board and included a number of key stakeholders, including project staff, service providers, and families. The committee made its recommendations to the Interim Governing Board concerning such issues as the structure and design of the service dyads, eligibility, and the role and responsibilities of the service coordinator and family advocate. This committee, working with the Evaluation Steering Committee, designed and established the logic model that drove the services that were rendered through the initiative. It was disbanded early on during the initial implementation of the service delivery model.

6. Service Delivery Model

One of Cornerstone's most innovative aspects was its service delivery model. From the outset, this model was conceptualized as a partnership between the traditional service systems and the recently organized family advocacy movement. Its key element was the dyad—a provider team composed of a service coordinator with professional training in one of the mental health disciplines and a family advocate who had direct experience as a caregiver of a child with mental health issues. Throughout most of the project period, each member of the dyad reported to a different agency. In the beginning, the service coordinators reported to a mental health managed care organization (InNET) and the family advocates to a family advocacy organization (Federation of Families for Children's Mental Health—Colorado Chapter). The dyads were supervised and managed through the coordinated efforts of these two organizations.

From the outset, this model was conceptualized as a partnership between the traditional service systems and the recently organized family advocacy movement.

Over the years, the dyads were co-located at community agencies in each county. Eventually, the service coordinators were hired by and reported to these community agencies. These agencies included mental health centers, non-profit agencies and schools. Around the same time, the family advocates were hired by one of three local family organizations that had been formed after the Colorado Federation withdrew from Cornerstone as the contracted family organization. (See Appendix E for an organizational chart).

Dyad members worked in partnership to deliver services to Cornerstone families. Direct interventions included service coordination and linkages, family support and advocacy, and the use of flexible funds to access non-traditional services (such as mentors and tutors) and basic family needs (such as car repairs). The dyads used the wraparound process to identify, organize, and deliver these services. A final important, and ultimately controversial, aspect of the original service model was the "no discharge" policy. Once enrolled in the project, Cornerstone children and families remained on the dyad's caseload indefinitely.

The dyads began serving families in December 2000 for the large urban county, Denver, and the large suburban county, Jefferson. Services in the mountain communities of Clear Creek and Gilpin counties began in January 2001. Over the next five years, there were five dyad teams. There was one for Clear Creek and Gilpin, two for Denver, and two for Jefferson. These dyads served a total of 514 children and their families—79 by the mountain communities of Clear Creek and Gilpin, 220 by Denver County, and 215 by Jefferson County.

7. In the End: The Year Six Changes to Cornerstone Structures and Processes

In Year Six of the grant, the Division of Mental Health (DMH) made substantial changes to Cornerstone's structures and processes. These changes were based on the findings and recommendations from the myriad evaluation studies. Some of the key changes made were:

- ***Federation of Families for Children's Mental Health—Colorado Chapter***—At the end of Year Three of the grant, the Colorado Federation withdrew from the project. As a result, three new family organizations were created. In Year Six, the Colorado Federation returned to the project to provide support, technical assistance, and other necessary resources to the new family organizations created under Cornerstone.
- ***Local Decision-Making***—In Year Six, there was a shift in decision-making from the centralized management and governance structures to the local communities. This shift resulted in the elimination of the centralized Governing Board and the Technical Assistance and Coordination Team (TACT), composed of the Project Manager, Team Leader/Training Coordinator, Social Marketing/Technical Assistance Coordinator, and Administrative Assistant. Governing Board members were encouraged to join their local governing bodies, which assumed responsibility for strengthening and sustaining the local systems of care. The Social Marketing/Technical Assistance Coordinator was retained to provide enhanced technical assistance and support to the communities and to act as the communication liaison between the local communities and DMH.
- ***Project Sustain Ability***—$75,000 was made available to each community through a Letter of Intent process to sustain components of the local systems of care.
- ***Alternative Service Delivery Models***—Communities were allowed to make changes to the service delivery model consistent with system of care values and principles to ensure that individual community needs and strengths were addressed, and to encourage sustainability.
- ***Clear Guidelines for Families Completing Cornerstone Services***—DMH and the local communities were charged with providing strong leadership to increase accountability and adherence to system of care values and principles. This included a charge to develop a transition process for families who had completed services and were ready to move to a new stage. The transition process called for clear guidelines so that youth and families understood when they had completed services and how they could request additional support, re-enter services, and access additional services in the community.
- ***Lessons Learned***—One of the last changes involved the commitment of the Evaluation Team to compile a final report summarizing the findings of all evaluations conducted throughout the grant period. This monograph is the result of these efforts.

Initially, there were concerns at the federal level about these proposed changes given the number of complaints they had received during the summer of 2004. Therefore, Cornerstone's federal project officer and a team of federal site reviewers made two trips, one in November 2004, and one in May 2005, to visit and meet with family and community members in all four counties. In the federal report that was issued after the May site visit, the federal reviewers stated:

> *The leadership of the Colorado Cornerstone Initiative has done a masterful job of transitioning decision-making for Initiative efforts to the local level. When first put forth by the leadership of the Initiative, the proposed changes in structure and decision-making were controversial—so controversial*

that concerns about the proposed changes made their way to the attention of the federal project officer, resulting in the site visit in November 2004 and the required completion of the follow-up six month action plan. In the past six months the leadership of the Colorado Cornerstone Initiative has effectively facilitated the transition of decision-making to the local level, significantly improved upon the organizational effectiveness of the key agency and family organizations involved, and strengthened the level of excitement and focus about how this initiative can not only succeed but potentially be replicated in other parts of Colorado.

D. Contents of this Paper

According to Sheila Pires, building a system of care is a complex and comprehensive undertaking, involving both processes and structures. Processes relate to the people who are involved; their roles, rights and responsibilities; and how they communicate, negotiate and collaborate with one another. It also has to do with being strategic. Structures refer to those functions that need to be organized in a defined arrangement so that the system of care can function well. An example of a function that needs to be structured is how children and families are enrolled and discharged from the system of care (Pires, 2002).

Evaluation studied several processes and structures of the Cornerstone System of Care. In Chapter III, we focus on the evaluation methodology. This chapter includes the national and local evaluations, qualitative and quantitative studies, the Evaluation Steering Committee, the studies that focused on the evaluation process.

Chapters IV–XI review and analyze the studies of the following Cornerstone processes and structures:

- Planning and System Design
- Service Delivery Model
- Family Involvement, Support and Development
- Cultural Competency
- Child and Family Outcomes and Predictors of Change
- Interagency Collaboration
- Sustainability
- Leadership and Strategic Change

Chapter XII reports the significant changes the Division of Mental Health made to Cornerstone's structure and operations in Year Six of the grant. These changes were made based, in large part, on the findings and recommendations of several key evaluation studies that had been conducted prior to Year Six. In Chapter XIII, we discuss the implications of the evaluation findings. We also draw conclusions and offer recommendations that we hope will guide current and future system of care efforts in Colorado and across the country.

III. The Cornerstone Evaluation

A. Introduction

Evaluation plays an important part in building a system of care. Therefore, careful attention should be paid to developing its process and structure. In Cornerstone's original grant application, evaluation efforts focused on two goals: first, to be integrated with the system of care; and second, to provide continuous feedback to the community at multiple levels, meaning family members and youth, policy-makers, administration, and direct service providers (Potter & Bussey, 2005).

The following evaluation activities were conducted to meet these goals:

- Data collection, analysis, and documentation of project implementation
- Identification of modifications needed in the system of care and the evaluation plan itself
- Development of a community-based evaluation infrastructure that would endure beyond the grant period
- Specialized local studies.

As a result, evaluation was a critical part of the Cornerstone System of Care Initiative from its inception through the final years of federal funding.

B. Cornerstone's Evaluation Structures

In the beginning, the Director of Data and Evaluation for the Division of Mental Health served as the lead Cornerstone evaluator. One of the first things that she did was to assemble the Cornerstone evaluation team. This team was composed of Division of Mental Health researchers and academic research partners from the University of Denver (DU) and the University of Colorado at Denver (UCD). She was also instrumental in creating the Evaluation Steering Committee, which consisted of researchers, project staff, community partners, and family members. This was one of the most effective and consistent structures within Cornerstone (Potter & Bussey, 2005).

The Evaluation Steering Committee provided guidance and direction to the project as to what aspects of the Cornerstone System of Care Initiative should be studied and how these studies should be designed and implemented. The committee also provided recommendations and feedback to project staff and communities based on study findings. For example, the Evaluation

Steering Committee was actively involved in planning for the data collection required by the national evaluation described below. This included designing a pilot study to determine the length of youth and caregiver interviews and any possible emotional impact that these interviews might have (Potter & Bussey, 2005).

By design, evaluation's goal was to make information readily available and easily usable by both project staff and communities so that midcourse adjustments could be made and progress measured during the project period.

By design, evaluation's goal was to make information readily available and easily usable by both project staff and communities so that midcourse adjustments could be made and progress measured during the project period. In order to facilitate this process, the Cornerstone Evaluation Field Manager served as the link between the Evaluation Steering Committee and the Cornerstone service delivery structure. He was a member of the Service Design Committee while it existed, and attended Service and Support Staff meetings and Management and Operations Team meetings (Potter & Bussey, 2005).

The Evaluation Steering Committee also worked very closely with the Social Marketing Committee. This collaboration increased over time as social marketing efforts began to focus on building community support to sustain local system of care efforts in each community by using evaluation findings. At around the same time, the Evaluation Steering Committee expanded its focus from implementation support to serving as a change agent as Cornerstone struggled with model development and operation issues. In these later years, the committee's efforts served to motivate and support changes to the Cornerstone model (Potter & Bussey, 2005).

C. Cornerstone Evaluation Processes

The Cornerstone evaluation primarily consisted of two sets of activities: participation in a national evaluation of all system of care communities funded by the Center for Mental Health Services (CMHS) and a local evaluation of the Cornerstone System of Care Initiative. Following are descriptions of both of these sets of activities.

1. The National Evaluation

All communities that receive federal system of care grant funds from CMHS, including Cornerstone, must take part in and comply with the requirements of the national evaluation. Macro International Inc. (ORC MACRO) provides overall management and oversight for this national evaluation study for CMHS. ORC MACRO compiles and analyzes the data from grant communities across the country and provides regular reports to each community, to CMHS, and to Congress. The national evaluation is considered a quantitative study—that is, the evaluators collect numerically coded data which they analyze using a variety of statistical methods.

The national evaluation has several goals:

- Describe the population served by CMHS-funded systems of care
- Show whether there are differences in child and family outcomes that can be tied to the system of care approach

- Describe how children and families experience the service system and how they use services and supports (i.e., utilization patterns)
- Estimate the cost of serving children in systems of care
- Describe the development of systems of care as they move toward offering integrated and comprehensive services
- Assess the effectiveness of the system of care approach as compared to typical service delivery approaches
- Assess the effectiveness of evidence-based treatment within a system of care
- Support technical assistance activities to help CMHS best meet program goals.

The Colorado Division of Mental Health (DMH) was primarily responsible for implementing the national evaluation activities for the Cornerstone Initiative. The DMH evaluation team managed data collection for this part of the evaluation. This team included the Cornerstone Evaluation Director, part-time support from DMH researchers and a data collection team composed of the Cornerstone Evaluation Field Manager and part-time interviewers. Two of the four interviewers spoke both English and Spanish. The DMH evaluation team also managed the Institutional Review Board (IRB) process for the interview data collection. IRB approval was sought and secured through the Western Institutional Review Board (Potter & Bussey, 2005).

During Year One of the initiative, data collection procedures were established and the interviewers were trained on them, including how to engage with families during the interview process. The data collection instruments and procedures were then pilot-tested. The pilot test involved a sample of families who had volunteered to be interviewed from the partnering family organizations. This test helped to fine-tune data collection procedures and relieve the fears some family members had about the interview's length and possible reactions to the instruments. The evaluation team found that by framing the data collection process as an opportunity to tell family stories through data, families responded positively and expressed a strong interest in understanding the data (Potter & Bussey, 2005).

There were several steps involved in collecting the data required by the national evaluation. First, dyad staff asked families if they were willing to enroll in the evaluation. Locally, the goal was to enroll at least 100 youth and families in the national evaluation each year for three years. Enrollment was voluntary on the part of families and in no way affected their ability to receive services through Cornerstone (Potter & Bussey, 2005).

If a family agreed, the evaluation interviewers set up an interview with the family to administer the series of data collection instruments. (A complete list of the data collection instruments can be found in Appendix C.) These interviews took two–three hours and were repeated every six months, with the last interview occurring at 36 months. The Evaluation Field Manager then compiled, reviewed and reported the data to ORC Macro. ORC Macro analyzed and reported its findings back to DMH three times each year.

2. The Cornerstone Local Evaluation

The second set of activities focused on the local evaluation of the Cornerstone System of Care Initiative. The local evaluation used a series of qualitative studies to understand Cornerstone's development and operation, and the experiences of involved families and community members.

These local evaluation studies were managed and conducted by the university partners under the oversight of the evaluation team and Evaluation Steering Committee. Local evaluation activities also included analyzing the quantitative data that was reported to ORC MACRO for local use. DU researchers were responsible for this local data analysis and prepared periodic reports with their findings (Potter & Bussey, 2005). (A complete list of evaluation studies can be found in Appendix B.)

This steady focus on "formative" evaluation, using both qualitative and quantitative methods, was a key feature of the Cornerstone evaluation. Formative evaluations focus on ways to improve and enhance existing programs as they are being developed. In contrast, "summative" evaluations concentrate on making statements about effectiveness and impact, usually after the program has been in place for an extended period of time. The Cornerstone evaluation effort also included summative studies.

As always, the Evaluation Steering Committee was actively engaged in the local evaluation endeavor. The committee helped determine the use of evaluation data, ongoing county-specific outcomes analyses, development of reports to support communication and integration between service delivery and evaluation, and qualitative studies focused on key Cornerstone processes and structures (Potter & Bussey, 2005).

D. Studies of the Evaluation Process

In November 2000, two studies were conducted to determine Cornerstone's effectiveness in meeting the CMHS timeline and the standards and requirements of the national evaluation. Following is a summary of the how Cornerstone studied these two processes, what the findings and recommendations were and how these studies informed and affected Cornerstone's evaluation processes:

- *Cornerstone Evaluation: Timelag Report (J. Wackwitz, F.A. Wackwitz & Strasser 2002):* The Timelag Report focused on when the required ORC Macro evaluation instruments were completed. The baseline outcomes interview was supposed to have been completed within 30 days after service enrollment. In order to accomplish this task, there needed to be clear communication between the service and evaluation sides of the project. This report was generated regularly across the early years of the initiative as a way to monitor this process (Potter & Bussey, 2005).

  The report summarizing findings for the first eight months of service enrollment (November 2000 through July 2001) found that youth were enrolled in Cornerstone on an average of 15 days after referral, with significant time-lags occurring during certain periods. The baseline descriptive study was completed an average of 18 days after enrollment. This was well within the 30-day requirement. However, a large number were outside the acceptable for some counties during some months (Potter & Bussey, 2005).

  This study further found that the baseline outcomes interview was conducted an average of 34 days after enrollment, well beyond the 30-day requirement. This finding indicated a strong need for greater attention to the data collection protocols. It also was an early indication that the service enrollment process needed to be adjusted and improved (Potter & Bussey, 2005).

- *Cornerstone Evaluation: Retention/Attrition Report (J. Wackwitz, F.A. Wackwitz & Strasser, 2002):* This report focused on the numbers and percentages of youth and families who advanced through the various stages of the national evaluation and those who dropped out. This report was updated regularly during the early years of the initiative and was used to track enrollment to ensure that Cornerstone was reaching its target population.

  A January 2002 summary report included findings from the five reports produced between January 2001 and January 2002. One hundred youth were enrolled in Cornerstone services during the first 15 months of operations. This was an average of 6.7 youth per month with the number of enrollees increasing over time. Of the 100 youth enrolled in services, 58 were enrolled in and completed the outcomes study. This percentage also increased over time. Most of those who dropped out of the evaluation did so during the service intake process (Potter & Bussey, 2005). Based on these findings, the report concluded that in order to meet national evaluation requirements, 125 youth needed to be enrolled in services each year.

E. Conclusions

Evaluation plays an important role in helping to build and sustain a system of care by providing much-needed information that can help system of care leaders make informed decisions. In Cornerstone, one of evaluation's primary goals was to provide continuous feedback to the communities and project staff based on the findings of the national and numerous local evaluation studies.

A particularly effective part of the evaluation structure was its Evaluation Steering Committee. This committee was composed of researchers, project staff, community partners, and family members. It provided guidance and direction for the Cornerstone evaluation as well as recommendations and feedback to project staff and communities based on study findings. The next chapter focuses on evaluation and the planning and system design of the Cornerstone system of care.

IV. Cornerstone Evaluation Studies and Their Influence on The Planning and System Design Process

A. Introduction

Evaluators have a major role in planning and designing systems of care. One valuable contribution they can make is helping to develop a "conceptual" or "logic model." A logic model is a diagram or chart that illustrates the theoretical framework for a system, program or intervention. It shows the linkages among the program's resources, conditions, strategies, short-term outcomes and long-term impact (SAMHSA, 2005). Once it is developed and agreed upon by all stakeholders, system designers can use this logic model as a blueprint to guide them as they build the organization and service interventions for the system of care. Evaluators can also use the model to help determine whether the structure and processes that were actually implemented addressed the identified needs and goals successfully.

A logic model is a diagram or chart that illustrates the theoretical framework for a system, program or intervention.

Cornerstone's original grant proposal to the Center for Mental Health Services provided a basic outline for the system of care. However, after grant funding was received, much work was needed to expand on and operationalize this initial outline. Cornerstone evaluators helped system designers with this process by facilitating the development of a logic model and by conducting studies which provide information about specific elements of the model. This process began early on and continued throughout the life of the Cornerstone Initiative. Several groups participated in these efforts:

- The Governing Board, which provided overall direction and oversight, and its Evaluation Steering and Service Design Committees
- The Local Coordinating Councils, which performed the same function at the local level for the participating counties
- The Management Team, which included representatives from the Division of Mental Health and the service and family advocacy organizations.

Like most logic/conceptual models, Cornerstone's model included the following key elements:

- ***Values and Principles***—describe the underlying philosophical basis on which the system is built. For example, a "family-centered" intervention should involve the family as an integral part of the service delivery process, rather than viewing the youth in isolation. A family-centered system should also include family members as participants in system design, governance, management, and evaluation.

- ***Characteristics of the Population To Be Served***—specify the types of individuals who are eligible to receive services. This includes demographics (e.g., age, county of residence), history of use and type of services received, and severity of problems.
- ***Characteristics of the Services To Be Delivered***—delineate the types and characteristics of services that constitute the overall delivery system. These include the array of services that will be provided, the methods used to achieve cultural competence, and the intensity, frequency, and duration of each type of service.
- ***Measurable Goals and Outcomes***—define the aims and desired results of the intervention for youth, families, and the system of care.

Cornerstone evaluators contributed to the system of care's planning and system design by producing quantitative and qualitative data to assist with development of all of these planning elements. In this chapter, we look at the evaluations that informed the early and midcourse system design efforts. The system changes that took place in the project's sixth year are discussed in Chapter XII on page 99.

B. Studies of Cornerstone's Planning and System Design Process

Two formative evaluations examined Cornerstone's early planning and system design processes:

- *Cornerstone Formative Evaluation (Hess, Doll, Kurtz, Bruning & Ziebarth, 2000)*: This first year qualitative study had three stated purposes:
  - To augment the objective evaluation plan by examining services and their delivery, accessibility and coordination
  - To describe the impressions of family and agency representatives as they participated in Cornerstone's system of care development process during its initial stages
  - To serve as a baseline against which to compare elements of the project as they emerged during the later implementation years.

  In spring 2000, the researchers conducted interviews with 23 family members and agency representatives who had been active in Cornerstone's early stages. After the initial analysis was completed, they convened a focus group to review and comment on the themes they had developed from the interview data. Since this study occurred early on, its findings are most relevant to the planning and service delivery elements of the system of care. However, the analyses also illuminated the discussions of the service delivery model, family involvement, and interagency collaboration covered later on in Chapters V, VI, and IX, respectively.
- *The Colorado Cornerstone Mental Health Initiative Third Year Implementation: Qualitative Report (Hess, 2002):* This Year Three evaluation was designed as a follow-up to the Year One formative study. It had the same stated purposes and was meant to serve as a progress assessment and point of comparison to the baseline first year evaluation. Study methods were the same as the earlier study, with 20 interviews collected beginning in late August 2001. At that time, all key personnel had been hired (although some had left or changed positions), governance and management structures were fully operational, and services to youth and families had been in place for about nine months.

Evaluations conducted in the project's second and third years also included some findings on the planning and system design process (Bussey, 2002, 2003). However, since both of these studies focused more specifically on Cornerstone's service delivery model, they are described in detail in the following Chapter V.B, which begins on page 35.

Several additional early studies were conducted to aid the development of Cornerstone's eligibility criteria:

- *Literature Review: Risk Factors for Juvenile Justice Involvement for Youth with Serious Emotional Disturbance (F. Wackwitz, 2000)*: This comprehensive literature review examined predictors of juvenile justice involvement among youth, with a special focus on the limited literature on youth with serious emotional disturbance. The review identified critical predictors in the following domains: family, school, employment, dangerousness, socialization, substance use/abuse, law/juvenile justice involvement, and service history.
- *Literature Review: Adoption and Juvenile Delinquency (Dieterich, 2001)*: Because some family members were concerned about increased risk for juvenile justice involvement among adopted children, a brief literature review on this topic was completed. While the literature documented some concern about this issue, there was not strong, compelling evidence to suggest that adopted children were at higher risk for juvenile justice involvement, and this item was not included in the screening instrument.
- *Eligibility Pilot Study (F. Wackwitz, J. Wackwitz, Strasser, & Coen, 2001)*: Information from the literature reviews described above was used to construct the risk factor portion of the Cornerstone eligibility screen instrument. The screening instrument was then piloted with a sample of youth served by the primary partner agencies in Clear Creek, Denver, and Jefferson counties. Individual agency members of the Local Coordinating Councils (LCCs) used the screener to describe children on their current caseloads. A total of 269 youth were evaluated from eight agencies, including mental health centers, schools, child welfare agencies, courts, a juvenile assessment center, and a rural community service center.

Finally, one other early study was aimed at helping members of the service design committee develop the project's final logic model:

- *The Outcome Prioritization Study (Strasser, F. Wackwitz, Coen & J. Wackwitz, 2001)*: The purpose of this study was to help develop the logic model by:
  - Creating a list of what stakeholders value as important outcomes of Cornerstone services;
  - Rating the importance of these identified outcomes;
  - Ranking these outcomes for youth, families, and systems; and
  - Soliciting stakeholder input about missing outcomes and any changes or outcomes that might be essential to their particular agency or group.

  The evaluators created a preliminary inventory of outcomes through a literature review, which was reviewed and modified by several Cornerstone stakeholder groups. After pilot testing, a set of primary program outcomes was approved for inclusion in the Cornerstone Outcomes Prioritization Survey. Surveys were distributed to stakeholders representing the following groups: youth and families; residents of the (then) four Cornerstone counties; and state, county, and local organizations. Of the total 85 surveys distributed, 38 responses were received—10 from

youth, 30 from family members, and 45 from agency representatives. All survey information was entered into an ACCESS database and sorted by outcome area and type of respondent (family, youth, or agency). This allowed the evaluators to determine how important each outcome area was to each respondent type and how the sub-areas within each area were ranked.

C. Findings and Recommendations

Cornerstone evaluations offered guidance and feedback on all elements of the planning and system design model—values and principles, characteristics of the population to be served, characteristics of the services to be delivered, and desired goals and outcomes. This section concentrates on early and midcourse findings and recommendations from these studies.

1. Values and Principles

Hess' analysis of the qualitative interviews in the Year One Formative Evaluation (Hess et al., 2000) revealed that the majority of informants agreed on these key values for Cornerstone:

- Family involvement and focus are of central importance to the Cornerstone process.
- Cornerstone must provide a consistent system of care without barriers between service providers.
- Decision-making should be shared equally among Cornerstone partners, regardless of whether they contribute funds to the initiative or not.

Areas identified as needing attention during the planning and system design processes included (Hess et al., 2000):

- Addressing barriers to family involvement, including childcare, transportation and stipends
- Establishing effective benchmarks for a consistent system of care that would reduce service redundancy and conflicts. Cornerstone must also resolve issues about how consistent the system of care should be across counties, and how it will look from county to county,
- Securing community representation from some key organizations that were currently not at the table, such as the faith community, recreation, and other community projects and resources
- Increasing diversity in representation, providing additional training on cultural competence, and having an agreed-upon definition of cultural competence
- Ensuring ongoing family and agency involvement, a task that was thought to rely on demonstrating improved outcomes for children and families and reductions in agency costs
- Ensuring responsiveness to local community needs and county differences.

Based on these findings, Hess (2000) made the following recommendations:

- The evaluation and service design committees should work together to create a common definition for cultural competency, outline strategies for enhancing these skills, and, if appropriate, develop a method for evaluating the cultural competence of services.
- These committees should continue to recruit and facilitate involvement of family members in the project.

- Although there is strong consensus on desired outcomes, these committees need to revisit the project mission and goals to orient new personnel and group members.
- These committees should clarify the relationship between broad, conceptual outcomes such as family satisfaction and indicators such as decreased hospitalizations.
- These committees should continue to involve representatives from local agencies and programs to ensure that existing community efforts are not overlooked.

Data from participants in later formative studies (Bussey, 2002; Hess, 2002) confirmed the importance of a strengths-based model that involves families as equal partners in the service delivery process and empowers them to become self-sufficient.

Data from participants in later formative studies (Bussey, 2002; Hess, 2002) confirmed the importance of a strengths-based model that involves families as equal partners in the service delivery process and empowers them to become self-sufficient. Another important goal identified through these studies was the development of an accessible, integrated, culturally competent model that uses a wraparound, collaborative approach to reduce redundancy, gaps, barriers between service providers and service conflicts. The next chapter, Service Delivery Model, provides further discussion about how well these goals were achieved.

2. Characteristics of Population to Be Served

Information from the literature reviews and the Eligibility Pilot Study was used to construct the Cornerstone Eligibility Screen (F. Wackwitz, J. Wackwitz, Strasser & Coen, 2001). This instrument identified basic demographic and referral source information, followed by sets of information assessing risk for juvenile justice involvement and criteria for serious emotional disturbance (SED). The instrument also included decision rules to aid in selection of youth and families appropriate for enrollment in Cornerstone. The final decision criteria were:

- Age 5–21 and entered services prior to 18
- Family residence in Clear Creek, Denver, Gilpin or Jefferson County
- Youth met the criteria for emotional or behavioral disorder
- With a history or expected duration of greater than one year
- Serious emotional disturbance[3]
- Law/juvenile justice involvement OR risk factors in two or more risk domains.

Findings from the Eligibility Pilot Study indicated that most youth served in the potential referral sites met criteria for SED with an expected duration of more than one year (50%) and had at least two risk factors for juvenile justice involvement and/or prior juvenile justice involvement (93%) (Wackwitz et al., 2001). The Evaluation Steering Committee produced rough estimates of the percentage of referable youth for each potential referral source. These estimates ranged from a low of

[3]Defined by the Division of Mental Health as an emotional or behavioral disorder that impacts a child's or youth's ability to function at home, in school or in the community, and that this impact has lasted or is expected to last for one year or more.

23% for the Denver Department of Human Services to a high of 70% from the FACT intensive family preservation team, part of the Jefferson County Department of Human Services.

3. Outcomes

Hess's Year One Formative Evaluation (2000) conducted some discussions of initiative outcomes with participants, with the following outcomes seen as critical for project success:

- Reduction in juvenile justice involvement, school failure, and out-of-home placements for youth
- Increased family involvement with services, better access for families, increased family satisfaction, and improved family functioning
- Strong agency collaboration, less redundancy in services, improved quality of services, fewer service gaps, and sustainability of the Cornerstone Initiative.

The Outcomes Prioritization Survey (Strasser et al., 2001) provided additional information about the relative importance of various outcomes to different stakeholders. As shown in the following table, six outcome areas for youth were generally endorsed as "important" or "very important" across the three types of survey respondents (youth, family, and agency/organization representatives), although youth respondents were less likely to endorse the importance of these outcomes than were other respondents.

Table 1: Percent of Outcomes Prioritization Survey Respondents Who Rated Selected Youth Outcomes as "Important" or "Very Important"

Outcome	Type of Respondent		
	Youth	Family	Agencies and Organizations
Improved functioning	67%	100%	100%
Decreased antisocial/delinquent behavior	55%	100%	93%
Improved school/work performance	55%	92%	94%
Improved quality of life	55%	100%	86%
Reduced out-of-home placement	44%	91%	82%
Increased youth involvement/satisfaction	33%	92%	69%

However, youth and family respondents differed substantially on sub-area rankings of these youth outcomes. For example, under the area "improved functioning," youth ranked "reduced substance use" as their number one priority, while family members (caregivers) ranked this last. Conversely, family members (caregivers) ranked "increased positive relationships" as number one in priority in this area, while youth ranked this last. Similarly, respondents also tended to endorse four outcome areas for families as "important" or "very Important," although again, youth respondents gave lower endorsements compared to family and agency/organization respondents, as shown in Table 2 below.

