REPORT

THE STATUS OF MENTAL HEALTH CARE IN COLORADO

Presented by The Mental Health Funders Collaborative

The Status of Mental Health Care in Colorado

Prepared for
The Mental Health Funders Collaborative

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by
TriWest Group

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Stakeholders With Distinctive Contributions to This Report

This report could not have been completed without the participation of hundreds of Colorado mental health stakeholders, including consumers of service and their families, parents of children receiving services, providers, administrators, regulators, researchers, and payers. While many people contributed significantly, the following individuals were particularly helpful: Amanda Bickel, Carol Jean Foos Garner, Kyle Hughes, Deb Kupfer, Sandra Leming, Chuck McGee, Lori Seiler, Carol Ann Reynolds, Carol Staples, and Libby Stoddard.

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To Our Readers

A disturbing combination of increasing need for mental health services and rapidly shrinking resources in Colorado brought several foundations together in early 2001 to jointly discuss mental health care needs in the state. Each of us wanted to better understand the full scope of the problem and what we, and others, might be able to do to address this challenging problem. With this in mind, the Mental Health Funders Collaborative was formed, a unique partnership of eight Colorado foundations: Caring for Colorado Foundation; The Colorado Trust; Daniels Fund; The Denver Foundation, with support from the following funds: Ryan Briggs Memorial Foundation, Diana Burk Vickery Charitable Foundation, N.E.A.R. Fund and the John Jenkins & Debra Lappin Fund; First Data Western Union Foundation; HealthONE Alliance; Rose Community Foundation; and Rose Women's Organization.

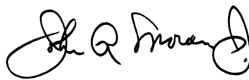
The Collaborative commissioned TriWest Group in the summer of 2002 to conduct an extensive assessment and critical analysis of the public and private mental health systems in Colorado. Findings of this study show some alarming trends within Colorado's complex, fragmented mental health systems:

- One out of five people in Colorado need mental health services each year, yet less than a third of them receive care.
- In 2001, Colorado ranked 31st nationally for publicly funded mental health care, spending just over $64 per capita – 21% below the national average of $81 per capita.
- Public mental health spending continues to lose ground as a result of state budget cuts. Per capita spending for non-Medicaid care was cut 17% in 2002 and is expected to fall nearly 7% more in the 2003-04 state fiscal year, which will likely result in nearly 10,000 fewer people being served in 2004.
- Publicly funded state hospital capacity has eroded significantly. Over one-third of adolescent capacity and over one-fourth of adult capacity were cut between July 2002 and July 2003 – with virtually no cost savings to the state.
- Significant disparities exist in access to mental health care for racial, ethnic and sexual minority groups, for people with disabilities, and for people living in rural areas of the state.

Each of our foundations will use the findings of this study to inform future grantmaking efforts. We hope too that you and others who work to improve Colorado's health care will review and put this information to use so that together we can begin to seriously address the many gaps in Colorado's mental health system.

Sincerely,

Chris J. Wiant, President & CEO
Caring for Colorado Foundation



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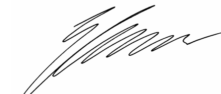

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Executive Summary

Eight Colorado grantmaking foundations joined together as the Mental Health Funders Collaborative (MHFC) to study mental health care needs within the state. The participating foundations included: Caring for Colorado Foundation; The Colorado Trust; Daniels Fund; The Denver Foundation, with support from the following funds: Ryan Briggs Memorial Foundation, Diana Burk Vickery Charitable Foundation, N.E.A.R. Fund and the John Jenkins & Debra Lappin Fund; First Data Western Union Foundation; HealthONE Alliance; Rose Community Foundation; and Rose Women's Organization.

The study found some alarming trends within Colorado's complex, fragmented array of mental health systems and providers.

- One of five (over 900,000) Coloradans needs mental health services each year. Less than one-third of these people receive care. This results in suicide, lost productivity, homelessness, and over-use of other health services, among other costs, for the one in seven people each year who go untreated.
- In 2001, Colorado spent just over $64 per capita for publicly funded mental health care, 21% below the national average and ranking 31st among states.
- Public mental health spending continues to lose ground as a result of state budget cuts, most notably for community mental health care for low-income people with severe needs and no Medicaid. Per capita spending for these services has already been cut 17% from 2001 levels and is expected to fall nearly 7% more in the 2003-04 state fiscal year. Through June 2003, these non-Medicaid cuts alone have resulted in nearly 10,000 fewer people served annually.
- Publicly-funded state hospital capacity has been significantly eroded. Over one-third of adolescent capacity and over one-fourth of adult capacity were cut between July 2002 and July 2003.
- After falling in proportion to overall health care spending throughout the 1990s, private mental health benefits are now being further trimmed as part of a broader response by employers to the growth of overall health care costs. In our survey, half of Coloradans with insurance who were seen in private practice were viewed by their provider as having inadequate insurance.
- There are significant disparities in access to care and mental health need among racial, ethnic, and sexual minority groups, as well as among people living in rural and frontier areas of the state.

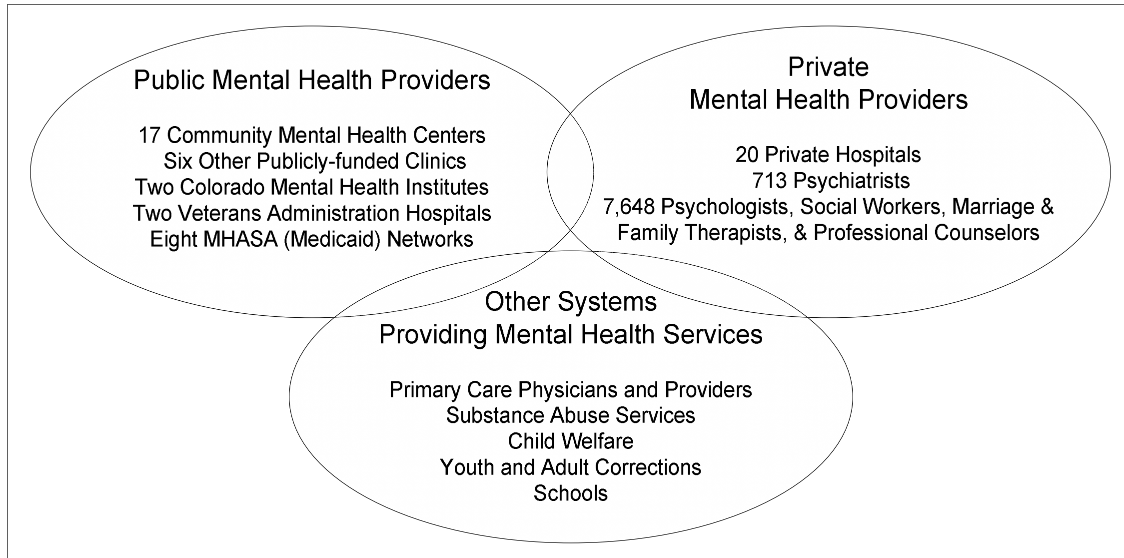
The Collaborative commissioned TriWest Group to conduct the study and write the report: ***The Status of Mental Health Care in Colorado***. Working under the guidance of the eight foundations, TriWest interviewed 150 key informants statewide across a broad cross-section of Colorado stakeholders, conducted statewide focus groups with 110 additional consumers and family members, surveyed over 220 Colorado providers, and reviewed dozens of state and national archival sources.

The study yielded seven observations about Colorado's mental health needs. The report details:

1. A fragmented array of public and private mental health providers in need of enhanced coordination and integration;
2. One in seven Coloradans from a diversity of groups, ages, and levels of need who cannot obtain needed care;
3. Mental health spending that is too low to meet current needs, and is shrinking further;
4. Rising costs of providing mental health care;
5. A great number of services that are known to be effective, but are not widely available;
6. A lack of psychiatrists, particularly for children and in rural areas of the state, as well as other providers with specialized skills; and
7. The importance of resilience and recovery in the lives of people and families coping with mental disorders.

In order to give Colorado decision makers a comprehensive picture of challenges and solutions for improving mental health care, the report also offers recommendations in response to each observation.

Observation #1: Coordination and Integration are Needed



There is no single mental health system in Colorado. The "mental health system" is actually many systems, including (1) public mental health providers, largely funded by the government; (2) private mental health providers, largely funded by private insurance and people who pay for their own care; and (3) other systems of care that are not designated mental health systems, but that actually provide more mental health services than the two formal mental health systems combined. These other systems include the primary health care system and other human service systems, such as substance abuse, child welfare, schools, and corrections. Even adjusted for population differences, most services and providers are in the Denver metro area; the Western Slope has the fewest service delivery resources.

Observation #2: Many People Cannot Access Needed Care

One of five (over 900,000) Coloradans needs mental health services each year. Less than one-third of them receive services, meaning that one of every seven Coloradans does not receive the mental health care they need. Over 250,000 people each year meet criteria established by the state office of Mental Health Services for severe need. Rates of severe need in Colorado have been most clearly documented. They vary by region, with rates in Denver and the Western Slope being highest, and those in the metro area surrounding Denver being lowest. Other than in

Denver, the delivery of care to those most in need does not respond to this pattern of need, with most services being delivered in the Denver metro area and fewest on the Western Slope. The system does no better in terms of needs across age groups. Children and adolescents make up about one quarter of Colorado's population, but experience over one-third of the severe needs. However, a higher proportion of adults with severe needs receive care (two thirds) than children (just over half) or older adults (just under half).

Disparities in access to care for minority groups are clear. In particular, there are too few culturally and linguistically competent providers for the one in four Coloradans who are Latino, African American, Asian American, Pacific Islander, or American Indian. Gay, lesbian, bisexual, and transgender people, as well as people with physical disabilities, experience higher mental health needs related to stress-related conditions than the general population, and they face systematic barriers to effective care. Ironically, people with the lowest incomes and most severe disorders (particularly those with Medicaid) are more than twice as likely to receive care as others given the low rates of service access overall.

Without access to services, over 600,000 people every year – many of whom have severe needs – are less productive at work, are forced to make greater use of other health services, endure personal and family burdens, and, in severe cases, are at greater risk for suicide and homelessness.

Observation #3: Mental Health Funding is Low and Shrinking

Mental health funding in Colorado was the most frequently-mentioned concern among key informants; most called it a crisis. Public funding per capita is 21% below the national average and falling, particularly for those with severe needs and no Medicaid. Funding for low income people with severe needs and no Medicaid has been slashed 17% since 2001, and cuts of nearly 7% more are expected in the 2004 budget year. This has already cut services for nearly 10,000 people each year and more service losses are expected. At the same time that funding for community-based services is cut, more of the people with the severest needs are discharged from

state hospitals, with 27% of adult inpatient capacity and 35% of adolescent inpatient capacity eliminated between July 2002 and July 2003. Even Colorado's Medicaid program, which arguably offers the best mental health coverage in the state, has begun to experience reduced funding, with thousands fewer people served in state fiscal year 2002-03 than in 2001-02.

On the private side, even fewer people receive the mental health care they need. Many lack insurance altogether, but for those with coverage, mental health benefit spending fell in proportion to general health benefits throughout the 1990s. This change is generally attributed to the success of managed behavioral health care organizations (MBHOs) in limiting benefits under contract to health insurers. Employers, under pressure to reduce health care benefit costs, are increasingly asking employees to shoulder a greater share of those costs through deductibles, premium sharing, copayments, and reduced benefit levels.

Colorado's over 600,000 uninsured are increasingly on their own. Public services are limited to helping people most in need, and those resources are shrinking. Colorado ranks 8th nationally for high rates of uninsured and 49th in the proportion of people covered by Medicaid. Similarly, the underinsured are growing in number. Increasingly managed and limited mental health benefits mean even those with insurance more often pay for their own care. Half of people with private insurance seen by providers in private practice and large numbers of the people seen in agencies are viewed by their provider as having inadequate insurance.

Observation #4: Mental Health Costs are Increasing

The cost of mental health care is increasing as a function of (1) health care inflation (particularly for hospital costs), and (2) costs for newly available treatments, including new psychiatric medications. Referring to these increases only as "higher costs," however, obscures the very real advances in treatment effectiveness from new medications and treatments. For example, analysis of advances in treatment for depression found increased costs are outweighed by the value of treatment gains.

Observation #5: Many Mental Health Services Are Known to Work, But Are Not Widely Available

The good news is that there is a wide array of mental health practices that are known to work. Despite this growing knowledge base, most services delivered in Colorado – and the nation as a whole – do not incorporate these practices. In many cases, it will require additional spending to implement these proven services, but in return for such an investment, improved productivity, reduced costs of other health services, and better lives for those in need of care can be expected. At the same time, many empirically-based practices have been implemented in Colorado that can serve as models for the wider dissemination of effective care approaches, including:

- Nurse Family Partnership, Multisystemic Therapy, and Wraparound Planning for children and families.
- Assertive Community Treatment (ACT), Integrated Dual Disorders Treatment (IDDT), cognitive behavior therapy, and Dialectical Behavior Therapy (DBT) for adults.
- Integrated care approaches, particularly for older adults and to children through school-based clinics.

Observation #6: Providers with Specialized Skills are Needed

Colorado has more psychiatrists, social workers, and psychologists per capita than most other states. However, there is a lack of providers with training in certain critical specialties. The current study suggests a need for psychiatrists, in particular child psychiatrists and psychiatrists willing to practice in rural areas of the state. Furthermore, Latino / Hispanic Americans, African Americans, and Asian Americans / Pacific Islanders are underrepresented among providers. Too few providers speak Spanish American Sign Language, and other non-English languages.

Observation #7: Emphasis on Resilience and Recovery is Needed

Two important mental health care concepts have come into prominence in the last decade, largely in response to a combination of careful research and grassroots efforts by people with mental disorders and their families. For adults, the notion of recovery from mental illness is reshaping people's expectations for themselves and their treatment. The basis of the recovery concept lies in longitudinal study findings that approximately one-third of people with schizophrenia significantly recover from their disorder and many more improve significantly. Colorado has established state-level and many regional offices of consumer affairs staffed by paid former and current consumers of mental health services, and has developed an array of consumer-driven initiatives across the state. Families of adult consumers are very involved in pro-recovery efforts through Colorado's chapters of the National Alliance for the Mentally Ill (NAMI) and the National Mental Health Association.

Recovery – Refers to the notion that a person with mental illness can recover even though the illness is not 'cured'…(Recovery) is a way of living a satisfying, hopeful, and contributing life even with the limitations caused by illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness (Anthony, 1993).

For children and families, the role of systems of care in promoting resilience has moved to the center of national interest. Careful research supports the notion that mental health services by child-serving agencies work best in partnership with each other and the communities they serve. In recent years, a subtle shift in emphasis towards "communities of care" has focused on the process of strengthening positive bonds to family, friends and community as a primary route to a secure and productive adulthood. Colorado's chapter of the Federation of Families for Children's Mental Health is very active in providing and advocating for child- and family-driven initiatives that promote child, youth, and family resilience and development.

Resilience – This refers to an individual's capacity for adapting to change and stressful events in healthy and flexible ways. Resilience has been identified in research studies as a characteristic of youth who, when exposed to multiple risk factors, show successful responses to challenge, and use this learning to achieve successful outcomes.

Recommendations for Change

The study identified recommendations to help Colorado decision makers:

- **Implement empirically-based practices** known to improve coordination, such as wraparound planning and school-based services for children; Assertive Community Treatment (ACT) and Integrated Dual Disorders Treatment for adults; and primary care initiatives for all ages, particularly older adults.
- **Promote blended funding strategies** that integrate funding and services for populations with multiple needs. Boulder's Integrated Managed Partnership for Adolescent and Community Treatment (IMPACT) program for high-need children and adolescents in the mental health, child welfare, and juvenile justice systems exemplifies this approach.
- **Build awareness and understanding** among lawmakers, employers, and other health care funding decision makers regarding the extent of Colorado's unmet mental health needs and increasingly precarious mental health funding.
- **Apply the concept of "return on investment"** instead of "inflation" to untangle and assess complex trends of increasing costs as well as advances in treatment effectiveness, and the impact of these advances on those needing, paying for, and delivering care.
- **Implement treatment approaches with demonstrated effectiveness.** For these approaches to achieve their wanted outcomes, they must be implemented with fidelity to their original models, as well as some modification where there are cultural differences and where resources are limited (such as in rural areas).
- **Support efforts to recruit specialized providers**, such as child psychiatrists and competent providers for underserved cultural groups. It is also important to look for strategies to extend existing resources, such as telemedicine for rural areas, training for primary care physicians to improve their diagnostic and prescribing practices, and training in cultural competency.
- **Actively embrace and support the concepts of recovery and resilience.** This includes support for empirically-based service approaches that are consumer- and family-driven, as well as informal supports beyond traditional mental health services. In addition, promote efforts to involve consumers, youth, parents, and families at multiple levels in mental health initiatives, including oversight, provision of services, and evaluation of service effectiveness.

INTRODUCTION

Purpose and Goals

The Mental Health Funders Collaborative, a group of eight grantmaking foundations,[1] contracted with TriWest Group in September 2002 to study the status of mental health care in the State of Colorado. The two goals of the study were to enable the Collaborative to better understand the strengths and weaknesses of the mental health system in Colorado across populations, and to identify opportunities for philanthropy to strengthen the system. The mental health system addressed by this study includes both private and public systems of care, as well as systems that overlap with the mental health system and provide additional mental health services, such as primary care, substance abuse services, child welfare, juvenile justice and criminal justice.

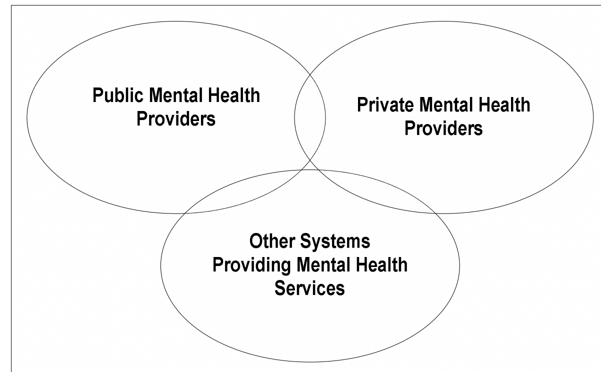
Study Approach and Methods

The study involved multiple methods that built on each other to describe Colorado's systems for mental health services and help the Collaborative prioritize its areas of interest. The project involved two stages. The first stage consisted of a comprehensive literature review and key informant interviews to identify and define current issues and trends in Colorado and nationally. The second stage focused on targeted data collection in the areas of interest prioritized by the Collaborative: service fragmentation and coordination, access to care, funding for services, provider shortages, cultural competence, mental health research, quality of care, and best practices.

Methods then shifted to gather additional detail about the strengths and weaknesses of the mental health system in these areas of interest, including (1) review of additional Colorado data (for example public mental health services data and Colorado epidemiological data, bringing the total literature reviewed to over 320 state and national published and unpublished sources); (2) a survey of 229 Colorado providers; (3) new and follow-up interviews with a combined total of 150 key informants selected to represent a broad cross-section of mental health stakeholders (see

[1] Caring for Colorado Foundation, The Colorado Trust, Daniels Fund, The Denver Foundation, First Data Western Union Foundation, HealthONE Alliance, Rose Community Foundation, and Rose Women's Organization.

Appendix C for a breakdown by group); and (4) seven consumer and family member focus groups across the state involving 110 participants. This stage yielded a definitive picture of gaps and opportunities to improve Colorado's mental health system.



Detailed information on the methods used for the key informant interview, provider survey, and focus groups is presented in Appendix B.

A major emphasis throughout all three stages was the education and guidance of the Collaborative members. TriWest Group held monthly meetings with the Collaborative, featuring discussions between the Collaborative and key Colorado mental health stakeholders such as the Director of Colorado Mental Health Services, legislative Joint Budget Committee staff, a panel on cultural competence, and a panel of mental health consumers and family members. These discussions served to inform the Collaborative and stimulate decision making about priorities. Along the way, TriWest consultants also worked with the Collaborative to prioritize areas of interest and focus. The study process concluded with the Collaborative's review of two draft reports.

Overview of this Report

For this report, we talk about three major categories of providers that function as separate mental health systems to some extent: (1) public mental health providers, largely funded by the government; (2) private mental health providers, largely funded with private insurance and people who pay for their own services; and (3) other systems of care that are not mental health systems, but that provide mental health services, such as the primary care system or other human service systems such as alcohol and drug services, schools, corrections, and child welfare. Through this report we build a picture of these three systems and the people they serve. We begin with a thorough description of each of these systems and the fragmentation, service

coordination, and integration issues they pose (Observation #1). We then turn to a description of the mental health needs that these systems attempt to serve (Observation #2). Next, we review the ways in which public and private mental health service funding (Observation #3) and rising costs of care (Observation #4) affect services and the people who use them. We then turn to a discussion of the growing array of mental health services with a strong empirical basis, both those that already exist in Colorado and those that could be developed to respond to Colorado needs (Observation #5). We finish the report with analyses of key provider shortages (Observation #6) and opportunities to promote recovery, resilience and communities of care (Observation #7).

Along the way, we make recommendations for change in each area to be considered by Colorado mental health stakeholders. It should be noted that these recommendations are not solely for Colorado foundations, nor could all or even a major portion of them be accomplished by the limited resources of the Collaborative members. The recommendations describe an array of possible actions that could be taken to improve Colorado's mental health services, some of which Colorado foundations could pursue, others of which require much broader action by additional system stakeholders and payers.

Stories of Colorado People in Need of Mental Health Care

Underlying each statistic and finding are real people with real lives. The following examples are fictional composites based on real-life dilemmas faced by people in Colorado with mental health needs. Some of them use technical terms that are defined later in the report and in the glossary in Appendix E. We will refer back to these stories to illustrate key findings throughout the report.

An adult with insurance – Steve & Barbara

Steve is a consultant working for a small health care policy firm. The company that employs him is small, but it provides a basic health insurance plan for him and he purchases additional coverage for his spouse and two children. Steve's wife, Barbara, is 28 and is at home with her children, ages 3 and 6. Barbara has been sleeping poorly and acting depressed for a few weeks. Their family doctor prescribed an antidepressant six days ago, after they had called six psychiatrists on their insurer's provider list and found that all six were either not taking new patients or could not schedule Barbara for over a month.

For the last two days, Barbara has not slept at all. For the last 24 hours she has been driving around the city continuously and has called the house six times to see if the President has called and if any packages have arrived for her. Steve was frantic trying to find her until he learned that she was arrested this morning after driving their car into a tree. She is currently at the jail, but the police are asking if Steve can come down to take her to a hospital for psychiatric care. They say that she is not suicidal or homicidal.

Steve does not know where the nearest hospital with a psychiatric unit is, let alone the best one in the area. He calls their insurer, who gives him another number to call for their separately administered behavioral health benefits. After listening through a series of recorded messages, Steve connects with a utilization review nurse who is quite helpful, but determines that Barbara does not seem to pose an imminent danger to herself or others.

The nurse does recommend a clinic in their area that can take urgent cases, but Steve will have to go down there to wait with Barbara until she can be seen. When they arrive at the clinic, they will wait all day until eventually Barbara is seen by a psychiatrist who changes her medications and a social worker who does a thorough assessment and recommends outpatient treatment. Steve and Barbara will find out in a month, after the billing is processed, that the psychiatrist consultation is covered but their separate deductible for mental health benefits will not be met until they spend $1,000 on outpatient care. Soon after, Barbara stops taking all medication. While her erratic behavior had subsided with the right medication, her depression continues and worsens after she stops taking

medication altogether. Steve is very concerned about whether she is able to take primary care of their children.

An adult with serious mental illness – Bob & John

Bob is 61 years old and was diagnosed with schizophrenia when he was 28. He has been in and out of CMHI-Fort Logan (one of Colorado's two state-funded psychiatric hospitals) throughout his life, and was hospitalized for eight years in his 30s. He has been living on the streets and in various shelters in Denver for years. He does not take his medications or have a place to live because he does not have Medicaid to help him pay for either of them. He does not qualify for Medicaid because of family resources, which could be addressed through a long process with a lawyer that Bob has never wanted to go through. Ironically, when Bob is homeless he often has better access to services, as he often stays at the Good Samaritan Shelter and has been connected with some of their mental health outreach team services through Denver's local community mental health center (CMHC), the Mental Health Corporation of Denver.

Bob has a friend named John. John is about Bob's age and suffers from schizoaffective disorder. Bob met John at Fort Logan, and they sometimes see each other now at the local consumer drop-in center. Unlike Bob, John was able to qualify for Medicaid and is now living in supported housing and receiving services through an Assertive Community Treatment (ACT) team in Denver. John is also doing much better since he started taking olanzapine, which his Medicaid pays for.

A youth and her family – Gabriela & Rosa

Gabriela is 14 years old. Her parents moved to the United States from El Salvador before she was born. Born in the United States, Gabriela grew up speaking both English and Spanish, but now says she will only speak English and prefers to be called "Gabby." Her mother is a homemaker and is bilingual in Spanish and English, but she prefers to speak Spanish.

Gabriela lives with her mother, Rosa, and two sisters; her father suffered a fatal heart attack last year. Gabriela's siblings sometimes tease her for causing her father's death, saying that she made her father so angry by her behavior that his heart stopped. Gabriela was recently suspended from school for three days because of "inappropriate" language and behavior. After several attempts to treat Gabriela with medication and individual counseling, local community mental health center staff recommended intensive family-based treatment for Gabriela. However, because of recent program cutbacks, these services were only available to people with Medicaid. Gabriela's family does not qualify for Medicaid because they make too much money, but they do not have the several thousand dollars a month that intensive family-based treatment in the home costs. Even if they had private insurance, it would only cover clinic-based outpatient services, not home-

based treatment. Because of this, no funds were available to purchase the recommended treatment from the mental health center.

Because of the escalating situation at home, Gabriela was moved to the local runaway shelter, which has 24-hour awake staff but provides little in the way of treatment. After placement at the runaway shelter, an interagency staffing team was convened to try to come up with a plan for Gabriela and her family. Gabriela's mother was present, as were staff from the runaway shelter, mental health center, probation department, school, and child welfare department. None of the agency staff on the team spoke Spanish and no interpreter was available, but Gabriela's mother reassured people that she was fine with holding the meeting in English.

Again, the team initially discussed intensive family-based treatment for Gabriela. Someone on the team then suggested that charges be pressed against Gabriela for an incident at school, allowing the juvenile court to place Gabriela in the custody of the district probation department, which could fund a placement with a local Multisystemic Therapy (MST) team. Gabriela lives in a Denver metro area county with many strong services, including MST, an intensive family-based treatment designed for youth in the juvenile justice system with rigorous research demonstrating its effectiveness.

The probation representative noted that an MST placement would be unlikely, this being Gabriela's first offense. Someone else suggested that the runaway shelter discharge Gabriela, that her mom refuse to pick her up, and that the shelter staff then call the child abuse and neglect hotline to report the abandonment, which would result in child welfare taking custody of Gabriela and placing her in a residential treatment center (RTC). While RTC treatment was seen as less desirable, all of the agency staff agreed that this was the best available way to meet Gabriela and her family's needs.

Gabriela's mother had been quiet during most of the meeting, seemingly understanding and deferring to the ideas discussed by the agency staff. When the RTC discussion began, she became visibly more concerned and said that she was not sure she understood all of the implications of the child welfare involvement, especially since people were talking about "child abuse," "neglect" and "abandonment," and that conflicted with her view of herself as a parent, and her desire to have a close, strong family. Staff reassured her that it would work out and that this was really the only option. She agreed. Still, despite the "discharge" that initiated the child welfare involvement, Gabriela remained at the shelter for 60 more days, waiting for the child welfare investigation, the court process, and the longer waiting lists for female RTC placements in Colorado to be worked through.

An older adult living in a rural area – Nadine & Sally

Nadine is 67 years old and lives in a small town in northwestern Colorado. She has a high school education and worked as a bank teller for 25 years before she retired seven years ago. Nadine had been living with her husband, Ned, for 45 years before Ned died of a long-term illness one year ago. Since Ned's death, Nadine has been very depressed. She has no family members who live nearby. Nadine was hospitalized in a community hospital in a larger city on the Western Slope (but still over 100 miles away from home) after family members she talked to on the phone noticed that she was making references to her own death and giving away valued belongings.

While Nadine was in the hospital, hospital staff determined that she was experiencing progressive dementia and helped her family to arrange for nursing home care. Nadine was given a prescription for an antidepressant medication and discharged to a nursing home in Grand Junction, where she continues to see a psychiatrist once a month and receives her medications daily. Her family lives out of state, so she has few visitors and she has been increasingly withdrawn and seemingly incoherent in her two months at the nursing home.

Nadine's high school friend, Sally, lives in a large city in the Denver metro area, where she has lived since she graduated from high school. Sally's husband, Carl, died within the past year after years of dementia. Like Nadine, Sally has felt very depressed since her husband's death. In fact, her symptoms are very much like Nadine's, including thoughts of death, difficulty concentrating (which results in increased forgetfulness), and impulsively giving away possessions to acquaintances. Unlike Nadine, Sally had been going regularly to a local senior center with her husband as part of the daily activity recommended by Carl's primary care physician. After Carl's death, Sally continued to go to the senior center, and shared with a staff member her concerns about her loneliness, depression, and memory problems. The counselor immediately set Sally up for a weekly depression group with other older adults, and an outreach counselor comes by her house weekly to check in on her. After two months in the group, Sally continues to live at home and has reported feeling better.

Keeping the experiences of Steve, Barbara, Bob, John, Gabriela, Rosa, Nadine, and Sally in mind, we move on to seven sets of observations about Colorado's mental health services and systems, with recommendations for improving their effectiveness for the people of Colorado.

Observation #1: Coordination and Integration are Needed

Snapshot of Key Findings Regarding the Need for Coordination and Integration

The "mental health system" in Colorado is actually many systems. They include the following:

Public Mental Health Providers

- Public mental health providers primarily serve (a) people with Medicaid and (b) people who are both severely impaired and impoverished.
- Colorado has 17 publicly-funded community mental health centers (CMHCs) that serve over 70,000 people in state fiscal year 2001-02. Each center serves a single or multi-county service area.
- Colorado's over 290,000 Medicaid recipients have their mental health care administered by eight regional Mental Health Assessment and Service Agencies (MHASAs) working with CMHCs. Over 47,000 Medicaid recipients received mental health services in state fiscal year 2001-02.
- Colorado has two state-funded psychiatric hospitals: the Colorado Mental Health Institutes at Pueblo (CMHI-Pueblo) and Fort Logan (CMHI-Fort Logan). They served nearly 3,500 people in state fiscal year 2001-02. Bed capacity at the Institutes was cut by nearly 10% in the first half of 2003, including a 28% cut in non-forensic adult inpatient capacity (69 out of 247 beds) and a 35% cut in adolescent inpatient capacity (18 out of 52 beds). Colorado ranks in the lower third among Western states in its per capita state psychiatric hospital capacity.
- People in the public mental health system – particularly those with Medicaid – have access to a wider array of non-hospital intensive mental health services than do people with private insurance.

Private Mental Health Providers

- Private mental health providers include private therapists, hospitals, and agencies that mostly serve people (a) with insurance (including Medicare) or (b) who pay for their own care.
- Colorado has 713 psychiatrists, 1,812 licensed psychologists, 2,656 licensed social workers, 476 licensed marriage and family therapists, 2,704 licensed professional counselors, and 2,205 certified addictions counselors. Most of these private practitioners are located in the Denver Metro area.
- Colorado has 22 private and other public psychiatric hospitals that serve people with severe needs. Most are in the central and southern Front Range. The Western Slope has the least capacity. Nationally, the number of psychiatric beds dropped 42% between 1995 and 2002.

Mental Health Services in Other Systems

- Other systems deliver mental health services, including (a) the primary health care system and (b) other human service systems, including child welfare, youth corrections, schools, child care centers, adult corrections, and homeless shelters
- Nationally, 15% of people receive mental health services each year. Nearly as many of these people (5%) receive care in primary health care settings as do in specialty mental health settings (6%). The remaining 4% are served in other human service settings.

Overview

"Our number one problem in mental health today is system fragmentation. It's confusing even for those of us who know it." – **Colorado mental health provider**

"There is no single person or public or private entity responsible for the overall mental health system. Since responsibility lies in no single place, the result is system fragmentation." **– Colorado mental health administrator**

People sometimes talk about the "mental health system." Actually, there is no single mental health system in Colorado. Mental health services are delivered through a complicated array of systems and providers serving a range of needs across diverse and sometimes overlapping groups of Colorado residents. Viewed positively, one can describe this situation in terms of complexity theory (Lewin, 1994) as a group of complex adaptive systems responding to needs and resource limitations in a continuously evolving manner over time. However, from the perspective of the people who need, provide, and pay for mental health services, the "system" tends to be experienced as confusing and redundant in many situations, and outright unavailable in others. The descriptor often used to describe Colorado's mental health services is "fragmented."

Fragmentation was the second most frequently-mentioned problem with Colorado's mental health care delivery by the key informants we interviewed for this study (reduced funding was mentioned most frequently, but understanding its impact requires us to first explain how services are currently delivered). The observations of our Colorado informants are reinforced by an increasing national awareness of fragmented service delivery as a major barrier inhibiting access to effective mental health services (The President's New Freedom Commission on Mental Health, 2002). Although there are many innovative and effective services in Colorado (for examples, see Observation #5 on empirically-based services), it was the fragmentation of Colorado's mental health services that stood out when we talked with mental health stakeholders and reviewed the care that is available. Fragmentation is clearly a national challenge, highlighted

in the 1999 U.S. Surgeon General's report on mental health services in America (U.S. Surgeon General, 1999).

In reading through the wide and potentially confusing array of possible ways that mental health needs can be met in Colorado, it is important to remember that people access mental health services in a variety of ways, including:

- People who may need mental health services for the first time and have a vague idea that services are available, but not know a mental health provider. Steve and Barbara fall into this category. They happened to have insurance, but this may not necessarily have been the case. People may or may not have health insurance, their insurance may or may not cover mental health services at all, and the specific services they need may or may not be covered. In any case, like Steve and Barbara, most people simply do not know where to start. They also may feel too ashamed or taxed by their condition to look for a provider.
- Homeless adults, like Bob, may revolve through a cycle of psychiatric hospitalization, homelessness, and involvement in community services. If individuals in this situation do not have insurance, their options for escaping this cycle are limited. If they have Medicaid, like Bob's friend John, their opportunities for appropriate treatment are among the best available to any Coloradan.
- Children whose mental health needs may disrupt their school or child care setting. Like Gabriela, disruptions at school can lead to involvement in other systems such as child welfare and juvenile justice. Like Gabriela and her mother, these systems may not respond in ways that are fully in the child's and family's best interests.
- Older adults with a medical condition such as diabetes or a recent coronary bypass surgery may also struggle with depression, perhaps related to their condition. Like Nadine, the interaction of mental disorder symptoms and physical condition may be misdiagnosed. Or, like Sally, appropriate, integrated, and helpful services may be available.

While the people from our stories illustrate many ways to access care, there are many more. Here are some additional examples:

- Adults with a substance addiction may also experience a mental disorder. If treatment is sought from a mental health provider, it likely will not include a focus on the addiction. If the addiction is treated by a substance abuse treatment provider, the mental disorder likely will not be addressed.
- A person in counseling may have their therapist recommend that they consider a psychiatric medication, but the person must then find a physician, preferably a psychiatrist, to prescribe it. The therapist may or may not know a physician who could prescribe medication for the person's condition, that physician may or may not take the person's insurance (if the person

has it), the physician may or may not be accepting new clients, and they may or may not have an office within reasonable driving distance.

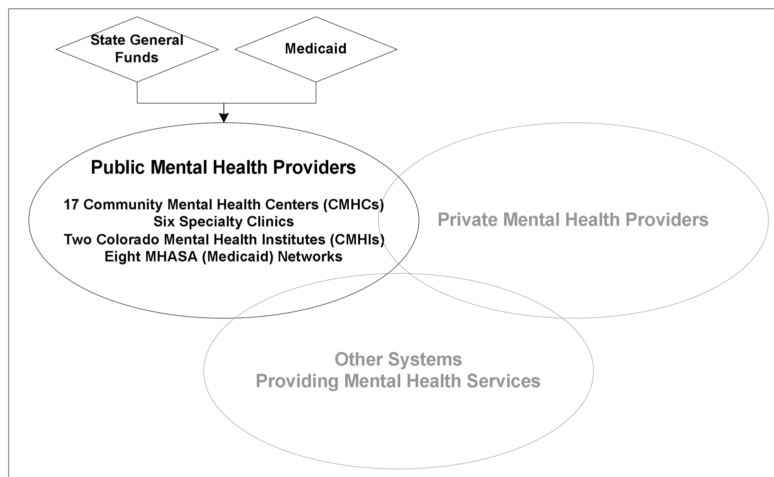
- People completing a psychiatric hospital stay (for example, because of a suicide attempt) need to start seeing outpatient providers after discharge. Provider availability, insurance status, and geographical accessibility all compound this situation, despite the seriousness of the potential impact of not seeking treatment.

These situations reflect very real situations experienced by thousands of children, adults, older adults, and families in Colorado every day.

Multiple Mental Health Systems

Specific systems providing mental health services may be grouped by the type of funding that pays for them. The most common distinction is between the public mental health system funded by local, state, tribal, and federal governments and the private mental health system funded by health insurers or people paying for their own care. While this distinction itself somewhat obscures a multitude of different public and private systems, it is a useful distinction that we will employ to describe Colorado's mental health systems.