Finally, respondents were asked to rank the importance of three system outcome areas:

- Increased youth/family participation in the system

Table 2: Percent of Outcomes Prioritization Survey Respondents Who Rated Selected Family Outcomes as "Important" or "Very Important"

Outcome	Type of Respondent		
	Youth	Family	Agencies and Organizations
Improved family functioning	57%	100%	93%
Increased parent involvement/satisfaction	44%	100%	74%
Improved quality of life	51%	92%	64%
Reduced family problem behaviors/attitudes	33%	72%	86%

- Improved service delivery system
- Improved cooperation/collaboration across systems.

Each type of respondent ranked these areas differently. Youth gave the highest ranking to "increased youth/family participation," with "improved service delivery system" and "improved cooperation/collaboration" tied for second place. On the other hand, family members ranked "improved cooperation/collaboration across systems" as first, with the other two areas second in importance. Finally, agency representatives ranked "improved service delivery system" as most important, with "increased youth/family participation" a close second and "improved cooperation/collaboration" third.

D. Conclusions

Evaluation can offer guidance and feedback on all elements of the planning and system design process, including: values and principles, characteristics of the population to be served, characteristics of the services to be delivered, and desired goals and outcomes. These elements can become part of a logic or conceptual model that provides an overall blueprint for system implementation and outcome evaluation.

The Cornerstone studies confirmed the importance of a strengths-based model that involves families as equal partners in the service delivery process and empowers them to become self-sufficient. Another important goal was to develop an accessible, integrated, culturally competent model that used a wraparound, collaborative approach to reduce redundancy, gaps, barriers between service providers, and service conflicts. Cornerstone evaluation studies were also instrumental in the development of the eligibility criteria for admission to the system of care.

Finally, evaluation participants identified the following outcomes as critical for project success:

- Reduction in juvenile justice involvement, school failure, and out-of-home placements for youth
- Increased family involvement with services, better access for families, increased family satisfaction, and improved family functioning
- Strong agency collaboration, less redundancy in services, improved quality of services, fewer service gaps, and sustainability of the Cornerstone System of Care Initiative.

The early studies related to this topic supported Cornerstone's planning process by clarifying, verifying, and operationalizing the essential elements of the "blueprint" for the system of care. For example, two early studies gave specific guidance about how important different outcomes were to different stakeholders. Mid-course studies offered ongoing guidance about the design process, serving as progress assessments and points of comparison with the early studies.

Systems of care can use this type of information to improve their initial planning processes, and to lay a strong foundation for ongoing evaluation efforts. For example, it is much more difficult to answer the question, "Did we succeed in serving the youth and families we targeted?" if operational definitions of that population are not developed early on. Using tools such as a logic or conceptual model, evaluators can help to tie these key system elements together and make major contributions to the system planning and design process.

V. Cornerstone Evaluation Studies and Their Influence on the Service Delivery Model

A. Introduction

Systems of care are generally created to support new models of service delivery for children and families. Evaluators contribute to the development and ongoing refinement of these service delivery models in two ways:

- By helping program managers determine whether the model is being implemented according to plan
- By gathering data about participants' perceptions of the model's strengths and areas for growth as it is implemented.

…one of Cornerstone's most innovative features was its service delivery model.

As noted in Chapter II, one of Cornerstone's most innovative features was its service delivery model. Its key element was the dyad, composed of a service coordinator and a family advocate. In the beginning, the service coordinators reported to a mental health managed care organization and the family advocates to a family advocacy organization. These two provider organizations co-supervised and managed the dyads. In later years, the dyads were co-located at community agencies in each county. Ultimately, these community agencies hired the service coordinators and one of the local family organizations created under Cornerstone hired the family advocates.

Dyad members worked in partnership to deliver services to Cornerstone families. Direct interventions included service coordination and linkages, family support and advocacy, and the use of flexible funds to access non-traditional services and basic family needs. The dyads used the wraparound process to organize and deliver these services. This process was characterized by the creation of a "wrap team" composed of the child and family members, service agency representatives and others involved with the family (e.g., coworkers, faith community representatives, friends). The dyad worked with this team to design and monitor implementation of the "wrap plan," which outlined all services and supports needed by the child and family. A final important, and ultimately controversial, part of the original service model was the "no discharge" policy. Once enrolled in the project, it was expected that Cornerstone children and families would remain on the dyad's caseload indefinitely.

This chapter reports on the evaluations of these aspects of the Cornerstone service delivery model from a variety of perspectives. Changes to the model that were made partly as a result of these studies are described in Chapter XII.

B. Evaluations of Cornerstone's Service Delivery Model

Since the service delivery model was one of Cornerstone's most critical elements, it was studied using a variety of qualitative and quantitative methods. These evaluations asked key questions such as:

- How is the Cornerstone delivery model different from traditional services?
- How is the model being implemented?
- Is it being implemented according to plan?
- What are the family members' perceptions about services they have received?

The Year One and Year Three Formative Evaluations, described in Chapter IV.B. on page 28, looked at a variety of cross-cutting issues including the service delivery model. The Year One study (Hess et al., 2000) provided qualitative data about the participants' goals and expectations for how services would be delivered. The Year Three evaluation (Hess, 2002), which asked the same questions as Year One, offered some feedback on the service model's strengths and areas for growth.

In addition to these studies, three qualitative evaluations focused more specifically on how the service delivery model was being implemented:

- *Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative (Bussey, 2002)*: The primary focus of this Year Two evaluation was on how the dyad model was being implemented from the perspective of the dyads and their supervisors. The researcher used a qualitative approach, conducting extensive interviews in July and August 2001 with all original dyad staff members and their supervisors and managers. The study's primary purpose was to explore and document the way the conceptual model for the dyad had been translated into actual service activities, and the ways family advocates, service coordinators, and their supervisors worked together to provide these services.

  Interview questions focused on four areas: current service structure or model, service process (including dyad roles, training, and supervision), feedback from families, and service philosophy. Results of the interviews were coded both by the specific areas explored and by cross-cutting themes. Although its major focus was on the dyad model, the study results also addressed issues related to overall system design and family involvement, which are discussed in Chapters IV and VI respectively.

- *Family Perspectives on the Colorado Cornerstone Initiative: A Qualitative Case Study (Bussey, 2003)*: This qualitative study was intended as a follow-up to Bussey's Year Two evaluation of the service delivery model described above. However, it looked at family members' rather than staff perceptions about the service delivery model. The interview questions also focused more broadly on how the Colorado Cornerstone System of Care Initiative worked, what the barriers were, and how those barriers were addressed. As a result, the evaluation findings related not only to the service delivery model, but also to system of care elements such as planning and design, family involvement, and agency involvement discussed in Chapters IV, VI, and IX, respectively.

  The researchers interviewed a total of 12 white and African American family members from Clear Creek, Denver, and Jefferson counties in the summer and fall of 2002. The sample of families was then sorted according to dyad members' ratings as to the degree of success of the Cornerstone interventions with each family interviewed. The reason for this differentiation was that system leaders believed at the time that there were wide variations in family members' experiences with Cornerstone services. For seven families in the interview sample, Cornerstone interventions were rated by dyad staff as successful (the "High" group); the interventions delivered to the remaining five families were rated as not successful (the "Low" group). Interview

data were coded and analyzed not only by the subject area questions asked, but also by cross-cutting themes and unique, unanticipated viewpoints.

- *A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives (Manning & Paskind, 2003)*: The purpose of this case study was to understand and articulate the necessary processes and structures of an innovative, integrated system of care. It sought to identify and describe Cornerstone's current and potential barriers and successes based on the actual experiences of agency and family partners in developing the initiative. The researchers used both individual interviews and focus groups in this qualitative study, which was conducted in summer and fall of 2002. Three of the sixteen interviews were held with family representatives and the remaining thirteen involved agency participants in the system of care. A total of 47 separate individuals participated in the six focus groups, two with each Local Coordinating Council in Denver, Jefferson, and Clear Creek counties, respectively. Data analysis identified central themes both within each county and across the entire Cornerstone project area. The findings and recommendations were organized to emphasize the structures and processes that facilitated success and overcame fragmentation and barriers.
- *Family Advocates Inside and Outside Colorado's Public Mental Health System (Demmler, 2003):* This qualitative, observational study focused on one of the most innovative elements of the Cornerstone service model—the family advocate. There are many family members working as paid staff members both within Colorado's public mental health system and in other parts of the country. However, Cornerstone's dyad approach, which teamed a family advocate with a professionally trained service coordinator, was relatively unique. Thus, the evaluation chose this part of the service delivery model for special attention. Two questions guided the study:

1. What are the role definitions of the family advocate in the Cornerstone dyad interventions?
2. How do the roles of family advocates located within the Cornerstone dyad intervention compare to the roles of the family advocates as paid staff within Colorado's mental health system?

The researcher observed 15 family advocates over a two-month period, including five Cornerstone advocates and ten employed by Colorado mental health centers and a managed care organization. Each observation totaled ten hours. Field notes were coded for emerging themes and analyzed using a qualitative analysis software system.

Cornerstone evaluators added a fourth report, focused mainly on the service delivery model, using qualitative data from interviews with family members that were collected as part of the national evaluation:

- *Family Reflections on the Strengths and Challenges of Cornerstone Delivery Model: A Qualitative Study (Lee, 2004)*: This study involved an analysis of responses to open-ended questions that were administered at the conclusion of the national evaluation interview. The questionnaire provided qualitative information on families' experiences with Cornerstone, using the following questions:
  - Since you have been involved in Cornerstone, what kinds of things have worked well or what kinds of things did you like?
  - What kind of things have you found to be a problem since becoming involved in Cornerstone?

- What has been done about any of the problems that you have mentioned?
- Anything else that you would like to mention that we have not talked about?

Although the scope of these questions was quite broad, the evaluation results centered around the caregivers' perceptions of the services they had received. Participants were caregivers of children and youth who were receiving Cornerstone services. Unlike most of the other qualitative studies conducted for Cornerstone, data was collected over time, from an initial (baseline) interview to a 36-month follow-up contact. The same questionnaire was administered at each visit. There were 127 interviews in all. Analysis of results included dividing responses into strengths and challenges, and identifying the most prevalent themes.

In addition to the qualitative studies described above, Cornerstone used quantitative data from the national evaluation (described in Sections III.C.1 on page 22 and VIII.B on page 61) to evaluate the impact of the service delivery model. This included information about families' satisfaction with services over time and the types of services received by Cornerstone youth.

C. Findings and Recommendations

The Cornerstone evaluations produced multifaceted feedback on the service delivery model and how it was implemented. Based on an analysis of the documents described in the previous section, we have grouped these findings into the following categories:

- ***Values and goals***—The early formative evaluations, described in the previous chapter (IV.B on page 28), provided insight into project participants' understanding of the system of care's values and goals. This chapter summarizes findings from later studies, which offered feedback about whether Cornerstone had been successful in incorporating these values and achieving these goals within its service delivery model.
- ***Characteristics of the model itself***—Several studies examined different aspects of Cornerstone's service delivery, including the dyad, the use of flex funds, and the wraparound process. Early studies provided descriptive data about the model and helped to identify areas where it was unclear. Later evaluations made recommendations about what aspects of the service model had been successful and how it could be improved.
- ***Implementation of the model on the system level***—The formative evaluations included information about how the model was being implemented on the system level. This information included findings on team collaboration, how the dyads were being trained and supervised, and the importance of system-level processes such as coordination and communication.
- ***Implementation of the model on the individual/team provider level***—Some qualitative studies provided information, primarily from family members, about the way Cornerstone service providers, especially the dyads, were operating on the individual and team level.
- ***Services received***—The national evaluation collected data about the types and quantities of services received by Cornerstone children, youth and families.
- ***Overall family feedback on services***—Many studies provided both quantitative and qualitative data on caregivers' overall perceptions of the services received by their children and families.

1. Philosophy, Values, and Goals

Overall, findings from the Cornerstone evaluations indicated that the service delivery model was based on a strong, well-understood set of values and goals. However, the studies identified some issues in delivering services based on these values and goals.

Evaluations from Year Two (Bussey, 2003) and Year Three (Hess, 2003) concluded that project staff, including managers, supervisors and direct service providers, had a good understanding of Cornerstone values and goals and were committed to achieving them. In her Year Three study, Bussey concluded from the data she had collected that Cornerstone:

- Was doing a good job at creating accessible services for families;
- Was doing a good job involving families in decision-making;
- Was making a good effort, but had not been successful in motivating agencies to work together to create a cohesive system of care;
- Needed to devote continued attention to service gaps that still existed; and
- Was making efforts to build cultural competency through training, representation, and use of a task force.

Project staff did identify two areas of potential difficulty when services based on these values were delivered. One concerned the potential for conflict between program values and individual family goals. For example, some families wanted their children in residential placement, while keeping children at home was an important program goal. Others raised concerns about the emphasis on strengthening families in situations where the parents had abused their children or were struggling with their own substance abuse (Bussey, 2002).

2. Model

One of the richest sources of data on Cornerstone's service model was Demmler's 2003 comparison of Cornerstone family advocates with those employed in other parts of Colorado's public mental health system. Although this study concentrated on this innovative aspect of the service delivery model, it also provided information on the wrap-around process, the use of flex funds, and the role and functions of both members of the dyad.

Demmler found that the common roles performed by both Cornerstone family advocates and the family advocates employed by the public mental health system included emotional support for parents, access and coordination of services, provider education, and parent education. She also described four important characteristics of the Cornerstone family advocates:

- Primary worker with the family
- Co-facilitator of wraparound meetings

- Facilitator of family/parent support groups
- Advocate for the family rather than for the institutional service system.

She concluded that the wide array of useful characteristics and valued roles performed by family advocates, regardless of where they are located institutionally, provided evidence for continuing and expanding the use of family advocates in Colorado systems of care (Demmler, 2003).

The study identified three major differences between the roles of Cornerstone family advocates and those employed by Mental Health Assessment and Service Agencies (MHASAs; now known as Behavioral Health Organizations, these are managed care organizations for Medicaid mental health care in Colorado) and community mental health centers (CMHCs). One was the Cornerstone advocates' ability to provide "flex funds" to families to meet basic needs or access non-traditional services that could not be paid for in any other way. Since this resource was used often and highly valued by system of care recipients, she recommended that Cornerstone focus attention on how these funds could be maintained after the grant period ended. A second difference was that Cornerstone family advocates interacted with a broader array of agencies than MHASA or CMHC advocates. Specifically, Demmler observed that Cornerstone advocates worked closely with representatives of the legal and juvenile justice system, while MHASA or CMHC contacts were limited to the education system and helping with basic needs such as housing and income support (Demmler, 2003).

…the wide array of useful characteristics and valued roles performed by family advocates, regardless of where they are located institutionally, provided evidence for continuing and expanding the use of family advocates in Colorado systems of care.

Finally, Demmler observed that Cornerstone advocates seemed more willing than MHASA or CMHC family advocates to be critical of service recipients' mental health treatment. She ascribed this subtle difference to the Cornerstone advocates' independent orientation outside of the public mental health system. She noted, "The location of the Cornerstone family advocates 'outside' of (or independent of) the public mental health system, as well as outside of other human service systems (e.g., social services, education, juvenile justice), allows their interest to be fully focused on the family's needs. This independence provides the ability to be truly a family, rather than a mental health system, advocate" (Demmler, 2003).

Demmler's study (2003) also looked at the wraparound process, with specific attention to the family advocates' roles in this process. Although one important wraparound strategy is to involve friends, coworkers and others who could serve as family supporters, Demmler noted that she was unable to observe wraparound meetings that included persons identified by the family. The wraparound meetings she did observe were composed of the family, Cornerstone staff, and other professional service providers. Bussey's early evaluation of family perspectives (2002) found wide variations in the way that families perceived and understood Cornerstone's wraparound process. She reported that of the 12 families interviewed for the study, only five said they had participated in a wraparound meeting involving more than the family and Cornerstone staff. She noted, however, that the parents who had participated in a meeting found the experience very helpful and felt it contributed to their children's care.

Bussey's analyses of the family interviews also identified four elements of the service delivery model which respondents felt were different and superior to other models:

- ***Respect.*** In contrast to some of their help-seeking experiences, most parents interviewed felt respected and treated as partners by Cornerstone staff.
- ***Different Relationship with Service Providers.*** Families valued the in-home sessions and the support of having dyad members with them at Individualized Education Plan meetings, court and doctor's appointments.
- ***Right Level of Care.*** A goal for some families was to get their children back home from overly restrictive placements, but others asked for help in accessing adequate levels of care when children were discharged prematurely or without follow-up from out-of-home placement.
- ***Services "Outside the Box."*** Parents appreciated the way the dyads had been able to move quickly to provide non-traditional resources. They particularly valued their ability to use flex funds to access such important services as mentors, specialized recreational activities, private therapy.

A final recommendation for the service model from Bussey's family perspectives study was to clarify transitions and endings. She found that one of the things that families valued most about Cornerstone services was the continuity and stability of their relationship with the dyad. However, some had not been in contact with their dyad for quite some time and were unclear whether they were still considered a part of the system. Based on this feedback, Bussey recommended that the service model develop a structured answer to the question, "When do youth and families 'graduate' from a formal system of care?"

3. System-Level Implementation

In her first year formative evaluation (2000), Hess identified one area needing attention during the development of the Cornerstone Initiative as "establishing effective service benchmarks, including resolving issues related to county variation." She also discussed initiative outcomes with participants, with the following outcomes seen as critical for project success:

- Strong agency collaboration
- Less redundancy in services
- Improved quality of services
- Fewer service gaps
- Sustaining the Cornerstone System of Care Initiative.

Bussey's study, titled *Implementation of an Innovative System of Care* (2002), was conducted at the end of Cornerstone's first full year of implementation. It focused on feedback from project staff involved in service provision and noted several system issues affecting this early implementation process:

- Because of the perceived need to begin serving families as quickly as possible, supervisors felt that there was not enough time to complete all necessary inter-agency agreements.
- Dyad members voiced the need for more job-related training on topics such as wraparound, support group facilitation, effective children's mental health treatment, and communication

and conflict resolution. In addition, family advocates and service coordinators often received training separately.

- Some supervision for the dyads was also arranged differently, with service coordinators and family advocates having separate supervision sessions in addition to group supervision for the dyads. As a result, a large amount of time was spent in supervisory meetings.
- All dyad members reported initial confusion about their joint and separate roles as team members and individual service providers. Supervisors responded that issues of roles and teamwork were being addressed in supervision.

From these interviews, Bussey concluded that issues of coordination would be very important to the success of Cornerstone's service delivery effort. She recommended that dyad members spend more time together. She felt this would be both more efficient and useful for coordinating training, information sharing, and problem solving across all dyads, as well as increasing opportunities for collaboration within each team. She suggested that Cornerstone look at how other similar dyads in system of care initiatives have addressed this issue and consider a facilitated process to enhance coordination.

Bussey's study also included recommendations about the wraparound process. Noting that some families interviewed had not participated in meetings for various reasons, Bussey asked "How can wraparound be achieved in cases where there aren't many formal systems involved, or when staff from those systems cannot attend?" She suggested that Cornerstone "clarify wraparound in unique situations," such as when youth are in out of home placement. Finally, Bussey recommended that Cornerstone develop a systematic way to describe and document the care coordination and wraparound meetings and processes. She noted that in some cases, the dyad and families had done much of the work of a wraparound *process,* but had not held formal wraparound *meetings* that brought these systems together.

Demmler's study (2003) also included recommendations about how the wraparound process should be implemented. She reported that wraparound meetings were generally held during the day when friends or family who might be supportive might not be available, and recommended more scheduling of wraparound meetings in the early evening to encourage participation from these informal support people. She also recommended that Cornerstone strategize about how to make wraparound more visible and how to overcome the challenges she had observed.

Finally, Bussey (2003) reported that most interviews conducted for her family perspectives study occurred during and shortly after a period of organizational change and unanticipated budget restrictions that brought a sudden end to flex-funded services for some families. As a result, several parents who had felt very positive before the changes/cuts expressed uncertainty, discouragement, and anger about their recent interactions with Cornerstone. Some family members in Lee's analysis of interview data from the national evaluation (2004) also reported experiencing service breakdowns after staff changes. Based on this feedback, the researchers suggested that system communication could be improved, with Bussey asking "How can unexpected funding cuts be conveyed to families?"

4. Implementation at the Individual Dyad/Provider Level

Demmler's family advocate study (2003) offered some information about how the service model was being implemented at the dyad level. She found evidence of role distinction between the fam-

ily advocate and the service coordinator as well as some role diffusion across the dyad. The service delivery model defined the service coordinator's role as focusing on the youth, while family advocates worked primarily with the family. Demmler observed many examples of this role distinction, but also reported several instances where family advocates and service coordinators took roles that might be more typical of the other dyad member. She concluded that these instances may not represent frequent role exchanges, but provided evidence that dyad members were willing and comfortable stepping into the shoes of their partners.

Qualitative data from the local evaluations (Bussey, 2002; Hess, 2002) and the analysis of interview data from the national evaluation (Lee, 2004) found mixed results in terms of how dyads were functioning and how they were perceived by families. These results seemed to indicate that there was variability in the way Cornerstone services were being delivered across dyads. Bussey's (2002) interviews surfaced some issues with role conflicts and teamwork within the dyads as well. She noted that these issues were being addressed in supervision.

These results seemed to indicate that there was variability in the way Cornerstone services were being delivered across dyads. Bussey's (2002) interviews surfaced some issues with role conflicts and teamwork within the dyads as well.

In Bussey's study (2002) and Lee's analysis (2004), family members raised several issues about their interactions with dyad members and other Cornerstone staff. These included:

- ***Regular Contacts***—families wanted a more formal way for dyads to contact them, including setting up a schedule for such contacts. Some families indicated that contacts with dyad members were irregular and separated by a long period of time.
- ***Communication***—respondents identified challenges communicating with staff, difficulties with the clarity of information received and in the accessibility of staff via telephone.
- ***Reliability/Follow-Through***—some families reported challenges with the reliability of Cornerstone staff, indicating that they did not follow through on providing access to needed services or community resources.

On the other hand, these same studies, as well as Hess' Year Three evaluation (2002) found many positive perceptions of the Cornerstone service providers:

- ***Communication***—some families indicated that communication was a positive of Cornerstone, referring specifically to the accessibility of their dyads by telephone.
- ***Skills***—some families reported that the dyads were making a difference by providing effective, quality case coordination. Others stated that the quality and skills of the dyad members and other providers, including mentors, was a Cornerstone strength.

5. Services Received

The Multi-Sector Service Contacts (MSSC) interview, part of the national evaluation, checked with caregivers every six months to see what kinds of services their child and family had received during the prior half-year. Caregivers were also asked their opinion about whether the specific services met the child's and the family's needs. Responses were collected from 166 caregivers after

their first six months of participation in Cornerstone, 114 caregivers for the period of six to 12 months after enrollment, and 81 covering 12 months to 18 months after enrollment. These data showed that the most frequently used services across all time periods for youth and families in Cornerstone were:

- Individual Therapy (69%)
- Medication Monitoring (63%)
- Assessment (56%)
- Case Management (59%)

Caregivers gave the *highest* marks, in terms of meeting the child's needs, to:

- Flex Funds (these were received by 25% of families)
- Respite Care (used by 6% of families)
- Recreation (used by 40% of families)

The Restrictiveness of Living Environments and Placement Stability Scale (ROLES) was another part of the national evaluation. This scale measured the number of youth in three types of out-of-home placements—psychiatric hospitals, juvenile justice/detention settings, and residential treatment centers (RTCs). The ROLES allowed evaluators to track these types of out-of-home placements over time, from a period six months prior to the youths' enrollment in Cornerstone to as much as 36 months after Cornerstone services began. The results below show the variations in the percent of youth placed over time in the three types of placements; none of these trends was statistically significant.

Figure 3: Percent of Youth in Placements Across Time

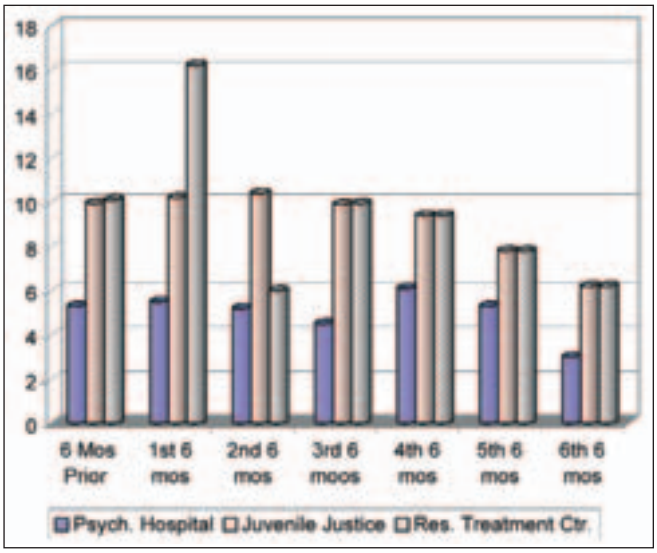
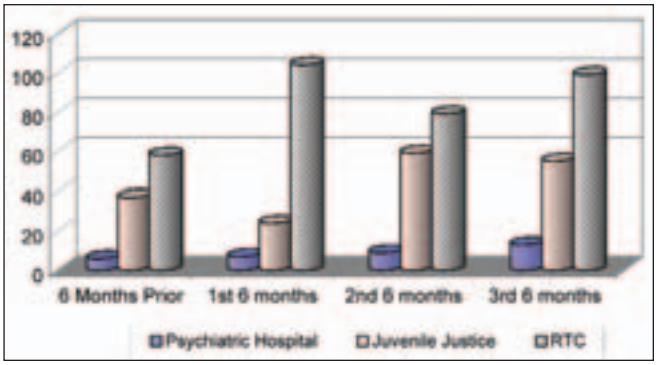


Figure 4: Median Days Out of Home, Across Time



ROLES also provided information about lengths of stays for those youths placed out of their homes. The next chart shows the average (median) number of days in placement for each six-month period (180 days), comparing the six months prior to intake with the three successive periods after intake. It should be noted that these

lengths of stay are calculated for the group of any youth who are in psychiatric hospital, juvenile justice, and residential treatment center (RTC) settings in each six-month period and do not reflect average lengths of stay of the same youth across time. Although measurement of ROLES does not lend itself well to tests of statistical significance, it seems noteworthy that average stays in psychiatric hospital ranged from 7 to 10½ days and showed little variability over time; whereas, average stays in RTC ranged from 56 to 106 days, with considerable variation over time.

6. Overall Family Perceptions

In addition to the specific feedback about various aspects of the Cornerstone delivery model described above, many evaluation studies included more global information about family members' perceptions of the services they were receiving. These studies provided both qualitative and quantitative data about the strengths and challenges of Cornerstone services. Overall, this feedback was generally positive.

For example, Lee's analysis of caregiver responses to interview questions that were asked as part of the national evaluation (2004) found that 81 responses (76% of the strength comments and 30% of total comments from the interviews) involved the strengths of Cornerstone's service delivery. In particular, comments were made about the resources, services, and support Cornerstone was able to provide to families. Caregivers appeared to be the most satisfied with these aspects of Cornerstone. Lee also noted that 32 responses (12% of all responses) indicated that there were no problems with Cornerstone services.

Bussey's study on family perspectives (2002) identified some elements of Cornerstone service delivery that caregivers had found particularly helpful:

- ***Empowerment and Support***—This included having dyads accompany family members to school planning meetings, court or treatment center meetings.
- ***Service Coordination***—For families whose youth were involved with multiple systems and when staff from those systems attended the wraparound meeting, parents felt the meetings had been very helpful in coordinating appropriate services for their youth.

Across six-month interview intervals, family members also reported their levels of satisfaction with services through the national evaluation. Answers were based on a five-point scale ranging from 1 (very dissatisfied) to 5 (extremely satisfied). Overall satisfaction was consistently in the range of "neutral" to "satisfied" (as there were no significant differences between counties, scores represent averages between Clear Creek, Denver, and Jefferson counties). Differences were not statistically significant between six-month intervals, suggesting that family members remained relatively satisfied across the 36 months of the evaluation. Similarly, there were no statistically significant trends over time, with general mean satisfaction scores comparable for each year from 2001 to 2005.

Family members reported being similarly satisfied (neutral to satisfied) with variables such as the child's progress in the last six months, the number of times the family was asked to participate in meetings regarding services, the provider's respect for families' mental health beliefs, and the provider's understanding of the families' traditions. Again, statistically significant differences did not emerge across six-month intervals or among counties. Another national evaluation question asked working caregivers to rate the degree to which they felt services had increased their ability to do their jobs. Across the six time intervals, responses were predominantly in the range of "not at all" to "a little" with no statistically significant differences between time intervals or between coun-

ties. Thus, findings overall indicate little variability in the moderate satisfaction levels across times (years or 6-month intervals), across counties, and across variables (e.g. overall satisfaction, provider ability), although caregivers were slightly less satisfied with how much services increased their ability to work.