Public Mental Health Services

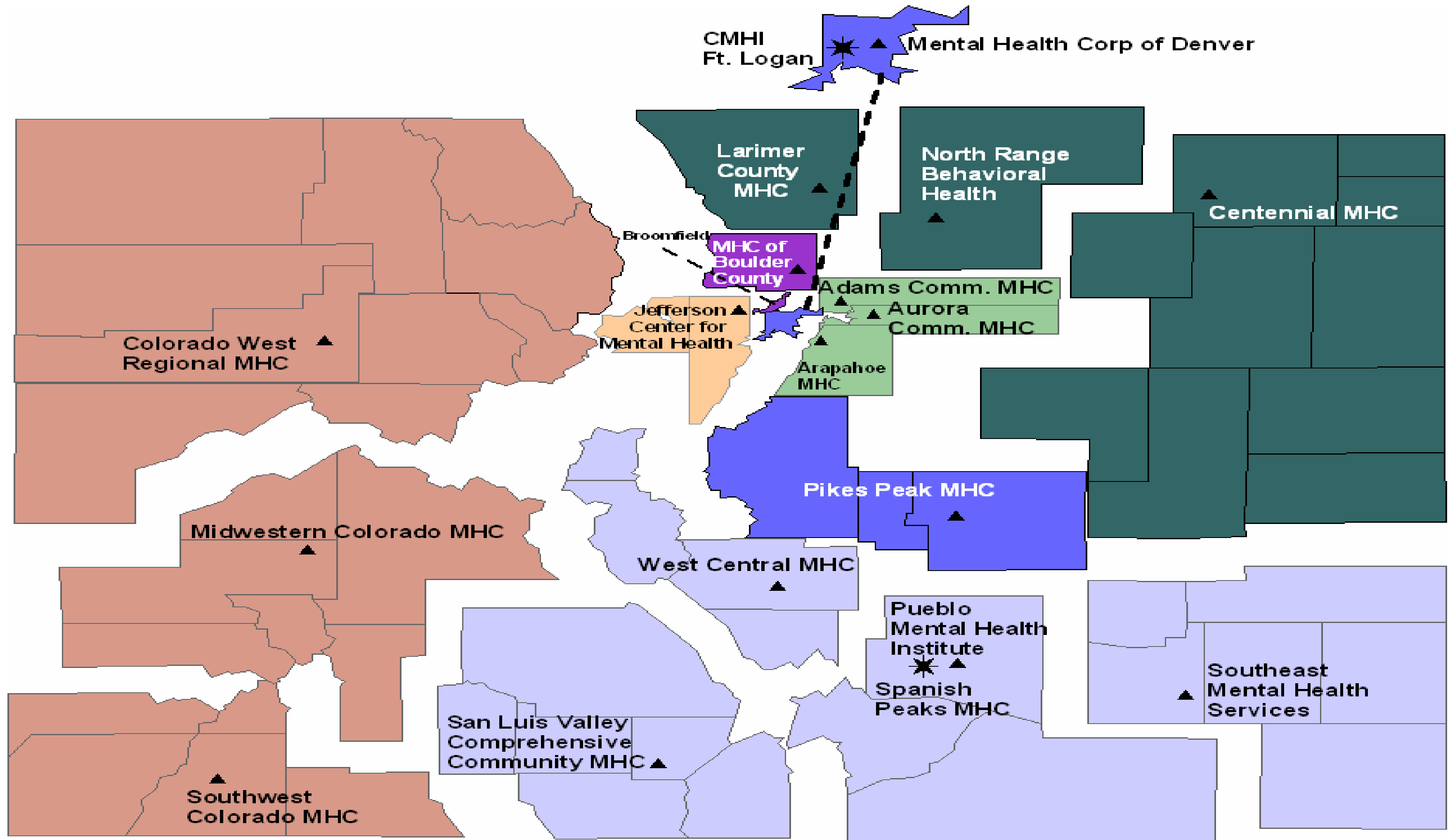


Colorado's public mental health system is managed at the state government level by Mental Health Services (MHS) within the Colorado Department of Human Services (CDHS). The system encompasses 17 community mental health centers (CMHCs), six specialty clinics, and two state psychiatric hospitals (the Colorado Mental Health Institutes at Pueblo and Fort Logan). Most of the funding for these services comes from Colorado's State General Fund and Medicaid. The centers, clinics, and hospitals also receive varying degrees of funding from Medicare, private insurance, county funds, other human services (e.g., child welfare), and direct payments from people receiving services.

Colorado Mental Health Services (MHS) - The State Mental Health Authority (SMHA), or state government agency charged with administering, managing, and funding Colorado's public mental health system and services provided within that system.

Mental health services for Medicaid recipients in Colorado are funded and managed by eight Mental Health Assessment and Service Agencies (MHASAs). For Medicaid recipients, the MHASAs manage provider networks that include private community hospitals, outpatient programs, and outpatient providers that deliver publicly funded mental health care as part of their mission. As will be described in more detail later in this report under Observation #2 (mental health needs), the public system tends to serve children, families, and adults with more severe needs and fewer financial resources. Colorado's CMHCs, clinics, and state hospitals are shown on the map below. Also shown are the geographical boundaries for the eight MHASAs.

Mental Health Assessment and Service Agency - MHASAs administer all mental health services for the Colorado Medicaid program in eight geographic regions under capitated payment arrangements. MHASAs do not provide care directly. MHASAs may include CMHCs, or partnerships between CMHCs and various health care management organizations (managed behavioral health care organizations and health maintenance organizations).



MHASA – Color Key	Access Behavioral Care: Denver	Northeast Behavioral Care
SyCare, LLC (Western Slope Options)	Access Behavioral Care: Pikes Peak	Behavioral Healthcare Inc.
Jefferson Center for Mental Health	Community MHC of Boulder County	SyCare, LLC (SyCare Options)

> **Community Mental Health Center (CMHC) -** typically the main provider of community-based mental health services in the public sector. They are nonprofit entities that provide a range of mental health services, primarily to impoverished people with severe needs and no insurance and to people with Medicaid coverage.

Community mental health centers. Colorado's 17 community mental health centers (CMHCs) are charged by the state with providing public mental health services in Colorado. CMHCs provide a range of mental health services, primarily to impoverished people with severe needs and no insurance and to people with Medicaid coverage. Medicaid services are funded and coordinated by eight regional Mental Health Assessment and Service Agencies (MHASAs), all of which involve partnerships between CMHCs and various health care management organizations (managed behavioral health care organizations and health maintenance organizations). MHASAs administer services; they do not provide care directly, although CMHCs and the other providers that govern MHASAs may provide care. The table below presents these service numbers by MHASA and CMHC. These figures overlap partially, but not completely, with many CMHC clients funded by MHASAs and many MHASA members served at CMHCs. Nevertheless, many people in Colorado receive these services.

People Served by MHASAs and CMHCs in Colorado in State Fiscal Year 2001-2002

> Community mental health centers served over 72,000 people in state fiscal year 2001-02. MHASAs managed the care of over 290,000 Medicaid recipients in state fiscal year 2001-02, providing over 47,000 of them with mental health services.

MHASA	FY 2001-2002		Community Mental Health Centers	FY 2001-2002	
	Medicaid Members	Members Served[2]		Population (2000)	People Served[3]
Behavioral Healthcare, Inc. (BHI)	55,021	6,730	Adams MH Center	323,608	4,853
			Arapahoe/Douglas MH Network	427,589	2,937
			Aurora MH Center	276,393	4,703

[2] MHASA numbers are provided to illustrate the service capacity of MHASAs and count people served by multiple MHASAs in each MHASA. They should not be used to derive numbers such as penetration rates that are based on unduplicated numbers. Data from the Orchid Report for FY 2001-2002 (Colorado Mental Health Services, 2003b).
[3] Total number of people served by CMHCs includes people with Medicaid, but does not include all people with Medicaid receiving mental health services. Data from the Orchid Report for FY 2001-2002 (Colorado Mental Health Services, 2003b).

People Served by MHASAs and CMHCs in Colorado in State Fiscal Year 2001-2002, continued

MHASA	FY 2001-2002		Community Mental Health Centers	FY 2001-2002	
	Medicaid Members	Members Served[2]		Population (2000)	People Served[3]
CMHC of Boulder County	9,851	1,573	CMHC of Boulder County	291,288	4,405
Northeast Behavioral Care	32,266	4,240	Centennial MH Center	105,870	2,477
			Larimer Center for MH	251,494	3,479
			North Range Behavioral Health	180,936	3,765
Jefferson Center for Mental Health	20,255	2,965	Jefferson Center for MH	541,135	7,023
Access Behavioral Care / Colorado Access – Denver	60,981	6,052	MH Corporation of Denver	554,636	6,846
Colorado Health Networks[4] (AKA Pikes Peak Options)	33,912	7,463	Pikes Peak MH Center	552,007	7,097
SyCare, LLC (AKA SyCare Options)	48,262	10,881	San Luis Valley Comprehensive Community MH Center	46,190	1,806
			Southeast MH Services	52,449	1,713
			Spanish Peaks MH Center	164,541	4,432
			West Central MH Center	73,702	1,652
SyCare, LLC (AKA Western Slope Options)	31,667	7,145	Colorado West Regional MH Center	293,004	5,714
			Midwestern Colorado MH Center	86,348	1,892
			Southwest Colorado MH Center	80,071	1,770
Total	**292,215**	**47,049**	**Total**	**4,301,261**	**72,953**

[4] Access Behavioral Care/Colorado Access – Pikes Peak took over the MHASA contract from Colorado Health Networks toward the end of FY 01-02.

State-funded psychiatric hospitals. Colorado has two state-funded psychiatric hospitals: the Colorado Mental Health Institute at Pueblo (CMHI-Pueblo) and the Colorado Mental Health Institute at Fort Logan (CMHI-Fort Logan). As the names suggest, the CMHI-Pueblo is located in Pueblo; CMHI-Fort Logan is located in Denver. Transformation of the role of state hospitals in Colorado has mirrored national phenomena over the last 50 years. Great reductions in the use of long-term institutional care have come about through the development of community-based care and the advent of effective psychiatric medication. Nonetheless, a significant number of people are still served by the two state hospitals each year, with 3,484 served in state fiscal year 2001-2002 (Colorado MHS, 2003b).

Joint Budget Committee (JBC) - The permanent fiscal and budget review agency of the Colorado General Assembly (i.e., Legislature) that is responsible for initiating the budget for all state agency operations. Specific activities of the JBC legislators and staff include analysis of the management, operations, programs, and fiscal needs of all of the departments of Colorado state government, which are primarily done through hearings and reviews of the executive budget requests for each state agency and institution. The JBC's role is different from what is found in many other states in which budgets are initiated by the executive branch of state government.

In late 2000, the Colorado Department of Human Services (CDHS) commissioned a study and Operational Plan to guide the near term future of the state hospitals (TriWest Group, 2001). The study and plan underscored the critical safety net role played by the two hospitals within what was described at the time as an underfunded and underdeveloped community mental health system. For those most in need, the two state hospitals were often the only place where care and safety could be assured. TriWest's initial Operational Plan, completed in April, 2001, centered on two linked recommendations, "that available services within the overall Colorado mental health system be increased and current Institute inpatient programs maintained until community alternatives are developed" (p. ii) This core double recommendation was elaborated across multiple program-specific recommendations for child, adolescent, adult, and geriatric inpatient services at the state hospitals and in the community.

State psychiatric hospital - A publicly-funded hospital that provides inpatient mental health services to people who need longer term and more intensive treatment of their mental illnesses.

After a year of additional stakeholder input and review by CDHS, the Operational Plan for the Colorado Mental Health Institutes went into effect on February 15, 2002 (Colorado Department of Human Services, February 2002). As Colorado's state budget crisis and associated need for cuts grew in the spring

of 2002, the state accelerated the downsizing of the state hospitals, closing many state hospital programs before community-based alternatives were developed. This compromise between the Operational Plan recommendations and the priority of budget cuts led to further reductions negotiated between the legislative Joint Budget Committee, state MHS, the CMHCs, and the MHASAs.

Institute of Mental Disease (IMD) exclusion - *A* distinction specified by federal regulations that mandates that Medicaid funding cannot pay for long-term inpatient care for adults in state psychiatric hospitals (e.g., Colorado Mental Health Institutes).

As in most states, Colorado's community mental health centers (CMHCs) manage access to the state hospitals. Beds serving adults are state-funded. Medicaid funding cannot pay for state psychiatric hospital care for adults, because of a historical rule knows as the IMD (Institute of Mental Disease) exclusion. Most adult beds are allocated by the state office of Mental Health Services (MHS) to each CMHC. People using these beds must be assessed and approved by their local CMHC, which also takes responsibility for arranging follow-up outpatient care after discharge. In addition to allocated adult beds, CMHI-Pueblo runs the Circle Program serving adults with co-occurring substance use and mental health disorders, and CMHI-Fort Logan runs a few overflow beds that the hospital has some freedom to use as needed.

CMHCs also coordinate access to child, adolescent, and older adult beds, but, since more than just state general funds pay for these beds (e.g., Medicaid, private funding), MHASAs and the hospitals themselves have more influence over their use. This complicated situation is described in detail in the 2001 Operational Plan (TriWest Group, 2001).

The table below depicts the recent reduction in adult state hospital capacity that will fully take effect in July, 2003. A breakdown of these reductions by CMHC catchment area can be found in Appendix A. In addition to the cuts of 69 beds noted in the table, 16 beds of residential care at Fort Logan were closed in September 2002.

2003 Reductions in Adult State Hospital Capacity and the Remaining Capacity

In 2003, over one quarter (28%) of the state's capacity for adults most in need was cut with only a partial shift of funds to develop future community capacity.

	Original Bed Capacity		Beds Downsized (4/1/03)	(6/30/03)	Remaining Bed Capacity	
	Pueblo	Ft. Logan	Pueblo	Ft. Logan	Pueblo	Ft. Logan
Adult Beds Allocated to CMHCs	96	116	-32	-25	64	91
Overflow beds at Ft Logan	n/a	5	n/a	-2	n/a	3
CMHI-Pueblo Circle Program (dual diagnosis)	30	n/a	-10	n/a	20	n/a
Total	**126**	**121**	**-42**	**-27**	**84**	**94**

This reduction was not due to lack of use, since the 247 adult mental health beds at the two hospitals are almost always being used (the 2001 TriWest Group report noted occupancy of 93.9% for allocated adults beds). Furthermore, the reduction occurred before community alternatives were developed, even though funding for community alternatives (for adults on the Western Slope and for children and adolescents there and in other parts of the state) was initiated in early 2002. In addition to these start-up initiatives to build community capacity prior to downsizing, CMHCs whose adult bed allocations were reduced received $54,000 per bed annually for 54 of the beds cut from CMHC allocations (approximately half of the annual savings). However, as detailed under Observation #3 below on shrinking funding for mental health services, all of these changes occurred in the context of additional, significant cuts in overall funding to the CMHCs.

State hospital capacity for adolescents was also reduced in 2002 and 2003. Use of these beds has been much lower than use of adult beds in recent years because of shorter adolescent lengths of stay, so an immediate reduction of 10 beds[5] was recommended by the Operational Plan (TriWest

[5] While the state adopted a 10-bed cut in its final plan, the composition of that cut changed from the initial TriWest recommendations. See the final *Operational Plan* (Colorado Dept. of Human Services, February 2002) for details.

Group, 2001) as a way of funding increased community alternatives. As the table below shows, additional reductions (8 more beds) occurred as a result of state budget cuts.

2003 Reductions in Adolescent State Hospital Capacity and the Remaining Capacity

The recommended 19% cut in adolescent state hospital capacity was expanded to 35% through additional cuts in state fiscal year 2002-2003.

	Original Bed Capacity		Beds Downsized (7/1/02)	(8/1/02)	Remaining Bed Capacity	
	Pueblo	**Ft. Logan**	**Pueblo**	**Ft. Logan**	**Pueblo**	**Ft. Logan**
Unlocked Unit at CMHI-Pueblo	10	n/a	-2	-8	0	n/a
Locked Unit at CMHI-Pueblo	20	n/a	-4	0	16	n/a
Locked Unit at CMHI-Fort Logan	n/a	22	-4	0	n/a	18
Total	**30**	**22**	**-10**	**-8**	**16**	**18**

Bed capacity for children and older adults at the two hospitals has remained stable over the past few years. With the reduction in beds for adolescents, the total number of child and adolescent beds is now 50. Older adult capacity has been at 85 beds (60 at CMHI-Pueblo and 25 at CMHI-Fort Logan) for several years.

State hospital capacity is often viewed as a standard for comparison across states. Western states such as Colorado typically have much less state-funded psychiatric hospital capacity than states east of the Mississippi, judging from historical funding trends. A comparison of Colorado's state inpatient capacity to that of other states is difficult to assess fully, given that the adequacy of capacity is influenced by factors such as the capacity of private inpatient facilities and the community-based system of care. Comparison of Colorado's current capacity with that of other Western states using 2002 data from the Western State Psychiatric State Hospital Association (M. Payne, personal communication, January 10, 2003) and 2001 data from the National Association of State Mental Health Program Directors (NASMHPD, 2003) shows Colorado to be in the lower third of Western states in terms of its current state psychiatric hospital capacity.

State hospital capacity may also be compared across states using a standardized comparison of beds per 100,000 population. The next table shows the level and variation in standardized state hospital capacity in Colorado. Allocated adult inpatient capacity is computed by geographic quadrant, dividing the state into the Denver Metro area, Northeast Colorado, Southeast Colorado, and the Western Slope.[6] Since the other adult (overflow beds at Fort Logan and Circle Program beds at Pueblo), child, adolescent, and older adult units serve a statewide population, only the average capacity statewide is shown using the respective statewide population numbers to calculate the rates per 100,000 (Colorado Department of Local Affairs, 2003).

C.R.S. 27-10 - The Colorado statute that allows people to receive inpatient and outpatient mental health treatment involuntarily if they pose a danger to themselves, others, or are determined to be unable to care for themselves (i.e., gravely disabled).

State Hospital Capacity Per 100,000 Population

Colorado's state psychiatric inpatient capacity levels rank in the lower third of western states. Across the state, Northeast Colorado and the Western Slope have less adult capacity allocated to them per capita and the hospitals are located many miles away in Denver and Pueblo.

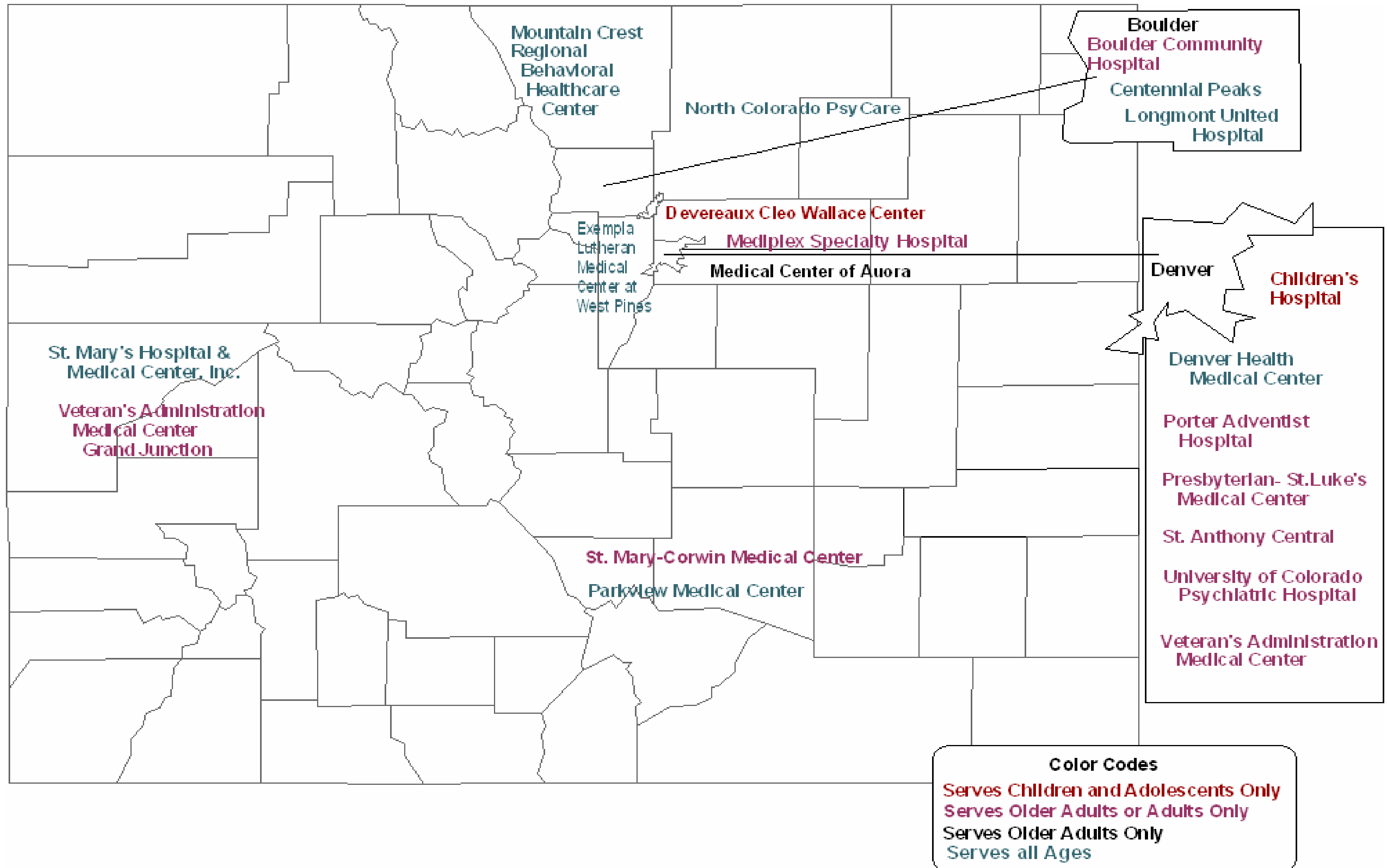
Capacity by Age Group	Denver Metro	Southeast	Northeast	Western Slope	Average State Capacity
Child & Adolescent Beds	Located in Denver and Pueblo, but available statewide				**4.3**
Allocated Adult Beds	6.4	5.6	4.1	3.1	**5.5**
Overflow & Circle Program Beds	Located in Denver and Pueblo, but available statewide				**0.8**
Older Adult Beds	Located in Denver and Pueblo, but available statewide				**14.0**

[6] **Denver Metro counties:** Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson.
Southeast counties: Baca, Bent, Cheyenne, Crowley, Elbert, El Paso, Huerfano, Kiowa, Las Animas, Lincoln, Otero, Prowers, Pueblo
Northeast counties: Kit Carson, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld, Yuma
Western Slope counties: Alamosa, Archuleta, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Dolores, Eagle, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Jackson, Lake, La Plata, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Summit, Teller

Private and other public psychiatric hospitals. Information from a 2001 survey of community mental health centers (TriWest Group, 2001) and a state list of facilities designated as able to serve involuntary patients under Colorado Revised Statute (CRS) 27-10 (Colorado MHS, 2002) together indicate that there are 22 private or other community psychiatric hospitals that serve people with very severe needs (generally, "very severe needs" encompasses only people posing a direct danger to themselves or others). Some people receive care voluntarily, some involuntarily under CRS 27-10.