D. Conclusions

Since the service delivery model was one of the most important and innovative elements of the Cornerstone System of Care Initiative, the evaluators used a variety of methods to study it. Findings from these studies indicated that the model was based on a strong, well-understood set of values and goals, and that services were delivered accordingly.

Specific components of the model also received positive feedback, most notably the inclusion of family advocates combined with service coordinators in a dyad model and the use of flex funds to pay for basic needs and alternative services. Despite the favorable responses to the model itself, however, many studies found that there were difficulties in implementing it. Early on, there was concern about a lack of training and clear definitions of roles and responsibilities for the dyad members. Later evaluations noted communication difficulties between the service coordinators and family advocates within the dyads. Finally, because the model did not specify how families would be transitioned to less intensive community supports, several studies recommended that Cornerstone "clarify endings."

Youth and families received a wide range of services while they were enrolled in Cornerstone, including individual therapy, medication management, recreation, and respite care. Although there were no significant changes in the numbers of youth in out-of-home placements or their lengths of stay, families were generally moderately satisfied with the services they had received.

As these studies demonstrate, evaluators can play an important role in identifying a service delivery model's strengths, as well as areas that require further attention and refinement. They can also provide valuable information about how the model is being implemented, and whether or not children and families are satisfied with the services they have received.

VI. Cornerstone Evaluation Studies and Their Influence on Family Involvement, Support and Development

A. Introduction

One of the guiding principles of the system of care philosophy is that families and youth should be involved as full partners at all levels, including policy making, management, and service delivery. In order for youth and families to function effectively as partners, however, they must be actively engaged and supported. This process begins with asking families if and how they want to be involved in the system of care. For example, do they want to participate in governance or serve as trainers? By inviting youth and families to become involved, system leaders recognize and draw on the skills and knowledge that youth and families bring to the table (Pires, 2002). The system of care must also provide tangible supports such as transportation, child care, and stipends so that youth and families are able to fully participate. It must also offer capacity-building support that provides them with the information, skills, and confidence to partner at all levels (Pires, 2002).

Evaluation can contribute to the realization of this guiding principle both by measuring the extent to which family members are involved, supported, and empowered through the system of care, and by involving family members as full partners in the evaluation process itself. Family members can be valuable members of the evaluation team, helping with study and instrument design, data collection, analysis, and dissemination of results.

From the beginning, Cornerstone promoted family involvement through these standards:

- Family members would make up at least 50% of the respective memberships of the Governing Board and the Local Coordinating Councils (LCCs). These groups set policy and provided oversight for the overall project and for operations in each Cornerstone county.
- Family advocacy organizations would be full partners in day-to-day management decisions, and families would be involved in management processes such as evaluation and training.
- Each Cornerstone service team—the dyad—would include one family member employed as a family advocate.
- Through the wraparound process, family members and youth enrolled in the system of care would be full partners in designing and monitoring their services.

When Cornerstone was first established, neither the federal system of care program nor the local initiative emphasized youth partnerships as much as those with caregivers and other family members. Later, involving youth became a stronger focus at both the national and local level. Although some Cornerstone researchers mentioned the need for increasing youth participation in the system of care, this topic was not addressed in detail through the later evaluations. Likewise, youth had only limited involvement in evaluating the Cornerstone System of Care Initiative.

B. Studies of Family Involvement, Support and Development

Meaningful family involvement is a hallmark of the system of care philosophy and is one of the major features that distinguishes such systems of care from traditional service delivery models. As a result, this element received much attention from Cornerstone evaluators. The formative evaluations described earlier in this document offer a wealth of qualitative data about involvement, support, and development of family members within the initiative. These include the Year One and Year Three Formative Evaluations (Hess et al., 2000; and Hess, 2002), which were summarized in Chapter IV.B on page 28. The two studies of the development of the service model conducted in Year Two (Bussey, 2002; and Bussey, 2003), provide further insight about family issues. These studies are described in Chapter V.B. on page 35.

Feedback about family involvement can also be gleaned from five other qualitative evaluations conducted during the course of the project. The first is Lee's analysis of caregiver responses to the open-ended questionnaire administered as part of the national evaluation (Lee, 2004). Secondly, Demmler's observational study of family advocates offered insight about the type of support provided by advocates and their roles as service providers. The purpose of the third evaluation (Manning & Paskind, 2003) was to understand the system of care's processes and structures by analyzing the actual experience of agency and family partners in developing the system. All three of these studies are described in Chapter V.B. A fourth study focused more specifically on family members' perceptions of the national evaluation:

- *Family Perceptions of the Evaluation Interview (Hess, Kurtz, Bruning, & Ziebarth, 2001)*: This study looked at family members' perceptions of the national evaluation interview and the way in which this interview was conducted. This area of study related directly to the Cornerstone goal of building partnerships with families and involving them as equal partners in the evaluation process. The goal was to use the information gathered from the post-interview survey to improve the evaluation process and obtain input on alternative methods of data collection. The 12 participants were caregivers who had completed the caregiver interview between April and August 2001. The survey protocol, developed by the Cornerstone Evaluation Steering Committee, included questions about the value of the national evaluation, the respondents' level of preparation, additions or deletions they would make to the interview and cultural competency issues.

The final qualitative study that relates to family involvement is part of the final report by the Cornerstone evaluators from the University of Denver:

- *Building the System of Care in Colorado: Evaluation Findings from the Cornerstone Initiative (Potter & Bussey, editors, 2005)*: In preparation for the final report, one evaluator engaged in key informant interviews with Cornerstone participants. They included state administrators, county-based staff members and federal technical assistance experts whose involvement ranged from those who had been with the initiative from its beginning to those whose experience began later. The charge for these interviews was to reflect on Cornerstone's first five years, discuss lessons learned, and describe the changes that occurred in Year Six. Themes from these discussions were analyzed and summarized in the final report.

In addition to these qualitative evaluations, two quantitative studies provided pertinent data on family issues. One was conducted as part of the evaluation of family advocates described in Sec-

tion V.B on page 35. The other looked specifically at empowerment, an important variable associated with family development:

- *The Family Empowerment Study (Demmler, 2003)*: The goal of this study was to gain an initial measurement of family empowerment among those who had received services from family advocates. It used the Family Empowerment Scale, which measures empowerment of parents in the family, social service, and community/political dimensions. Data was collected in September and October 2003 through a survey mailed to all families who had received any family advocacy services during the previous year. Respondents included those served by the Cornerstone family advocates, as well as family advocates associated with Colorado Mental Health Assessment and Service Agencies (MHASAs, which are mental health managed care organizations for Colorado Medicaid recipients now called Behavioral Health Organizations) and Community Mental Health Centers (CMHCs). Responses were received from 84 of the 500 surveys mailed. Of these, about two-thirds were from families served by the MHASAs and CMHCs, and the remaining one-third were from Cornerstone families.

Several scales from the national evaluation (described in Section VIII.B on page 61) measured caregivers' perceptions of the level of their own and their youths' involvement in service delivery. This evaluation also used the Family Empowerment scale to measure caregivers' perceptions of changes over time in their ability to solve problems, advocate for their child's and their own needs, and influence agencies and communities about children's mental health.

C. Findings and Recommendations

These studies' findings and recommendations are grouped according to the following key questions asked by the evaluators:

- Have the principles of family involvement, support, and development been successfully incorporated into Cornerstone's system of care model?
- To what extent has family involvement been implemented at Cornerstone's policy and management levels?
- To what extent has family involvement been implemented at Cornerstone's service level?
- How have family support and development been implemented in the system of care?

1. Incorporation of Family-Focused Principles in Cornerstone's System of Care

Overall, evaluation participants endorsed the position that the Cornerstone System of Care is strongly based on family-focused values. For example, analysis of the qualitative interviews in Hess' first year formative evaluation (2000) revealed that the majority of respondents believed that family involvement and focus were of central importance to the Cornerstone process. Participants in the Year One Formative Evaluation also identified "increased family involvement with services, better access for families and increased family satisfaction" as outcomes critical for project success.

Evaluations from Year Two (Hess, 2002) and Year Three (Bussey, 2002) verified that participants had a good understanding of the principles of family involvement, support, and development. In addition, Bussey concluded from Year Three data that Cornerstone was doing a good job involving families in decision-making.

2. Family Involvement in Policy Making and Management

In the first year formative evaluation (Hess et al, 2000), participants identified several areas that needed to be addressed in order to facilitate involvement of family members in Cornerstone's policy making and management processes: These included childcare, transportation, and stipends. This study also recommended that all Cornerstone committees redouble their efforts to recruit family members and to support and value their involvement. Finally, the evaluation noted that Cornerstone should seek meaningful youth perspectives.

Later studies surfaced a number of important issues associated with family involvement in the initiative. For example, Bussey's study of family perspectives (2002) suggested that Cornerstone needed to clarify roles when families were involved at multiple levels of the system. She asked, "What role conflicts may arise when a parent is both a recipient of services and involved in governance?" Among the issues identified in Manning's study (2003) were:

- Time and resource burden*s* associated with family member participation, especially in rural areas. Respondents said that they found it particularly difficult to attend meetings during the day, which often entailed taking time off from work, and, in the case of Clear Creek County residents, traveling back to the mountains from their workplaces in other areas.
- The expectation that at least 50% of participants in Cornerstone governance structures would be family members caused some unforeseen difficulties. Agency participation often had to be

limited because of the difficulties in recruiting sufficient numbers of family members to serve in these governance roles in order to meet the 50% participation rule.

- Family members also reported challenges in preparing for their role in governance. They had to develop the ability to see beyond their own immediate family needs to focus on longer-term system issues.

Based on their analyses, Manning and Paskind offered the following recommendations for family members involved in governance and management roles:

- Develop an orientation and training program focused on the Cornerstone governance role, including what to expect and how to contribute.
- Develop guidelines to assess a family member's readiness for a role in governance. These could include current family stability and service recipient status.
- Develop a maintenance plan for family representatives, that includes support, tangible assistance such as transportation and childcare, and ongoing nurturing interaction.
- Create a process of reflection regarding the empowerment and partnership process, with trainings as needed for skill development and values clarification.
- Identify and nurture natural and formal leaders who can facilitate this process.

Several studies examined family involvement and experience with the Cornerstone evaluation process. In her 2002 evaluation, Bussey recommended that Cornerstone systematically survey families. She noted that such surveys could be separate family satisfaction questionnaires, or be structured as part of the interview protocol for the national evaluation.

Family member perceptions of the national evaluation interview were the main focus of another study conducted by Hess and colleagues in 2001. This study produced the following findings:

- The majority of respondents indicated that they had agreed to participate in the national study in order to improve their own family, Cornerstone services, and the system in general. Most also stated their willingness to participate in follow-up interviews.
- Most participants responded that they had been well prepared for the interview, and that the experience met their expectations.

The majority of respondents indicated that they had agreed to participate in the national study in order to improve their own family, Cornerstone services, and the system in general.

- Although most respondents did not have suggestions for additions or deletions to the evaluation questions, about half stated that the interview was long and that some questions were redundant.
- Responses to the interview experience were largely positive, with many participants attributing their feelings to the characteristics or qualities of the interviewers. However, there were a few reports of confusion, boredom or discomfort during the interview process.
- Few participants identified any issues with the cultural sensitivity of the interview process, although the responses may have indicated some confusion about this area.

- Based on their data analyses, the researchers made the following recommendations:
- Since a positive relationship with the interviewer seemed to be the most essential contributor to family members' comfort level during the interview, it was important to continue to provide careful preparation of these interviewers.
- Interviewers should continue preparing families for the interview with a brief introduction to the nature of the questions, length of the interview, and potential value and negative effects that might come from participating, with a follow-up check for understanding.
- Families were agreeing to participate in the national evaluation at different rates across the counties. It was recommended that dyads share strategies for introducing the study and explaining it to families so that the rates would be more consistent across each of the regions.
- Since families saw value in evaluating service effectiveness, it was important to provide feedback through newsletters or presentations on the results of the information they had provided in order to help maintain their motivation.
- Provide feedback to the national evaluator about the redundancy in some questions.
- Given the difficulty in interpreting the results of questions about cultural sensitivity, the evaluation team and the cultural competence work group should work together to determine the best methods for collecting information on this important issue.
- Consider family member suggestions for other ways to collect data, including questionnaires that families could complete on their own, over the phone, online, or drawing responses from secondary sources.
- Consider reducing the complexity in data collection and reducing the number of contacts needed to gather different pieces of information. One way to provide more consistent follow-through might be to develop a method whereby one individual has access to all aspects of the data.
- Develop methods to address the logistical considerations of including family members as partners in evaluation by allowing additional time for input into proposal preparation and implementation of research projects. Furthermore, Cornerstone should continually provide education for family members in research and program evaluation so that they can more fully participate in this aspect of the Cornerstone Initiative.

Potter's Final Report (2005) noted that family organization stability and functioning was a key to success. She observed that family members do not always have the management tools and skills required to run such an organization. Thus she recommended that families be prepared for involvement in system of care management efforts. Her interviews with family members who participated in system of care efforts produced the following comments:

- There has to be a high level of sophistication and professionalism in running a family organization. Family members with good management skills should be hired,
- The new family member leadership course at a local community college (Year Six) will be a good way to prepare family members to engage in these types of collaborations.
- Managing a family organization is not a volunteer job. Family members have to be as committed as the "professionals." Families need to see other families in these roles.

- Family organizations need to monitor outcomes and have the courage to change if these outcomes are not achieved.
- At the family level, a focus on skills, social support, growth, change, and giving back is the key to successful outcomes for families, and for growing a family organization.

At the family level, a focus on skills, social support, growth, change, and giving back is the key to successful outcomes for families, and for growing a family organization.

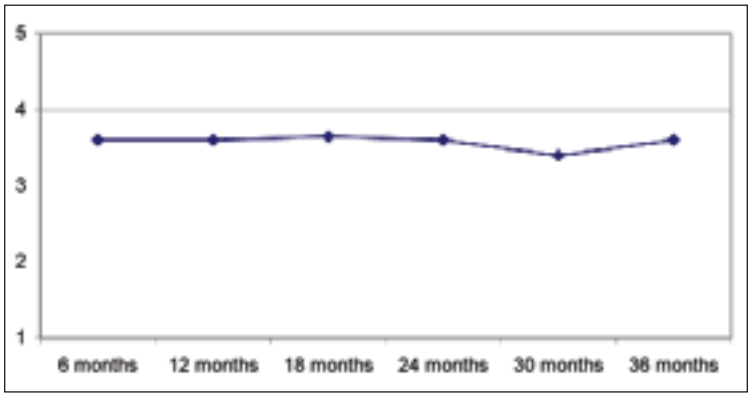
3. Family Involvement in Service Delivery

Demmler's observational study of family advocates (2003) provided rich detail about family members' roles and responsibilities in delivering services to other families and youth. She observed five primary roles performed by Cornerstone family advocates:

- Providing emotional support for parents
- Functioning as case manager*s* by identifying needed services and helping families access and coordinate these services
- Educating other service providers about the Cornerstone initiative and how it might be helpful to families served by these providers
- Educating parent*s* about issues such as parental rights, how the legal and social service systems work, and what services are available
- Providing flex funds that can be used to meet basic needs such as school clothes or to provide non-traditional services such as mentoring or specialized private therapy.

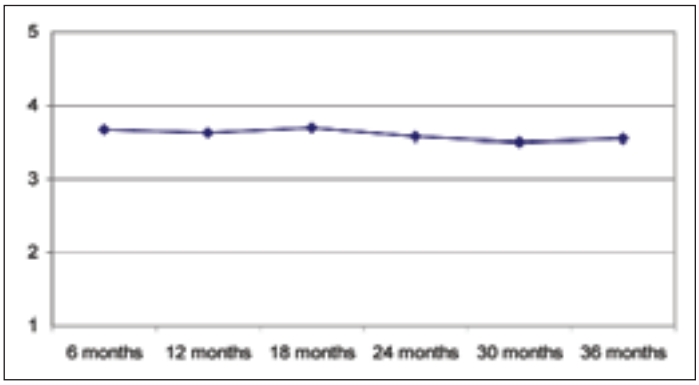
Another dimension of family involvement in services was evaluating caregivers' perceptions about their level of participation in the services they and their families receive. The national evaluation included questions that asked about caregivers' satisfaction with their involvement in planning services for their children, as well as about their satisfaction with how often they were asked to participate in service-related meetings. Answers were based on a five-point scale ranging from 1 (very dissatisfied) to 5 (extremely satisfied). There were no statistically significant differences between counties for either question, so scores were averaged across Clear Creek, Denver, and Jefferson counties. As depicted in the following two figures, answers to both questions indicated satisfaction was in the range of "neutral" to "satisfied" for each six-month interval. No significant differences emerged between time intervals, suggesting that family members' relative satisfaction in these areas remained stable across the 36 months of the evaluation.

Figure 5: Caregivers' Satisfaction with Involvement in Service Planning



Finally, Demmler's study of family advocates provides some evidence of family involvement in another type of service—mutual support groups and family councils sponsored by the family organizations associated with Cornerstone. She found that 41% of Cornerstone respondents to the Family Empowerment Survey (described in the following section) attended such meetings at least sometimes. Thirty-seven percent of the respondents reported that they "often" or "very often" attended a support group. One-quarter reported that they "often" or "very often" attended a family council.

Figure 6: Caregivers' Satisfaction with Participation in Meetings



4. Family Support, Development, and Empowerment

The Cornerstone evaluations recognized family support as one of Cornerstone's strengths. In her study of family perceptions of the initiative, Bussey (2003) stated that empowerment and support were very important to almost all respondents. Likewise, Lee's report (2004) identified support as one of three strongest areas of Cornerstone service delivery. The researcher observed that, "Caregivers appeared to be most satisfied with this aspect of Cornerstone." These specific supportive services were noted by respondents to these surveys:

Lee's report (2004) identified support as one of three strongest areas of Cornerstone service delivery. The researcher observed that, "Caregivers appeared to be most satisfied with this aspect of Cornerstone."

- Emotional support
- Connections with support groups
- Help finding and obtaining needed services and getting other needs met
- Help in advocating for rights
- Accompanying family members and youth to meetings with other agencies (such as Individualized Education Plan [IEP] meetings) and court dates.

In her evaluation titled *Implementation of an Innovative System of Care*, Bussey (2002) noted several key elements of development that occurred as family members received services:

- Developing skills in wraparound and self advocacy
- Learning how to work as an advocate for others
- Experiencing a lesser sense of being trapped.

Demmler (2002) ascribed some of these changes to the dyads' family-focused rather than system-focused approach. She stated, "At times, Cornerstone family advocates encouraged families to compromise with system requirements. At other times, Cornerstone family advocates [sought] changes in the system or services so that they better fit the family's needs, rather than trying to change the child or family behavior to fit the system or service requirements. This family-focused orientation is an important factor in their effort to promote empowerment among families with children who have mental disorders."

One way to look at family development is through caregivers' feelings of empowerment. Both Demmler (2003) and the Cornerstone Outcomes Study (part of the national evaluation described in Section III) used the Family Empowerment Scale (FES), a 34-item survey measuring the degree to which caregivers feel they can solve problems effectively (Family Empowerment), advocate for their own and their child's needs (Social Service Empowerment), and influence agencies and the community about children's mental health (Community/Political Empowerment).

Using the FES, Demmler measured empowerment both for caregivers served by Cornerstone and for those who received services from family advocates employed by MHASAs and CMHCs. She found that family members served in both systems had similar scores on all three subscales—the family level, the services level, and the community/political level. In Demmler's study, empowerment scores were highest for items that measured empowerment at the services level. She noted that this finding was congruent with the family advocate's role of educating families about services and helping them to access those services. The lowest average empowerment scores were on the community empowerment subscale, although even these mean scores were in the moderate range.

Cornerstone began using the FES in Year Four with all families in the national evaluation; thus, the data from this study reflected both families who had been receiving services for several years and families who had just entered the program. The study's findings were congruent with Demmler's results. Across all time periods, caregivers felt *most* empowered in the domain of Social Service Empowerment. The most strongly endorsed items were:

- "I feel that I have a right to approve all services my child receives."
- "My opinions are just as important as professionals' opinions in deciding what services my children need."
- "I make sure that professionals understand my opinions about what services my child needs."
- Caregivers felt the *least* amount of empowerment in the Community/Political Empowerment domain. Items with the lowest levels of endorsement were:
- "I get in touch with my legislators when important bills or issues concerning children are pending."
- "I know how to get agency administrators to listen to me."
- "I understand how the service system for children is organized."

The national outcomes study was administered to respondents at multiple points, allowing changes in caregivers' feelings of empowerment to be measured over time. However, no statistically significant differences were found on any of the three empowerment dimensions when caregivers' first scores on the FES were compared with their last scores.

D. Conclusions

One of the most important differences between a system of care and a more traditional service system is the extent to which families are involved. Therefore, a system of care needs to place a high priority on evaluating this aspect of its model. Evaluators should examine how families are involved not only as service recipients, but also as overseers, managers, providers and evaluators of the system. Their evaluations should also measure how well family members are supported and empowered to fill these roles. Finally, systems of care should be prepared to involve family members and youth in all aspects of the evaluation, including study and instrument design, data collection, analysis, and dissemination.

According to the evaluations summarized in this chapter, the ability to involve and support families was one of the most successful parts of the Cornerstone System of Care Initiative. They found that:

- Principles of family involvement, support and development had been successfully incorporated into Cornerstone's system of care model.
- Family members were well integrated into Cornerstone's policy-making and management processes. However, some identified a need for improved training, mentoring, and tangible support such as child care and transportation. In addition, several evaluators called for increased focus on developing family members in governance and management roles.
- Family support was perceived to be one of the strongest aspects of Cornerstone's service delivery model. Families felt that they were respected partners in service planning and delivery, and appreciated the instrumental support (such as being accompanied to court dates and education meetings) they received from the dyads.
- The evaluation team was effective in educating families about evaluation and enlisting their support in the process. This resulted in positive perceptions of evaluation among families, facilitating data collection and analysis.

VII. Cornerstone Evaluation Studies and Their Influence on Cultural Competency

A. Introduction

One of the three core values of systems of care is that they be cultural competent at all levels. This means that systems of care must be responsive to the individualized culture, values, and needs of the youth and families served and the communities in which they live, such as the uniqueness of inner city racial and ethnic neighborhoods and rural mountain cultures.

Cultural competency, though, is not a stand-alone function isolated from other system of care structures and processes. Instead, it must be infused into all aspects of a system of care, such as evaluation, governance, communications, and service delivery. System leaders therefore, must ask and address the question: "How are we ensuring that cultural competence is built into every system of care function and the system-building process?" (Pires, 2002, p.139). Evaluators can help answer this question through quantitative and qualitative studies of such things as the characteristics of the population served and access to services among different cultural groups. The following evaluations helped to illuminate how Cornerstone addressed this question.

B. Studies on Cultural Competency

Several qualitative evaluations studied participants' perceptions of cultural competency within Cornerstone:

- *Cornerstone Formative Evaluation Report (Hess, Doll, Kurtz, Bruning & Ziebarth, 2000):* Researchers from the School of Education at the University of Colorado at Denver conducted a set of qualitative interviews with family members and agency representatives who were active in Cornerstone's early implementation. The goal was to "describe family and agency member impressions and perspectives of the development process during its initial stages." (See Chapter IV.B on page 28 for more information about this study.)
- *Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative (Bussey, 2002):* This study focused on the implementation of the dyad service model and was based on interviews with dyad members and their supervisors and managers. (See Chapter V.B on page 35 for more information about this study.)
- *The Colorado Cornerstone Mental Health Initiative Third Year Implementation: Qualitative Report (Hess, 2002):* This study was a follow up to the earlier formative evaluation mentioned above. It looked at the progress that Cornerstone had made in achieving its goals. It also acted as a comparison to that baseline formative study conducted in 2000. (See Chapter IV.B on page 28 for more information about this study.)

- *Family Perspective on the Colorado Cornerstone Initiative: A Qualitative Case Study (Bussey, 2003):* This study focused on family perceptions of how the Colorado Cornerstone System of Care Initiative worked, what barriers to an effective system of care process existed, and how those barriers might be overcome. (See Chapter VI.B on page 48.)
- *A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives (Manning & Paskind, 2003):* The purpose of this case study was to understand and articulate the necessary structures and processes of an innovative, integrated system of care, and to identify and describe what worked and the barriers and challenges encountered. (See Chapter V.B on page 35 for more information about this study).

Project evaluators also produced the following regular data report:

- *Ethnic/Racial Distributions Within Cornerstone Service Population and Comparison Populations (F. Wackwitz, Strasser, J. Wackwitz, & Altschul, 2002):* This monthly report, distributed from 2001 until the end of 2002, offered a regular method of looking at cultural responsiveness by tracking the racial and ethnic characteristics of Cornerstone's service population. Its primary purpose was to help system leaders determine whether the service delivery model was providing access to the system of care for members of diverse populations. The report compared the demographics of Cornerstone youth to the overall Colorado census data for each county, the population of adjudicated and detained youth in the Division of Youth Corrections, and youth served by the public mental health system.

C. Findings and Recommendations

The formative evaluations raised some issues about the model's guiding principle of cultural competency. Both the Year One (Hess et al, 2000) and Year Three (Hess, 2002) formative evaluations identified some confusion about what this principle meant. Both evaluators recommended that Cornerstone develop a working definition of cultural competence by which to establish goals and measure progress. Despite these recommendations, nearly all respondents felt that Cornerstone staff had displayed cultural competence in their contacts with families. In Year Three, respondents also noted that Cornerstone was "trying hard" to provide culturally competent services as shown by the training that had been offered, hiring culturally diverse staff, and increasing the number of referrals of culturally diverse youth.

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However, in Bussey's Family Perspective Study (2002), one respondent noted a difference between the dyad team level and the administrative team level in terms of cultural competency. This respondent agreed with others that the dyad level was culturally sensitive and respectful of the youth and families. However, this respondent reported that when families became involved in system level activities with the administrative team, there seemed to be more friction around the issue of cultural competence.

The Year One formative evaluation called for training across the different communities to help stakeholders understand this complex topic. Bussey's study, *Implementation of an Innovative System of Care* (2002), also raised the issue of training dyad staff on cultural competency that would be useful in their work with diverse youth and families. In the Year Three formative evaluation, there was less emphasis on training, perhaps given the fact that training opportunities on cultural competency had occurred.

Both the Year Three formative evaluation and Bussey's study reported that some respondents asked whether there was a difference between family-centered services and cultural competency. Specifically, if dyads were truly providing family-centered services that were individualized for each child and family's unique strengths, values, and culture, would they not also be providing culturally competent services?

Finally, Manning's study, *A Case Study of an Innovative System of Care* (2003), noted a distinction raised by one respondent as to the difference between being bilingual and being culturally responsive. She said "it's one thing to be able to translate something and something quite different to be actually providing the service" in a way that is culturally responsive to the youth and families being served. She also said that it requires an understanding of the cultural implications of assessment and diagnosis, the meaning of mental health disorders to families, and what is required to increase the understanding of families.

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Aside from the qualitative reports, cultural competency was measured in another way using data from the regular report on ethnic/racial distributions within Cornerstone's service population (F. Wackwitz et al., 2001; F. Wackwitz et al., 2002). These reports showed that Cornerstone was serving a higher proportion of African American and Hispanic youth than the overall ethnic population of youth in the three-county service area. However, the proportions of youth of color served by Cornerstone were slightly lower than the proportion of youth of color with serious emotional disorder served in the public mental health system in those counties. Cornerstone was also serving a lower proportion of youth of color than the proportion of those in youth corrections facilities in the three counties. In addition, there was considerable variation in the ethnic distribution of those served in each Cornerstone county when compared with the counties' populations of youth of color in public mental health services and youth corrections facilities. In Clear Creek and Denver, Cornerstone enrolled higher percentages of youth of color than were within the general population in those counties, but in Jefferson County, youth of color were underrepresented in Cornerstone's caseload compared to the general population.

D. Conclusions

All levels of a system of care must be responsive to the unique culture, values, and needs of the youth and families served in order to be successful. Both quantitative and qualitative studies can help in this effort. For example, evaluators can determine whether a system of care is reaching its target population by studying the demographic data of the youth and families served. Qualitative studies focusing on service delivery can help assess whether there are any barriers to serving diverse youth and families. If so, evaluation can help identify what those barriers and possible solutions to address them.

Six evaluation studies looked at cultural competency on the service delivery, governance, and management levels of the Cornerstone System of Care. These evaluations found that staff, for the most part, had been culturally competent when working with youth and families.

The two formative evaluations found, however, that there was confusion over what it meant to be culturally competent. The researchers therefore, recommended that Cornerstone develop a working definition of cultural competence and then regularly monitor progress towards achieving it. Training on cultural competence, especially training that would be useful for dyad staff in working with diverse youth and families, was also recommended.

Finally, one of Cornerstone's goals was to serve a high proportion of minority youth. The reason was that youth of color are overrepresented in the juvenile justice system and Cornerstone's focus was on serving youth with mental health needs involved or at risk of involvement with this system. The evaluation found mixed results across the three Cornerstone counties in terms of achieving this goal.