The map on the following page shows the geographic distribution of 27-10 designated hospitals that serve public sector clients in Colorado. Community mental health centers also reported one community hospital (Montrose Memorial Hospital) that is not 27-10 designated, but nevertheless meets the psychiatric needs of people living primarily in the southwestern part of the state (TriWest Group, 2001). This was not shown on the map. The hospitals on the map are categorized by the age groups that they are capable of serving.

Colorado's 27-10 Designated Community Psychiatric Inpatient Facilities



The figures in the table below present standardized capacity (per 100,000) for the 19 hospitals reported on by TriWest Group (2001), updated with 2003 census estimates (Colorado Department of Local Affairs, 2003). These figures do not include Veteran's Administration hospitals in Denver and Grand Junction and two additional private facilities in the Denver metro area, so they understate capacity to some extent in those locales. Since state-level data on private psychiatric hospitals is not available, capacity comparisons with other states could not be conducted.

Private and Other Public Inpatient Bed Capacity Per 100,000 Colorado Population[7]

While the actual geographical location of private and other public inpatient capacity is weighted toward the central Front Range, a standardized analysis of bed capacity by age group adjusted for population[8] shows adult capacity to be more evenly distributed in general than capacity for other age groups, and the Western Slope as a whole to have much less capacity than the rest of the state.

Capacity by Age Group	Denver Metro	Southeast	Northeast	Western Slope	Average State Capacity (per 100,000)
Child Beds	3.7	0.0	0.0	0.0	2.1
Adolescent Beds	9.1	3.8	5.7	0.0	6.5
Mixed Child & Adolescent Beds	1.1	10.9	0.0	0.0	2.6
Adult Beds	12.3	11.3	9.1	8.7	11.2
Total Beds	**12.7**	**12.2**	**8.3**	**6.6**	**11.2**

During state fiscal year 2001-02, people in Colorado's public mental health system spent a total of 43,600 days in inpatient facilities across the state, which translates to an average of over 119 beds filled each day, over two-thirds of them (29,455 days) in Denver Metro locations (Colorado Mental Health Services, 2003c). The vast majority of these beds were purchased for Medicaid recipients (83%). Public inpatient care for people without Medicaid or private insurance is only paid for by some Metro Denver CMHCs; most is provided by private hospitals without public reimbursement. Private insurers generally provide coverage for inpatient services in Colorado.

[7] Private and other community inpatient bed capacity reported by community mental health centers does not include the following hospitals: Medical Center of Aurora, Mediplex Specialty Hospital, and the two Veteran's Administration Medical Centers (in Denver and Grand Junction).

[8] Figures for each geographic area are based on number of beds for the age group adjusted for the population in the age group. For example, the number of adolescent beds in southeast Colorado and the number of adolescents in that quadrant of the state were used to arrive at the 3.8 beds per 100,000 population shown in the table.

Coverage varies from typically 45 inpatient days for non-parity diagnoses to unlimited days for parity diagnoses.

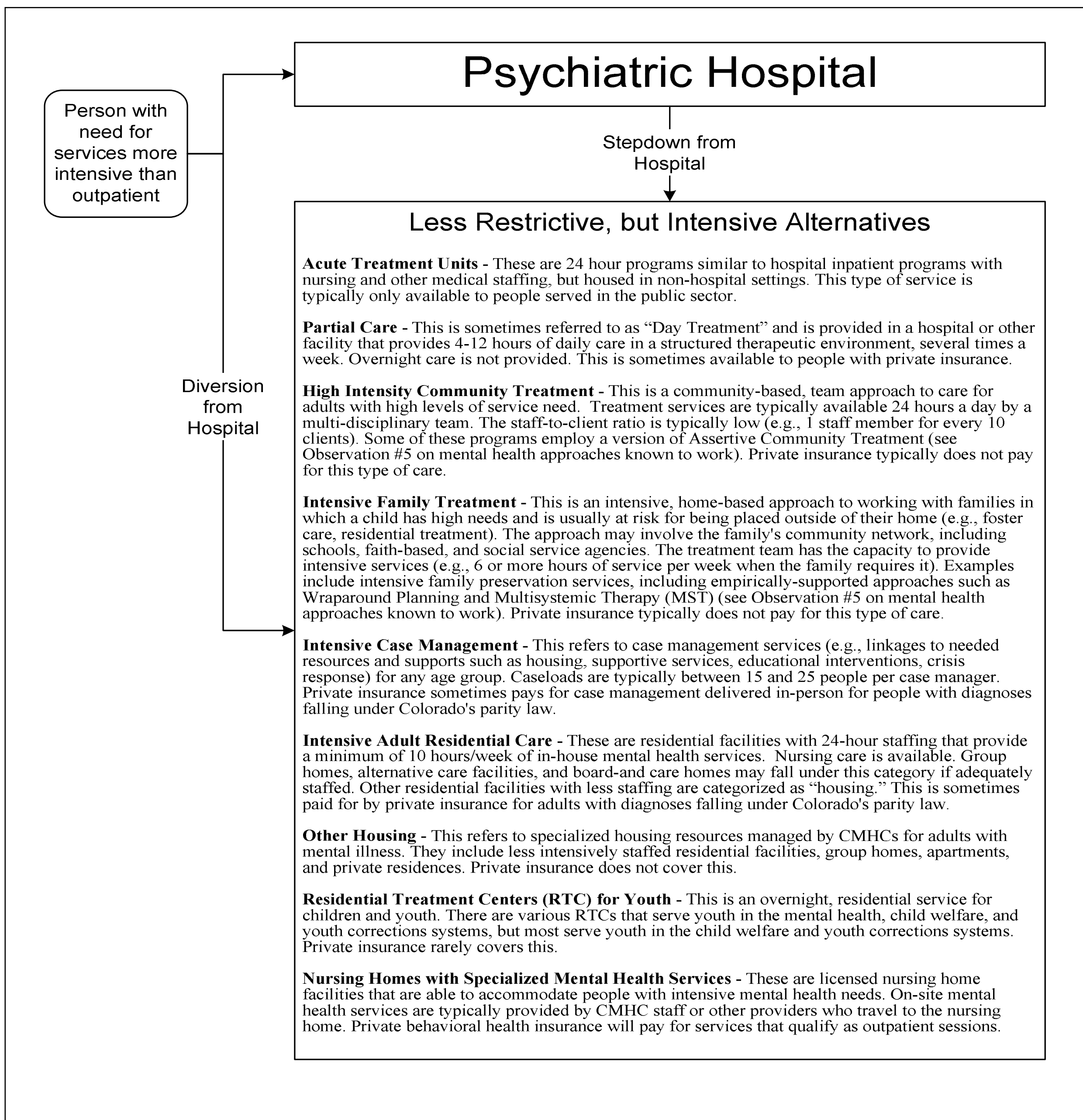
There has been significant consolidation across the nation among psychiatric hospitals, according to a report released by the National Association of Psychiatric Health Systems (NAPHS, April, 2003). The number of state and private psychiatric hospitals and general hospital psychiatric units nationally dropped from 2,364 in 1992 to 1,852 in 2000 (a drop of nearly 22%). The number of beds in these facilities declined as well. For example, the number of beds in general hospital psychiatric units were estimated to have fallen nearly 16%, from 52,059 to 43,920. Average reimbursement per bed rose to over $550 per day in 2002, an increase of nearly 10% from 2001 (NAPHS, 2002). Inpatient occupancy (number of beds filled each night as a percentage of overall beds) rose to 74% in 2001, up from 69% in 2000 and 55% in 1997. Shortages of beds at peak times were noted.

Parity Diagnoses- Parity diagnoses are those psychiatric disorders classified in the DSM-IV for which insurance coverage and related mental health services are comparable to those for physical health problems and primary care services. Colorado's parity diagnoses include: *Schizophrenia, Schizoaffective Disorder, Bipolar Mood Disorder, Major Depressive Disorder, specific Obsessive-Compulsive Disorder, and Panic Disorder*

Similar trends have also been reported in Colorado (TriWest Group, 2001), with a decrease in overall psychiatric inpatient capacity over the past decade, reduced private child and adolescent capacity in 2000 due to the closing of a Cleo Wallace facility, and of psychiatric inpatient capacity in Durango. The TriWest report also cited Colorado Health and Hospital Association (CHA) data on then current psychiatric inpatient capacity in Colorado and recent program closures, including 44 adult and adolescent beds at Columbine Bethesda and 32 adult and adolescent beds at Mountain Crest, both in 1998. Much of the loss has been in adolescent capacity, but child and adult capacity have also been affected.

Other intensive services. Colorado's public mental health system has a broad array of non-inpatient intensive services available (non-inpatient services more intensive than traditional outpatient services). To a large extent, these services are much more available in the public sector, particularly for Medicaid recipients, than for those served by the private mental health system, where the benefit package typically does not cover them. These services are described in

the figure below. For people needing services more intensive than traditional outpatient therapy, non-inpatient intensive services can function as an alternative that allows a person to avoid a hospital stay (diversion) or to leave inpatient care sooner than they otherwise would (step-down). Capacity in Colorado for these nine types of intensive service alternatives is described in the following table. The figures are based on capacity reported by TriWest Group (2001), updated with 2003 census estimates (Colorado Department of Local Affairs, 2003). State-by-state data on these services is not available, so capacity comparisons with other states are not provided.



Inpatient and Non-Inpatient Intensive Mental Health Capacity Per 100,000 Population in Colorado

Nearly all non-inpatient intensive services are most available in the Denver Metro area and least available on the Western Slope.

Type of Intensive Service	Denver Metro	Southeast	Northeast	Western Slope	Statewide (per 100,000)
Inpatient Capacity	**12.7**	**12.2**	**8.3**	**6.6**	**11.2**
Acute Treatment Unit (ATU - not in hospital)	2.8	7.7	2.9	3.8	3.8
Child & Adolescent	0.6	0.0	0.0	5.0	1.0
Adult	3.6	10.4	3.8	3.5	4.8
Partial Care (also called Day Treatment)	24.3	4.3	51.2	5.9	21.4
Child & Adolescent	58.0	0.0	28.3	18.2	38.4
Adult	12.8	5.9	58.9	2.1	15.6
High Intensity Community Treatment	43.6	16.0	22.8	1.9	30.0
Intensive Family Treatment	114.2	21.4	31.2	20.7	74.3
Intensive Case Management	84.7	20.1	0.0	36.5	48.8
Intensive Adult Residential	5.7	14.6	8.2	0.0	6.7
Other Housing	59.9	28.6	132.5	57.8	63.0
Residential Treatment Center for Youth	119.9	138.8	14.2	20.1	96.7
Nursing Homes with Mental Health Services	1.1	4.4	0.2	2.5	1.8

Extracted from FY 2001-2002 Year to Date Enrolled Units of Service Reported Capitated/Non-Capitated by Input File (Colorado Mental Health Services, 2003c).

Public outpatient services. In addition to the intensive treatment options described above, Colorado's mental health assessment and services agencies (MHASAs) and community mental health centers (CMHCs) provide an array of less intensive outpatient services to public sector clients. These include the traditional modalities of individual, group, and family therapy that private sector mental health benefits typically cover. The table below reports the number of units of each type of service provided, showing those provided to Medicaid recipients (which includes CMHC and non-CMHC providers) and CMHC services provided to non-Medicaid recipients.

Outpatient Services Units Delivered in the Public Mental Health System in State Fiscal Year 2001-2002[9]

Nearly 2 million unduplicated units of outpatient therapy were provided to people in the public sector in state fiscal year 2001-02. Just over half went to non-Medicaid recipients. The most frequent service was case management, but people in more rural areas of the state (Northeast, Western Slope) and without Medicaid received more individual therapy. Most family therapy went to Medicaid recipients. Vocational services are primarily available in the Denver Metro area.

Region of State	Denver Metro	Southeast	Northeast	Western Slope	Total
2003 Population	**2,537,027**	**805,001**	**557,110**	**676,806**	**4,575,944**
Traditional Outpatient Service Units Similar to Private Insurance Services					
Individual Therapy[10]	**449,054**	**109,240**	**84,531**	**97,455**	**740,280**
Medicaid (CMHC and other)	168,124	65,768	34,989	40,451	309,332
Other CMHC	280,930	43,472	49,542	57,004	430,948
Group Therapy	**232,279**	**57,078**	**35,782**	**18,995**	**344,134**
Medicaid (CMHC and other)	72,516	41,459	13,409	7,038	134,422
Other CMHC	159,763	15,619	22,373	11,957	209,712
Family Therapy	**15,257**	**14,478**	**273**	**5,958**	**35,966**
Medicaid (CMHC and other)	13,668	13,072	273	4,667	31,680
Other CMHC	1,589	1,406	0	1,291	4,286

[9] Extracted from FY 2001-2002 Year to Date Enrolled Units of Service Reported Capitated/Non-Capitated by Input File (Colorado Mental Health Services, 2003c).
[10] Includes standard (i.e., 45-50 minute) and brief (i.e., 20-25 minute) units

Region of State	Denver Metro	Southeast	Northeast	Western Slope	Total
2003 Population	**2,537,027**	**805,001**	**557,110**	**676,806**	**4,575,944**
Outpatient Service Units Typically Provided Only in the Public Sector					
Case Management	**482,502**	**180,048**	**61,750**	**78,408**	**802,708**
Medicaid (CMHC and other)	227,149	151,778	34,851	37,807	451,585
Other CMHC	255,353	28,270	26,899	40,601	351,123
HCBS-MI Services	**17,224**	**6,137**	**5,627**	**5,215**	**34,203**
Medicaid (CMHC and other)	3,239	0	4	0	3,243
Other CMHC	13,985	6,137	5,623	5,215	30,960
Vocational Services	**25,605**	**2,037**	**122**	**3,049**	**30,813**
Medicaid (CMHC and other)	9,767	1,514	122	1,159	12,562
Other CMHC	15,838	523	0	1,890	18,251

Some regional patterns are apparent from reviewing the service delivery information:

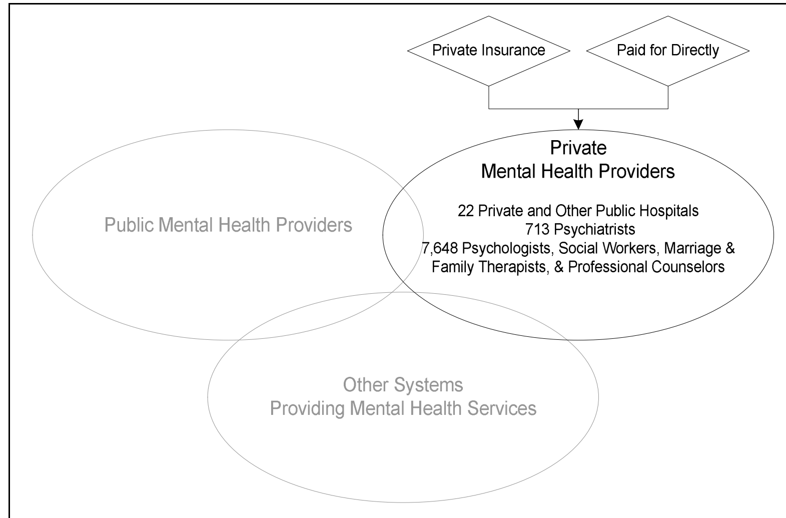
- The most frequently provided outpatient service in the public sector is case management. This includes intensive case management services delivered by teams as described earlier, and similar case management services provided less frequently by office-based therapists over the phone or in the community. This type of routine case coordination and management is typically not paid for in the private sector.
- While case management services are the most frequently-delivered services overall, they are closely followed by individual therapy contacts. In the Northeast and Western parts of the state, more individual contacts are provided than case management. Overall, Medicaid recipients receive more case management services than individual therapy, whereas other CMHC clients receive more individual therapy than case management. These distinctions also vary depending on the region.
- Very little family therapy is delivered outside of the Medicaid system. This makes some sense, given that most family therapy is provided to clients under 18 and most of those served qualify for Medicaid coverage. However, it may also be that less family therapy is available to non-Medicaid clients.
- Vocational services are only widely provided in the Denver area and are available there to both Medicaid and non-Medicaid consumers. These services are much less available elsewhere.
- Home- and Community-Based Services for the Mentally Ill (HCBS-MI) services are delivered under a Medicaid waiver for a nursing home diversion program that includes both

case management and contracted home health care services. Service units in the table above only include case management services and such as activities necessary for eligibility determination, assessment and reassessment of service needs and service effectiveness, development and implementation of a case plan, calculation of any client payment, and referral to other needed resources. Although this is a Medicaid program, the services are also available to people with higher income. Most HCBS-MI services are delivered outside of the Medicaid mental health capitation program.

Emergency room care. Colorado's emergency rooms also provide mental health services, often for routine reasons. MHASAs pay for emergency services for Medicaid recipients, but these people have access to the broadest array of mental health services of anyone in the state and usually do not receive routine care in emergency room settings. Mental health services in emergency rooms are covered by private insurance only in emergency situations. Non-Medicaid use of emergency rooms by other CMHC clients is not tracked.

Emergency rooms are being used for mental health care by people without insurance. The TriWest report (2001) cited a Colorado Health and Hospital Association (CHA) / Colorado Behavioral Healthcare Council joint memorandum dated May, 2000. This memo detailed a 2000 CHA study of behavioral health utilization in Colorado emergency rooms, documenting a 42% increase in uninsured people served and a 38% increase in charges for uninsured people between 1996-97 and 1998-99. Key informants we spoke with confirmed that this trend has continued and likely worsened, given the downturn in the economy and state budget cuts.