VIII. Cornerstone Evaluation Studies and Their Findings on Child and Family Characteristics, Outcomes and Predictors of Change

A. Introduction

The underlying purpose of all system of care initiatives is to make positive transformations in systems and services that, in turn, produce positive changes in the lives of children and families. The most common way of determining the ultimate impact of these transformations is to identify "outcomes" or results—the changes that occur in the lives of those who receive services. Outcome measurement is often considered to be the program evaluator's most critical responsibility. This part of the evaluation process provides important data on the people who have received services and the results of these services. This information allows leaders to communicate to stakeholders what the system of care's impact has been, both on recipients and on the community. Positive outcome evaluation data is essential for convincing community leaders and funders to continue and sustain the system of care.

More sophisticated outcome evaluations also attempt to discover the relationships between factors such as youth demographics (e.g., age and gender), the types and amount of services they receive and the resulting outcomes. For example, evaluation data may show that a certain kind of service improves school functioning more in children whose problems are more severe, or that youth involved in the juvenile justice system require a longer stay in the system of care than those who have not had contact with the law. Evaluation studies of this type can be very useful to program managers, allowing them to identify which services or set of services are producing the best results for which youth and families, and to modify the system and target its services more effectively. These studies can also help program managers identify when youth and families have achieved the full benefit of the services provided and as a result no longer require services or the same level of service intensity.

This chapter summarizes the majority of the Cornerstone outcome studies. It reports on what these evaluations discovered about the characteristics of those who were served, how these youth and families changed during the time they were enrolled in services, and the relationships between youth characteristics, the services they received, and the changes they experienced.

B. Studies of Child and Family Characteristics, Outcomes, and Predictors of Change

Some early local evaluations offered guidance to system planners about which outcomes were of primary importance to Cornerstone participants. These include the First Year formative evaluation (Hess, et al, 2000) and the Cornerstone Outcomes Prioritization Study (Strasser, et al., 2001).

These evaluations are described in Chapter IV.B. beginning on page 28. However, the national evaluation, described in Chapter III.C.1 on 22, provided the vast majority of information regarding child and family characteristics, outcomes, and predictors of change.

In this national evaluation, data were collected through interviews with Cornerstone youth and their caregivers conducted at intake and at six-month intervals up to 36 months. Thus, it is possible to look at changes in these characteristics and outcomes over several time periods. Where possible, results for the Cornerstone intervention (using final data from August 2005) were compared to aggregate national results (using data from July and December 2004) that were published in the quarterly *Center for Mental Health Services* (*CMHS) National Evaluation Aggregate Data Profile Report for Grant Communities Funded in 1999 and 2000*.

Cornerstone evaluators collected data from all 515 families served by Cornerstone through August 31, 2005, the end of Year Six (August 31, 2005). This included 79 families in Clear Creek County, 221 in Denver County, and 215 in Jefferson County. These data (known as the Baseline Study) included demographics, information on risk areas, and youth diagnoses. Of the 515 families, 291 participated in the Outcomes Study (part of the national evaluation), which produced information on a variety of youth and family functioning and satisfaction scales. There was follow-up data at six months after intake for 166 of these families, at 12 months for 115 families, at 18 months for 81 families, at 24 months for 65 families, at 30 months for 39 families, and at 36 months for 32 families. The Outcomes Study used data only for those families who participated in both intake and follow-up interviews.

The *CMHS National Evaluation* used the Reliable Change Index (RCI) to analyze the outcome data for all participants in the system of care evaluation across the country. Cornerstone evaluators also used the RCI to analyze data for the Cornerstone participants in the national evaluation. The RCI is used for repeated measures analyses, which compare how each person in the study changed over time.

C. Findings and Recommendations

The findings and recommendations in this chapter are grouped according to the following research questions:

- What were the characteristics of Cornerstone youth and how do these characteristics compare with the characteristics of youth served in systems of care nationwide?
- What were the most significant child and family outcomes for Cornerstone?
- How did these outcomes compare with outcomes for children and families in systems of care nationwide?
- What were the key predictors of changes in outcomes for Cornerstone youth and families?

Many findings in this chapter are described as being "significant" or "not significant." These terms are used by researchers who analyze quantitative (numerical) data using statistical methods. Researchers run statistical tests to determine how likely it is that a particular finding happened by chance rather than as a result of the intervention being tested. In statistics, a finding is generally said to be "significant" or "statistically significant" if the statistical tests show that there is at least a 95% chance that the intervention being tested had an impact. Conversely, a result is said to be not

significant if there is more than a 5% chance that it is due to chance. Since the 95% probability level is such a high standard, many research results (including some of those described in this chapter) still have a high likelihood of being true, but are not considered significant.

1. Characteristics

Gathering data on youth and family characteristics allows system planners to verify that services are being appropriately directed to members of the defined target population. Cornerstone enrollees were predominantly male (68.8%) and ranged in age from 5 to 22 years old. Figure 7 and Figure 8 present age and ethnic distributions respectively. Family members (22%), schools (21%), courts/corrections (17%), mental health (17%), and social services (10%) were the primary sources of referrals. The median family income of those served was $22,500, and 51% of the youth were Medicaid-eligible.

Figure 7: Age distribution among Cornerstone enrollees.

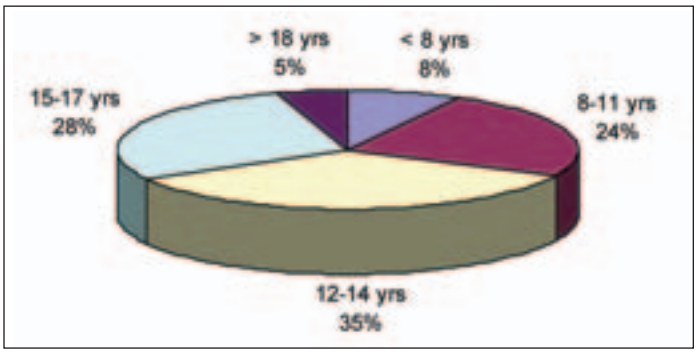
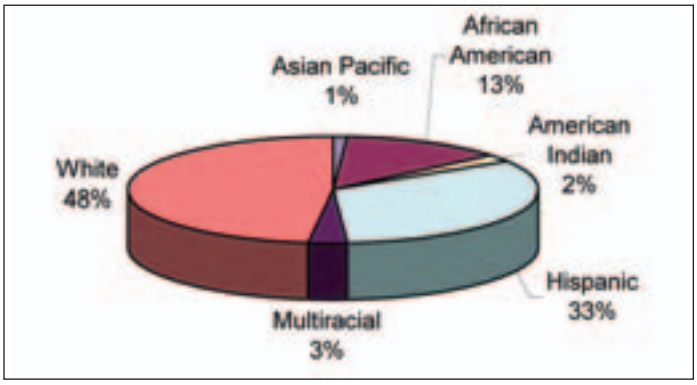


Figure 8: Ethnic distribution among Cornerstone enrollees.



The six most prevalent diagnoses for Cornerstone youth are presented in Figure 9. The majority had a prior history of mental health care, and one-fourth had been in the juvenile justice system. About 65% had received outpatient treatment in the year prior to their enrollment, and 63% had been in school-based services. Over half (52%) were taking psychiatric medications at intake, and almost one-third (31%) had a history of psychiatric hospitalization. Table 3 and Table 4 present the frequencies of referral problems and risk factors respectively for Cornerstone youth.

Figure 9: Most prevalent diagnoses among Cornerstone enrollees.

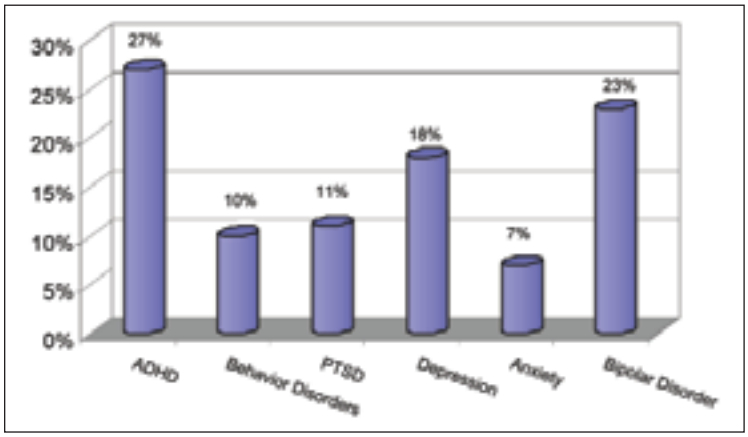


Table 3: Frequencies of Problems leading to Referral to Cornerstone Program

Problem	Percentage	Problem	Percentage
Academic problems	58%	Running away	39%
Attention difficulties	55%	Truancy	35%
Physical aggression	53%	Theft	32%
Poor self-esteem	50%	Suicide attempts	20%
Anxiety	51%	Fire-setting	16%
Sadness	48%	Sexual acting out	14%
Police contact	46%	Cruelty to animals	10%
Poor peer interaction	41%		

Note. The sum of the percentages is greater than 100 percent because many youth had more than one identified problem area at referral.

Table 4: Frequencies of Risk Factors among Cornerstone Youth

Risk Factor	Frequency
History of substance abuse among biological family members	70%
History of mental illness in the biological family	67%
History of domestic violence in the biological family	57%
Biological parents convicted of a crime	49%
Physical abuse	30%
Sexual abuse	27%

Dyad staff completed the Cornerstone Eligibility Screen on 245 youth prior to enrollment. This measure collected data on risk factors, such as socialization and legal involvement. Results showed that about two-thirds of enrollees had problems with disregarding authority (71%), disregarding rules (71%). and showing disrespect (66%). Over half (53%) had problems with denying responsibility and about one-third (32%) had delinquent peers. Over half (53%) of the youth enrolling in Cornerstone had had contact with the juvenile justice system and over one-fourth (27%) had had charges filed. Cornerstone youths' legal histories also included 21% who had been arrested, 16% who were on probation or parole, and 10% who had been in a youth corrections facility (detention or jail).

In conclusion, the initial demographics data shows that Cornerstone youth were primarily male, mostly in the 12–14 years range and had somewhat higher levels of behavior and family history problems than youth in the CMHS National database (*CMHS,* 2004). Because of the focus on preventing or lessening juvenile justice involvement, more Cornerstone youth were referred by courts and corrections compared to CMHS National database youths and correspondingly fewer were referred by mental health. DSM diagnoses were similar to the national sample, though local levels of oppositional defiant diagnoses were smaller.

2. Relative Importance of Cornerstone Outcomes

The Year One formative evaluation (Hess et al, 2000) included some discussion of initiative outcomes, with the following seen as critical for project success:

- Reduction in juvenile justice involvement, school failure, and out-of-home placements for youth
- Increased family involvement with services, better access for families, increased family satisfaction, and improved family functioning
- Strong agency collaboration, less redundancy in services, improved quality of services, fewer service gaps, and sustainability of the Cornerstone System of Care Initiative.

The Cornerstone Outcomes Prioritization Study (Strasser et al., 2001) surveyed a broader group of individuals, including youth and families, agency representatives from all Cornerstone counties, and other state and local stakeholders. This study had diverse responses and found some differences among the stakeholder groups about the relative importance of various outcomes. More details about the results of this study are discussed in Section IV.C on page 30.

3. Child and Family Outcomes

Studies of child and family outcomes are among the most important aspects of system of care evaluations. From these data, system leaders and stakeholders can determine whether or not the system has been effective in producing the desired results. The national evaluation looked at a variety of different outcome measures for youth and families involved in systems of care. Results from the family satisfaction and empowerment measures can be found in Section VI.C.3, which begins on page 46. The findings for the remaining outcomes are summarized below.

Youth Mental Health Functioning—Emotional/Behavioral Strengths and Problems:

The national evaluation measured changes in youth emotional/behavioral problems and strengths through interviews with caregivers using the following instruments:

- *The Child Behavior Check List (CBCL)*: A widely used, well-validated instrument for youths aged 4–18, this instrument's Total Problems Scale has eight subscales providing a broad index of functioning across many emotional and behavioral domains. In addition, three subscales (Withdrawn, Somatic Complaints, Anxious/Depressed) comprise the Internalizing Scale, while two subscales (Aggressive Behavior, Delinquent Behavior) make up the Externalizing Scale.
- *The Behavioral and Emotional Strengths Scale (BERS)*. Caregivers provided information for completion of the BERS, a scale that measures personal strengths of 5- to 18-year-olds, as assessed in the following domains: family involvement, intrapersonal strength, interpersonal strength, school functioning, and affective strength.

Repeated measures analyses of the CBCL data indicated that caregivers consistently reported statistically significant improvement in mental health symptoms across the six-month intervals. Because it is a problem scale, higher scores represented more problems.

…caregivers consistently reported statistically significant improvement in mental health symptoms across the six-month intervals.

Thus, the decline in mental health symptoms, which is particularly notable between intake and six months, represented a significant improvement in level of problems. Repeated measures tests, however, indicated that overall BERS scores (which measure strengths) did not significantly change over time periods. Separate analyses conducted for each the five BERS subscales found that only the School Functioning subscale, an index of academic competence (such as studying for tests) demonstrated significant improvement.

Thus, analyses indicated greater improvement on problem- or symptom-based scales than on strengths-based scales. Further study is needed to look at why, when symptomatology improved, caregivers and youth did not report corresponding gains in interpersonal, intrapersonal, affective, and family functioning and strengths. One speculation may be that it was easier for the youth to change their behavior at school, whereas behavior at home was more tied to high levels of emotion or long-standing patterns of interaction that might take longer to change.

Changes in School Performance and Educational Outcomes:

The national evaluation also asked caregivers to report on several key elements of their youths' educational functioning. Findings from this part of the study showed that Cornerstone youth made improvements in a number of school-related areas, especially over the first six months of the program. This was consistent with the positive results found on the School Functioning subscale of the BERS. Areas studied and their respective findings were:

- *Grades*: Repeated measures analyses indicated that there was no significant change in grade point average (GPA) for any of the time periods. Paired t-tests (which offer increased statistical power when measures are repeated multiple times), however, indicated a significant improvement in GPA from initial intake to six-month follow-up. As shown in Figure 10, the grades of Cornerstone youth appear to have increased for this time period with minor fluctuations throughout the remaining intervals.

Figure 10: Average grade point average across time intervals.

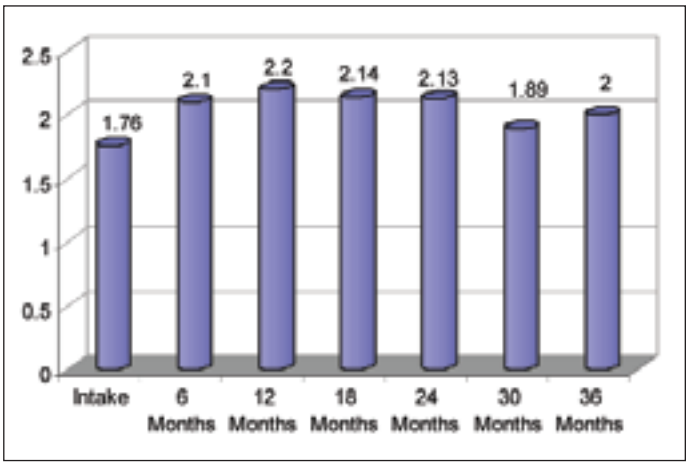
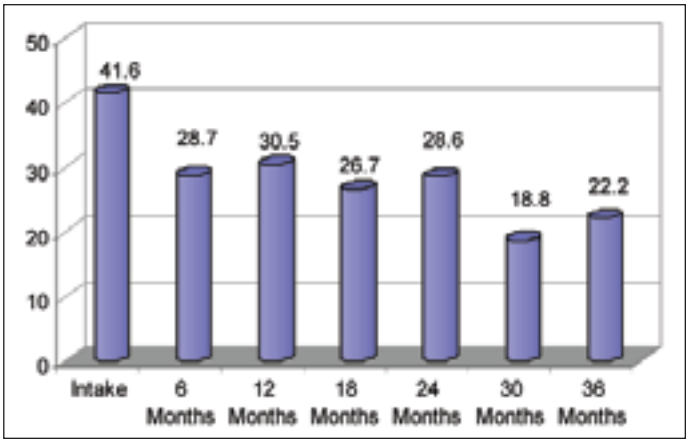


Figure 11: Percent of youth in school detention across 6-month time intervals.



- *Use of In-School Detention*: Decreases in the percentage of students sent to school detention were significant over time for the full 36 months (see Figure 11). At intake, 42% of youth had been sent to detention within the previous six months. At six months, only 29% had been in detention during that period, and at 36 months, only 22% had been in detention.
- *Suspensions*: Almost half (48%) of youth had been suspended from school in the six months prior to intake. At the six months interview, only 28% had been suspended in the past six months, and only 22% had been suspended at the 36 months interview. This trend was significant over time.
- *Expulsions*: At some time during the six months before intake, 8.3% of Cornerstone youths were expelled from school. This figure fell to 3.9% after six months in the program, and as low as 1.8% at the 24-month interview. Despite this declining trend in expulsions, this finding was not significant.
- *Parents' Assessment of the School*: The Education Survey asked caregivers to rate their child's school, using grades from F to A. At intake, 70% of parents gave a grade of "C" or better. This figure rose slightly to 74% at six months. Average caregiver satisfaction with their child's school continued to rise across all follow-up time periods after intake, except at the 24-month interview. This trend towards more positive ratings of schools by the caregivers as a group is significant.

Analyses of the relationships between various educational outcomes and other factors produced the following results:

- *Demographic Factors and Grades*: There were no significant differences in children's intake grade point average (GPA) by sex, race/ethnicity, county, or DSM diagnosis.
- *Mental Health Functioning and Educational Achievement*: There was a significant correlation between intake GPA and the youth's Externalizing (Aggressive/Delinquent) Behavior score on the CBCL—the higher the score on this scale, the lower the GPA. No significant correlation was found between GPA and the Internalizing Behavior (Withdrawn, Somatic Complaints, Anxious/Depressed) score. On the other hand, children who had had an Individualized Education Plan (IEP) were much more likely to have high scores on the Internalizing Behavior scale. There was little difference, however, in Externalizing Behavior scores between children who had had an IEP and those who had not.
- *Mental Health Functioning and School Disciplinary Actions*: Not surprisingly, the researchers found a very strong correlation between the CBCL Externalizing Behavior problem scores and disciplinary actions at school (in-school detentions, suspensions, and expulsions). No similar correlation was found on the Internalizing Behavior scores.
- *Caregiver Rating of Child's School*: No significant correlations were found between parents' opinions of the schools at intake and their income or their county of residence. Likewise, while parent ratings of the primary schools were somewhat higher than the high schools, that difference was not significant. However, researchers did find a significant correlation between parent opinion of school and youths' CBCL Externalizing Behavior scores. Lower caregiver ratings were correlated with higher scores on the Externalizing Behavior scale. There was no relationship between caregivers' opinions of their youths' schools and their Internalizing Behavior score on the CBCL.

Changes in Substance Use and Juvenile Justice Involvement:

Caregivers and youths were also administered a substance abuse interview. There were differences in the way data on substance use were collected in the caregiver and youth interviews. The youth interview asked about drug *usage* and the caregiver interviewer asked about a drug *problem*. At intake, caregivers reported that 31% of Cornerstone youth had a substance use problem. Caregivers' assessment of the youth's substance use was slightly lower than the youths' own reports of their recent substance use. Table 5 below shows the percentages of youth who reported at intake that they had ever tried alcohol, cigarettes, marijuana, cocaine, other illegal drugs, or any combination of alcohol or drugs, and the percentages of youth who had used in the six months prior to entering Cornerstone.

Table 5: Percentage of Cornerstone Youth who Reported Specific Drug Use

	% Ever Tried	% Used in Last Six Months
Alcohol	57%	36%
Cigarettes	56%	42%
Marijuana	57%	36%
Cocaine	14%	7%
Other Illegal Drugs*	21%	9%
Any Alcohol or Drug Use	64%	45%

*Includes heroin, amphetamines, inhalants, psychedelics, barbiturates, tranquilizers, and narcotics

Based on subsequent interviews, youths' self-reported substance use dropped during the time they were in Cornerstone. Only 27% of those interviewed reported any drug use (alcohol, marijuana, or other drugs) during the first six months of the program. Also during the first six months of services, 14% of youth reported that they had quit using substances, 8% continued using, 6% began use, and the majority (72%) were non-drug users who remained drug-free.

Statistical analyses indicated that there was a significant decrease in marijuana use, most noticeably between the initial intake and six-month follow-up (see Figure 12). Additionally, the decrease in the combination of alcohol or drugs was also significant (see Figure 13). In contrast, changes in alcohol use across time were not significant (see Figure 14). However, the numbers of youth who completed the substance abuse and delinquency interviews were fairly low, so these figures should be regarded with caution. Results for different types of substance use are shown in the following charts:

Figure 12: Marijuana use across timeframes (youth report)

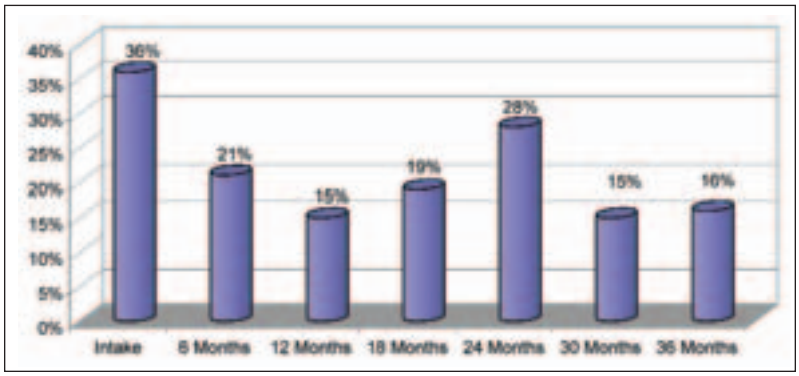


Figure 13: Any alcohol/drug use across timeframes (youth report).

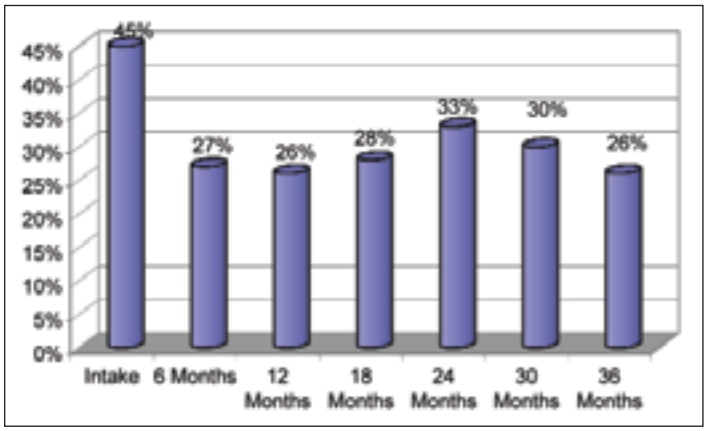
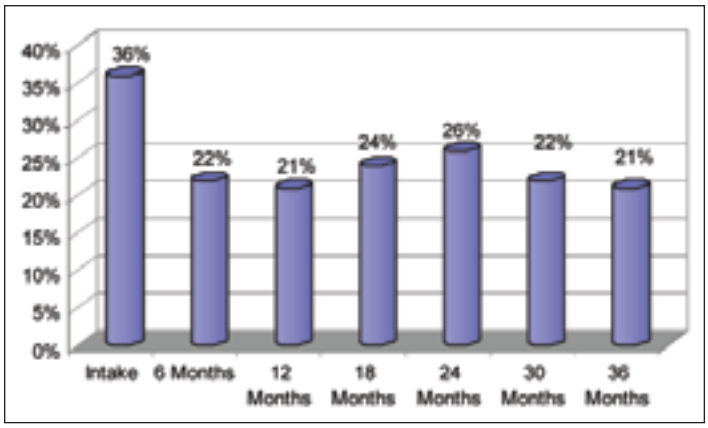


Figure 14: Alcohol use across timeframes (youth report)



The delinquency questionnaire covered incidents of police contact, accusation and arrests, as well as the youth's conviction status, being incarcerated, on probation or parole. Since conviction, probation or parole during the first six months of Cornerstone involvement could have followed an earlier delinquency experience, only new police contact or arrest was counted as a post-intake juvenile justice involvement.

Results from this questionnaire were generally positive, although the data had limits because only a small proportion of the 453 Cornerstone youth were interviewed. At intake, 61% of the 198 youth interviewed reported that they had had contact with the police in the past, and 42% of these reported contact within the past six months. After six months in the program, only 26% of youth (of 117 interviewed) reported new police contact, and by the 18-month interview, only 11.5% of the 54 youth interviewed reported being involved with the police. The proportion of youth who said they had been arrested in the past six months also declined, from 28.5% at intake to 5.7% of the 53 interviewed after 18 months in the program.

Family Functioning and Caregiver Strain:

In addition to looking at changes in youth functioning, the national evaluation used a variety of methods to assess changes in family functioning, resources, and caregiver strain. With one exception noted below, data was collected through interviews with caregivers using the following instruments:

- *Family Assessment Device (FAD) General Family Functioning Scale*: The Family Assessment Device (FAD) measures overall family functioning—the way families interact, communicate, and work together. For this national evaluation Outcomes Study, evaluators used the abbreviated version (General Family Functioning Scale). Questions on this scale asked about issues such as whether family members can turn to each other for support in a crisis, can discuss fears and feelings, feel accepted within the family, and can make decisions. In contrast with the other scales described below, this instrument was administered to both the caregiver and the youth separately. Thus, the results reflect two views of each family's overall functioning.

- *Family Resources*: Caregivers were also asked to rate the adequacy of their family's basic resources in five areas: financial, basic needs, medical needs, childcare needs, and time.
- *Caregiver Strain Questionnaire (CGSQ)*: This instrument assesses the extent to which caregivers are affected by caring for a child with emotional and behavioral problems. The subscales of this questionnaire included:
  - *Objective Strain*—includes financial strain, time lost at work and disruptions in family life.
  - *Subjective Externalizing Strain*—assesses the caregiver's feelings of anger, embarrassment, and resentment toward the child.
  - *Subjective Internalizing Strain*—measures the caregiver's feelings of guilt, fatigue, and worry about the child's emotional and behavioral problems.
  - *Global Caregiver Strain*—is a combination of the prior three kinds of strain.

Analyses of data from these instruments produced the following results:

- *General Family Functioning Scale—Caregiver and Youth Views:* Neither caregivers nor youth reported significant gains on this FAD scale. Results from both sets of respondents were similar, with about one-quarter reporting improvement in family functioning, one-quarter reporting deterioration, and about half remaining stable over time.
- *Family Resources*: At intake, caregivers reported having the highest levels of resources for food, shelter, heat, indoor plumbing, furniture, and access to a telephone. At the same interview, caregivers identified some problems with resources for babysitting, child care and time (for socializing, to keep in good shape, for spouse/partner/friends, and alone). Finally, the data analyses showed that money to save and travel/vacation were the least available resources at that time. After six months, there were statistically significant improvements in time to socialize, time alone, and travel/vacation resources. However, several basic family resources decreased significantly over that time—indoor plumbing and water, money to pay monthly bills, a good job, and access to medical care. The researchers postulated that the decline in resources to meet basic needs could be associated with problems in Colorado's economy. They also conjectured that caregiver reports of more time for socializing, for themselves, and an increased ability for travel and vacations may be related to changes in caregiver strain, reported below.
- *Caregiver Strain:* Scores on all three subscales, as well as the overall (global) strain score, showed significant improvement after intake. This improvement continued over several time periods, with Objective and Subjective Internalizing Strain showing improvement in the first six months, and Subjective Externalizing Strain improving in the second six months.

4. Predictors of Change

Without a control or comparison group, it is difficult to identify the specific elements of the Cornerstone intervention that contributed to successful outcomes for children and families. A recent review of system of care literature (Cook & Kilmer, 2004) suggested that youth in systems of care do improve modestly on symptoms and functioning, but that little is understood about what causes these positive changes. With this in mind, Cornerstone evaluators attempted to identify factors that may be associated with positive changes through "predictive modeling." This approach used data from the Baseline and Outcomes Studies to create statistical models that explored the

most important factors contributing to youth and caregivers' later scores on mental health functioning, educational performance, alcohol and drug use, juvenile justice involvement, and caregiver strain. These models were one way of looking at how youth demographics (such as age, gender, and race/ethnicity), initial problems, initial functioning and service use acted as potential mediators of change. All conclusions in this area must be regarded as tentative, however, due to the relatively small number of cases with complete data that could be included in each model.