Private Mental Health Services



There are no statewide statistics available on the number of privately insured people receiving mental health services, but we can describe the providers available to serve them. In addition to the two Veteran's Administration Medical Centers and the two Colorado Mental Health Institutes, there are 20 other Colorado hospitals that provide inpatient psychiatric care to people with insurance. There are also 12,360 licensed and registered unlicensed mental health and substance abuse services providers in the state.

There are five types of licensed mental health care providers that are tracked by the state. In addition, registered nurses can independently provide a variety of mental health services, depending on their level of licensure. While numbers on total licensed nurses are tracked, the Colorado Division of Regulatory Affairs does not keep data on the number of licensed nurses specializing in mental health. Those mental health providers for whom data are available include:

- **Psychiatrists –** Physicians with the education and training to diagnose mental health disorders, prescribe psychiatric medications, and provide psychotherapy. All psychiatrists have a medical degree (MD or DO) and have completed at least four years of residency in general psychiatry.

- **Licensed Psychologists –** Mental health professionals with education and training in diagnostic assessment and psychological testing, psychotherapy, and in many cases, research design and statistics. In Colorado, licensed psychologists must hold a doctorate in psychology (PhD, EdD, or PsyD), have completed one year post-degree experience under supervision, and passed the national written, state oral and state jurisprudence examinations.
- **Licensed Social Workers –** Mental health professionals with training and education in assessment, psychotherapy, case management, mediation, advocacy, discharge planning, consultation, and research. There are several types of licensure for social workers in Colorado, including licensed social worker (LSW), licensed independent social worker (LISW) and licensed clinical social worker (LCSW). Each of these types of licensure requires at least a masters degree in social work (MSW), supervised social work experience for at least two years, and passage of required examinations.
- **Licensed Marriage and Family Therapists –** Mental health professionals with specialized training in the area of family systems, as applied to assessment of and psychotherapy with couples and families. In Colorado, licensed marriage and family therapists (LMFTs) must hold a masters or doctoral degree that included a practicum or internship in the principles and practice of marriage and family therapy. They must have at least one year of supervised post-degree experience (two years with a masters degree), pass an examination, and complete an approved jurisprudence workshop.
- **Licensed Professional Counselors –** Mental health professionals with generalized training in the area of psychology and counseling, as well as testing and other methods of assessment. In Colorado, licensed professional counselors (LPCs) must have a masters or doctoral degree in professional counseling (or its equivalent) in a program that includes a practicum or internship in the principles and the practice of professional counseling. They must have at least one year of supervised post-degree experience (two years with a masters degree), pass an examination, and complete an approved jurisprudence workshop.

There are two additional types of providers tracked by the state who provide related services:

- **Certified Addictions Counselors –** Counselors with the education and training to perform assessment and diagnosis of substance-related disorders, clinical case management, therapeutic counseling, sobriety monitoring, and vital signs monitoring in detoxification centers. In Colorado, Certified Addictions Counselors must hold at least a bachelors degree and have completed a minimum number of hours of supervised work in addictions settings. There are three levels of this certification, which are distinguished by their varying number of hours of supervised experience and training, and resulting commensurate responsibilities. Only the highest level (CAC III) is eligible for the Licensed Addiction Counselor (LAC) designation, which requires a master's degree in the social sciences or an equivalent program and passage of a national examination.
- **Registered Unlicensed Therapists –** Therapists who are not licensed to practice psychotherapy, but who have completed a required course in jurisprudence and registered with the State of Colorado. They sometimes provide services to people with mental health needs.

Many of these providers are in private practice and serve mostly insured and self-paying clients. Many licensed providers are also employed in the public mental health system, at community mental health centers, and at state inpatient facilities. Others work in community hospital settings and serve both private and public clients. The table below describes the distribution of these providers around the state, which is also shown on the map on the following page.

Colorado Mental Health and Substance Abuse Providers in 2003

There are 12,360 licensed, certified, and registered mental health and substance abuse providers in Colorado. Most are in the Denver Metro area. Northeast Colorado and the Western Slope have the fewest.

Types of Providers[11]	Denver Metro	Southeast	Northeast	Western Slope	Total
2003 Population	**2,537,027**	**805,001**	**557,110**	**676,806**	**4,575,944**
Psychiatrists[12]	**522**	**98**	**34**	**59**	**713**
Per 100,000 Population	20.6	12.2	6.1	8.7	15.6
Licensed Psychologists	**1,245**	**230**	**189**	**148**	**1,812**
Per 100,000 Population	49.1	28.6	33.9	21.9	39.6
Licensed Social Workers	**1,753**	**429**	**224**	**250**	**2,656**
Per 100,000 Population	69.1	53.3	40.2	36.9	58.0
Licensed Marriage & Family Therapists	**227**	**115**	**68**	**66**	**476**
Per 100,000 Population	8.9	14.3	12.2	9.8	10.4
Licensed Professional Counselors	**1,502**	**533**	**244**	**425**	**2,704**
Per 100,000 Population	59.2	66.2	43.8	62.8	59.1
Certified Addictions Counselors	**1,268**	**401**	**192**	**344**	**2,205**
Per 100,000 Population	50.0	49.8	34.5	50.8	48.2
Registered Unlicensed Therapists	**1,114**	**279**	**167**	**234**	**1,794**
Per 100,000 Population	43.9	34.7	30.0	34.6	39.2
Total	**7,631**	**2,085**	**1,118**	**1,526**	**12,360**
Per 100,000 Population	300.8	259.0	200.7	225.5	270.1

[11] Number of Colorado Licensed Psychologists, Licensed Social Workers, Licensed Marriage and Family Therapists, Licensed Professional Counselors, Certified Addictions Counselors, and Registered Unlicensed Therapists obtained from the Colorado Department of Regulatory Agencies, Division of Registrations (2003).
[12] Number of Colorado Psychiatrists obtained from the American Medical Association (2003).

While the Denver Metro area has the highest number of providers overall and across all groups of providers in total, when adjusted for population the regional differences flatten and, in some cases, change. Licensed Marriage and Family Therapists are the smallest group of therapists and they are least prevalent in the Denver Metro area. Licensed Professional Counselors are most prevalent in Southeast and least prevalent in Northeast Colorado; Certified Addictions Counselors are most prevalent on the Western Slope.

Psychiatrists are far more prevalent in the Denver Metro area, as are Licensed Psychologists. These two groups, plus Licensed Social Workers, are most heavily concentrated in the Denver Metro area.

Since centralized data sources are not kept regarding the types of people these providers serve and the types of services they provide, we conducted a survey of Colorado providers (see Appendix B for information on survey methodology). Of the 229 providers responding, 51% dedicate more than half of their time to private practice (self-employed). Of these, most (86%) are fully self-employed. The other 49% of providers work more than half of their time in programs (e.g., clinics, hospital programs, day treatment programs). Most of these providers (84%) do not engage in any level of private practice. There were some differences in the level of private practice engaged in by provider type. Nearly two-thirds (63%) of non-physician mental health providers (psychologists, social workers, LMFTs, LPCs) work in private practice settings, and a similar proportion (64%) of Certified Addictions Counselors work in program settings. Psychiatrists are evenly split between the two settings (47% private practice, 53% programs).

We looked at the types of payment that funded the treatment provided by each group. We asked providers which types of payment they accepted and what percentage of their clients used each type of payment. By combining the responses to these two questions, we determined the average percentage of caseload seen by each type of provider. Since some groups can overlap (e.g., self-pay and sliding scale) and providers were not always precise in their estimates, these figures do not sum to 100%. But they do give a sense of the general types of people served by each group.

Payers for the Care Delivered by Providers in Private Practice and Working in Programs

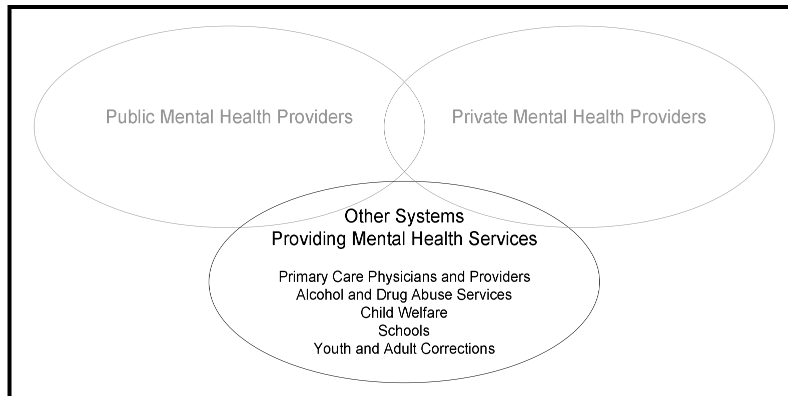
Providers in private practice see more people with private insurance or who pay for their own care; those in programs see more people with public funding (especially Medicaid and other state funds). Neither group sees many people with Medicare.

Provider Type	Private Insurance	Medicare	Medicaid	Other State Funding	Self-Pay	Slide Scale / Pro Bono	Other
Providers in Private Practice							
Psychiatrists (n=24)	67.1%	6.5%	2.4%	0.2%	21.2%	5.0%	2.8%
Mental Health Providers (n=63)	45.1%	4.2%	5.0%	3.0%	26.3%	13.6%	5.7%
Certified Addictions Counselors (n=23)	34.6%	1.0%	3.2%	4.8%	37.0%	22.2%	1.2%
Providers Working in Programs							
Psychiatrists (n=25)	22.9%	10.0%	24.2%	24.8%	6.5%	5.0%	16.4%
Mental Health Providers (n=38)	14.9%	12.5%	33.4%	12.9%	8.6%	8.6%	19.1%
Certified Addictions Counselors (n=39)	9.6%	4.7%	4.5%	24.6%	17.8%	28.6%	17.1%

"n" refers to sample size.

Psychiatrists provide the most service covered by insurance, while Certified Addictions Counselors serve fewer people whose insurance covers their care. This may relate in part to the number of people court-ordered into addictions treatment who must pay for their own care. All groups provide some amount of sliding scale and pro bono work, but Certified Addictions Counselors do far more. Providers working in programs also have a significant amount of care that is funded by "Other" funding sources. We asked them to list these, and an analysis of their responses shows most to be a variety of state and federal funding sources, including the federal Office of Refugee Relocation, schools, the Indian Health Service, and the Veterans Administration, among others.

Mental Health Services in Other Systems



Mental health services are often provided in other service settings, such as primary care, alcohol and drug abuse services, child welfare, juvenile justice, schools, child care centers, adult corrections, and homeless shelters. In addition, people sometimes need many of the services in more than one of these settings at the same time. Our survey of Colorado mental health providers found that therapists spend around 60% of their time on average providing treatment and 10% of their time on average coordinating with other mental health providers and other systems of care. This contrasts with averages of 16% of time on clinical documentation and 4% complying with managed care requirements.

Diagnosable Mental Health Condition - Refers to any mental illness or disorder that is listed in Axis I or Axis II of the DSM-IV, the classification manual for diagnosing specific mental disorders for children, adolescents, and adults in a standardized way.

Therapists who primarily serve youth spend more time coordinating with other systems; those serving adults spend more time coordinating with other mental health providers. Therapists in Southeast Colorado spend less time coordinating with other systems (many are centralized in Colorado Springs and Pueblo), while those on the Western Slope spend more time.

Sub-Threshold Mental Health Condition - A term used in this report to refer to less intensive mental health problems that do not rise to a level of severity to meet criteria for formal diagnoses defined within the DSM-IV.

Primary care settings. The primary care system has a long history of being labeled as the nation's *de facto* mental health services system (Regier, Goldberg, & Taube, 1978). Of the 15% of the U.S. adult population who use mental health services each year (for diagnosable and sub-threshold mental health conditions), over one-third access those services through the primary care sector (U.S. Surgeon General, 1999; Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993). This 5% of the population obtaining mental health services in primary care settings each year is essentially equal in proportion to the percentage (6%) that access mental health services through the specialty mental health systems.

System fragmentation and the stigma associated with seeking specialty mental health services are two of the major reasons cited for why so many people seek such services within primary care settings. Many of the mental health stakeholders we spoke with voiced these concerns. There are several problems with the uncoordinated provision of mental health services in primary care settings. One is that mental health disorders, particularly depression, often go unrecognized in primary care settings because of a lack of diagnostic acumen (Simon & Von Korff, 1995). Furthermore, less than 10% of depressed people served there actually receive therapies known to be effective for treating major depression because of a lack of knowledge of these therapies (Katon et al., 1997). Similarly, few primary care patients successfully complete taking their prescriptions for antidepressant medication, partly because they receive less follow-up support (Katon et al., 1995).

This is not to say that many people cannot be effectively treated for primary mental health problems in primary care settings, as well as for mental health problems that co-occur with physical ailments. The prevalence of depression among people seen in primary care settings is approximately 10% and it is the most common mental health diagnosis seen in primary care (Barrett, Barrett, Oxman, & Gerber, 1988; Katon, 1987; Katon & Schulberg, 1992). Two decades of research suggest that approximately 25% of primary care patients also have a diagnosable mental health disorder (Barrett et al., 1988; Schulberg & Burns, 1998). Prevalence rates have been found as high as 35% in hospital settings (Hansen, Fink, Frydenberg, Oxhøj, Søndergaard, & Munk-Jørgensen, 2001; Leon et al., 1995). One Colorado study of claims data found that

among 6,500 adults eligible for Medicaid through Colorado Access, nearly 40% were identified as having a mental health or substance use diagnosis (Thomas et al., 2003).

This percentage may range even higher when those people with undiagnosed or sub-threshold mental health conditions are considered (Farley, 2000). Furthermore, children and their families, older adults, and members of some ethnic and racial subgroups (for example, Latino and Asian American populations) are groups that are particularly likely to seek mental health services in primary care settings (U.S. Surgeon General, 1999).

For people served in the public system, such primary care services are often provided by community health centers. In several Colorado community health centers (for example, Salud Family Health Centers in Ft. Lupton), improved diagnosis and treatment of depression and other mental disorders are a focus of practice and study, as well as in other private primary care settings (such as Marillac Clinic in Grand Junction).

Alcohol and drug abuse services. Over half of people who experience a mental disorder in their lifetime also experience at least one substance use disorder, and 41% to 65% of people who experience a substance use disorder in their lifetime also experience at least one mental disorder (U.S. Surgeon General, 1999). In state fiscal year 2001-02, approximately 26% (664) of adolescents ages 17 and underserved by the Colorado Alcohol and Drug Abuse Division (ADAD) reported having a co-occurring mental illness (Colorado Drug and Alcohol Coordinated Data System [DACODS], 2002); this percentage has risen nearly 13% over the past five years. In state fiscal year 2001-02, approximately 12% (7,231) of adults served by ADAD reported having a co-occurring mental illness (Colorado DACODS, 2002); this percentage has actually declined by 4.5% since 1999.

Despite the prevalence of what are typically called co-occurring or dual disorders, the systems that provide alcohol and drug abuse services and mental health services are typically distinct from one another. According to a special report by the Substance Abuse and Mental Health

Services Administration (SAMHSA) to Congress on the prevention and treatment of co-occurring disorders, most people with such disorders receive inadequate services or no services at all, and those who do receive care are likely to be solely treated in the system to which they present for the specific disorders served in that system (SAMHSA, 2002). The report notes the impact of this service gap, including rates of about 50% of homeless adults with serious mental illnesses and 72% of incarcerated adults with a mental illness also having co-occurring substance use disorders.

People who have such dual disorders often find themselves falling through the cracks in both systems. The public and private mental health systems often do not treat people with dual disorders because they are seen as "untreatable" for mental health issues while still using substances. Furthermore, nationally there are few providers of integrated chemical addiction and mental health services (e.g., Integrated Dual Disorders Treatment – see Observation #5 below) (U.S. Surgeon General, 1999). In addition, Colorado's lack of Medicaid funding and overall low level of funding for alcohol and drug abuse services complicates the coordination issues for people with co-occurring disorders.

Other human services settings. Of the 15% of the U.S. adult population who use mental health services each year (for diagnosable and sub-threshold mental health conditions), just under one-third access those services through other human service settings (Regier et al., 1993). This 4% of the population obtaining mental health services through human service settings each year is comparable to the percentage (6%) that access mental health services through the specialty mental health systems and those (5%) accessing mental health services through primary care settings. These are described in more detail by age group below.

Child and family serving systems. Many have described the children's mental health system as complex, fragmented, and insufficient for children, youth, and their families, particularly for those who meet the criteria for having a serious emotional disturbance (SED) (The President's New Freedom Commission, 2001). This is partially because families and their children may

> **Serious Emotional Disturbance (SED) -** Refers to children and youth ages 0-17 who have emotional or mental health problems so serious that their ability to function is significantly impaired or their ability to stay in their natural homes may be in jeopardy.

come into contact with a range of community members and sources of help, from teachers to pediatricians to social service case workers. The many uncoordinated points of contact too often experienced by children, youth, and their families have evolved from multiple efforts to help children and youth, frequently leaving the coordination up to the families. In response to this trend, service delivery for children and families has shifted toward a system of care approach to provide coordinated services, which will be discussed in more detail later in this report.

Many human service systems provide services for children and youth with mental health needs. Among these are schools, child care centers, child welfare, and juvenile justice. In some cases this multi-system situation reflects the presence of a range of programs for children and youth. For example, of the 21% of the child and youth population who access mental health services each year, more than half actually receive these services from providers in other human service systems, particularly the education system (Kessler et al., 1996; Regier et al., 1993). There have been many positive efforts to develop school-based mental health programs (detailed below under Observation #5 on mental health services known to work). Furthermore, laws such as the Individuals with Disabilities Education Act (IDEA) of 1997[13] help ensure that schools provide specific services to address the needs of children with behavioral problems that interfere with learning. However, advocates note that many schools are still not implementing required programs or following these provisions (National Council on Disability, 2002), and there is concern that current federal legislation to reauthorize IDEA may weaken the provisions (Bazelon Center for Mental Health Law, July, 2003).

In other cases, children and youth are served by other systems because of a lack of available mental health services, either at the time of entry into the other system or before. Colorado's child welfare system serves high numbers of youth with diagnosable mental health needs, with

[13] IDEA provisions mandate that school systems provide "functional behavioral assessments" (FBA) to determine the causes of presenting behavioral problems and develop "positive behavioral interventions and supports" (PBIS) to address these undesirable behaviors (National Council on Disability, 2002).

25% estimated to meet criteria for a serious emotional disturbance (McGee, Holzer, Pandiani, & Banks, 2002). One particularly notorious situation that some Colorado families face is the need to relinquish custody of their children to the child welfare or juvenile justice systems in order to access payment for expensive care that their private insurance does not cover, such as intensive community and residential services (Bazelon Center for Mental Health Law, 2002). A 1999 survey by the National Alliance for the Mentally Ill (NAMI) found that approximately 20% of surveyed families receiving such care relinquished custody of their children in order to access needed mental health services (NAMI, 1999). Similarly, in a recent study, the U.S. General Accounting Office (GAO) documented approximately 12,700 cases of parental custody relinquishment for the same reasons (U.S. GAO, 2003). The report acknowledges that this figure is understated, as it does not include relinquishment data from 32 states.

In past years, Colorado was reported among the states with the highest incidence of parental custody relinquishment, along with Indiana, Iowa, Nebraska, Tennessee, and West Virginia (Giliberti & Schulzinger, 2000). Colorado attempted to address this issue through the passage of House Bill 1116 in 1999. This bill was intended to provide access to residential treatment for children with significant mental health needs without requiring court involvement (The Child Mental Health Treatment Act, 1999). Colorado is also one of at least 11 states that allow parents to voluntarily place their children in the child welfare system for an indefinite period of time in order for their children to receive needed mental health services (U.S. GAO, 2003). The effect of such laws on access to care is still questioned (Bazelon Center for Mental Health Law, April, 2003) and needs further examination.