The model used four types of factors to help predict changes in youth and family outcomes:

- ***Demographics***: age, gender, race and income
- ***Family History Variables***: domestic violence, mental illness, substance abuse, parental involvement in crime, child physical abuse, and child sexual abuse
- ***Child Behavior Problems*** (grouped into the following seven factors):
  - Sad/anxious/withdrawn problems
  - Juvenile delinquency/drug problems
  - Attention/hyperactivity problems, including academic problems
  - Aggression (verbal and physical)
  - Suicide/self-injury problems
  - Sexual assault/acting out problems
  - Fire-setting/cruelty to animals
- ***County of Residence and Services Received***: out-of-home placement, assessment, crisis stabilization, family preservation, medication and monitoring, individual therapy, group therapy, family therapy, case management, day treatment, family support, respite care, and flexible funds.

Cornerstone evaluators then compared the various factors with the changes identified through the national evaluation's Outcomes Study. Major findings from this analysis include:

- ***Predictors of Mental Health Change:***
  - In almost all facets of youth mental health functioning measured by the CBCL (Internalizing Behavior, Externalizing Behavior, and Total Problems), improvement was greatest in those with the most extreme problem scores at intake. This finding reinforces the commonsense idea that those with the greatest needs benefit from a system of care approach. It may also reflect the phenomenon known as "regression to the mean" whereby extreme scores revert to less extreme scores over time.
  - Several family history variables were predictive of changes in youths' mental health functioning. Histories of domestic violence and family mental illness were associated with greater improvement in scores, while parental crime history was associated with less improvement over time.
  - The attention/hyperactivity factor (a score based on caregiver reports encompassing several problem behaviors) was not significant at both time periods. However, the fact that it was present in more than one model, and was associated with less improvement, suggests that this may be a difficult area for youth.

- ***Predictors of Changes in Alcohol and Drug (AOD) Usage:*** While conclusions are limited due to the fairly small number of cases, there was an association at the six months interview between youth drug use and histories of sexual abuse and/or history depression/anxiety. These factors, more than a delinquent history, were associated with AOD usage. At 12 months, age and the degree of change on Externalizing Behavior were more important factors. Older youth reported more AOD use and those whose scores on the Externalizing Behavior scale worsened also reported increased use of alcohol and drugs.

- ***Predictors of Changes in Juvenile Justice Involvement:*** Juvenile justice involvement (new police accusations or arrests) did decline over time for Cornerstone youth in the program. In the final model, both a history of fire-setting or cruelty to animals and earlier depression problems were significant predictors of new police contact or arrest, and both increased the chances of that contact. Thus, the data from this study indicated that a history of past delinquent behavior was not as strong a contributor to future juvenile justice involvement as histories of both these two other conditions. Having a history of family mental illness, in contrast, made it less likely the youth would report new juvenile justice contact.

- ***Predictors of Changes in Academic Functioning:*** Only a few variables were associated with changes in academic functioning. One was grade point average at intake; youth starting off with a lower GPA showed more improvement over time. As would be expected, youth whose caregivers reported more positive change in the Overall Strengths Scale (BERS) showed more improvement in grades. The only other significant factor was that youth with sexual assault or acting out behavior also showed more improvement in grades.

- ***Predictors of Changes in Caregiver Strain:***

  - Scores on Caregiver Strain measures at intake were powerful predictors of later changes in these measures. These findings were true for all four measures on this instrument: Global Caregiver Strain, Objective Strain, Subjective Internalizing Strain and Subjective Externalizing Strain. For each measure, higher levels of strain at intake were significantly predictive of improvements at the six month interview. That is, those with the most severe symptoms at intake were most likely to experience positive changes.

  - Over time, however, the study found that intake conditions were less important than functional change. Youth change was the most persistent and powerful predictor of improvement in caregiver strain. While specific types of strain may be more strongly related to specific types of youth functioning, change in perceived strengths was one of the most important predictors of change in caregiver strain. As caregivers perceived that their children's strengths were improving, their own strain was significantly lessened.

…higher levels of strain at intake were significantly predictive of improvements at the six month interview. That is, those with the most severe symptoms at intake were most likely to experience positive changes.

- The type of child mental health functioning (Internalizing or Externalizing Behavior) was associated with parallel types of caregiver strain at six months. Improvements in a child's Internalizing Behavior predicted positive changes in caregivers' scores on the Subjective Internalizing Strain scale. Likewise, improvements in youths' Externalizing Behavior predicted positive changes in caregivers' Subjective Externalizing Strain scores.
- Caregivers whose youth had high externalizing symptoms at intake experienced less improvement in strain; however, when those behaviors were improving, caregivers experienced greater than average improvement in strain.
- Some interesting differences were noted in the impact of changes in different types of youth mental health functioning over time. For Global Caregiver Strain and Objective Strain at six months, positive changes were predicted by changes in ***Internalizing*** child functioning. At twelve months, positive changes in strain were driven by improvements in child ***Externalizing*** functioning.
- A few demographic, family problem, child problem, and service variables were identified as potential predictors of strain reduction during the first six months; however, none survived in the final analyses. For example, income emerged from all preliminary analyses at six months, and families with lower incomes showed greater improvements in Objective Strain at six months. However, this variable did not remain significant when other outcomes were entered into the analyses. In general, this indicated that family histories and problem behaviors were not as powerful predictors of change in strain as are child functioning problems and child functioning changes.

…family histories and problem behaviors were not as powerful predictors of change in strain as are child functioning problems and child functioning changes.

D. Conclusions

Quantitative data from the national system of care evaluation produced the large majority of information about child and family characteristics and outcomes. This study showed that the children served in the Cornerstone system of care were primarily male, mostly aged 12–14 years, and had somewhat higher levels of behavior and family history problems than youth in the national database. Also, more Cornerstone youth were referred by courts and corrections compared to national study youth and fewer were referred by mental health.

Outcome data showed significant reductions in mental health symptoms and level of problems, although corresponding increases in the youths' strengths were not found to be significant. This finding could be important for others developing systems of care, as it may indicate a need to clearly focus on increasing strengths as well as decreasing problem behaviors. Cornerstone youth, did, however, improve in their school functioning and some substance use measures, and family members reported significant reductions in overall caregiver strain. Not surprisingly, the study found a strong relationship between the level of improvement in youths' functioning and reductions in caregivers' feelings of strain.

Finally, most outcome measurements showed that youth and families experienced the greatest positive changes during the first six months of enrollment. This finding may have implications for determining the optimal length of time for youth and families to be served by the dyad team. Cornerstone, however, did not track the level and types of services children and families received from the beginning of the project. This information was needed to determine whether the positive changes were associated with high levels of service intensity during the first six months or some other factor.

Outcome evaluation data from studies such as those described in this chapter provide essential support for leaders seeking to target their services more effectively and improve and sustain their systems of care. They also allow leaders to tell their stories, supplying compelling evidence of the system's impact on children, families, and communities. These data should not be used in isolation, but rather combined with other findings (such as cost studies) to present a complete picture of the system of care's overall effectiveness.

IX. Cornerstone Evaluation Studies and Their Influence on the Process of Interagency Collaboration

A. Introduction

One of the guiding principles of the system of care philosophy is interagency collaboration, which should be part of the system of care infrastructure at all levels. This collaboration takes the form of teams on the service delivery level and as part of the governance structure on the system level. In Cornerstone, the Governing Board and the Local Coordinating Councils (LCCs) acted as the system-level interagency teams.[4] The LCCs were also the community teams required by the wraparound process. These governance structures included family members, agency representatives, and community resources. Finally, the wraparound teams served as the interagency teams at the service delivery level. The ideal teams included the youth and family, natural supports (e.g., friends, neighbors, and relatives) and agency members who were involved or needed to be involved with the youth and family.

Systems of care need to monitor and assess the level of interagency collaboration for a number of reasons. In successful collaborations, children with complex needs and their families are viewed as a community-wide responsibility, not just one agency's responsibility.

Systems of care need to monitor and assess the level of interagency collaboration for a number of reasons. In successful collaborations, children with complex needs and their families are viewed as a community-wide responsibility, not just one agency's responsibility. This means that children are no longer considered to be "mental health's child" or "child welfare's child." Further, interagency collaboration is necessary to address gaps and barriers in service delivery and other issues such as management information systems, training programs, and blended funding streams (DeCarolis, 2005). Agencies must be engaged and supported by the system of care as they work to increase collaboration. Ongoing evaluation can help to identify and build on the strengths and address the problems with these system-improvement efforts, including interagency collaboration.

B. Studies of Interagency Collaboration

There were six qualitative evaluation studies that looked at interagency collaboration on the system and service delivery levels (often called the child and family level). Four of these studies evaluated other issues besides interagency collaboration. One focused exclusively on the relationship

[4]As described in Section II.C.7 on page 18, the central Governing Board was disbanded in Year Six, and the Local Coordinating Councils became the primary vehicle for system-level collaboration and governance in each county.

between Cornerstone dyad staff and Denver Public Schools. A sixth study, *Family Perspectives in the Colorado Cornerstone Initiative: A Qualitative Case Study* (Bussey, 2003), tangentially addressed interagency collaboration.

To assess the state of interagency collaboration in the Cornerstone System of Care, these studies asked questions such as:

- What advantages and disadvantages have you seen of agencies and individuals working together to meet the mental health needs of children with serious emotional disturbance?
- What efforts have you seen by Cornerstone to include all stakeholders?
- What needs to happen so that your agency or group will stay involved in Cornerstone's system of care even after the federal funds have lapsed?
- What has been your experience with systems of care and with Cornerstone specifically?

Following are the six studies that examined interagency collaboration.

- *Cornerstone Formative Evaluation Report (Hess, Doll, Kurtz, Bruning & Ziebarth, 2000):* Researchers from the School of Education at the University of Colorado at Denver conducted qualitative interviews with family members and agency representatives who were active in Cornerstone's early implementation. The goal was to "describe family and agency member impressions and perspectives of the Cornerstone development process during its initial stages." (See Chapter IV.B on page 28 for more information about this study.)
- *Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative (Bussey, 2002):* This study focused on the implementation of the dyad service model and was based on interviews with dyad members and their supervisors and managers. (See Chapter V.B on page 35 for more information about this study.)
- *The Colorado Cornerstone Mental Health Initiative Third Year Implementation: Qualitative Report (Hess, 2002):* This study was a follow up to the earlier formative evaluation mentioned above. It looked at the progress that Cornerstone had made in achieving its goals. It also acted as a comparison to the baseline formative study conducted in 2000. (See Chapter IV.B on page 28 for more information about this study.)
- *A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives (Manning & Paskind, 2003):* The purpose of this case study was to understand and articulate the necessary processes and structures of an innovative, integrated system of care, identify and describe what worked, and the barriers and challenges encountered. (See Chapter VI.B on page 48 for more information about this study.)
- *Family Perspective on the Colorado Cornerstone Initiative: A Qualitative Case Study (Bussey, 2003):* This study focused on family perceptions of how the Colorado Cornerstone System of Care Initiative worked, what barriers to an effective system of care process existed, and how those barriers might be overcome. (See Chapter VI.B on page 48 for more information about this study.)
- *School Participation in a System of Care: The Colorado Cornerstone Mental Health Initiative and Denver Public Schools (Hess, 2003):* One of Cornerstone's goals was to improve school performance, both in terms of improved attendance and academic performance. Accordingly, the pur-

pose of this study was to gain an understanding of how Cornerstone and the mental health professionals in the Denver Public Schools (DPS) worked together to meet the needs of youth with serious emotional disturbance.

In this study, the researcher interviewed two members of the Denver dyad team and seven school personnel from various elementary and middle schools using a brief questionnaire. The Cornerstone dyad selected these school representatives, who were social workers, psychologists, and a special education teacher.

The researcher asked the interviewees to describe a typical case that reflected their work with Cornerstone and then to contrast that experience with their interactions with other agencies. They were also asked to describe their vision of a good working relationship with a system of care. Finally, they were asked questions related to multi-agency cohesiveness, such as decision-making, conflict resolution, communication, and the perceived benefits/challenges of collaboration.

C. Findings and Recommendations

The studies findings and recommendations are grouped according to the common themes that arose with regard to interagency collaboration. These themes occurred at both the system and the child and family levels. They were:

1. Family and Agency Partnership
2. Decision-Making and Conflict Resolution
3. Recruitment and Retention of Agencies
4. Vision, Purpose, and Outcomes
5. Service Delivery
6. Sustainability
7. Leadership and Strategic Change

The first five themes are discussed in this chapter. Sustainability is addressed in Chapter X and Leadership and Strategic Change are discussed in Chapter XI.

1. Family/Agency Partnership

According to the Year One Formative Evaluation, 68% of those interviewed, including families and agency representatives, believed that one of Cornerstone's most important goals was family involvement and focus (Hess et al., 2000). One of the ways that Cornerstone implemented this goal was to require that its governance structures (e.g., centralized Governing Board and LCCs) have equal numbers of families and agency representatives.

This 50/50 requirement, however, proved to be challenging and posed a barrier to agency involvement. Specifically, *A Case Study of an Innovative System of Care* found that the equal number rule was "both a strength and weakness" (Manning & Paskind, 2003, p. 38). On one hand, it acknowledged and recognized families and promoted outreach to them. On the other hand, "it limited agency participation if there were not enough families to make representation equal" (Manning & Paskind, 2003, p. 14–15). This meant if there were fewer families in attendance at a governing

meeting than agency representatives, not all of the agencies could be part of the decision-making process if a vote was taken. Further, some agencies saw families as having more power, rather than having shared power with agencies.

> *On one hand, it acknowledged and recognized families and promoted outreach to them. On the other hand, "it limited agency participation if there were not enough families to make representation equal"*
>
> *—Manning & Paskind, 2003, p. 14–15*

In conclusion, this study found that the transition of families from a passive role in decision-making to one of shared power is complicated and takes time. "Finding the balance between agency and family empowerment that is reciprocal and shared requires a process of reflecting on the experience of participants in an open manner" (Manning & Paskind, 2003, p. 43–44). The study therefore, called for increased awareness, education and open discussions by all stakeholders about the distribution of power.

It also found that in retrospect, training on "empowerment" would have been "useful in the beginning stages of building a system of care, and later on as maintenance and support" (Manning & Paskind, 2003, p. 44). Also, policies and practices needed to be reviewed on an ongoing basis to reflect the changes that were inevitable in an evolving system of care The study, therefore, recommended workshops on balancing a family-driven philosophy with the need for provider expertise and resources. It also recommended orientation and training on the governance role for both families and agencies.

2. Decision-Making and Conflict Resolution

Decision-Making:

In the Year One Formative Evaluation (Hess et al., 2000), interview participants often found that Cornerstone did not move forward quickly and decisively enough. A follow-up focus group agreed, but thought that this situation was fairly typical of a process based on consensus-building. This theme was carried over and cited in the Year Three Formative Evaluation (Hess et al, 2002). The Year Three study found that the three main types of decision-making supported by study participants included consensus building, consensus building with voting as needed, and voting with some consensus building. From the participants' answers, it was clear that there was a lack of clarity regarding the consensus model, as it was sometimes described as a process where everyone gave their input and then the group voted or a "democratic process" took place. Nevertheless, it did appear that the majority of decisions were made after discussion and possibly consensus building, with an end vote. Approximately one-quarter of the respondents noted that they believed this process was working well.

For those who noted problems with the process, the main issues seemed to be that of agencies not working together, the time it took to hear various perspectives, lack of clarity about the process, and lack of leadership. This resulted in extremely lengthy decision-making processes that frequently prevented important matters being discussed. Some individuals struggled between knowing that consensus means working together and hearing all perspectives and wanting an individual "who is responsible for making that decision" (Hess et al., 2002, p. 19).

Accordingly, the Year Three study recommended that Cornerstone examine decision-making structures within various groups and offer examples of effective decision-making models as needed. Additionally, it recommended that the governance structures be defined and communicated so that the LCCs were clear on which decisions they could make and which needed to be deferred to the centralized Cornerstone Governing Board.

Other decision-making issues that were raised early on related to whether "decision-making should be shared equally among fund-contributing and non-fund contributing partners in Cornerstone" (Hess et al., 2000, p. 9). Forty-six percent of those who participated in the Year One Formative Study believed that it should be shared equally, stating that different stakeholders can contribute in different ways, including the contribution of funds.

Conflicts and Resolution:

Researchers found that the level of dissension had greatly increased from the baseline (Year One Formative Evaluation) to the Year Three Formative Evaluation (Hess et al., 2000; Hess, 2002). A clear majority of respondents indicated that conflict was present and the degree ranged from "some" or "minor" to "all the time" and "major." The sources of conflict revolved around specific issues such as logos and agency titles to more broadly defined issues around resources, decision-making, differing agency perspectives, and process (e.g., agreeing to disagree and still work together). Several of those who saw conflict noted that it had some positive aspects because it meant people were invested with the project and the change process. Some individuals also mentioned that they believed that conflicts were decreasing.

Several of those who saw conflict noted that it had some positive aspects because it meant people were invested with the project and the change process.

Of more concern was that other interviewees who participated in the Year Three study (Hess, 2002) stated that this level of conflict interfered with Cornerstone's ability to achieve its goals and to serve families. In response, they suggested that a problem-solving process be incorporated into Cornerstone's organizational structures to address conflicts in a timely manner. As noted in the study, Cornerstone did implement such a process. However, some individuals had not returned to these structures and may have continued to perceive Cornerstone as an entity with a great deal of conflict. Therefore, this study recommended that Cornerstone finalize a multilevel conflict resolution process and introduce it at a working retreat for chairs of the Governing Board, Local Coordinating Councils, and other system leaders.

3. Agency Recruitment and Retention

Three studies looked at coalition building among agencies and Cornerstone with a primary focus on the recruitment and retention of agency representatives on the LCCs. These were the formative evaluation studies, Years One and Three (Hess et al., 2000; Hess, 2002), and a *Case Study of an Innovative System of Care* (Manning & Paskind, 2003). In the Year One Formative Evaluation (Hess et al., 2000), researchers suggested that it would be important for Cornerstone to continue to invite additional representatives from local agencies and programs into the project.

In the Year Three study (Hess, 2002), most stakeholders reported that they thought Cornerstone was doing a good job or at least making a great effort to include all these stakeholders. Some, how-

ever, qualified their response by suggesting that this effort was both Cornerstone's strength and its weakness. Its strength was the large number of agencies involved. Its weakness was that it was challenging to work with so many different groups that had diverse views and were always competing for more representation from certain agencies. As a result, the partnerships that had been created were artificial. A few individuals also noted that Cornerstone was not well understood or that agencies might be hesitant to become involved because of the degree of conflict. Additionally, some felt that some key agencies or individuals were still not involved.

The Year Three Formative Evaluation (Hess, 2002) made several recommendations to increase the depth and breadth of agencies involved in the project. Many of these recommendations were focused on outreach and marketing strategies:

- Outreach activities to the Division of Youth Corrections, schools, culturally diverse groups, and health care in a more personalized way. These efforts were to be directed to all levels of the organization.
- Marketing campaign regarding Cornerstone's role and function, including occasional overviews and highlights of accomplishments and successes.

The *Case Study of an Innovative System of Care* (Manning & Paskind, 2003) followed the Year Three formative evaluation and uncovered further barriers and challenges to agency engagement and involvement with Cornerstone governance activities. This study found that attendance of agency representatives at governance meetings was sporadic and that turnover disrupted the process. Agency members said they felt overburdened and had difficulty balancing their agency workload with Cornerstone activities. According to these participants, the time commitment often felt considerable and had to be justified to upper level administrators and supervisors. Many also reported difficulty engaging higher-level administrators in the system of care.

Moreover, the study found that the level of participation among agency representatives varied according to their agencies' level of commitment. All of the Cornerstone communities indicated that some agencies had entered into "reluctant agreements" with the project (Manning & Paskind, 2003, p.44). Also, all LCCs reported concerns about recruiting the "right" agencies and families to the table. This did not bode well for future system of care efforts. This study further found that efforts had not been made to retain the agencies that were involved.

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Accordingly, the study (Manning & Paskind, 2003) recommended a staged plan to recruit agencies and other community resources. It recommended that Cornerstone engage upper-level administrators of major agencies to be part of the governance process. The involvement of these top-level administrators and decision-makers was seen as critical to sustaining the system of care. The second area of recruitment focused on recruiting local representatives, in particular, providers and community resources. The third area was directed at non-traditional resource people that families use, such as the yoga institute, acupuncturists, and Chinese medicine.

Based on these findings, this study (Manning & Paskind, 2003) recommended the following strategies to improve coalition building among agencies:

- Identify agencies that have a family focus first to involve in the system of care and then follow up with the others.
- Engage high level administrators at agencies for buy-in to the project.
- Assess current commitment of agency representatives and reduce "reluctant agreements."
- Inform and educate agencies about their position in the system of care.
- Recruit upper level agencies, local stakeholders, and non-traditional resources that families are using in the community.

As a final note, the Year Three formative evaluation (Hess, 2002) stated that:

- A clear majority of the respondents saw agency cooperation as an advantage. The positive benefits to this collaboration were noted as (1) helping families access needed services; (2) allowing agencies to have a better understanding of the operations, limitations, and goals of one another; (3) creating an open model in which families were also "at the table"; (4) reducing the stigma of mental health problems by educating members of other agencies; (5) accessing additional financial resources; and (6) facilitating larger systemic change.
- Although the interviewees overwhelmingly noted the advantages, they also recognized the difficulties of creating, facilitating, and maintaining this collaboration. The greatest difficulties in building collaborative relationships were the conflicts, turf wars and barriers (e.g., communication, funding, "wait and see" attitude) that occurred as the agencies attempted to come together. Some believed that the conflict in turn, slowed down the progress of Cornerstone in meeting its goals and that families were sometimes overlooked (Hess, 2002, p. 15).

The greatest difficulties in building collaborative relationships were the conflicts, turf wars and barriers (e.g., communication, funding, "wait and see" attitude) that occurred as the agencies attempted to come together.

4. Vision, Purpose, and Outcomes:

A common theme that arose from three studies was the need for clarity about Cornerstone's vision, goals and outcomes in order to support interagency collaboration. As early as Year One, agencies identified certain results as critical to their continued involvement in the system of care. These were reduced costs and improved child and family outcomes. In the Year One study (Hess et al., 2000), some interview and focus group participants also noted that Cornerstone's purpose and objectives were not always clear.

By Year Three, researchers found that many respondents were frustrated or disappointed in Cornerstone's ability to achieve its goals.

By Year Three, researchers found that many respondents were frustrated or disappointed in Cornerstone's ability to achieve its goals. Concerns were expressed about the low number of families served and the lack of progress in addressing service gaps. They listed bureaucracy, politics, conflicts, and poor communication as the main reasons for this lack of progress. In fact, one individual noted that this was a critical year for Cornerstone and if it did not show results, then it "need[ed] to get out of the way" (Hess, 2002, p.14). So, the Year Three formative evaluation (2002) made several recommendations to help clarify Cornerstone's vision, purpose, and goals. These included a marketing campaign about the role and function of Cornerstone.

5. Interagency Collaboration at the Child and Family Level

In her study titled, *Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative (2002),* Bussey noted that when the dyads met with families, one of the first steps they would take was to find out who the family would like to invite to their wraparound meeting. Ideally, the wrap meeting included extended family and friends, as well as agencies and providers that were involved and/or needed to be involved with the family. Dyad members remarked that it was hard to get everyone to the wraparound meetings. These meetings tended to be informal and yet sometimes were more like school staffings. The dyad members also described making individualized service plans with only the family and youth in some cases. When that occurred, the dyad would follow up with releases and get information from all providers currently involved with the youth, and then schedule another meeting with the family.

In Bussey's study, several people, particularly supervisors, commented that tension existed between getting all the pieces in place and the need to serve families as quickly as possible. They noted it would have been better had they had more time to work through interagency agreements that set out what services Cornerstone would provide. Dyad members worried that some agencies saw Cornerstone as "a sort of bail-out, a way to reduce their caseload," instead of "understand[ing] the whole piece around collaboration" (Bussey, 2002, p. 13).

One supervisor commented that agencies needed to be educated as to why youth and families should not be discharged from their services once Cornerstone was involved because a system of care requires everyone to work with the youth and family. Supervisors also tried to address service gaps or service delays that dyads had

encountered through the LCCs or the state's Barrier Busting Committee. According to supervisors, even in counties where the LCC was operating smoothly, there were still delays in obtaining services for individual families noted by dyad members. At the systems level, supervisors unanimously mentioned the progress that had been made in bringing diverse systems to the table. They felt that Cornerstone had helped to put an infrastructure in place that fostered ongoing partnerships among agencies.

Bussey's study concluded that coordination with community partner organizations was a large job for a new organization, requiring both initial buy-in and ongoing adjustments. It noted that more work was needed at the systems level in all locations. Supervisors mentioned having received feedback from other organizations that they needed to know more about what Cornerstone does and how they fit in. Supervisors recognized that Cornerstone is a very ambitious program, having to forge new alliances in three different locales. In some ways it was creating not one, but three parallel new programs tailored to very different county circumstances.

Bussey (2002) therefore recommended that more information was needed from agencies on how they perceived the Cornerstone process and that of the LCCs in providing services to enrolled and eligible families. This information needed to be gathered from both upper-level managers (those who provided a letter of support and those who attend the LCC) and front line workers (those who worked with Cornerstone dyad members). Once this information was gathered, it was suggested that small group meetings be held between individual agencies and Cornerstone.

Hess's study on *School Participation in a System of Care* (2003) focused on the relationship between dyad staff and DPS. Participants in this study made the following comments:

- The most important part of building an effective working relationship was having an open, collaborative attitude in which all members of the process were listened to and respected.
- Communication was another key ingredient. It should be frequent and consistent over time.
- One of Cornerstone's most important contributions was acting as a link between families, schools and communities. Another critical role was that of the family advocate, both helping families have an active voice in decisions and helping them access needed services.
- The challenges of working together included differing perspectives and goals, and maintaining consistent communication and close working relationships.
- Many members of the school staff were not familiar with the wraparound process or had never participated in this type of meeting.

Based on these findings, the study made several recommendations to improve the relationship between Cornerstone staff and DPS personnel:

- Providing additional training for school personnel on systems of care, Cornerstone, and wraparound

One of Cornerstone's most important contributions was acting as a link between families, schools and communities. Another critical role was that of the family advocate, both helping families have an active voice in decisions and helping them access needed services.

- Introducing the Cornerstone referral process to DPS social workers and psychologists at their group meetings
- Using a small group of DPS service providers (e.g., school psychologists and social workers) to educate dyad staff on the special education process and school-based services
- Developing alternative communication strategies, such as email and text messaging to post updates on Cornerstone and DPS enrolled youth. Additionally, dyad and DPS staff should exchange contact information with each other.
- Continuing to explore the possibility of locating one of the dyad teams within a school or DPS building to increase collaboration
- Considering alternative staffing and/or scheduling arrangements for those DPS staff who work closely with Cornerstone.

D. Conclusion

Because children and families in systems of care require services from multiple agencies, special attention needs to be paid to engaging, supporting, and involving key child and family serving agencies. Evaluation can help to assess the level of collaboration present in a system of care. This information can then be used to identify the issues that must be addressed to improve interagency collaboration. Strong collaborations are essential to the ongoing success and sustainability of a system of care for children with complex needs and their families.

Several evaluation studies looked at interagency collaboration in the Cornerstone System of Care Initiative. From these studies, a number of themes emerged. These included the need for: family/agency partnership; decision-making and conflict strategies; coalition building; and a clear agreed upon vision, purpose, outcomes, and service delivery model. It became apparent through these studies that there were may challenges to achieving and maintaining interagency collaboration. One challenge that seemed to escalate over time was the degree of dissension and conflict within Cornerstone that impacted its ability to reach its goals and to serve families.

As a result, the Colorado Division of Mental Health, as the grantee, made substantial changes to Cornerstone's governance, infrastructure, and operations based on several evaluation studies. They included shifting decision-making for the system of care to the local level; simplifying Cornerstone's infrastructure and operations; and contracting with the Colorado Federation of Families to provide technical assistance to the family organizations developed through Cornerstone. These changes are discussed further in Chapter XII of this monograph.

X. Cornerstone Evaluation Studies and Their Influence on Sustainability

A. Introduction

This chapter examines strategies to assure that the structures, services, and supports created as part of the Cornerstone System of Care Initiative will continue after grant funding ends. Obviously, ongoing funding is critical to sustaining these system elements. However, establishing policies and practices based on system of care values and principles and developing a cadre of committed and knowledgeable individuals can also be important contributors to long-term sustainability. CMHS's national system of care initiative is designed so that federal grant funds are replaced gradually with other, usually local, dollars. Cornerstone sought matching contributions (either cash or in-kind) from community agencies on an increasing basis to assure financial support for the initiative as federal dollars declined. As a result, Cornerstone's use and management of both federal and local dollars was an important element in promoting sustainability. To aid in this effort, the project implemented tracking and continuous quality improvement activities aimed at demonstrating the model's productivity and effectiveness.

The CMHS financing approach was also designed to encourage grantees to work closely with and gain local community support for sustaining the system of care. Cornerstone implemented strategies such as social marketing, community education, and training of family members and agency staff to promote appropriate changes in policies and practices. These strategies were also designed to assure that system of care values and principles were widely disseminated across the participating communities.

Studies of system financing are critical to long-term sustainability. Combined with outcome evaluations such as those described in Chapter VIII, they can be used to gauge the cost benefit of the overall system of care and its separate components. Managers and funders can use this information to decide whether or not to support the system of care as a whole or specific parts of the system. Evaluators can also support system leaders by studying and providing feedback about the development and effectiveness of other contributors to sustainability such as community education, training, and social marketing.

B. Evaluations of Cornerstone's Sustainability Activities

Several evaluations offered feedback on issues related to sustainability, such as social marketing and community education. These included the Year Two study by Bussey (2002), the Year Three formative evaluation by Hess (2002) and Bussey's Year Three study of family perspectives (2003). In addition, two qualitative evaluations identified major themes related to overall sustainability. These studies were conducted later in the project, when issues about how the system of care would continue reached the forefront for project participants. They include the Year Four Case Study by Manning and Paskind described in Chapter V.B on page 35 and Potter's

Final Retrospective Evaluation described in Chapter VI.B on page 48. Finally, Cornerstone conducted one major study specifically focused on financing and costs:

- *The Colorado Cornerstone Initiative: Estimates of Cost for Three Program and Service Categories (Coen, 2004)*—In Project Year Four (FY 2002–2003), Cornerstone began to divide its federal grant expenditures by county in an effort to document how these funds were used to support the service model. The primary purpose of this study was to facilitate local sustainability efforts by providing a method to estimate the costs to community agencies of adopting all or part of the Cornerstone model. The study results provided information in two main areas:
  - The types of activities in which Cornerstone staff engaged
  - The distribution of resources and youth served across each Cornerstone county, and the resulting costs to the system of care.

  The evaluator developed a one-week Time Study that documented the activities of all staff whose positions were paid with Cornerstone funds. Twenty-two staff participated in this study, including direct service, supervisory, administrative, and management personnel. The results were used to allocate staff time into relatively discrete categories, reflecting three levels of activities in which key Cornerstone staff engaged:

- ***Direct Services***: Services linked to specific youth and families (e.g., case management, wraparound meetings, advocating on behalf of a family), as well as supervision and training of direct service providers.
- ***Support/Fidelity/Sustainability***: Activities without which the program could not operate with fidelity to Cornerstone system of care principles or activities that helped ensure the sustainability of services (e.g., meetings with community stakeholders, local service resource development).
- ***Grant/Initiative***: Federal requirements and other activities that were unnecessary for the model itself to operate with fidelity (e.g., federal grant reports, a large portion of the program evaluation, communication with federal consultants, some training activities).

Following the analysis of the time study data to describe Cornerstone staff activities, several steps were taken to use this information to derive cost estimates for the Cornerstone Initiative overall and for each Cornerstone county:

- Each activity for each staff member was reviewed and assigned to one of the three levels of activities described above. These levels were termed Cost Allocation Categories.
- Proportions (percentages) were calculated for each Cost Allocation Category for each staff position.
- Those proportions were applied to Year Four Cornerstone expenditures for each county, the state and InNET (the managed care contractor responsible for overall project management and service coordination).
- State and InNET expenditures were distributed among the counties based on each county's proportion of youth served and service providers.
- Average annual costs per youth were calculated for each county and overall.

C. Findings and Recommendations

Findings and recommendations in this section are organized according to the following themes:

- Use of staff time—which relates indirectly to sustainability by measuring the efficiency of the services provided
- Costs of services
- Community visibility and investment—which relate to sustainability by addressing community and staff support for, and understanding of, system of care values, policies, and practices
- Overall lessons learned about sustainability.

1. Use of Staff Time

Coen's time study demonstrated that Cornerstone staff members engaged in an extremely wide range of activities:

- Staff spent the largest percentage of their time (26.7%) providing services to youth and families.
- Administrative tasks (e.g., charting, record keeping, e-mails) consumed the second largest proportion of time, almost 16%.
- Another 16% of staff time was accounted for by meetings, including services and support staff, administrative management, management team, operations, Governing Board, and other meetings.
- Travel required 11% of staff time.
- The remaining time was distributed among a wide variety of activities, including supervision (non-direct service staff), training, program evaluation, and public relations/marketing.
- Families and youth were identified as the being the direct beneficiary of almost half of staff's efforts, followed by management (18%), the community or community providers (13%), and the general Cornerstone (10%) initiative.

Although the time study did not *directly* address the issues of costs and sustainability, Coen pointed out that these data can be used to help management and other staff assess whether this distribution of time reflects Cornerstone's goals and objectives, as well as the most efficient use of individuals' time. She posed the following questions to consider:

- Considerable time was devoted to meetings. Did the meeting structure, which was set up throughout implementation, still meet the needs of staff and management?
- As with many direct service staff throughout human services, significant time was spent performing administrative work, including data entry. Were there strategies available that would make more efficient use of their time?
- Approximately 13% of staff activities benefited the general community or community providers. Did this fit with management, staff, and the communities' expectations?

The findings from the time study, along with Cornerstone data on resource allocations for each county, provided the basis for estimating costs for the initiative-wide and local systems of care. The results for Cornerstone overall and for each county are summarized below.

2. Costs

Coen's study (2004) produced detailed findings about the amount of federal dollars spent on the overall Cornerstone System of Care Initiative, as well as the costs associated with direct services, support, and administration in each of the three Cornerstone counties.

The Cornerstone System of Care Initiative Overall:

Over $1.8 million were expended during Year Four of the Cornerstone Initiative. These federal dollars funded direct services to 261 youth and their families, provided the support needed for direct services to operate with fidelity to the Cornerstone dyad model and the community, and supported the internal work needed to sustain the services. In addition, dollars were spent on developing and maintaining the broader initiative and meeting federal grant requirements.

The average annual cost for each youth enrolled in Cornerstone was $7,102. Forty-six percent ($3,243) of this cost was for Direct Services. Thirty-nine percent ($2,775) was for Support/Fidelity/Sustainability and 15% ($1,084) for the broader Grant/Initiative. A summary of the Cornerstone's overall distribution of resources and expenditures is displayed in Table 6.

Table 6: Cornerstone Overall: Summary of Resources and Outputs/Expenditures

Resources			
$ Allocated		$1,853,600	
Youth Served		261	
Initiative-Wide Staff[5]		6	
County-Based Staff		16	
Outputs/Expenditures	**Direct Services**	**Sppt./Fidelity/ Sustainability**	**Grant/ Initiative**
Staff Time	53.2%	30.7%	16.1%
$ Expended	45.7%	39.1%	15.3%
Cost per Youth	$3,243	$2,775	$1,084

Source: Cornerstone Cost Study Database

Denver County:

The average annual cost per youth for Direct Services in Denver was $3,278. The program served 109 youth in Year Four, about 42% of all youth served in Cornerstone. Denver County also accounted for 44% of the county-based staff and 45% of the Cornerstone Year Four expenditures of federal dollars. The majority of staff time (56%) was devoted to Direct Services. An almost equal proportion of dollars were allocated to Support/Fidelity/Sustainability (about 43%).

[5]There are two additional Initiative-wide evaluation positions (not FTE) that were not included in this study.

Grant/Initiative dollars accounted for only 14% of its expenditures, about the same proportion in Denver as in the overall initiative. These findings are summarized in Table 7.

Table 7: Denver County—Summary of Resources and Outputs/Expenditures

Resources		Numbers	% of Initiative
$ Allocated		$841,262	45.4%
Youth Served		109	41.8%
Number of County-Based Staff		7	44.0%
Outputs/Expenditures	**Direct Services**	**Sppt./ Fidelity/ Sustainability**	**Grant/ Initiative**
Staff Time	56.2%	31.6%	12.2%
$ Expended	42.5%	43.4%	14.2%
Cost per Youth	$3,278	$3,346	$1,094

Source: Cornerstone Cost Study Database

Jefferson County:

The average annual cost per youth for Direct Services in Jefferson County was $2,715. The program served 119 youth in Year Four, about 46% of all youth served in Cornerstone. Jefferson County employed 31% of the county-based staff and expended 35% of the Cornerstone Year Four federal dollars. The majority of their staff time (79%) and dollars (41%) were allocated to Direct Services, higher than the Cornerstone average. A slightly lower proportion of dollars (40%) was expended on Support/Fidelity/Sustainability, lower than the Cornerstone average. Grant/ Initiative dollars accounted for 21% of Jefferson County expenditures, higher than the overall average. These findings are summarized in Table 8.

Table 8: Jefferson County—Summary of Resources and Outputs/Expenditures

Resources		Numbers	% of Initiative
$ Allocated		$641,346	34.6%
Youth Served		119	45.6%
Numbers of County-Based Staff		5	31.0%
Outputs/Expenditures	**Direct Services**	**Sppt./ Fidelity/ Sustainability**	**Grant/ Initiative**
Staff Time	78.7%	4.8%	16.5%
$ Expended	50.4%	31.8%	17.8%
Cost per Youth	$2,715	$1,716	$960

Source: Cornerstone Cost Study Database

Clear Creek County:

The average annual cost per youth for Direct Services in Clear Creek County was $5,029. The program served 33 Clear Creek youth in Year Four, about 13% of all youth served by the initiative. Clear Creek County employed 25% of the county-based staff and expended 20% of the Year

Four federal dollars. The majority of staff time (66%) was devoted to Direct Services. The program spent a little more for Direct Services (44.8%), than for Support/Fidelity/ Sustainability (41.9%). Thirteen percent of its resources were expended on Grant/Initiative activities, less than the overall average. These findings are summarized in Table 9.

Table 9: Clear Creek County—Summary of Resources and Outputs/Expenditures

Resources		Numbers	% of Initiative
$ Allocated		$370,720	20.0%
Youth Served		33	12.6%
Number of County-Based Staff		4	25.0%
Outputs/Expenditures	**Direct Services**	**Sppt./Fidelity/ Sustainability**	**Grant/ Initiative**
Staff Time	65.8%	28.0%	6.2%
$ Expended	44.8%	41.9%	13.3%
Cost per Youth	$5,029	$4,705	$1,495

Source: Cornerstone Cost Study Database

In interpreting these results, Coen made the following conclusions and recommendations:

- Although the rate of mental health disorders is similar in rural and urban areas, the costs of providing services is higher in rural areas (Braun, 2003; Center for Mental Health Services, 1999; New Freedom Commission on Mental Health, 2003). Reasons include limited services due to lack of economy of scale savings and fewer practitioners, access issues (e.g., expensive transportation), lack of anonymity, increased stigma, and lack of infrastructure. This should not deter initiatives such as Cornerstone from providing services, but rather challenge communities to find strategies to expand and fund these critical services.
- The findings suggested that staffing configurations in the counties were quite different from one another. This was confirmed by examining the budget and expenditure documents, which showed that some counties had more resources than others, particularly in the areas of management, coordination, and administrative support. Coen noted that staffing patterns clearly had a direct effect on the work that was done and in what proportion, and also affected how costs were allocated. With these findings in mind, she recommended that Cornerstone management consider the following questions:
  - What factors determine what the staffing level and pattern needed in a community?
  - Is there a pre-determined set of skills needed to ensure that the model operates with fidelity? Might the needed skills differ by community?
  - What is the direct service capacity of Cornerstone?
- Coen further noted that there were important limitations to keep in mind as to these cost estimates. These included the lack of comparable data and the inability to adjust the estimates according to the severity of youth problems and the amount and type of services provided. It was also important to note that these were estimates of costs to the Cornerstone System of Care Initiative only and did not include costs to other systems, such as child welfare or juvenile

justice. These caveats notwithstanding, the estimates provided a good starting place for potential supporters of current or expanded services.

- Future efforts might build on this work to document:
  - The type of direct contact activities direct service providers have with youth and families
  - The amount of direct contact time youth and families receive
  - The amount and type of services youth and families receive from other service providers
  - The relationships among the severity of the problems of the youth served, the type and intensity of services received, the cost of services, and youth and family outcomes.
- Intensive interventions for youth with serious emotional disturbance are usually expensive. These cost estimates underscored the importance of understanding and documenting the costs associated with Cornerstone, which offered one alternative for youth and families. Ultimately, linking these results to youth severity, the intensity of services provided within and beyond Cornerstone, and youth and family outcomes would provide critical information about cost effectiveness. These estimates would also give managers and other stakeholders greater flexibility in designing future programs based on the Cornerstone model.
- Building infrastructures that support systems of care is also expensive. The costs associated with the grant requirements would be expected to drop once grant funded ends, and the costs associated with support, fidelity, and sustainability might be expected to diminish over time.

Intensive interventions for youth with serious emotional disturbance are usually expensive. These cost estimates underscored the importance of understanding and documenting the costs associated with Cornerstone, which offered one alternative for youth and families. Ultimately, linking these results to youth severity, the intensity of services provided within and beyond Cornerstone, and youth and family outcomes would provide critical information about cost effectiveness. These estimates would also give managers and other stakeholders greater flexibility in designing future programs based on the Cornerstone model.

3. Community Visibility and Investment

In Year Three, issues of community visibility and investment began to surface in Cornerstone's evaluation results. In the Year Three formative evaluation (2002), Hess reported comments from participants about the need for clear information about Cornerstone and its goals that could be communicated to relevant community agencies and organizations. Bussey's family study (2003) also included comments from parents about the need to inform school personnel and other community agencies about Cornerstone in order to facilitate visibility, buy-in and referrals. Based on this feedback, Hess (2002) made the following recommendations:

- Develop a marketing campaign that would communicate Cornerstone's role and functions and highlights of the system of care's accomplishments in order to clarify its mission and create a perception of effectiveness.
- Publicly acknowledge Cornerstone's achievements in "barrier busting" (reducing interagency barriers to effective service delivery), further communicating the initiative's successes.

Hess also asked respondents about the likelihood of their continued involvement in Cornerstone after federal funds ended as an indicator of sustainability. Some indicated that they would stay involved, even informally, because they believe in the model and would continue to serve the types of youth served by the initiative. Others characterized it as a catalyst for change, saying that they understood that they would need to sustain the changes regardless of what happened to Cornerstone. On the other hand, several individuals noted that Cornerstone would need to make changes in order for them to continue their involvement. These changes included increasing efficiency in program operations, reducing conflicts and improving communication about the Cornerstone mission and successes. Finally, other respondents noted that their continued involvement would be dependent on Cornerstone's ability to produce better outcomes for children and families, cost savings, and other benefits to the participating community agencies.

4. Overall Feedback on Sustainability

Two qualitative evaluations conducted in Years 4 and 6 identified sustainability as a major issue confronting Cornerstone. Based on feedback from respondents about this issue, Manning and Paskind (2003) made the following recommendations:

- Decide on a model of change that can be sustained. This could be either changing the entire service system for families or creating an innovative model within the existing service system that incorporates key system of care values and principles.
- Develop internal clarity about this model of change/mission and its relationship to a sustainable vision in each local area.
- Use this model of change/mission to market and sustain the vision in each local community.
- Enhance communication between the Local Coordinating Councils (LCCs) and the Governing Board in order to achieve congruence on sustainability planning at all levels.
- Simplify goals and clarify action steps—develop a written, concrete plan for each LCC.
- Include in each plan a strategic goal of recruiting new resources.
- Increase engagement with higher level administrators to foster buy-in to the project.
- Provide direction and education to agencies about what is needed, taking into account what agencies can commit to in relation to their mandates and budgets.

Decide on a model of change that can be sustained. This could be either changing the entire service system for families or creating an innovative model within the existing service system that incorporates key system of care values and principles.

- Based on assessment of what is realistic, develop a plan with agencies for sustainability.
- Involve top-level decision-makers from agencies in sustainability process.
- Use outcome data as vehicle of persuasion.

Potter's study (2005), which was conducted near the end of the initiative, included some retrospective thoughts on sustainability. Two of her "lessons learned" touched on this issue:

- ***Focus on sustainability from day one.*** An early focus on mapping financing structures and possibilities can pay off in the later years of the project. Respondents reported that "we should have understood the funding better," and that "we needed to know where to go to sustain the funding" (Potter and Bussey, 2005, p. 6).
- ***More local control*** makes it easier to identify a model that meets the community's diverse and unique needs, and to develop support and resources to sustain this model.

> *"All worry about sustainability, but, ironically, the level of engagement, energy, and hope is higher in these uncertain times than at any time in the previous five years"*
>
> *—Potter & Bussey, 2005, p. 12*

Potter noted that in the later years of the project, participants did begin to achieve some degree of success in their sustainability efforts. Thus, she concluded, "All worry about sustainability, but, ironically, the level of engagement, energy, and hope is higher in these uncertain times than at any time in the previous five years" (Potter & Bussey, 2005, p. 12).

D. Conclusions

Cornerstone conducted one major study on financing and addressed sustainability issues in several other qualitative studies. The financing study looked at overall costs for the initiative and also compared costs across the three counties where services were provided. It found that the annual cost for each youth enrolled in Cornerstone was $7,102. Forty-six percent of this total was used for direct services to children and families, 39% was spent on supporting and sustaining these services (e.g., supervision and training) and 15% was directed to activities associated with the broader grant initiative (e.g., federal reporting). The evaluator concluded that these estimates underscored the importance of understanding and documenting the costs associated with Cornerstone. She also noted that linking these results to youth problem severity, the intensity of services provided within and beyond Cornerstone and youth and family outcomes would provide critical information about cost effectiveness. A final conclusion was that building infrastructures for systems of care can be expensive, and that costs associated with grant requirements, sustainability and support might be expected to decrease over time.

Respondents to the qualitative evaluations found that issues of community visibility and investment were closely associated with sustainability. They recommended that Cornerstone increase its marketing and communication efforts with local leaders, noting that these leaders would likely not be willing to sustain the system of care without clear evidence of efficient operations and positive outcomes for children and youth. Near the end of the initiative, a retrospective study concluded that Cornerstone should have done a better job at focusing on sustainability from "day one," and

that more local control would have made it easier to develop support and resources to sustain the model.

Evaluators can play an important role in sustaining systems of care by producing data that demonstrates the cost benefit of the system and its services. Studies of other system components, such as training and social marketing, can help leaders improve the effectiveness of these functions, further contributing to long-term sustainability.

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XI. Leadership & Strategic Change

A. Introduction

This chapter focuses on leadership and the strategic change process, and the role that evaluation can play in informing and guiding this process. Leadership is an essential "intangible" for successful development and sustainability of a system of care (DeCarolis, 2005). Not only does it provide direction, it also manages the complex systems change process that can be both stressful and difficult. In order to move system of care efforts forward, leaders provide all stakeholders with a vision and sense of purpose that is based on system of care values and principles. Effective leadership then engages these stakeholders to create strong support for a shared system of care vision (DeCarolis, 2005).

Leaders understand that building a system of care is a multifaceted, multilevel process that takes time. They also understand how traditional systems work and how to engage them so that they join in the system change efforts (Pires, 2002). With this knowledge, leaders strategically determine which aspects of building a system of care to take on at which developmental stage (Pires, 2002). Responsible leadership then assesses the effectiveness of these reform efforts and uses that information to inform and improve future efforts to move the system of care forward (DeCarolis, 2005). Evaluation plays a key role in informing leadership about the effectiveness of the change process and guides leadership decisions that need to be made.

B. Evaluations of the System of Care's Leadership, Collaboration and Strategic Change Processes

Five different qualitative studies addressed the issue of Cornerstone's leadership and strategic change process:

- *Cornerstone Formative Evaluation Report (Hess, Doll, Kurtz, Bruning & Ziebarth, 2000).* Researchers from the School of Education at the University of Colorado at Denver conducted a set of qualitative interviews with family members and agency representatives who were active in Cornerstone's early implementation. The study's purpose was to examine family and agency perspectives of the Cornerstone development process during its initial stages. (See Chapter IV.B on page 28 for more information about this study.)
- *Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative (Bussey, 2002).* This study focused on the implementation of the dyad service model and was based on interviews with dyad members and their supervisors and managers. (See Section Chapter V.B. on page 35 for more information about this study.)
- *The Colorado Cornerstone Mental Health Initiative Third Year Implementation: Qualitative Report (Hess, 2002).* This study was a follow-up to the earlier formative evaluation mentioned above, acting as a comparison to this study. It looked at the progress that Cornerstone had made in achieving its goals (See Chapter IV.B at page 28 for more information about this study.)

- *Family Perspectives on the Colorado Cornerstone Initiative: A Qualitative Case Study (Bussey, 2003).* This study focused on family perceptions of how Cornerstone worked, what barriers to an effective system of care process existed, and how those barriers might be overcome. (See Chapter VI.B. on page 48 for more information about this study.)
- *A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives (Manning & Paskind, 2003).* The purpose of this case study was to understand and articulate the necessary processes and structures of an innovative, integrated system of care, and identify and describe what worked and the barriers and challenges encountered. (See Chapter V.B on page 35 for more information about this study.)
- The Manning and Paskind study is of *particular importance on the issues of leadership and strategic change.* It, therefore, will be the primary focus of the next section on findings and recommendations. The other studies will be briefly summarized and relevant points highlighted.

C. Findings and Recommendations

Hess' Year One formative evaluation (2000) reported that in the beginning, most respondents believed that the start-up process was taking a long time. As a result, these respondents were frustrated that "strong leadership" was not in place to move the change process forward. The Year Three formative evaluation (Hess et al., 2003) noted that the call for effective leadership seemed to diminish from Year One to Year Three. However, broad systemic change continued to be an issue. Despite the existence of agency coalitions and agreements and working relationships in place, broad systemic change had not taken place. This finding led some individuals to question Cornerstone's viability as a catalyst for systems change.

The theme of systems change once again was raised by dyad staff and their supervisors in Bussey's Year Two process evaluation (2002). Some supervisors placed more emphasis on the importance of the systems change; as one said, "Actually, that's the only purpose of system of care; it's not changing families, it's changing systems" (Bussey, 2002, p. 5). Supervisors from the Colorado Federation of Families, the Cornerstone family organizations, and InNET, the service coordination agency, also had different approaches to family advocacy versus support for families, and adversarial versus cooperative means of engaging systems in the change process. Dyad perceptions of program impact covered both family-level and system-level changes. They felt that systems changed when greater collaboration took place between the parties and group responsibility was established, and when families were seen to be integral players.

The partnership between the Division of Mental Health, the Colorado Federation of Families and InNET was also seen as important and unique, but very challenging. One family advocate noted that partnerships in general are always hard and that there will always be turf issues and leadership struggles. Supervisors also recognized that each partner organization had come in with a "different agenda" and with "different resources and different expertise." One supervisor emphasized that more processing should have been done in the beginning because it was unrealistic to bring these very different organizations together and expect them to work "in-sync" without providing the time and resources to support and discuss these differences.

As Cornerstone ended its first full year of serving families, it was clear from interviews with dyad members and their supervisors that issues of coordination were important. They mentioned the

benefits of a one-day retreat held to address coordination between InNET and the Federation of Families, and noted that further work at that level would have been useful.

Bussey's 2003 study on family perspectives found that the presence of dyad staff at formal meetings sometimes resulted in broader systems change in the ways things were done. Also, some parents were able to bring about systems change through their own research and advocacy.

In their evaluation titled *A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives,* Manning and Paskind (2003) reported that many study participants said that Cornerstone's infrastructure seemed "very heavy," which may have been a result of its complex design. For example, the governance structure was comprised of a centralized Governing Board and three Local Coordinating Councils (LCCs). This structure affected and complicated communications, policy-making, decision-making, planning, and budgetary concerns. Developing and maintaining this complex infrastructure was time-consuming, requiring expenditures of both human and material resources. One agency representative who had helped conceptualize the model stated that, in retrospect, the design had been a mistake and that Cornerstone was overextended.

Additionally, this infrastructure posed barriers to local decision-making in building the community-level system of care in each county. This model's layers and hierarchical structure allocated decisions and power to the top levels of governance through the Governing Board and Management Team, rather than locally through the LCCs. One person felt that decision-making could have been improved by making the system more accountable for its actions.

Manning and Paskind also reported that local communities were experiencing varying degrees of confusion with Cornerstone's vision and direction. This confusion caused local stakeholders to become disappointed with the change process. To remedy this situation, they called for effective leadership to help them to define a vision for a system of care in their community.

Leadership was especially challenged by this complicated model. Cornerstone had a grant director, an administrative/operational staff, a centralized Governing Board, three LCCs, and three local family organizations representing three very diverse counties. Although Cornerstone valued and promoted shared power and leadership, this complex model had created leadership voids while at the same time developing myriad new leaders. All of this underlined the importance of having a leadership plan and clear practices and policies in place to increase predictability and help meet expectations. Further, defined leadership roles were found to be essential to deal with the conflicts that had arisen. In sum, the researchers noted that:

> *Building a system of care with diverse stakeholders requires leaders who can be transformational—building connections and finding opportunities for stakeholders to have meaningful involvement. Agency and family representatives bring different strengths and capacities, but sometimes need support in utilizing them* (Manning & Paskind, 2003, p. 48).

Overall, Manning and Paskind recommended that Cornerstone's next steps be collaborative and result from local buy-in so that systems change could take place. Based on their findings, the researchers made several additional recommendations covering infrastructure, vision, partnership, and leadership issues. They highlighted the recommendation shown below in bold face as particularly important:

Infrastructure:

- Reduce the number of hierarchical levels to facilitate communication and decision-making.
- De-centralize wherever and whenever possible to push decisions and control to local levels.
- Assess and develop clear channels of communication between dyads, LCCs, and Governing Board.

Vision & Partnership:

- "Name it" [the vision] at each LCC.
- Develop a concrete strategic plan to reach the vision and goals, objectives, action steps, timeline, and accountability.
- Clarify the vision internally, which can then lead to clarity externally, to market and sustain the vision in the community.
- Communicate and coordinate LCC efforts with the Governing Board.

Leadership:

- Conduct training in consensus decision-making techniques and conflict resolution.
- Institute leadership development based on transformational approaches that reinforce collaboration, vision, participation, and empowerment.
- Develop a mentoring network for new leaders.
- Identify and develop emerging family and agency leaders.
- Provide more visible involvement and direction from the principal investigator.

D. Conclusions

Effective leadership is necessary to successful guidance and management of the strategic change process. Evaluators can support leadership by determining the effectiveness of these efforts. Based on evaluation findings, system leaders can make informed decisions about which system of care processes and structures need adjusting in order to be effective. The availability of study results while a system of care is being built is a unique opportunity that leadership should take advantage of. This is very different from a traditional evaluation where the findings and conclusions are not available until the project or program has been completed.

Five different qualitative studies addressed the issue of leadership and strategic change. The principal study in this area was *A Case Study of an Innovative System of Care* (Manning & Paskind, 2003). This study found, among other things, that Cornerstone's infrastructure was overly complex, which caused significant challenges to project leadership and local decision-making. As a result, the study recommended that the model be simplified and decision-making be shifted to the local level.

These five studies and others provided the information that the Division of Mental Health needed to make substantial changes to the Cornerstone model and its operations if there was to be any hope of sustaining the local systems of care beyond federal funding. The following chapter describes those changes made in Year Six of the Cornerstone grant.

XII. Evaluation's Impact on the Cornerstone System of Care

A. Introduction

Based in large part on the findings and recommendations from the evaluation studies described in Chapters IV through XI, the Division of Mental Health decided that, as the federal grantee, it needed to make substantial changes to the structure and operations of the Cornerstone System of Care Initiative. As many of the evaluation studies showed, key stakeholders in the local communities needed to be re-engaged in order for system of care efforts to move forward and be sustained. Accordingly, the Division put forth a Year Six Action Report to guide the grant activities for the final years of federal funding. In the report, the Division identified a set of specific goals and the strategies needed to achieve them:

- Build on Cornerstone's successes.
- Shift decision-making, resources, and responsibilities to the community level in order to enhance the sustainability of system of care values and principles beyond grant funding.
- Improve the efficiency with which services are delivered and the system of care is developed and maintained.
- Increase accountability within the initiative at all levels.

The following sections describe the plan's highlights and the results of its implementation.

B. Year Six Changes

1. Build on Cornerstone's Successes

One of the first things called for in the Year Six report was the re-engagement of the Federation of Families for Children's Mental Health—Colorado Chapter. In September 2005, the Division entered into a contract with the Colorado Federation to provide technical assistance to the three local Cornerstone family organizations and communities.

The most critical focus of Year Six was on sustaining the local systems of care after grant funding ended.

Another strategy employed by the Division was to compile a final report that summarized the findings of all of the evaluations that had been conducted throughout the grant period. The result of these efforts is this monograph. We hope other system of care and systems integration efforts can benefit from what we have learned through our evaluation experiences.

2. Shift Decision-Making, Resources, and Responsibility to the Local Level

The most critical focus of Year Six was on sustaining the local systems of care after grant funding ended. This was to be accomplished by shifting project functions to the communities while resources were still available. To support this shift, the Division provided leadership and training

to the communities on how they might assume these responsibilities. It also redirected funds that had previously supported the centralized Technical Assistance and Coordination Team to the local level. To access these funds, each county developed and implemented a sustainability plan that addressed their community's individual strengths and needs.