It is clear that a high percentage of youth in the juvenile justice system have at least one diagnosable mental health disorder (Cocozza & Skowyra, 2000), and the estimates run as high as 80% for some subsets of youth (Otto, Greenstein, Johnson, & Friedman, 1992). Furthermore, it estimated that at least 20% of youth in the juvenile justice system have a serious emotional disturbance (Cocozza & Skowyra, 2000).

The Colorado Division of Youth Corrections estimates that 24% of youth in their system are diagnosed with a mental illness (Jarrett, 2002). A similar result was found in a study of youth with mental health needs in Colorado (McGee et al., 2002). In another study of a sample of detained youth in Colorado (Potter & Jenson, in press; cited in Coen, 2002), 41% were found to experience a clinically-meaningful level of mental health problems. In addition, 34% had considered suicide, and 22% had at least one previous suicide attempt.

There have been several positive approaches that address the needs of youth in the juvenile justice system. For example, minimum standards for early screening and referral have been developed to better ensure that these young people are provided with the services that best meet their needs (National Commission on Correctional Health Care, 1999). Similarly, measures for diversion from the juvenile justice system are seen as the best option for many youth with mental health needs (Cocozza & Skowyra, 2000). However, both of these solutions assume that there are sufficient community-based services and residential placements. Many communities lack a range of such resources (Goldstrom, Jaiquan, Henderson, Male, & Manderscheid, 2001). In addition, evidence-based approaches such as Multisystemic Therapy (MST) (Borduin et al., 1995; Henggeler et al., 1999) have been developed to address these multiple needs. These types of services and their availability in Colorado are discussed in more detail below under Observation #5 on mental health services that work.

Nevertheless, multiple coordination challenges remain, including those that arise during the transition from the youth to the adult mental health systems. Youth with serious emotional disturbances across the country have found that it is often difficult to transition from the adolescent public mental health system to the adult mental health system when they "age out." For example, a recent survey in Massachusetts found that many youth no longer qualified for any or as many mental health services based on stricter criteria for receiving such services in the adult system. Furthermore, many youth who received services in the adult system found that this system is not focused on the needs of young adults (Delman & Jones, 2002). Colorado stakeholders also noted this concern during interviews.

Urban Peak is the primary provider of services for homeless and runaway youth in Denver and Colorado Springs, and is expanding services to other areas of the state including the Western Slope and Northern Colorado. They reported increased numbers of homeless youth in general, and severely impaired youth specifically, related to mental health, child welfare, and juvenile justice service cuts in 2003. In addition to these needs, they also underscored the difficulty homeless youth experience applying for eligibility for Medicaid services.

Adult human services. There is a range of other programs and systems that provide services to adults with mental health needs. For incarcerated adults, the Colorado Department of Corrections estimates that 16% of its population meets the criteria for major mental illness (Jarrett, 2002). This finding matches up with national statistics suggesting that, as of 1998, there were an estimated 283,800 individuals with mental illness incarcerated in jails and prisons and an estimated 547,800 offenders with mental illness on probation (Ditton, 1999). Nationally, an estimated 60% of offenders with mental illness receive counseling, medication, or other treatment while incarcerated in prisons, and over 40% receive some form of mental health treatment while in jails (Ditton, 1999). An estimated 600,000 inmates across the country were released into the community in 2002, of whom two-thirds have a mental illness. There are significant and growing concerns about follow-up for these individuals. Examples of Colorado responses to this concern include the establishment of Community-Based Management Pilot Programs for Persons with Mental Illness Who are Involved in the Criminal Justice System (via a related task force), and Denver Health Medical Center’s jail diversion program.

Hospital emergency rooms and homeless shelters also see significant numbers of people with mental health needs (The President’s New Freedom Commission on Mental Health, 2002). One in 20 people with serious mental illness becomes homeless at some point in their lives (Federal Task Force on Homelessness and Severe Mental Illness, 1992). Furthermore, an estimated 25% of homeless people have a serious mental illness, an estimate that is even higher among people who are “chronically homeless” (Dickey, 2000). The *Goebel* settlement and related efforts in Denver, as well as the ongoing efforts of the Colorado Coalition for the Homeless, have drawn

attention to this issue and led to some enhanced services in Denver and the metro area. This is explored in more detail below under Observation #5 on mental health services that work.

Systems serving older adults. Despite the growing number of aging Americans, older adults often do not receive appropriate mental health services. By 2030, the number of older adults nationally is expected to account for 20% of the population, up from 12% in 2000 (Administration on Aging [AoA], December, 2002). Yet it is estimated that currently only about 50% of older adults with reported mental health problems actually receive any type of care to address their mental health needs, and an even smaller percentage receive services provided by specialty mental health providers (AoA, 2001).

While the prevalence of mental disorders among older adults is similar to that of the general adult population, older adults account for 20% of all suicides, the highest rates of any age group (AoA, 2001). White males who are age 85 and older have a suicide rate six times greater than the general population (AoA, 2001). Furthermore, mental health problems often have a negative impact on the ability to recover from other health problems. For example, heart attacks are five times more likely to be fatal for a person who is depressed. Similarly, nursing home residents with major depression are 60% more at risk for earlier death than residents who do not experience major depression (AoA, 2001).

Older adults encounter a unique set of needs and barriers to appropriate treatment. They typically experience stressors that can be seen as a normal part of aging, including declining health and loss of partners and other loved ones. However, what are too often labeled as “normal” are the depression and cognitive decline that may be caused or exacerbated by such stressors. The common belief, held by older adults and their health care providers alike, that such difficulties are normal presents a significant barrier to appropriate treatment. In addition, some older adults may be concerned about the stigma surrounding mental illness, resulting in denial of such problems and failure to seek mental health services (AoA, 2001). The small number of providers who see people with Medicare, cited above, also represents a barrier to treatment.

As discussed earlier in this report, many older adults receive their mental health care from primary care providers because of a combination of preference (Unutzer et al., 1997, cited in U.S. Surgeon General, 1999) and public financing policies that encourage treatment in this setting (Mechanic, 1998). This service scenario ties into other significant barriers to receiving appropriate mental health services. For example, many primary care professionals, even those trained in assessment and treatment of depression, are ill-equipped to recognize the unique signs and symptoms of mental illness (particularly dementia and depression) in the older adult population (U.S. Surgeon General, 1999). The negative impact of this situation is far-reaching, as several studies have documented that up to 70% of older adults who committed suicide had seen their primary care physician within the prior month (Cooper-Patrick, Crum, & Ford, 1994; National Institute of Mental Health [NIMH], 2000).

A supplement to the Surgeon General's report on mental health focused on older adults and identified system-level barriers to effective care for older adults, including a lack of collaboration between agencies and systems, funding issues, gaps in services, and shortages of professionals with combined training in mental health and aging (AoA, 2001). In particular, while approximately 98% of older adults have Medicare coverage, one-third currently does not have a prescription drug benefit (Donelan, Blendon, Schoen, Binns, Osborn, & Davis, 2000). Similarly, Medicare currently requires different co-payments for mental health services (as opposed to other health services), and limited coverage for many community-based services (AoA, 2001). In addition, transportation is typically not a part of many health insurance benefits, resulting in further difficulties in getting to services (AoA, 2001). The various delivery systems that provide services to older adults, including primary care, long-term care, mental health, and aging network services are all operated and typically funded separately, further discouraging service coordination. There also is a shortage of providers who specialize in geriatric mental health or are trained to provide integrated primary care services to this population (National Conference of State Legislatures [NCSL], 2002c). Even in nursing homes, mental health problems often go undiagnosed and untreated (Qualls, personal communication, November 19, 2002).

Recommendation: Promote coordination and integration.

Efforts to promote coordination and integration can have an impact on the fragmentation that too often impedes the delivery of needed mental health services. Much of the time, the problem is not a lack of service, but a lack of coordination and integration of existing services. Colorado mental health decision makers can take action to reduce fragmentation both for individuals in need of coordinated multiple services and for systems that can benefit from integration of services.

Helping Individuals with Multiple Services Needs by Promoting Service Coordination

Some people need different types of mental health care at different times. They may need to see a therapist for counseling and a psychiatrist for medication. Or, they may have severe disorders that can generally be treated in the community, but that sometimes need more intensive intervention. Others may need mental health and other services at the same time, such as children with abusive caregivers in need of protection through the child welfare system; adults with co-occurring substance use and mental health disorders; and people with co-occurring mental disorders and physical ailments.

For people with multiple needs, services need to be coordinated across levels and systems of care. The following strategies can promote such service coordination.

Target empirically-based practices known to improve coordination. Empirically-based practices are available that improve service coordination and associated outcomes for people with multiple or severe needs. These approaches are discussed in more detail below under Observation #5 on mental health services known to work, but four service approaches in particular that could improve coordination for key populations include:

- **Wraparound Planning** (VanDenBerg & Grealish, 1998) – A philosophy of care that includes a definable planning process involving the child and family in coordination with a

range of individualized community service systems and providers (e.g., mental health, primary care, education) and natural supports (e.g., family friends, neighbors, clergy). The 11 core planning principles in the Wraparound approach, when implemented faithfully, offer clear guidance and support for systems attempting to enhance coordination and efficiency and promote positive outcomes for those they serve. Among these principles are a focus on individualized services and supports that are logically tied to outcomes, with services selected based on their relevance and efficiency in achieving desired outcomes. Principles related to collaboration and flexible uses of funding promote action, shared responsibility and accountability among providers, systems and the youth and family receiving care. Emphases on youth and family participation in decision making promote responsibility and buy-in on the part of the recipient of services. This leads to improved compliance, quicker recovery, and more efficient use of scarce resources.

Empirically-Based Practices - an inclusive reference to a range of programs and interventions determined to be effective based on results from outcome evaluations or research studies. Some of these services may have a strong empirical basis (Evidence-Based Practices), while others may have a more limited empirical basis (Innovative Programs).

- **School-Based and School-Linked Services for Children and Youth –** Mental health services provided within the school setting to children from preschool age to age 18. Services include individual, classroom, systemic, and targeted interventions. These interventions may include empirically-supported treatment such as targeted classroom-based contingency management for children with attention-deficit hyperactivity disorder (ADHD) and other conduct problems. Model programs include the U.S. Department of Education's efforts to support effective behavior management in schools through the Positive Behavior Interventions and Supports (referred to as PBIS) initiative (Sugai et al., 2000) and prevention approaches (e.g., Promoting Alternative Thinking Strategies [PATHS], Greenberg & Kusche, 1996; Conduct Problems Prevention Research Group, 1999).
- **Assertive Community Treatment (ACT)** (Allness & Knoedler, 1998) – An intensive community-based service for people with severe and persistent mental illness with a history of repeated hospitalizations and difficulty with engagement in traditional office-based service models.
- **Integrated Dual Disorders (Mental Health and Substance Use) Treatment (IDDT)** (Drake Essock, et al., 2001) – Mental health and substance use treatment provided in an integrated fashion by a single team.

Decision makers should model coordination by working together. Like the overall situation for mental health service providers, Colorado mental health decision makers experience the same dynamic of multiple, well-intentioned entities working to serve various groups of people with limited coordination to avoid duplication of effort, promote similar goals, or link to other needed services. For foundations, the formation of the Mental Health Funders Collaborative and the commissioning of the study leading to this report have promoted coordination among the eight involved foundations and provided a basis for future collaboration.

Collaborate more broadly. Partnerships among Colorado payers, Colorado foundations, advocates, community members, and national foundations can improve the mental health system in several ways. For example, any of the four empirically-supported service models noted above – Wraparound Planning, School-Based Services, Assertive Community Treatment, or Integrated Dual Disorders Treatment – could be more widely disseminated through a coordinated strategy to promote wider adoption of these models across Colorado. While all of these models have received some attention by Colorado's public system, they could also be of interest to private payers. There are already some providers employing many of these approaches in Colorado who could provide technical assistance to other providers and opportunities for evaluation and research (see Observation #5 below for examples). Finally, coordination approaches could require legislative backing for wider implementation. For example, while many empirically-supported approaches have been shown to be more cost-effective over time, the transition from one approach to another generally requires one-time funding to refit provider capacity and keep existing services in place until new services are established.

The challenges of collaboration should also be kept in mind. Many of the stakeholders we spoke with noted that people are increasingly skeptical of the benefits of collaborative activities. Providers talked about spending more of their time attending interagency meetings and working on coordination for individual people and families they serve. Large counties in Colorado can have 10 or more interagency initiatives going on simultaneously (Mercer Government Human Resources Consulting, 2002). Uncoordinated coordination can leave those who recognize the need for coordination frustrated. Evaluation and tracking mechanisms could promote more effective collaboration processes by providing ongoing feedback to the parties involved about the process, intermediate gains, and tangible outcomes of the effort.

Build Systems of Care by Promoting Service Integration

In addition to helping individuals with multiple needs, decision makers can improve entire systems by promoting service integration at several levels.

Promote blended funding strategies that integrate funding and services for populations with multiple needs. One of the best examples of integrated funding in Colorado is Boulder's Integrated Managed Partnership for Adolescent and Community Treatment (IMPACT) program, which serves high-need and at-risk youth with mental health, juvenile justice, and child welfare needs. Boulder IMPACT was established in 1997 with the passage of SB 218. This bill allowed for three pilot counties (including Boulder) to implement managed care practices in their child welfare systems. Over time, Boulder County has expanded the scope to all publicly funded services for at-risk children, youth, and families and created IMPACT as a multi-agency entity using blended staff, resources, and funding. IMPACT programs include a range of individualized services for children, youth, and their families, from wraparound planning and intensive case management to school-based services and substance use prevention and intervention (Thompson, 2002).

IMPACT is a distinct entity formed and funded through inter-agency agreements among Boulder's community mental health center (Community Mental Health Center of Boulder County), child welfare agency (Boulder Department of Social Services), and the Colorado Division of Youth Corrections. These three agencies fund the majority of expensive out-of-home services in Boulder County (e.g., residential placements, psychiatric hospital care), as well as expensive community-based care. IMPACT also blends in alcohol and drug abuse (ADAD), detention alternative (SB-94), health department, probation, school and other community services funding.

Promote strategies to integrate services across systems. There are currently many empirically-based models of care and less-established, but innovative, models that promote integration of care across services systems. Many of these are being implemented to some degree in Colorado, but none has been widely disseminated. Examples are presented in the table below.

Examples of Models of Care that Promote Integration			
Model of Care	**Description**	**Examples in Colorado**	**Empirical Basis[14]**
Integration with Primary Care			
Depression in Primary Care Collaborative, Other Depression Screening Approaches	Primary care physicians are provided with toolkits for screening and identifying depression, a care manager provides follow-up to the patient to encourage medication compliance and symptom/side effect management, and continued management of the medical/psychiatric interface is provided to address whether mental health needs can continue to be met in this setting or if a referral is needed.	Eight clinics through Colorado Access/ Access Behavioral Care; Kaiser Permanente	Well-Established
Integration with Addiction Services			
Integrated Dual Disorders Treatment (IDDT)	Mental health and alcohol/drug abuse treatment is provided in an integrated fashion by including one clinician or one team in one agency in the service delivery process.	Arapahoe/ Douglas Mental Health Network	Well-Established
Integration with Adult Corrections			
Assertive Community Treatment (ACT)	An intensive community-based service for people with severe and persistent mental illness, adapted to serve the needs of people involved in the criminal justice system.	Three pilots in: Alamosa, Longmont, Denver	Well-Established
Integration with Schools			
School-based Health Centers with Mental Health Services	A one-stop program for children and youth to access a range of health care and mental health services within the school setting.	Various schools across the state	Range from Well-Established to Innovative
Integration with Youth Corrections			
Multisystemic Therapy	An intensive, short-term, home- and family-focused approach to working with youth with serious emotional disturbances (SED) in the juvenile justice system or at risk for placement in this system	Southern Ute Community Action Program/ Peaceful Spirit in Ignacio	Well-Established
Integration with Child Welfare			
Multidimensional Treatment Foster Care	Foster parents receive specialized training to work with children with behavioral or emotional problems.	Various county child welfare systems	Well-Established

[14] The level of empirical basis was designated based on the following criteria: (1) Well-established practices with a rigorous and extensive research base; (2) Established practices with strong, but less extensive research; (3) Promising practices with a basic level of proven effectiveness; and (4) Innovative practices with limited research or only anecdotal evidence. See Observation #5 for more detail on how these distinctions were made for this report.

Keeping in Mind Possible Unintended Consequences

For the recommendations just discussed, decision makers should be aware of possible negative and other unintended consequences. One goal of this report is to promote sustainable, responsible change through partnerships among key players within the existing mental health system. The following examples of possible unintended consequences for the recommendations just made are included to exemplify the point, rather than to be exhaustive.

For example, it was noted earlier that “uncoordinated coordination” can mire providers in multiple meetings of dubious value with other agencies. Coordination and integration are developmental processes that require leadership, commitment, trust, and a host of other variables related to successful system change. In a time of crisis, essential elements such as these are often pushed to the side in the search for any level of change from the status quo.

For example, the young woman in our fictional family (Gabriela) was in many ways a victim of good intentions by the interagency coordination team that planned her care. The group meant well, but focused more on using their collective experience to work the system than to look beyond existing service options to the real needs and strengths of Gabriela’s family. Effective interagency planning takes leadership and risk-taking. At its worst, it can be contentious and a waste of time. In Gabriela’s case, there was some effective planning, but it reinforced problematic system functioning rather than attempting to change it.

If collaboration can take valuable time that is sometimes not well spent, then integration often requires structures that, at least at the outset, can increase administrative costs. Quality research and program evaluation can be useful when conducted by foundations, providers and payers who are often pressed (and often rightfully so) to justify their costs. The Mental Health Assessment and Service Agencies (MHASAs) that were formed to manage Medicaid benefits in Colorado often have their administrative costs questioned by detractors, as well as other more supportive stakeholders. The bottom line is that coordination and integration have their own costs which need to be factored in.

However, while it is important to be aware of the risks of change, a risk of that is being so aware of them that change is not undertaken. Even responsible change incurs risk, so possible risks should not become an excuse for inaction.

Observation #2: Many People Cannot Access Needed Care

Snapshot of Key Findings Regarding Access to Care

Overall

- One of five (over 900,000 in 2000) Coloradans need mental health services each year. Less than one-third receive care.
- Low-income people with severe disorders (particularly those with Medicaid) are more than twice as likely to receive care as others, given the low rates of service access overall.

Those with Severe Needs

- Over 250,000 meet criteria established by the state office of Mental Health Services for severe need. For those with low income, 61% will receive services, most from Colorado's public mental health system (46%), the remainder (15%) from primary care and other human service agencies.
- Levels of severe need vary by region of the state, with rates in Denver and the Western Slope highest, and those in the metro area surrounding Denver lowest. Most services are delivered in the Denver metro area and fewest on the Western Slope.
- Children and adolescents constitute about one quarter of Colorado's population, but experience over one-third of the severe needs. A higher proportion of adults with severe needs receive care (two-thirds) than children (just over half) or older adults (just under half).

Other Needs

- Over 640,000 additional people in Colorado have diagnosable mental illnesses. Only 25% receive services, approximately seven in 10 in primary care and non-mental health human service settings.
- Suicide is one cost of lack of service. In 1998, Colorado's suicide rate ranked 12th nationally. Between one-half and two-thirds of people considering suicide at any time are not receiving care.
- Lost productivity is another cost. Untreated depression has been found to lead to 1.6 days lost per month and a 40% reduction in peak productivity.
- Increased use of other health services is another cost. People with untreated depression use three to four times as many services as those without.