Further, each community was encouraged to explore alternative service delivery models that would aid in their sustainability efforts. Although it made programmatic sense to have a uniform model initially, flexibility was required to ensure that individual community needs and strengths guided the most appropriate way to provide services. In Denver, for example, this meant using one of the service coordinator positions as the Project Coordinator for the Denver Collaborative Partnership (DCP). The DCP is an interagency team consisting of high level administrators, managers and family representatives. Its mission is to provide Denver's juvenile court with integrated recommendations for youth identified for commitment, long-term out-of-home placement or psychiatric hospitalization.

With the emphasis on strengthening the local Cornerstone governance and management structures in Year Six, the Social Marketing/Technical Assistance Coordinator played a larger role by: providing individual counties with technical assistance and resource development; coordinating information sharing to support sustainability efforts and cross-project collaboration; and providing statewide system of care development, education, and training efforts.

Also, the State Management Information Systems Director and the Cornerstone Evaluation Field Manager, in consultation with the local family organizations, developed a service utilization tracking system to meet basic data requirements, including admissions, discharges, and services provided. This tracking system, called TSOC (Tracking Systems of Care), has been further enhanced through Project BLOOM and is now a web-based system.

3. Improve Efficiency

Several studies indicated a lack of clarity about roles and responsibilities in the project. Additionally, there was a need to increase the efficiency of meetings and committees. As a result, the governing board was disbanded and its members were encouraged to join their local governance bodies that now had decision-making power over their local system of care.

Communities also evaluated the effectiveness of their Local Coordinating Councils and, in most cases, restructured them to better meet their needs. For example, Gilpin County, one of Cornerstone's rural mountain communities, created a local governance body focused not only on children with serious emotional disturbance but also on other children with complex needs and their families. Gilpin County determined that, in a rural community, it was critical that the local governance structure have a broader focus in order to be successful.

Gilpin County determined that, in a rural community, it was critical that the local governance structure have a broader focus in order to be successful.

4. Improve Accountability

Working together, the Division and local communities provided leadership to increase accountability and adherence to system of care values and principles. A key result of these efforts resulted in the development of a process to transition families who had completed services and were ready to

move to a new stage in each community. This process also addressed how youth and families could request additional support, re-enter services, access additional services and supports in the community, and become involved in other project efforts.

C. Federal Site Visits

As previously mentioned, this Year Six Action Report initially created some controversy, especially in Denver, that necessitated two site visits by Cornerstone's federal project officer and other federal team members. This resulted in an additional action plan prepared by the Division to address the federal concerns. The following are the federal findings from the second site visit excerpted from the July 2005 federal report on Cornerstone's progress.

> *In Year Six the Colorado Cornerstone System of Care Initiative initiated several changes designed to move system of care development efforts from state level control to a decision-making process that is firmly rooted in the four local communities being served. These changes resulted in strong emotion on the part of many associated with the project, resulting in a federal site visit in November 2004 to better assess how these changes were impacting those involved with the Initiative.*
>
> *As stated by the principal investigator of the project, "the focus of the planned changes was based on increasing local control to enhance sustainability efforts by decreasing administrative layers including, but not limited to, meetings in the project, and using savings to provide funds to the local communities." The reorganization included contractual changes; reducing the scope of the project-wide governing board; increasing the focus of decision-making at the local level through the renewed emphasis on Local Coordinating Councils as the vehicle for project decision-making; and expanding the number of fiduciary agents at the local level to act as administrators of project funds for each community being served.*
>
> *The reorganization was a huge undertaking, particularly since the project was in its last year of funding. In the midst of this change, various family representatives, agency partners, and staff of the project expressed confusion and conflict about their level of involvement in the decisions made in July 2004 to revamp the organizational structure of Cornerstone.*
>
> *After the November 2004 site visit, the leadership of the Colorado Cornerstone Initiative was requested to develop and implement a six month action plan designed to address specific recommendations made by the site visit team. Subsequently, the Colorado Department of Human Services submitted the Division of Mental Health's six month Action Plan in response to the federal request in January 2005.*
>
> *In May 2005, the federal site team returned to observe Cornerstone's progress in implementing the plan. The federal site team determined that the leadership of the Colorado Cornerstone Initiative had done a masterful job of transitioning decision-making for Initiative efforts to the local level. The federal site team reported that the leadership of the Colorado Cornerstone Initiative had effectively facilitated the transition of decision-making to the local level, significantly improved upon the organizational effectiveness of the key agency and family organizations involved, and strengthened the level of excitement and focus about how this initiative can not only succeed but potentially be replicated in other parts of Colorado.*

D. Conclusion

In Year Six of the federal grant, the Division of Mental Health, as grantee, made major changes to the structure and operations of the Cornerstone System of Care Initiative. These changes were based on the findings and recommendations of numerous evaluation studies. Although they created significant controversy initially, the Cornerstone communities eventually accepted and embraced these changes.

Key changes involved simplifying the Cornerstone model, shifting decision-making to the local level, and strengthening the partnership between the state and local communities. These changes were put in place in an effort to sustain the local systems of care.

XIII. Overall Conclusions, Key Findings & Recommendations

A. Introduction

Through this review of the Cornerstone studies and their influence on the key system of care processes and structures described in the previous chapters, the authors have drawn a number of conclusions about what worked well and what were the major challenges for the evaluation. We have also identified key lessons learned from the Cornerstone experience and developed recommendations, based on these lessons learned, for other system of care initiatives. These recommendations address two major questions:

- What processes and structures should be studied in an effective evaluation of a system of care?
- How can evaluation results be used to inform/improve system of care efforts?

It is our hope that the following conclusions and recommendations will be useful to others who are building and evaluating systems of care in Colorado and across the nation.

B. What Worked Well?

- The Cornerstone evaluation facilitated and incorporated broad representation and participation from all critical stakeholders, including state and local administrators and managers, family members and youth, academic researchers, and direct care staff.
- The Cornerstone evaluation extensively studied family involvement and gathered a wealth of information about the family perspectives and roles at all levels of the system of care.
- The Evaluation Steering Committee was effective in guiding the design and implementation of the studies, and in analyzing and communicating key issues raised by their findings. Examples of these efforts included:
- Posting studies and evaluation committee recommendations on the Division of Mental Health's webpage and creating an evaluation newsletter to keep families and communities informed about evaluation studies and their findings
- Responding to the communities' needs for county-specific demographic and outcome data for sustainability purposes
- Commissioning several studies on family involvement, support, and engagement in the system of care
- Commissioning a study to identify the key elements of a successful system of care.
- The evaluation team was very effective in educating families about evaluation and enlisting their support in the process. This resulted in positive perceptions of evaluation among families, facilitating data collection and analysis.

- Most studies were carefully designed. As a result, they produced findings that were relevant and useful, such as identifying the number of youth and families who needed to be enrolled each year in services and in the national outcome study.
- The evaluation produced information that was used by system planners, service delivery staff, decision-makers, and the evaluators themselves. Specifically, the results of the evaluation were used to:
  - Develop specific decision criteria for selection of youth and families appropriate for enrollment in Cornerstone.
  - Clarify the relative importance of Cornerstone's desired outcomes for youth, families and the system itself.
- Ultimately, findings from the studies were used as the basis for the major changes in the project that were made through the Year 6 Action Plan. These included:
  - Streamlining and reducing the complex, centralized infrastructure that was operating initiative-wide.
  - Shifting more decision-making, resources, and responsibility to the local level.
- Developing a transition process for families who had completed services and were ready to move to a new stage.

C. Major Challenges

- There was no agreed-upon process to use the findings from the Cornerstone studies to make mid-course improvements in the project. As a result, although many issues were identified through the evaluation, changes were not made in a timely way. For example:
  - The issue of "clarifying endings"—defining a service enrollment period for families—was identified in the early formative evaluations, but was not addressed until Year Six.
  - The need for more local control to promote sustainability and tailor the service model to the community also surfaced in early studies. Again, this change was not implemented until Year Six.
  - There was no agreed-upon definition of cultural competency by which to establish goals and measure progress.
  - Usable cost and outcome data were not available to inform discussions of sustainability until Year Five.
- The cost and outcome data that were produced may not have addressed all the information needs of the local decision-makers responsible for sustainability. For example:
  - Data from the national evaluation on out-of-home placement rates did not provide enough information to determine whether these rates increased, decreased or stayed the same for Cornerstone youth.
  - The lack of a control group made it difficult to conclude whether or not the Cornerstone interventions were more effective than other types of treatment, or no treatment at all.

D. Overall Lessons Learned

- Local leadership and decision-making is critical to develop, enhance, and sustain local systems of care that are integrated within the existing service systems. Therefore, local leaders need to be key players in the design of evaluation studies and in the dissemination process when findings are produced.
- From the beginning, evaluators and managers should ask decision-makers what information they need to make decisions about their agency's involvement and whether they will help in sustaining the model. Evaluators should prioritize the systematic collection and analysis of data to meet those local information needs early on.
- Youth and families need to be full and active participants in evaluation and at all levels of the system of care. Their voice and experience can help to create a system of care that is based on core values and guiding principles.
- Evaluators should develop strategies to provide constant, useful feedback about program outcomes and other study results to project staff and stakeholders. This strategy should include education to equip leaders and stakeholders to understand and use these results.
- At the outset, evaluators and system of care managers should establish a continuous quality improvement process that uses evaluation results to inform and provide the basis for midcourse adjustments as the system of care develops. It is important that these midcourse adjustments be documented so that there is a clear understanding as to how evaluation results impacted the development of the system of care. This also requires that evaluators and system of care managers work together to develop an environment where the exchange of ideas and the giving and receiving of feedback is encouraged and welcomed.

E. Recommendations for Further System of Care Evaluation Efforts

- At the beginning of the project, evaluators and system builders should develop methods to rapidly estimate costs and produce other timely outcomes important to decision-makers. Since data from these outcome evaluations are very critical to sustainability, these efforts should be prioritized.
- In addition to developing new data collection efforts, evaluators should plan to tap all existing data sources that could be used to inform the system of care, including state and provider databases from multiple systems (e.g., mental health, Medicaid, child welfare).
- Formative evaluations should be conducted not only through the first few years, but should extend to the project's end. This type of evaluation can provide an early warning system about deviations from the project's design and other issues that need to be addressed.
- System builders should use evaluation studies to discern and address the differences between "productive" conflict, which is part of the change process, from "unproductive" conflict, which could threaten relationships and progress within the system of care.
- Evaluation studies should be used to ensure that systems of care are reaching youth of color and their families, a goal of all federally funded system of care communities.
- Attention must be paid to agency involvement and interagency collaboration. Youth with serious emotional disturbance and their families require services from multiple child and family serving agencies. In order for a system of care to be sustained beyond federal grant funding, funding and other in-kind support is needed from these agencies, including child welfare, mental health, juvenile justice, schools, health, substance abuse, and others. Key agencies therefore, need to be engaged and supported in order for systems of care to be successful and sustained.
- Systems of care need to be integrated within the existing service delivery system, and decision-making should be community-based.
- Evaluation provides the data that social marketing can use to promote and sustain the system of care. As such, evaluation and social marketing must be closely aligned, working together to sustain systems of care. Effective social marketing depends on midcourse adjustments being made based on evaluation findings so that improved outcomes can be communicated.

F. Conclusion

Building a system of care requires leadership, commitment, creativity, and courage to venture into uncharted territories where there often are no easy answers or quick fixes. Evaluation is a useful tool that can help system of care leaders stay the course and make the necessary adjustments. If evaluation findings are not as positive as one would like, policymakers should not automatically abandon the project and start all over again. Instead, these findings can be used to identify successful elements, such as the Cornerstone family organizations, that should be retained and supported and modifying those elements that were less successful.

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Appendix B: Summary of Cornerstone Evaluation Studies

Following is a brief listing of all major studies conducted by the Cornerstone evaluation team. The team included Colorado Division of Mental Health researchers and academic partners from the University of Denver and the University of Colorado at Denver. Their work was guided by an Evaluation Steering Committee composed of researchers, family members, service providers, and administrators. The Cornerstone evaluation activities described below included qualitative and quantitative studies focused on locally identified needs, as well as analyses of quantitative data collected for the national evaluation directed by the federal Center for Mental Health Services.

Author:	**Marian Bussey, Ph.D.**
Title:	*Family Perspective on the Colorado Cornerstone Initiative: A Qualitative Case Study*
Publication Date:	April 2003
Data Collection:	Summer–fall, 2002
Study Method:	Qualitative analyses of interviews with 12 white and African American family members from Denver, Jefferson, and Clear Creek counties. The sample was sorted and analyzed according to dyad members' ratings as to the degree of success of the Cornerstone interventions with each family. Interview data were coded and analyzed by the subject area questions, cross-cutting themes, and unique, unanticipated viewpoints.
Purpose:	To expand on Bussey's Year Two evaluation of the service delivery model (2002) by studying family members' rather than staff perceptions. The interview questions also focused more broadly on how well Cornerstone worked, what the barriers were, and how those barriers were addressed.

Author:	**Marian Bussey, Ph.D.**
Title:	*Implementation of an Innovative System of Care: Process Evaluation of the Cornerstone Initiative*
Publication Date:	January 2002
Data Collection:	July–August, 2001
Study Method:	Qualitative analysis of interviews with all original dyad members (service coordinators and family advocates) and their supervisors and managers. Interview questions focused on four areas: current service structure or model, service process (including dyad roles, training and supervision), feedback from families, and service philosophy. Results of the interviews were analyzed both by the specific areas explored and by cross-cutting themes.
Purpose:	To explore and document the way the conceptual model for service provision via the dyad had been translated into actual service activities, and the ways family advocates, service coordinators and their supervisors worked together to provide these services.

Author:	**Anita Saranga Coen, LCSW**
Title:	*The Colorado Cornerstone Initiative: Estimates of Cost for Three Program and Service Categories*
Publication Date:	July 2004
Data Collection:	Data from Year Four (2002–3) Cornerstone expenditure records. Time Study conducted in 2003.
Study Method:	A one-week Time Study documented the activities of 22 Cornerstone staff. The results were used to allocate staff time into three "Cost Allocation Categories": Direct Services, Support/ Fidelity/Sustainability, and Grant/Initiative-Related. This information was used to derive cost estimates for the Cornerstone Initiative overall and for each Cornerstone county by: 1) Assigning each staff activity to a Cost Allocation Category; 2) Calculating percentages for each Cost Allocation Category for each staff position; 3) Applying these percentages to Year Four Cornerstone expenditures for each county, the state, and the contractor for project-wide management and service coordination.; and 4) Distributing state and project-wide contractor expenditures across the counties based on each county's proportion of youth served and service providers. Average annual costs per youth were then calculated for each county and for the project overall.

Author:	**Jean Demmler, Ph.D.**
Title:	*Family Advocates Inside and Outside Colorado's Public Mental Health System*
Publication Date:	November 2003
Data Collection:	Summer–fall 2003
Study Method:	Qualitative, observational study of 15 family advocates over a two-month period, including five Cornerstone advocates and ten employed by Colorado mental health centers and a managed care organization. Each observation totaled ten hours. Field notes were coded for emerging themes and analyzed using a qualitative analysis software system.
Purpose:	To answer the following questions: 1) What are the role definitions of the family advocate in the Cornerstone dyad interventions? and 2) How do the roles of family advocates located within the Cornerstone dyad compare to the roles of the family advocates who serve as paid staff within Colorado's mental health system?

Author:	**Jean Demmler, Ph.D.**
Title:	*The Family Empowerment Study*
Publication Date:	November 2003
Data Collection:	September–October, 2003
Study Method:	Quantitative study using the Family Empowerment Scale, which measures empowerment of parents in the family, social service, and community/political dimensions. Survey mailed to all families who had received any services during the previous year from family advocates employed by Cornerstone and by community mental health centers and Medicaid mental health managed care organizations in the Denver metropolitan area. Of the 500 surveys mailed, 84 responses were received.

Purpose:	To gain an initial measurement of family empowerment among those who had received services from family advocates, including those employed by Cornerstone and by other local mental health organizations serving children with serious emotional disturbance and their families.

Author:	**William Dieterich, Ph.D.**
Title:	*Literature Review: Adoption and Juvenile Delinquency*
Publication Date:	2001
Data Collection:	2001
Study Method:	Brief literature review on risk factors for juvenile justice involvement among adopted children.
Purpose:	To inform the decision about whether adoption increases the likelihood of juvenile justice involvement and, therefore, should be included as a risk factor in the Cornerstone screening instrument.

Author:	**Robyn S. Hess, Ph.D.**
Title:	*The Colorado Cornerstone Mental Health Initiative Third Year Implementation: Qualitative Report*
Publication Date:	July 2002
Data Collection:	2001–2
Study Method:	Similar methods to the Cornerstone Formative Evaluation conducted in 2000 by Hess, Doll, Kiertz, Bruning, and Ziebarth based on 20 structured interviews with family members and agency representatives.
Purposes:	1) To augment the objective evaluation plan by examining services and their delivery, accessibility and coordination. 2) To describe family and agency representatives' views about Cornerstone's system of care development during its initial stages. 3) To serve as a progress assessment and point of comparison to the baseline first year evaluation.

Author:	**Robyn S. Hess, Ph.D.**
Title:	*School Participation in a System of Care: The Colorado Cornerstone Mental Health Initiative and Denver Public Schools*
Publication Date:	November 2003
Data Collection:	May–June 2003
Study Method:	Analysis of interviews with two members of the Denver dyad team and seven school personnel from public elementary and middle schools in Denver. The interview protocol asked questions on decision-making, conflict resolution, communication, and the perceived benefits/challenges of collaboration. Interviewees were also asked to contrast a typical Cornerstone case with their interactions with other agencies, and to describe their vision of a good working relationship with a system of care.
Purpose:	To gain an understanding of how Cornerstone and the mental health professionals in the Denver Public Schools (DPS) worked together to meet the needs of youth with serious emotional disturbance.

Authors:	**Robyn S. Hess Ph.D., Beth Doll Ph.D., Michael Kurtz, Julie Bruning, and Linda Ziebarth**
Title:	*Cornerstone Formative Evaluation Report*
Publication Date:	September 2000
Data Collection:	Spring 2000
Study Method:	Qualitative analyses of structured interviews with 23 family members and agency representatives. A focus group reviewed the themes identified through the initial data analysis.
Purposes:	1) To augment the objective evaluation plan by examining services and their delivery, accessibility and coordination. 2) To describe family and agency representatives' views about Cornerstone's system of care development during its initial stages. 3) To serve as a baseline against which to compare elements of the project as they emerged during the later implementation years.

Authors:	**Robyn S. Hess Ph.D., Michael Kurtz, Julie Bruning, and Linda Ziebarth**
Title:	*The Colorado Cornerstone Initiative: Family Perceptions of the Evaluation Interview*
Publication Date:	September 2001
Data Collection:	April–August 2001
Study Method:	Qualitative analysis of a survey of 12 caregivers who completed the national evaluation interview between April and August 2001. The survey protocol included questions about the value of the national evaluation, the respondents' level of preparation, additions or deletions they would make to the interview, and cultural competency issues.
Purpose:	To improve the evaluation process and obtain input on alternative methods of data collection.

Author:	**Jocelyn M. Lee, Ph.D.**
Title:	*Family Reflections on the Strengths and Challenges of Cornerstone Delivery Model: A Qualitative Study*
Publication Date:	2004
Data Collection:	Collected over time (2000–2004), from an initial (baseline) interview to a 36-month follow-up contact.
Study Method:	Qualitative analysis of responses by family members to four open-ended questions administered at the conclusion of 127 interviews conducted as part of the national evaluation. Analysis of results included dividing responses into strengths and challenges, and identifying the most prevalent themes
Purpose:	To explore and document caregivers' perceptions of the services they had received from Cornerstone, including: what had worked well, problems, what had been done about the problems, and any other information mentioned by respondents.

Authors:	**Susan Manning, Ph.D. and Becky Paskind**
Title:	*A Case Study of an Innovative System of Care: The Experience of Agency and Family Representatives*

Publication Date:	May 2003
Data Collection:	Summer–fall, 2002
Study Method:	Individual interviews with three family members and thirteen agency representatives, combined with six focus groups (two with each Local Coordinating Council in Denver, Jefferson, and Clear Creek counties, respectively). A total of 47 separate individuals participated in the focus groups. Data analysis identified central themes both within each county and across the entire Cornerstone project area. The findings and recommendations were organized to emphasize the structures and processes that facilitated success and overcame fragmentation and barriers
Purpose:	1) To understand and articulate the necessary structures and processes of an innovative, integrated system of care; 2) To identify and describe Cornerstone's current and potential barriers and successes based on the actual experiences of agency and family partners in developing the initiative.

Authors:	**Cathryn C. Potter, Ph.D. and Marian Bussey, Ph.D. (editors)**
Title:	"The Cornerstone Experience" in *Building the System of Care in Colorado: Evaluation Findings from the Cornerstone Initiative*
Publication Date:	2005
Data Collection:	2005
Study Method:	Analysis of key informant interviews with state administrators, county-based staff members and federal technical assistance experts. Themes from these "informal discussions" were analyzed and summarized in the Cornerstone evaluators' final report.
Purpose:	To document the informants' reflections on Cornerstone's first five years, discuss the lessons learned and describe the changes that occurred in Year Six.

Authors:	**Cathryn C. Potter, Ph.D. and Marian Bussey, Ph.D. (editors)**
Title:	"Quantitative Analyses" in *Building the System of Care in Colorado: Evaluation Findings from the Cornerstone Initiative*
Publication Date:	2005
Data Collection:	2000–2005
Study Method:	Quantitative analyses of data collected for the *CMHS National Evaluation*, which included the Baseline Study and the Outcomes Study. Data for the Baseline Study data were collected from all 514 families served by Cornerstone from November 2000 through July 31, 2005. These data included demographics, information on risk areas and youth diagnoses. The Outcomes Study collected interview data on a variety of youth and family functioning and satisfaction scales from 281 families who initially chose to participate in the national evaluation. There was follow-up data at six months after intake for 163 families, at 12 months for 114 families, at 18 months for 82 families, at 24 months for 63 families, at 30 months for 39 families, and at 36 months for 32 families. The study used data only for families who participated in both intake and follow-up interviews.

	The national evaluation used the Reliable Change Index (RCI) to analyze the outcome data for all evaluation participants across the country. Cornerstone evaluators used the RCI, as well as repeated measures analyses, which compare changes over time for each person, to analyze data for the Cornerstone participants in the national evaluation. Where possible, results for the Cornerstone intervention (using final data from August 2005) were compared to aggregate national results (using data from July and December 2004) that were published in the quarterly *Center for Mental Health Services (CMHS) National Evaluation Aggregate Data Profile Report for Grant Communities Funded in 1999 and 2000.*
Purpose:	National evaluation goals include: 1) To describe the population served by CMHS-funded systems of care; 2) To show whether there are differences in child and family outcomes that can be tied to the system of care approach; 3) To describe how children and families experience the service system and how they use services and supports; and 4) To assess the effectiveness of the system of care approach as compared to typical service delivery approaches.

Authors:	**Jim Strasser, Fran Wackwitz M.A., Anita Saranga Coen LCSW, Jack Wackwitz Ph.D.**
Title:	*Evaluation Report: The Cornerstone Outcomes Prioritization Study*
Publication Date:	2001
Data Collection:	2001
Study Method:	A preliminary inventory of outcomes was created through a literature review and input from stakeholder groups This inventory was used to develop a set of primary program outcomes included in the Cornerstone Outcomes Prioritization Survey. A total of 85 surveys were distributed with 38 responses received—10 from youth, 30 from family members, and 45 from agency staff. Survey information was entered into an ACCESS database and sorted by outcome area and type of respondent. Evaluators determined how important each outcome area was to each respondent type and how the sub-areas within each area were ranked.
Purpose:	Help develop the Cornerstone logic model by 1) Creating a list of what stakeholders value as important service outcomes; 2) Rating their importance; 3) Ranking outcomes for youth, families and systems; and 4) Soliciting input about missing outcomes and any changes that might be essential to their agency or group.

Author:	**Fran Wackwitz M.A.**
Title:	*Literature Review: Risk Factors for Juvenile Justice Involvement for Youth with Serious Emotional Disturbance*
Publication Date:	May 2000
Data Collection:	2000
Study Method:	Review of relevant literature on predictors of juvenile justice involvement among youth, with a special focus on youth with serious emotional disturbance.
Purpose:	To assist in the development of the Cornerstone eligibility criteria and screening instrument by identifying critical predictors of juvenile justice involvement in the following domains: family, school, employment, dangerousness, socialization, substance use/abuse, law/juvenile justice involvement, and service history.

Authors:	**F.A. Wackwitz, J.L. Strasser, J.H. Wackwitz and D. Altschul**
Title:	*Ethnic/Racial Distributions Within Cornerstone Service Population and Comparison Populations*
Publication Date:	Monthly in 2001 and 2002
Data Collection:	2001–2002
Study Method:	Analyses of data drawn from Cornerstone enrollment records and compared with the overall Colorado census, the population of adjudicated and detained youth in the Division of Youth Corrections, and youth served by the public mental health system.
Purpose:	To help system leaders determine whether the service delivery model was providing access to the system of care for members of diverse populations by tracking the racial and ethnic characteristics of the Cornerstone service population.

Authors:	**Fran Wackwitz M.A., Jack Wackwitz Ph.D., Jim Strasser, and Anita Saranga Coen LCSW**
Title:	*Evaluation Report: The Cornerstone Eligibility Pilot Study*
Publication Date:	January 2001
Data Collection:	2000
Study Method:	A sample of 269 youth on the current caseloads of eight agencies were evaluated using the newly developed Cornerstone eligibility screening instrument.
Purpose:	To pilot test the Cornerstone eligibility screening instrument.

Authors:	**J.H Wackwitz, F. A. Wackwitz and J.L. Strasser**
Title:	*Cornerstone Evaluation: Timelag Report*
Publication Date:	Summary report published in 2001.
Data Collection:	November 1, 2000 through July 31, 2001
Study Method:	Quantitative analyses of data from referral and enrollment records, as well as the baseline descriptive study and outcomes interview.
Purpose:	To monitor Cornerstone's compliance with the national evaluation requirements by measuring the amount of time between each youth's enrollment in services and the completion of the baseline descriptive study and the baseline outcomes interview instruments for ORC Macro. The study also measured the amount of time between referral and enrollment in the program.

Authors:	**JH. Wackwitz, F.A. Wackwitz. and J.L. Strasser**
Title:	*Cornerstone Evaluation: Retention/Attrition Report*
Publication Date:	Summary report published in 2002
Data Collection:	November 1, 2000 through January 31, 2002
Study Method:	Quantitative analyses of data collected from enrollment records
Purpose:	To monitor the numbers and percentages of youth and families in the various stages of the national evaluation (and those who dropped out) to estimate the number of youth needed to be enrolled each year in order to meet national evaluation requirements.

Appendix C: Cornerstone Evaluation Instruments

1. Cornerstone Referral and Screening Form (CRSF)

Purpose. To collect basic administrative information, information regarding the route of a youth's/family's referral to Cornerstone, and the characteristics and circumstances of referred youth and families. The CRSF supported and documented determination of a youth's eligibility for Cornerstone services. It was designed and developed by key Cornerstone stakeholders to meet the need for an instrument to support the Cornerstone referral and intake processes, with particular attention to equitable and consistent decision-making regarding eligibility for services. As such, this instrument was a standard component of the service delivery process. It also provided a significant source of data for the evaluation component.

Points of Administration/Participants. The CRSF was completed at the point of initial contact for each youth/family by Cornerstone clinical staff or by referring agencies using information provided by the intake interview, clinical case records, and other appropriate records and clinical resources. Only the referral section of the form was completed by referring agencies or organizations. The remainder of the CRSF, and the referral section—if not completed by a referring agency or organization—was completed by Cornerstone services clinical staff.

Content. The CRSF has three major sections:

- Administrative/Demographic
- Serious Emotional Disorder Criteria
- Presenting Problems and Risk Factors

The response format includes yes/no, multiple choice, rating scale and alphanumeric fields.

2. Descriptive Information Questionnaire (DIQ)

Purpose. To collect and record standardized demographic and other descriptive information about the youth and family/caregiver characteristics and circumstances. Use of this instrument was required by the grant funding agency, CMHS.

Versions. Four related versions of the DIQ were used:

- DIQ—Baseline: Caregiver
- DIQ—Follow-up: Caregiver
- DIQ—Baseline: Staff-as-Caregiver
- DIQ—Follow-up: Staff-as-Caregiver

All versions are highly similar in content; however, some items are applicable only at baseline and some only at follow-up. The DIQ—Baseline (Caregiver Version) contains 39 items; the DIQ—Follow-up (Caregiver Version) is a 14-item subset of those items. Since some items appropriate to

the caregiver are not appropriate for staff-as-caregiver respondents, the staff-as-caregiver versions includes fewer items than the caregiver versions.

Points of Administration/Participants. The DIQ—Baseline (Caregiver or Staff-as-Caregiver Version) was administered to a caregiver or staff-as-caregiver at baseline in reference to each youth who entered the Cornerstone System of Care. A DIQ—Follow-up (Caregiver or Staff-as-Caregiver Version) was administered to a caregiver or staff-as-caregiver at all follow-up data collection points with reference to each youth who entered the Outcomes Study. The DIQ—Baseline interviews (Caregiver and Staff-as-Caregiver Versions) were completed by Cornerstone clinical services staff. The DIQ—Follow-up interviews (Caregiver and Staff-as-Caregiver Versions) were completed by Cornerstone Evaluation Interviewers.

Content. The DIQ includes a brief set of administrative items, and 39 items that describe characteristics and circumstances of the youth and the family/caregiver. Response options include yes/no, multiple choice and fill-in-the-blank.

3. Administrative Record (AR) Form

Purpose. To address administrative questions and to collect and record the DSM-IV diagnosis and supportive information. This instrument was required by CMHS.

Versions. Two versions of the AR were used:

- AR—Baseline
- AR—Follow-up

Points of Administration/Participants. The first 11 items of the AR—Baseline were completed during intake for all youth/families who enter the Cornerstone service system. The remaining 4 items of the AR—Baseline and the AR—Follow-up were completed only for Outcomes Study participants. The AR—Baseline was completed by Cornerstone clinical services staff, using information provided by clinical interviews, clinical case records, and other appropriate records and clinical resources. The AR—Follow-up was completed by Cornerstone Evaluation Interviewers, using similar information resources.

Content. The AR—Baseline and the AR—Follow-up each contain 15 brief items soliciting information to support administrative record keeping and to document DSM-IV diagnosis and supportive information.

4. Colorado Client Assessment Record (CCAR).

Purpose. To obtain a comprehensive and standardized assessment of the youth's socio-demographic and functional characteristics (mental health and behavioral health), problems and problem severity, strengths and resources, and level of functioning. The CCAR is an evaluation instrument required for all adults and youth served by publicly supported mental health programs in Colorado, and for youth in Social Services custody who enter residential treatment centers and youth entering the Colorado youth corrections system.

The CCAR was completed as part of the standard Cornerstone service delivery. It also provided a significant data resource for the evaluation component. The CCAR is unique among the instruments used in the evaluation because it yields *the service provider's perspectives* of the youth. Because it has been in use statewide in Colorado since 1978, the CCAR's historic database pro-

vided extensive information regarding mental health and other characteristics of adults and youth who have accessed public mental health services. The availability of this historic database greatly strengthened data-based analytic perspectives of the characteristics of youth who enter the Cornerstone service system, and facilitated understanding of outcomes associated with those characteristics, the services received, and the development and implementation of the system of care model.

Points of Administration/Participants. The CCAR was completed during intake, at annual review points, and at discharge in reference to all youth who are enrolled for Cornerstone services. At all evaluation points, the form was completed by Cornerstone clinical services staff, using information provided by the clinical interviews, clinical case records, and other appropriate records and clinical resources.

Content. The CCAR has four major sections:

- Socio-Demographic and Functional Characteristics
- Problems and Problem Severity
- Strengths and Resources
- Level of Functioning.

Response formats include multiple choice, alphanumeric fields, and rating scales.

5. Youth Behavior Checklist (CBCL)

Purpose. To obtain a standardized measure of symptoms and behavioral and emotional problems among participant youth. The CBCL has been widely used in youth's mental health services research and for clinical purposes. The instrument elicits a rich and detailed description of behaviors and symptoms that provides different information than diagnosis alone would be able to provide. Use of this instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The CBCL was administered to a caregiver or staff-as-caregiver with reference to each youth who participated in the Outcomes Study. It was administered at baseline and all follow-up data collection points. Baseline and follow-up interviews were conducted by Cornerstone Evaluation Interviewers.

Content. The checklist includes three main sections:

- Descriptive
- Social Competence
- Behavioral and Emotional Problems.

The CBCL assesses youth's symptoms and problems along a continuum and provides a total problem score, two broadband syndrome scores, and eight narrow-band syndrome scores. The response format within the Social Competence Section is varied. Response options for all items in the Behavioral and Emotional Problems Section solicit the respondent's rating using a three-point scale: 0 = Not True; 1 = Somewhat or Sometimes True; 3 = Very True or Often True.

6. Youth Self-Report (YSR)

Purpose. To obtain a standardized measure of an adolescent's perceptions of his or her social competence and behavioral and emotional problems. The YSR is the adolescent self-report version of the CBCL. Gaining the youths' perspectives in addition to the caregivers' perspectives is important because research evidence indicates that while caregivers are more reliable informants about youth's externalizing behaviors, adolescents are more reliable informants about their own internalizing symptoms. This instrument was required by CMHS.

Points of Administration/Participants. The YSR was administered to all adolescent (ages 11 and older) participants in the Outcomes Study at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The YSR includes three main sections:

- Descriptive
- Social Competence
- Behavioral and Emotional Problems.

The YSR assesses adolescents' symptoms and problems along a continuum and provides a total problem score, two broadband syndrome scores, and eight narrow-band syndrome scores. The response format within the Social Competence Section is varied. Response options for all items in the Behavioral and Emotional Problems Section solicit ratings using a three-point scale: 0 = Not True; 1 = Somewhat or Sometimes True; 3 = Very True or Often True.

7. Youth and Adolescent Functional Assessment Scale (CAFAS)

Purpose. To obtain a standardized measure of the degree to which a youth's mental health or substance abuse disorder is disruptive to his or her functioning in everyday life in each of several psychosocial domains: the community, the school, the home, substance use, moods and emotions, self-harming behavior, behavior towards others, and thinking. The CAFAS is a widely used measure of youth functioning. Although the CBCL and the YSR provide important information about specific behaviors and symptoms, the CAFAS assesses the *effects* of the youth's challenges and behaviors on his or her ability to function successfully in various life domains. Use of this instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The CBCL was administered to a caregiver or staff-as-caregiver with reference to all youth in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. Two documents are associated with the CAFAS: the CAFAS Parent Report and the CAFAS Rating Form: The **CAFAS Parent Report** is a multi-page questionnaire designed to obtain the specific information needed to determine the youth's level of impairment in each life domain so that the Rating Form can be easily completed. It has sections that correspond to the sections of the Rating Form. Response options for the Parent Report include yes/no, multiple choice, and fill-in-the-blank.

The **CAFAS Rating Form** contains 8 subscales, each corresponding to a psychosocial domain, and two additional subscales assessing caregiver resources. A score is assigned to each subscale by the

caregiver to designate the level of impairment the youth is experiencing for that domain. The four levels of severity are:

- Severe Impairment—Severe disruption or incapacitation
- Moderate Impairment—Major or persistent disruption
- Mild Impairment—Significant problems or distress
- Minimal or No Impairment—No disruption of functioning

8. Delinquency Survey (DS)

Purpose. To obtain information reported by youth about their delinquent behavior such as contact with law enforcement and juvenile justice. Collecting information regarding delinquent behavior among youth is important because youth who are served by Cornerstone are youth with serious emotional disorders (SED) who are either involved in or are at risk of being involved in juvenile justice systems. Previous research indicates that youth more accurately recall and report their own delinquent behaviors and experiences than do their caregivers. Use of this instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The DS was administered to all youth ages 11 and older who are participants in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The DS consists of 25 items that assess the youth's behavior toward others in the community, and contact with law enforcement, including criminal offenses, arrests and probation. Response options for the first 19 items are used to indicate the frequency with which the youth has engaged in a delinquent behavior. Response options include: 1 = None; 2 = One Time; 3 = Two or More Times. For items 20 through 25, options are yes/no or fill-in-the-blank.

9. Substance Use Survey, Parts A and B (SUS—AB)

Purpose. To obtain information reported by youth about the frequency of his or her substance use, and the consequences of substance use that the youth has experienced ever and during the past 6 months. The SUS—AB is a commonly used instrument in service research and clinical settings. Previous research has found that youth with emotional and behavioral disturbances may be more susceptible to substance use. Obtaining a better understanding of this relationship may aid in the development of targeted primary and secondary prevention programming in the future. Youth are considered the better reporters of their own alcohol or drug use than caregivers. Use of this instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The SUS—AB was administered to all youth ages 11 and older participating in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The SUS—AB is comprised of two sections: the SUS—A and the SUS—B. The **SUS—A** collects information about the history and frequency of a youth's substance use, including alcohol, cigarettes, illegal substances, and prescription and non-prescription or over-the-counter drugs for recreational purposes. Response options include yes/no, fill-in-the-blank and multiple choice. **The SUS—B** is comprised of 21 items that assess the consequences of the youth's alcohol or drug

use. Questions ask about the youth's lifetime experiences (ever) and the consequences experienced in the past 6 months. Response options for the SUS—B are yes/no.

10. Education Questionnaire (EQ)

Purpose. To obtain information on youth's educational status and their experiences in school during the past 6 months. Educational status and experience have been shown by previous research to be risk factors (and/or strengths/assets) related to a broad range of behaviors, system involvements and outcomes. This instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The EQ was administered to a caregiver or staff-as-caregiver with reference to all youth in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The EQ contains 21 questions, including items about school, attendance; grade level; school achievement; type of school setting; reasons for placements; special education; overall academic performance; and whether the youth has been suspended, detained, or expelled from school. The final items in the questionnaire assess availability and effectiveness of help from the school to meet the educational, behavioral, and/or emotional needs of the youth. Response options are varied, including yes/no, multiple choice, and fill-in-the-blank.

11. Behavioral and Emotional Rating Scale (BERS)

Purpose. To identify the emotional and behavioral strengths of youth. Use of the BERS in combination with other outcome measures allowed local and national evaluation teams to identify better the types of strengths and areas of resiliency that may be most correlated with improvements in youth outcomes and/or associated with participation in a system of care. Use of this instrument was required by the grant funding agency, CMHS.

Points of Administration/Participants. The BERS was administered to a caregiver or staff-as-caregiver with reference to all youth in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The BERS contains 7 sections:

- Section I: Demographic Information
- Sections II–IV: Administrative/Scoring
- Section V: 52—Item Behavior Checklist
- Section VI: Open-Ended Questions About Hobbies and Interests
- Section VII: Notes

The checklist includes items that identify emotional and behavioral strengths of youth across five dimensions of childhood strengths that correspond to the five subscales in the measure:

- Interpersonal Strength
- Family Involvement
- Intrapersonal Strength
- School Functioning

- Affective Strength

Behaviors are rated on a 4-point scale: 0 = Not at All Like the Youth; 1 = Not Much Like the Youth; 2 = Like the Youth; 3 = Very Much Like the Youth.

12. Restrictiveness of Living Environments and Placement Stability Scale, Revised Version (ROLES—R)

Purpose. To obtain standardized documentation of the restrictiveness and stability of the youth's living environment through identification of the settings in which the youth has lived during the past 6 months. Collecting information regarding the nature of youth's living environments is expected to help determine how the type and number of living arrangements may affect youth's lives, and how it may be affected by participation in the Cornerstone service system. Use of this instrument was required by the grant funding agency.

Points of Administration/Participants. The ROLES—R was administered with reference to all youth participants in the Outcomes Study at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The ROLES—R utilizes 27 placement categories to support identification and documentation of the settings in which the youth has lived during the past 6 months.

13. Family Resource Scale (FRS)

Purpose. To obtain a standardized assessment of the caregiver's perception of the adequacy of the resources (e.g., shelter, money for bills) available to the family in the past 6 months. The FRS is based on the premise that the adequacy of resources necessary to meet individually identified needs will affect both family well-being and caregiver capacity to participate fully in youth treatment and care plans. The FRS is an important measure as the system of care is dependent on active family involvement in planning and guiding the types and mix of services provided to individual youth. If families' basic needs are not met, it may not be feasible for them to participate actively in the system of care, potentially affecting youth-, family- and system-level outcomes. Use of this instrument was required by CMHS.

Points of Administration/Participants. The FRS was administered to a caregiver (not to a staff-as-caregiver) of each youth in the Outcomes Study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The FRS includes 30 items that assess adequacy of resources for the family. Some items inquire about basic necessities; additional items inquire about resources beyond those needed for basic physical survival. Response options to assess the adequacy of the different resources include: 1 = Not at All Adequate; 2 = Seldom Adequate; 3 = Sometimes Adequate; 4 = Usually Adequate; 5 = Almost Always Adequate.

14. Family Assessment Device—General Functioning Scale (FAD—GFS)

Purpose. To obtain a standardized assessment of family functioning. The FAD—GFS is important in assessing the extent to which the family as a whole has been affected by participation in the Cornerstone service system. Knowing more about how families function as a whole and how families change over time provides important information about the impact participation may have on families and consequently on the youth. Use of this instrument was required by CMHS.

Points of Administration/Participants. The FAD—GFS was administered to each youth in the Outcomes Study and a caregiver (not to a staff-as-caregiver). It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The FAD—GFS includes 12 items, with two items assessing each of 6 dimensions:

- Problem Solving
- Communication
- Roles
- Affective Responsiveness
- Affective Involvement
- Behavior Control

Response options, provided by a four-point rating scale, are: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree, 4 = Strongly Agree.

15. Caregiver Strain Questionnaire (CGSQ)

Purpose. To assess the extent to which caregivers are affected by the special demands associated with caring for a youth with emotional and behavioral problems. Nationally, the CGSQ is being used in several studies of youth's mental health services. The information collected through the CGSQ helps provide a picture of the issues caregivers face in taking care of a youth with special challenges. A better understanding of these issues can lead to the inclusion or improvement of existing family support services. The CGSQ also provides a way to assess the impact that participating in services has on the strain caregivers and families may experience. Use of this instrument was required by CMHS.

Points of Administration/Participants. The CGSQ was administered to a caregiver (not to staff-as-caregivers) of each youth in the Outcomes study. It was administered at baseline and all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The CGSQ contains 21 items that assess strain experienced by caregivers in relationship to the care of a youth with emotional and behavioral challenges. It is comprised of 3 related dimensions of caregiver strain:

- Objective Strain
- Internalized Subjective Strain
- Externalized Subjective Strain.

The CGSQ items use a five-point rating scale that provides the following response options indicating the extent to which the item was a problem during the last 6 months: 1 = Not at All; 2 = A Little; 3 = Somewhat; 4 = Quite a Bit; 5 = Very Much.

16. Family Satisfaction Questionnaire, Abbreviated Version (FSQ—A)

Purpose. To obtain a standardized assessment of the caregiver's satisfaction in the past 6 months with services as a whole, the youth's progress, the cultural competence and family-focused nature of services, and the effects (if any) of the Cornerstone service system on the ability of the caregiver

(or other family members) to be productive in his or her work outside the home. Collecting information about the caregiver's satisfaction with services is one method of assessing how the incorporation of Cornerstone system-of-care principles has contributed to a family's service experience. Obtaining feedback regarding the quality of services is also important because this information may indicate where adjustments in service provision need to be made. Use of this instrument was required by CMHS.

Points of Administration/Participants. The FSQ—A was administered to a caregiver (not a staff-as-caregiver) with reference to each youth in the Outcomes Study. It was administered at all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The FSQ—A contains 1 screening question followed by 14 items divided into two parts. The initial screening question asks if the caregiver, youth, and/or his or her family have received any services in the past 6 months. If not, the remainder of the questionnaire is skipped.

The first part of the FSQ—A contains 7 items that assess the caregiver's satisfaction in the past 6 months with services as a whole, the youth's progress, and the cultural competence and family-focused nature of services. The second part contains seven items that assess whether the services the family received improved the caregiver's (or other family member's) ability to work for pay, and quantifies the impact in terms of days worked.

The first section of the FSQ—A provides response options using a 5-point rating scale: 1 = Very Dissatisfied; 2 = Dissatisfied; 3 = Neutral; 4 = Satisfied; 5 = Very Satisfied. The second section uses a variety of response options including multiple choice, yes/no, and a 5-point rating scale: 1 = Not at All; 2 = A Little; 3 = Somewhat; 4 = Quite a Bit; 5 = Very Much.

17. Youth Satisfaction Questionnaire, Abbreviated Version (YSQ—A)

Purpose. To obtain a standardized assessment of the youth's satisfaction in the past 6 months with services as a whole, the youth's perceptions of his or her progress, the cultural competence and individualization of services. Collecting information about the youth's satisfaction with services is one method of assessing how the incorporation of Cornerstone system-of-care principles has contributed to the service experience. Obtaining feedback about service quality is also important because it may indicate where adjustments in service provision need to be made. Use of this instrument was required by CMHS.

Points of Administration/Participants. The YSQ—A was administered to each youth 11 years of age and older who participated in the Outcomes Study. It was administered at all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The YSQ—A contains one screening question followed by 8 satisfaction-related items. The screening question asks if the youth and/or his or her family have received any services in the past 6 months. If not, the remainder of the questionnaire is skipped. The next 7 items assess satisfaction in the past 6 months with services as a whole, the youth's progress, and the cultural competence and individualization of services received. The satisfaction-related items of the YSQ—A provide response options using a 5-point rating scale: 1 = Very Dissatisfied; 2 = Dissatisfied; 3 = Neutral; 4 = Satisfied; 5 = Very Satisfied.

18. Multi-Sector Service Contacts (MSSC)

Purpose. To obtain a standardized assessment of the types and amount of services youth and families receive across different service settings as well as the caregiver's perceptions about whether services met the youth's and family's needs. These data provide important information about the diversity of the Cornerstone service array and how services are delivered and by whom. The MSSC captures valuable information about all services received by a given youth/family. In contrast, reliance on existing MIS systems typically results in variable information on services provided by only one or a few providers. The comprehensive information provided by the MSSC, by indicating the diversity of service settings and sectors in which services are delivered, provided indicators of cross-sector and cross-agency collaboration in the Cornerstone service system. Knowing which services were received by families, and when and how often, is important to understanding the association between services received and changes in youth and family outcomes over time. This instrument was required by CMHS.

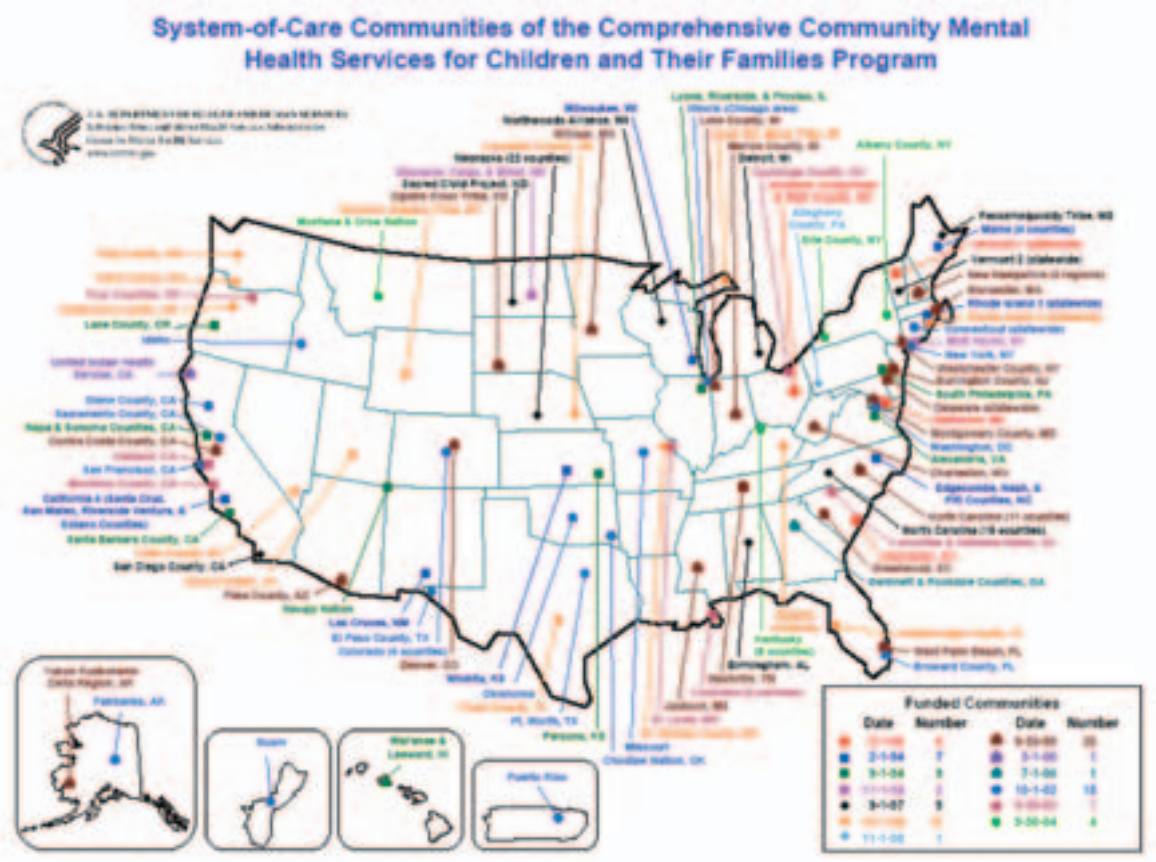
Points of Administration/Participants. The MSSC was administered to caregivers or staff-as-caregivers who participated in the Outcomes Study. It was administered at all follow-up data collection points by Cornerstone Evaluation Interviewers.

Content. The first 2 items determine whether families received services in the last 6 months, and, if so, for how long and from which youth-serving agencies. If no services were received, two brief follow-up items are asked to determine the reason no services were received and to obtain the date of the last service. In this instance, the remainder of the questionnaire is skipped. Each of the remaining items (3 through 24) is specific to a type of service. For each service received, the following sequence of questions is posed:

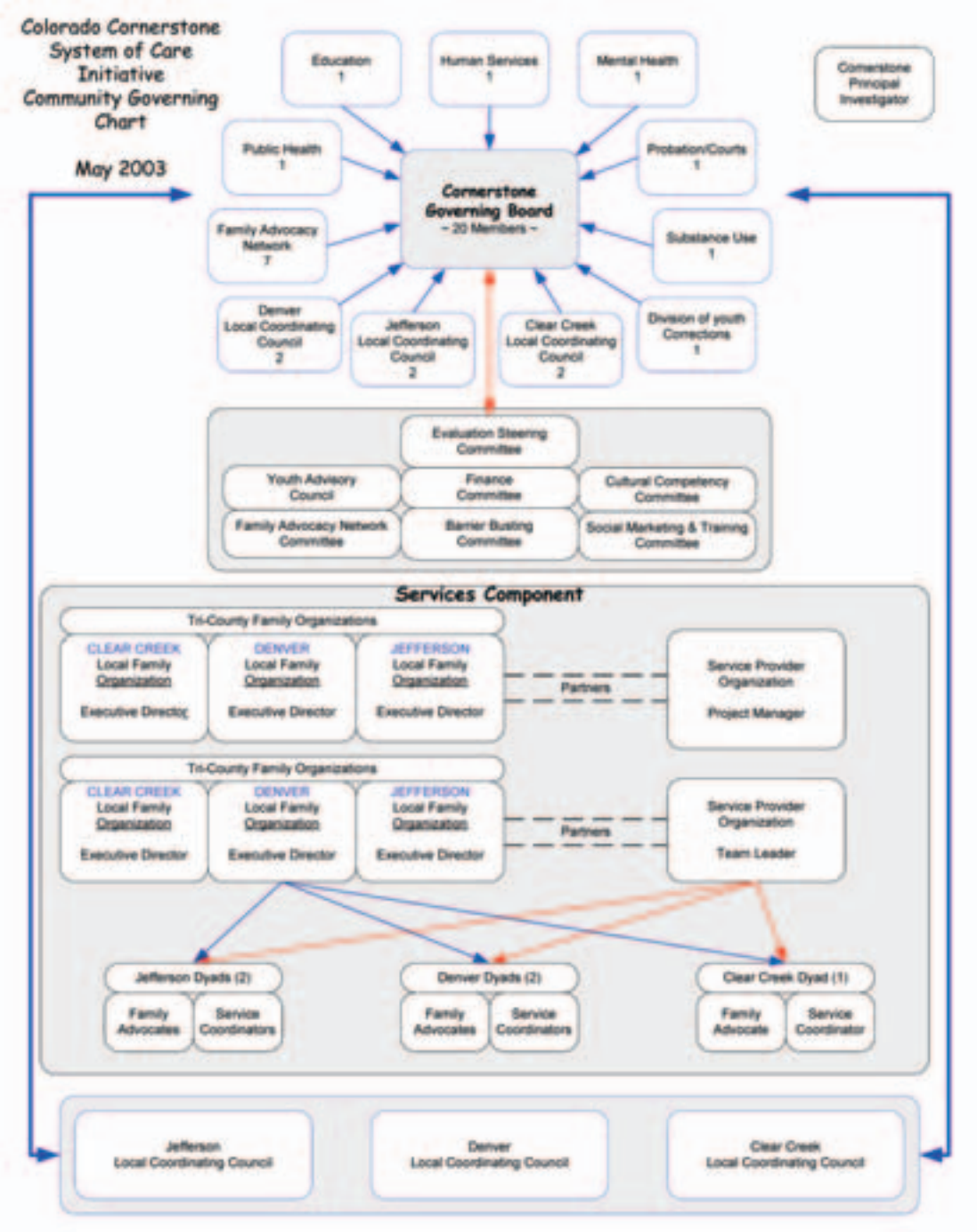
- Where did you receive it?
- How much of it did you receive?
- When did the service take place?
- Did the service meet your needs?

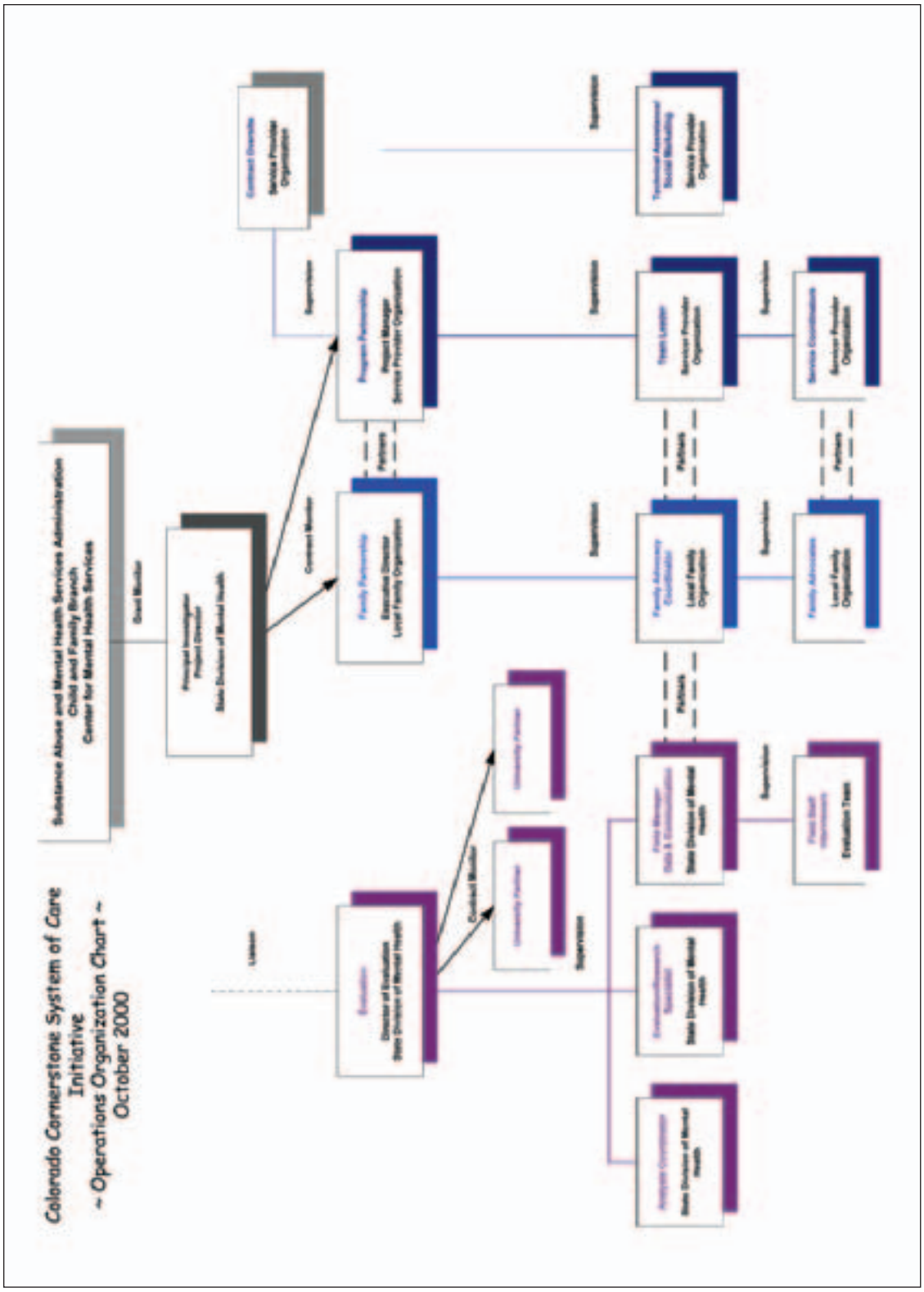
Response options include yes/no, multiple choice, and fill-in-the-blank.

Appendix D: System of Care Communities as of 2004



Appendix E: Cornerstone Organizational Chart




Colorado Cornerstone System of Care Initiative
~ Operations Organization Chart ~
October 2000