Health Disparities for Minority Groups

- While definitive national studies are still in progress, the rate of mental health disorders appears to be the same across all racial and ethnic groups (21%).
- Latinos are less likely to use specialty mental health services and more likely to use primary care. Their rate of being uninsured is much higher than average, and a lack of Spanish-speaking, bicultural, and otherwise culturally competent providers creates barriers to care.

Snapshot of Key Findings Regarding Access to Care

Health Disparities for Minority Groups (cont'd.)

- African Americans are less likely to use specialty mental health services and more likely to be served in other human service settings. Their rate of being uninsured is much higher than average, and a lack of African American or otherwise culturally competent providers, as well as a lack of providers located within African American communities, leads to significant barriers to care.
- Asian Americans and Pacific Islanders have the lowest rate of mental health service use of any racial or ethnic subgroup. Their rate of being uninsured is much higher than average and a lack of linguistically and culturally competent providers causes a significant barrier to care.
- Little is known about rates of mental health service use for American Indians and Alaska Natives. Key concerns include lack of insurance and the particular issues confronting American Indians living in urban areas such as Denver, far from family and human services on reservations.
- Gay, lesbian, bisexual, and transgender people experience higher risk for stress-related disorders and suicide, particularly for youth. Barriers to care include actual and perceived provider bias.
- While most people with developmental disabilities do not have mental health disorders, they are at higher risk for mental health needs than the general population. They are at particular risk for victimization and their mental health care is particularly fragmented.
- People with hearing, mobility, and vision disabilities are at greater risk for depression and experience physical, linguistic, and cultural barriers to care.
- People in rural and frontier areas have overall rates of mental illness similar to the population as a whole. Lack of access to providers is a major concern.

Overview

"There is a clear and serious disparity between who is treated and who is ill." – **Family member of a Colorado person with mental illness**

"The only people that seem to be getting services in this state are those on Medicaid, and who knows how long that will last. People who are indigent or who have insurance are in the same boat; neither has access to what they need." – **Government agency administrator**

The best estimate available is that over 900,000 people in Colorado need mental health services each year and less than one-third receive them. This is true for the overall Colorado population and is particularly significant within specific groups, including people in rural areas of the state, specific age groups (particularly children and older adults), racial and ethnic subgroups, sexual minorities, people with disabilities, the uninsured, and the underinsured. Some people cannot access needed care because of "supply-side" issues, such as lack of funding for services, lack of provider availability, and system fragmentation. Others do not access care for what are sometimes called "demand-side" reasons. These are barriers which prevent people from seeking care when it would otherwise be available, and they include insurance status, the stigma associated with receiving mental health services and cultural preferences.

Who Are the People in Need?

Underneath each statistic about people in need of mental health services are real people with real lives. The following examples are fictional composites based on real-life dilemmas faced by people in Colorado with mental health needs.

An adult with insurance

Barbara experiences bipolar disorder, a condition that meets criteria in Colorado for a "biologically-based" mental health condition subject to enhanced insurance benefits under Colorado's parity law. Because of Barbara and Steve's resources, services would be delivered through the private mental health system. Despite the seriousness of her symptoms and condition, they fall into the moderate range of severity for this disorder and, without additional functional impairment or

poverty, Barbara would not be considered among those we discuss in this report with a severe disorder.

An adult with serious mental illness

Bob has a serious mental illness, a classification based on his long-standing diagnosis of schizophrenia, his years of intensive service use, and his severe functional impairment and homelessness. His friend Steve would also qualify as having serious mental illness. The primary difference between them is that Steve has Medicaid and Bob does not, as a result of family resources and because Bob has never gone through the tedious application process. They both are among those typically considered most in need.

A youth and her family

Gabriela meets criteria for a severe emotional disturbance (SED). She was at risk for and ultimately placed in out-of-home services and is involved with multiple youth-serving systems: mental health, child welfare, and juvenile justice. She is among those typically considered most in need.

An older adult living in a rural area

Nadine is depressed, but the cognitive impact of her depression is hard to differentiate from other symptoms people associate with aging, such as dementia. Sally had similar symptoms, but her depression was correctly identified early on. While both of them meet criteria for a "biologically-based" mental health condition, neither would be considered among those most in need since the severity of their depression would be mild to moderate, once properly diagnosed, and primarily reflects the normal process of bereavement.

Defining Some Important Terms

Three sources of definitive information on mental health needs were critical to the findings underlying Observation #2. Those were the *Colorado Population In Need Study* (McGee, Holzer, Pandiani, & Banks, 2002), the *Surgeon General's Report* (U.S. Surgeon General, 1999), and the mental health epidemiological work of Regier, Narrow, Rae, Manderscheid, Locke, and Goodwin (1993). These works provide the framework used in this report for discussing the prevalence of mental health disorders in Colorado and the degree to which people receive services to treat them. The methodology of applying findings from these reports and prevalence information broken down by region and age groups is detailed in Appendix D.

These three epidemiological sources employ some technical concepts to define the level of met and unmet mental health need. Defining and understanding these terms clarifies the strengths and limitations of these sources.

Prevalence - The number of people in a given period of time who meet criteria for a health condition of epidemiological interest. In this report, prevalence data focus on annual prevalence figures – the number of people suffering from a mental health condition over a year's time. Other prevalence approaches can look at a single point in time (e.g., point prevalence) or over a person's lifetime (i.e., lifetime prevalence).

Prevalence. This term refers to the number of people within a given period of time who meet criteria for a health condition of epidemiological interest. Unless otherwise noted, the prevalence data presented in this report are annual prevalence figures – the number of people suffering from a mental health condition at some point during a year's time. Other prevalence approaches look at a single point in time (e.g., point prevalence) or over a person's lifetime (i.e., lifetime prevalence).

Mental health diagnosis. One important distinction for estimating mental health need is whether or not a person meets criteria for an actual diagnosis of a mental health disorder. Most references to mental health diagnoses in the United States refer to those defined in one of the more recent version of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) (American Psychiatric Association, 1994) or earlier versions such as DSM-III-R or DSM-III. Any reference to diagnosable mental health conditions refers to conditions that meet criteria established in these sources, specifically for Axis I or Axis II conditions. In the following discussion of mental health need, we focus on people whose needs are severe enough to warrant a DSM diagnosis.

Mental Health Diagnosis - Refers to any mental illness or disorder that is listed in Axis I or Axis II of the DSM-IV, the classification manual for accurately diagnosing specific mental disorders for children, adolescents, and adults.

Severity. There are two important constructs that define a more severely affected subset of people with diagnosable mental health needs who are defined as "most in need" of services within Colorado's public mental health system:

1. **Serious Mental Illness (SMI)** – This term refers to adults and older adults whose diagnoses are seen as more severe, such as schizophrenia, severe bipolar disorder, or severe depression. A subgroup of these people is defined as having a Serious and Persistent Mental Illness (SPMI) which seriously impairs their ability to be self-sufficient and has

Serious Mental Illness - Refers to adults and older adults with diagnoses seen as more severe, such as schizophrenia or severe bipolar disorder or depression.

Serious Emotional Disturbance (SED) - Refers to children and youth ages 0-17 who have emotional or mental health problems so serious that their ability to function is significantly impaired or their ability to stay in their natural homes may be in jeopardy.

Federal Poverty Level - the maximum income an individual or family may earn in order to be considered to live in poverty. Various levels are based on size of the family unit and number of children under 18. Used mainly for statistical purposes such as preparing estimates of the number of Americans in poverty each year. All official poverty population figures are calculated using these numbers and are updated each year by the U.S. Census Bureau.

either persisted for over a year or resulted in psychiatric hospitalization.

2. **Serious Emotional Disturbance (SED)** – This term refers to children and youth ages 0-17 who have emotional or mental health problems so serious that their ability to function is significantly impaired or their ability to stay in their natural homes may be in jeopardy.

Federal poverty level. The resources that a person has available can also affect the impact of a mental health disorder. Furthermore, resources have an impact on where a person is likely to receive care, particularly their eligibility for public services or likelihood of having health insurance. The *Population in Need Study* (McGee et al., 2002) that forms the basis of much of the analysis below calculated need taking into account statistics on the number of individuals whose incomes fall below 300% of the Federal Poverty Level (FPL).[15]

How Many People In Colorado Need Mental Health Services?

Specifying the met and unmet need for mental health services has always been a complicated question. McGee and colleagues specifically studied met and unmet need in Colorado for severe disorders (youth who qualify as SED and adults who qualify as SMI). Their study begins with the number of people over the course of a year who meet criteria for a severe disorder (SMI or SED), and how many of those would need public services because of their level of poverty

[15] The FPLs by demographic breakouts for the current prevalence estimates were based on Census 1990 distributions. These range from a high of $19,965 per person annually for a household of one, to $10,419 per person for a household of three ($31,257 for the overall household), down to $8,949 per person for a household of nine ($80,544 for the overall household). While the number of people falling in each income category was estimated with Census 2000 population counts, the Census 1990 FPL poverty level cut-offs were used. It is possible that these may overestimate the number of people falling below the 300% FPL level. The actual state of the economy in the Census period in which the FPL figures are set is an important variable. Since the economy in Colorado in 1990 was just beginning to rebound from the oil bust, and the Colorado economy in 2000 was in a boom, the 1990 FPL cut-offs may potentially overestimate the number of people falling under the 300% FPL than was actually the case in 2000. There was no way to arrive at a more reasonable number to use prior to the actual 2000 Census income distributions becoming public, which occurred after the date these numbers were published. It is also of note that the 2000 Census distributions may ultimately have erred on the other side, underestimating the number of people below 300% FPL in 2003, since the economy in Colorado has taken a significant downturn since 2000, with predictions that it may take some time to recover.

(which they define as those with severe disorders under 300% of the Federal Poverty Level) (McGee et al., 2002).

They used an indirect model to estimate the number of people with mental health disorders in counties and then used those estimates to obtain prevalence estimates for the 17 community mental health center (CMHC) catchment areas across the state of Colorado. The model adjusted prevalence estimates from national studies for several demographic characteristics of Colorado's population, including age, gender, race, marital status, educational level, poverty level and type of residence. The demographic characteristics of a county and the prevalence rates associated with those characteristics determined the overall number and prevalence for that area. For example, higher prevalence rates are generally associated with higher poverty levels, lower educational status, being separated, widowed or divorced, and living in an institutional setting.

McGee and colleagues (2002) presented need by community mental health center for people who might be served by the public mental health system (people falling at or below 300% of the Federal Poverty Level). As described more fully in Appendix D, we reviewed additional data from their work that was not presented in their published report (McGee et al., 2002) to obtain estimates of those people with SED/SMI who are above 300% of the Federal Poverty Level. Keeping with the distinction of McGee and his colleagues, we have termed this group people in need of private SED/SMI services.

Both sets of estimates (low and high income people meeting criteria for SED and SMI) from McGee and his colleagues (2002) are presented in the table below. We combined their estimates for Colorado's counties to obtain statewide prevalence rates and rates for each of the four larger regions of the state highlighted for this report. Additional detail on the rates by county, region, and age group are provided with the supplementary data in Appendix D.

Statewide and Regional Population and Prevalence Estimates: Youth with Severe Emotional Disturbance (SED) and Adults with Severe Mental Illness (SMI)

- 168,878 or 3.9% of the Colorado population are at or below 300% FPL and are estimated to have SED or SMI.
- An additional 93,909 people who are above 300% of the FPL also have severe mental illness for a total of 6.1% of the Colorado population.
- The Denver Metro area has the lowest prevalence rate at 5.9%, compared with the other three regions of the state. The notable exception to this is Denver itself (please see Appendix D for a breakdown by specific catchment areas) with a total SED/SMI prevalence rate of 6.5%.

Region	Total Population (2000)	Need Public SED/SMI Services	Percent of Population	Need Private SED/SMI Services	Percent of Population	Total SED/SMI Need	Total Percent of Population
Total	**4,301,261**	**168,878**	**3.9%**	**93,909**	**2.2%**	**262,787**	**6.1%**
Denver Metro	2,400,570	82,965	3.5%	58,688	2.4%	141,653	5.9%
Northeast Colorado	510,110	22,324	4.4%	9,656	1.9%	31,980	6.3%
Southeast Colorado	762,109	33,604	4.4%	14,367	1.9%	47,971	6.3%
Western Slope	628,472	29,985	4.8%	11,198	1.8%	41,183	6.6%

People with severe disorders are only part of the picture. To define the level of need for less severe disorders, we estimated numbers of people statewide who have other diagnosable mental health disorders using the 21% prevalence rate from the Surgeon General's report (U.S. Surgeon General, 1999) for people with diagnosable mental health disorders in Colorado. This results in an estimated 640,478 additional people with a less severe, but diagnosable mental illness at some point during any 12 month period.

We cannot show these numbers by region. As we just saw, regions vary in terms of their SED and SMI numbers, and it logically follows that they would also vary in the number and percent of people with other diagnosable mental disorders. However, there is no justifiable means of distributing the other diagnosable disorders, given that the estimates available for severe

disorders would not necessarily apply to less severe mental health problems. Also, the alternative of simply applying a flat rate of 21% to each county seemed potentially misleading. Therefore we simply offer the statewide percentage and project population level.

The table below combines all of the prevalence data just discussed with additional estimates on the numbers of people receiving services. At this point in time, this is the best estimate national studies and epidemiology (Kessler et al., 1996; McGee et al., 2002; Regier et al., 1993; U.S. Surgeon General, 1999) can give us and reflects decades of careful research into mental health and illness, its causes, and its prevalence.

Data on numbers served for low income people (under 300% FPL) with severe disorders were compiled by McGee and colleagues (2002). For people served in other mental health settings and people served in general medical care, other human services, or voluntary support settings, we estimated service levels using the best national estimate available (Regier et al., 1993).

Comparison of Annual Levels of Mental Health Need with Annual Levels of People Served

One in five (over 900,000) Coloradans experience a clinically significant and diagnosable level of mental health need each year. Only one-third receive services for these needs. Ironically, people with severe disorders eligible for public services are more than twice as likely to receive care.

<table>
<tr><th>Level of Severity of Need</th><th>People in Need</th><th>People Served in Mental Health Settings</th><th>People Served in Primary Care and Other Settings</th><th>People In Need Who Are Not Served</th></tr>
<tr><td>Severe Disorders (SMI/SED) Under 300% FPL[16] - Public Sector Need</td><td>168,878</td><td>77,138[17]</td><td>25,287[18]</td><td>66,453</td></tr>
<tr><td>Percentages</td><td>100%</td><td>46%</td><td>15%</td><td>39%</td></tr>
<tr><td>Severe Disorders (SMI/SED) Over 300% FPL - Private Sector Need</td><td>93,909</td><td rowspan="4">50,797
(7%)</td><td rowspan="4">134,920
(18%)</td><td rowspan="4">548,670
(75%)</td></tr>
<tr><td>Percentages</td><td>100%</td></tr>
<tr><td>Other Diagnosable Disorders (Both Under and Over 300% FPL)</td><td>640,478</td></tr>
<tr><td>Percentages</td><td>100%</td></tr>
<tr><td>All Levels of Severity of Need</td><td>903,265</td><td>127,935[19]</td><td>160,207[20]</td><td>615,123</td></tr>
<tr><td>Percentages</td><td>100%</td><td>14%</td><td>18%</td><td>68%</td></tr>
</table>

We know that over 900,000 people in Colorado each year have a diagnosable mental health disorder and only one-third receive services. The question remains as to how many of them **need a mental health service**. The difficulty comes when we compare clearly established numbers of people whose condition merits a diagnosis with estimates of the number of people who receive mental health services.

A challenge with these data is deciding how to estimate the number of people in need. If we use the 21% prevalence level of people with a diagnosable condition, the number of people not

[16] FPL is the Federal Poverty Level
[17] Information from the Colorado Populations in Need Study (McGee et al., 2002).
[18] Primarily other child-serving systems (McGee et al., 2002).
[19] Applied 44.4% (4% of population receiving services in mental health setting divided by total of 9% receiving services from any setting) to 31.9% of people with mental health diagnosis (288,184) estimated by Regier et al., (1993) for people who utilize mental health services in one year.
[20] Applied 55.6% (5% of population receiving services in mental health settings divided by total of 9% receiving services from any setting) to 31.9% of people with mental health diagnosis (288,184) estimated by Regier et al., (1993) for people who utilize mental health services in one year.

receiving services is so large that it is, ironically, easy to set aside. It is the unfortunate triumph of "common sense" over carefully computed and rigorously estimated epidemiological data when a policymaker looks at these data and reasons as follows: "If two-thirds of the people with mental health disorders can get along without treatment, then it must not be such a hard thing to live with." There are a host of similar responses: "I suppose they are helped at home or church," or "They apparently get over it on their own," or "Wouldn't we notice if two-thirds of the people suffering diabetes each year went untreated?" The bottom line is that it is hard to accept the fact that so many people with a severe disorder somehow manage without treatment (albeit with serious consequences – see below).

These are difficult questions to respond to, in part because some people do cope with mental disorders on their own or with family or in faith-based communities and other non-medical settings. While the estimates above based on the work of Regier and his colleagues (1993) include an estimated 134,920 people in Colorado each year who receive services in primary care settings and non-medical settings such as faith-based or other voluntary organizations, it is likely that more people receive less formal support from these agencies and other people in their lives.

But another probable answer to policymaker questions is the stigma of mental illness. In many people's minds, mental health is still more of a moral question than a medical one. Colorado key informants and the fiscal data (see observation #3 below) are clear that, in times of budget shortfall or surplus alike, states have traditionally underfunded their mental health systems (National Council on Disability, 2002). Key informant and literature sources point to a number of different reasons for this, ranging from the effects of stigma to common beliefs that mental health-related treatment is an add-on service (U.S. Surgeon General, 1999). Several key informants cited this latter factor as a reason that mental health funding is a low priority in Colorado and now among the first to be cut. Further, it has been suggested that an underlying reason that public funding is lower for mental health services is the stigma that is attached to mental illness (McSween, 2002).

Let's look more closely at the costs of this stance. One cost is suicide. The Colorado Trust and the Colorado Office of Suicide Prevention conducted a comprehensive study on suicide in Colorado (The Colorado Trust, 2002). They found that in 1998, Colorado's suicide rate ranked 12th in the nation, with roughly 600 suicides per year (range of 580 in 1991 to 688 in 1996). In 1999, 14.4 people per 100,000 in the state took their own lives, 36% higher than the national average. The study also found that between one-half and two thirds of the estimated 9,600 people in Colorado seriously considering suicide at any one time are not receiving treatment for this life-threatening condition.

Other costs of untreated mental disorders include the following.

- **Lost productivity –** Depression in the workplace results in estimated annual losses in productivity ranging from $31 million (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003) to $33 million (Greenberg, Kessler, et al., 1996, cited in Kessler, Barber, Beck, et al. 2003). Depression in the workplace results in 1.6 work days lost per affected employee per month and a 40% reduction in peak productivity (Rost, Smith, Elliott & Dickinson, 2003). The value of increased productivity due to treatment of depression has been estimated at $2,600 annually (Pearson et al., 2003).
- **Use of other health services –** People suffering from depression who are receiving services through the primary care system use three to four times as many services for physical health complaints as people without depression (Katon & Schulberg, 1992). This finding has led many to believe that there is a potential cost-offset from mental health treatment because it will reduce the disproportionate use of primary care services (Olfson, Sing, & Schlesinger, 1999).

Most of the studies cited above focus on depression, and other untreated mental health disorders likely have their own costs.

One key group that nearly everyone agrees is in need of mental health services are people with severe diagnoses (SED/SMI) who live in poverty. The Population in Need Study (McGee et al., 2002) set the cut-off for this group at 300% of the Federal Poverty Level. They contended that people above this level would have to pay entirely for their services whereas people whose incomes were below 300% of FPL would need at least some and possibly complete financial

support for services, characteristics that typically describe clients in the Colorado Public Mental Health System.

McGee and colleagues looked beyond the mental health system at other systems that can provide appropriate mental health services: child welfare, youth corrections, special education, developmental disabilities, and alcohol and drug abuse services. Mental health services delivered in adult correction settings were not included because of methodological issues. While not included in that study, others receive care in less appropriate settings: emergency rooms, jails, prisons, and homeless shelters. Even assuming that this is tolerable, tens of thousands of people in Colorado with the highest level of need are not receiving any service. Given the shrinking funding and service levels for public sector care described later in this report under Observation #3, this situation can be expected to worsen.

How Mental Health Needs Differ by Age Group

There are differences in the distribution of need estimated in the Population in Need Study (McGee et al., 2002) by age group. Among children and adolescents, the level of severe need plus poverty is higher as a percentage of the child and adolescent population (8.9%), versus 8.1% for adults and 5.7% for older adults.

The data for people with severe needs (SMI/SED) and incomes under 300% of the Federal Poverty Level (FPL) are presented in the table below, since McGee and colleagues also estimate the number served for these groups. For a detailed breakdown of mental health needs by age group for each mental health catchment area in Colorado, see Appendix D.

People with Severe Needs (SMI/SED) and Poverty[21] by Age Group

- When both mental health and other human service systems are examined, a higher percentage of adults receive care (67%).
- The percentage of children and adolescents with severe needs receiving care in any system falls in between adults and older adults (56%).
- The percentage of older adults with severe needs and poverty who receive care in any system is the lowest of the three groups (47%).

Level of Need	People With Severe Need and Poverty	People Served in Mental Health Settings	People Served in Primary Care and Other Human Service Settings	People In Need Who Are Not Served
Children and Adolescents (Ages 0 - 20)	67,822	27,987	9,794	30,041
Percentages	100%	41%	14%	44%
Adults (Ages 21 - 64)	88,079	44,494	14,025	29,560
Percentages	100%	51%	16%	34%
Older Adults (Ages 65 and Older)	12,977	4,657	1,468	6,852
Percentages	100%	36%	11%	53%
Total	**168,878**	**77,138**	**25,287**	**66,453**
Percentages	100%	46%	15%	39%

The Mental Health Needs of Racial and Ethnic Minorities

In 2001, the U.S. Department of Health and Human Services released a supplement to the 1999 Surgeon General's Report on mental health services documenting "the existence of striking disparities for [racial and ethnic] minorities in mental health services and the underlying knowledge base" (U.S. DHHS, 2001a, p. 3). The report documents less access to mental health services, lower likelihood of receiving care, and greater likelihood that any care received is poorer in quality. These and other factors lead to the conclusion that members of racial and ethnic minority groups bear a disproportionately greater burden from unmet mental health needs and suffer greater losses in overall health and productivity. The report builds upon and amplifies the observation from the preface to the original 1999 Surgeon General's Report on mental health that "Even more than other areas of health and medicine, the mental health field is plagued by disparities in the availability of and access to its services" (U.S. Surgeon General, 1999, p. vi).

[21] Poverty is defined as under 300% of the federal poverty level (FPL).

The report entitled *Mental Health: Culture, Race, and Ethnicity, A Supplement to Mental Health: A Report of the Surgeon General* (U.S. DHHS, 2001a) documents a host of barriers, culled from a systematic review of the research base and input from national experts and task forces. These include overall barriers related to the cost of care, the stigma associated with mental disorders, and a fragmented service system. Specific barriers include a lack of knowledge and awareness of cultural issues, bias, and inability to speak client languages on the part of mental health providers, and an understandable level of fear and mistrust of treatment on the part of people in need of care. Disparities also relate to historical and current experiences of racism and discrimination, which have impacts not only on the treatment process, but also on mental health, economic status, and political influence. While the experience of these disparities among the diverse members of different racial and ethnic groups is itself heterogeneous, the conclusion that significant barriers to care confront these minority groups is clear. In response, both the National Institutes of Health and National Institute of Mental Health have developed strategic plans to reduce racial and ethnic health disparities (Office for Special Populations, November 2001).

Colorado's racial and ethnic minority population is large and growing. Nearly a quarter of Colorado's 2000 population was made up of Hispanic Americans,[22] African Americans, Asian Americans, Pacific Islanders, American Indians, and Alaska Natives (U.S. Census Bureau, 2001), and their proportion of the population is expected to grow by 23% by 2025 (U.S. DHHS, 2001a). Clearly, the issue of systematic disparities in mental health care available for one in four Coloradans is of major concern, and various initiatives, including Colorado's Turning Point Initiative, are targeting health disparities across the state (Hunsacker, 2001).

The combination of service barriers, deficits in the knowledge base, and continuing explicit and subtle bias among mental health providers has been described as a type of institutional racism (U.S. DHHS, 2001a) that continues to contribute to health disparities despite the efforts of individual clinicians and agencies. Institutional or institutionalized racism is an enduring force related to disproportionate minority health care services and outcomes. It is rooted in historical

[22] The Census uses the terms Hispanic and Hispanic American in its reports.

experiences of racism and has a comprehensive effect on the research, availability, practice and outcomes of mental health care (Rollock & Gordon, 2000; U.S. DHHS, 2001a).[23]

Manifestations of ongoing institutional racism include differential practices regarding diagnosis, medication prescription patterns, and treatment referrals. For example, studies cited in the 2001 Supplement to the Surgeon General's Report (U.S. DHHS, 2001a) focusing on African Americans found African American youth to be four times more likely than White youth to be physically restrained after acting in similarly aggressive ways, more negative therapist ratings of identical depressive symptoms for an African American client than a White counterpart, overdiagnosis of schizophrenia among African Americans, and underdiagnosis of bipolar disorder and depression. Other biases affect other racial and ethnic groups, such as the common stereotype of Asian Americans as "problem free."

A link between the experience of racism, bias, and discrimination and increased risk for mental disorders has been noted across studies for many years (U.S. DHHS, 2001a) and was recently clearly documented in a nationally representative survey (Kessler, Mickelson, & Williams, 1999). The experience of major discriminatory events such as being harassed by the police or fired from a job was reported by 50% of African American and only 31% of White participants. More subtle "day-to-day perceived discrimination" was reported to be experienced often by nearly 25% of African American and only 3% of White people. Day-to-day discrimination was related to distress and increased diagnoses of depression and anxiety disorders across groups. The magnitude of the association between the combination of major and day-to-day discrimination and poorer mental health was comparable to more commonly studied stressful life events such as the death of a loved one, divorce, or loss of a job. While Kessler and his

[23] There is a long history of racism and discrimination toward all four of the major racial and ethnic groups included in this report, dating back to the slavery of African Americans first brought to the United States and forcible removal from their lands and often systematic killing of American Indians and Alaska Natives. Many Chinese Americans were denied immigration and citizenship through the Chinese Exclusion Act of 1882, until its repeal in 1952, and over 100,000 Japanese Americans were unconstitutionally incarcerated during World War II. Forced annexation through conquest of the lands of many Mexican Americans, Puerto Ricans, and Pacific Islanders and ongoing discrimination and violence against legal and illegal immigrants affected and continues to affect many. Even after the formal end to much legalized racism through the civil rights movement of the 1960s, institutional barriers and cultural attitudes persist (U.S. DHHS, 2001a; Rollock & Gordon, 2000).

colleagues focused primarily on differences between African American and White people, other recent studies have made similar links between perceived discrimination and risk for depression among Asian Americans and Hispanic Americans[24] (U.S. DHHS, 2001a).

Other factors related to increased risk for mental disorders that disproportionately affect many members of minority racial and ethnic groups include poverty, living in neighborhoods with higher levels of violence and crime, and lower education levels (U.S. DHHS, 2001a). While each of these factors has been related to greater risk for mental health needs, it is difficult to differentiate them conceptually from the experience of racism and discrimination, since these are also seen to underlie differences in income, where a person lives, and educational opportunity. Furthermore, most studies of racial and ethnic differences in mental health need do not look beyond differences across broad racial and ethnic categories. By not controlling for variations in acculturation and racial/ethnic identity among members of each ethnic group, these methods may obscure differences related to culture (U.S. DHHS, 2001a).

Overall, there are clear disparities in access to services, in both quantity and quality. As an example of the complex dynamics underlying the relationship of race/ethnicity to service use, a recent examination of service use trends across over 78,000 African American, Asian American, Hispanic American and White people living in New York City found that living in either a low or a high income neighborhood has a moderating effect on the quantity of services used by different groups (Chow, Jaffee, & Snowden, 2003). In terms of quality, people from minority groups have been found to be less likely than White people to receive the best available treatments for depression and anxiety (U.S. DHHS, 2001a).

The landmark Supplement to the Surgeon General's Report on Mental Health (U.S. DHHS, 2001a) reaches eight broad conclusions about the mental health needs of racial and ethnic minorities. These conclusions mirror and summarize the concerns expressed by the many

[24] The supplement on culture, race and ethnicity to *Mental health: A report of the Surgeon General* uses the term Hispanic American.

Colorado stakeholders we interviewed from Colorado's major racial and ethnic groups. The conclusions are summarized in the following table.

U.S. Surgeon General Supplement Conclusions Regarding Mental Health, Culture, Race, and Ethnicity (U.S. DHHS, 2001a)
1. Culture influences many aspects of mental illness, including how people manifest symptoms, coping styles, family and community support, and willingness to seek treatment. The culture of mental health providers in turn influences how they diagnose and treat the mental health needs of people from different racial and ethnic groups.
2. Mental disorders are highly prevalent across all populations, regardless of race or ethnicity, but cultural and social factors contribute to the causation of mental illness in complex interactions that vary by disorder. Other than general associations between various stressors related to the experience of being a minority, the specific ways in which the prevalence of specific disorders varies by groups awaits more systematic study.
3. Within the United States, overall rates of mental disorders for most minority groups are largely similar to those of the overall population. However, vulnerable, high-need subgroups often have higher rates of need that are not reflected in community-wide surveys. Rates for smaller subgroups (American Indians, Alaska Natives, Asian Americans and Pacific Islanders) have not as yet been definitively studied.
4. Members of ethnic and racial minority groups face societal and economic inequalities that include greater exposure to racism, discrimination, violence, and poverty, all of which increase the risk for mental health needs. People in the lowest level of income, education, and occupation are about two to three times more likely than those in the highest stratum to have a mental disorder.
5. Racism and discrimination are stressful events that adversely affect health and mental health, placing members of racial and minority groups at greater risk for stress-related disorders such as depression and anxiety.
6. Stigma discourages many people from seeking help for mental health needs. Attitudes toward mental illness held by people from racial and ethnic minority groups are as unfavorable or even more unfavorable than attitudes held by the general population.
7. Mistrust of mental health services deters many members of racial and ethnic minority groups from seeking mental health treatment. These concerns are reinforced by direct and indirect evidence of provider bias and stereotyping.
8. The types of services used vary by racial and ethnic group. Intercultural misunderstanding and communication problems may prevent many members of minority groups from using services and receiving appropriate care.

We looked more closely at four racial and ethnic groups in Colorado, mindful of the fact that these large groups themselves are very diverse and include their own high-need subpopulations

such as immigrants and refugees. Various terms are used in different studies to refer to these racial and ethnic groups. For this report, we follow the usage and definitions of the federal Center for Mental Health Services (CMHS) cultural competency guidelines (2001), except where a specific study we cite employs a different term. To make sure the study cited is interpreted correctly, we maintain the use of the study's terminology where it differs from our term usage (e.g., Black versus African American). We use the terms as defined below. They are listed in order of their percentage of the Colorado population:

- **Latino / Hispanic Americans –** This term is inclusive of people with European (Spanish) ancestry and the four main Latino groups (Mexican, Puerto Rican, Cuban, Central American). The CMHS guidelines also mention that this group may have ancestral ties to Asia or Africa.
- **African Americans –** This term is inclusive of people of African and Caribbean descent.
- **Asian Americans and Pacific Islanders –** This term is inclusive of Asian Americans, including Hmong, Cambodian, Laotian, Vietnamese, Korean, Chinese, Japanese, Philippino, Asian Indian, and others. It also includes the following Pacific Islander cultures: Native Hawaiian, Samoan, Guamanian/Chamorro, and other Pacific Islander.
- **American Indians and Alaska Natives –** This term is inclusive of all continental United States and Alaskan indigenous people.

There have been National Institutes of Health (NIH) policy changes in the last decade to require the inclusion of ethnic and racial minority populations in NIH-funded research (NIH, 1994, p. 14509). Studies in progress will improve the current status of research for these minority populations, particularly related to prevalence rates, access, and differential functioning for racial and ethnic minorities (U.S. DHHS, 2001a):

- NIMH has recently funded two studies that will include large samples of various racial and ethnic minorities to complement the nationally representative (and therefore, smaller representation of minorities) National Survey of Health and Stress (NSHS) and to facilitate cross-study comparisons across groups. The National Survey of American Lives (NSAL) includes approximately 9,000 African American adolescents and adults. The National Latino and Asian American Study (NLAAS) involves approximately 8,000 Latino and Asian American adults.
- The recently completed NIMH-sponsored American Indian Services Utilization, Psychiatric Epidemiology, Risk, and Protective Factors Project (AI-SUPERPFP) was conducted by the National Center for American Indian and Alaska Native Mental Health Research. While analyses of various aspects of this large scale study are still in process, articles related to spirituality and suicide attempts (Garroute, Goldberg, Beals, Herrell, Manson, & the AI-

SUPERPFP Team, 2003) and substance use (Mitchell, Beals, Novins, Spicer & the AI-SUPERPFP Team, 2003) have recently been published. These findings are discussed in the section below on American Indians and Alaska Natives.

- The National Household Survey on Drug Abuse (NHSDA) conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA) has generated large samples of Whites, African Americans, and Hispanic Americans, which will allow future examination of prevalence rates of substance use and dependence (U.S. DHHS, 2001a).

There also is a large amount of less systematic information available about the differential needs of key racial and ethnic groups in Colorado.

Latino / Hispanic Americans. As a group, Latinos are less likely to access specialty mental health services and more likely to use primary care services for mental health needs when they seek care. It is not clear that they seek mental health care less often than other groups, but their rate of being uninsured is much higher than average and a significant barrier to care. Furthermore, a lack of Spanish-speaking, bicultural, and otherwise culturally competent providers creates institutional barriers to care that limit access to services.

Latinos are a large and growing part of the Colorado population. According to the 2000 Census, Colorado ranks ninth in the country in the number of Hispanics who reside in the state (735,601) and sixth in the country for the percentage of Hispanics among the state's population (17.1%) (U.S. Census Bureau, 2001).

While systematic study of the extent of mental health needs among Latinos is not yet complete (National Latino and Asian American Study), the best current estimate is that the level of overall need is similar to that of the overall national population at 21% (U.S. DHHS, 2001a). Latinos' rates of use of Colorado's public mental health system are comparable to their proportion of the population (17% of the 2000 population [U.S. Census Bureau, 2001], and 20% of clients in fiscal year 2001-02 and 18% at one point in time [Colorado MHS, 2003b]).

While Colorado's public system numbers are in proportion to the population, available studies consistently show that Latinos have less access to specialty mental health services overall (U.S. DHHS, 2001a). Key informants we talked with noted that services for immigrants and migrant workers were particularly lacking. They also noted that Latinos in rural areas of the state had even more difficulty accessing care and that cultural values related to family and respect for elders made help-seeking more difficult.

Those Latinos who seek care are twice as likely to seek mental health services in primary care settings (U.S. DHHS, 2001a). These patterns of service likely reflect in part a lack of insurance. Over a quarter of Colorado's Hispanic population (26%) is uninsured, versus half that rate (13%) for Whites (Colorado Coalition for the Medically Underserved [CCMU][25], 2001). This has been seen as potentially driven by a lack of job-based insurance and a function of a combination of ethnicity, immigration status, and citizenship status. Only 43% of Latinos in one national study had employment-based health insurance, compared to 73% for Whites (Brown, Ojeda, Wyn, & Levan, 2000). This trend appears to be more severe for recent immigrants who are not U.S. citizens, with one study showing that only 47% of Latino youth from immigrant families have insurance compared to 71% of Latino American citizens (U.S. DHHS, 2001a).

Barriers also include a lack of appropriately skilled therapists (U.S. DHHS, 2001a). Only 8% of the Colorado providers we surveyed identified themselves as Latino / Hispanic, which is under half of their proportion of Colorado's 2000 population (17% [U.S. Census Bureau, 2001]). Language is also a critical barrier for Latinos seeking services. In the 1990 Census, 40% of Latinos reported they did not speak English at all or very well (cited in U.S. DHHS, 2001a). The provider survey conducted for this study found that 12.5% of all therapists surveyed claimed to be able to conduct treatment in Spanish.

African Americans. As a group, African Americans experience less access than Whites to specialty mental health services and are more likely to be served in other, more punitive settings

[25] CCMU uses the term Hispanic in its report.

such as child welfare and corrections. Their rate of being uninsured is much higher than average, and there is a distinct lack of African American or otherwise culturally competent providers, as well as a lack of providers located within predominantly African American communities. Taken together, these factors create significant and systematic barriers to care. African Americans constitute 3.7% of the Colorado population. While systematic study of the extent of mental health needs among African Americans is not yet complete (National Survey of American Lives), the best current estimate is that the level of overall need is similar to that of the overall population (21% [U.S. DHHS, 2001a]).

African American rates of use of Colorado's public mental health system are about double the African American proportion of the population (3.7% of the 2000 population [U.S. Census Bureau, 2001], and 8% of clients in state fiscal year 2001-02 and 7% at one point in time [Colorado MHS, 2003b]). Colorado's public sector trend reflects some trends in national studies, but the data on service use are not consistent and underscore the need for more systematic study. Key informants we spoke with who are knowledgeable about services to African Americans noted that too often, behavior gets criminalized rather than treated. Overrepresentation of African Americans in high-risk and high-need populations (e.g., incarcerated, homeless, foster care) suggests that many needs, including mental health needs, are not being addressed in the most appropriate setting (Bureau of Justice Statistics, 1998, 1999; Jencks, 1994; U.S. DHHS, 2001a).

Overall, the percentage of African Americans who received mental health services appears to be half that of Whites, even after controlling for differences in need and sociodemographic factors (Swartz, Wagner, Swanson, Burns, George, & Padgett, 1998). However, African Americans tend more often to be served in public programs (U.S. DHHS, 2001a), which may underlie the disproportionately high numbers of African Americans served by Colorado's public mental health system.

These patterns of service use likely also relate to a lack of insurance. Over one-fifth of Colorado's African American population (21%) is uninsured, versus only 13% for Whites

(CCMU, 2001). Service use patterns also reflect a marked lack of African American mental health providers. Only 1.4% of the Colorado providers we surveyed identified themselves as African Americans, which is just over one-third of their proportion of Colorado's 2000 population (3.7% [U.S Census Bureau, 2001]). Key informants we spoke with who are knowledgeable about services to African Americans identified this as a major concern, with just over one out of every 100 clinicians identifying as African American.

Asian American and Pacific Islanders. As a group, Asian Americans and Pacific Islanders have the lowest rate of mental health service use of any racial or ethnic subgroup. Their rate of being uninsured is much higher than average and a lack of linguistically and culturally competent providers causes a significant barrier to care. Asian Americans make up 2.2% of the Colorado population (U.S. Census Bureau, 2001). This population comprises many ethnic groups that are widely diverse across a range of ethnic, language, cultural, economic, educational, and sociopolitical experiences (U.S. DHHS, 2001a).

Less is known about prevalence in this group than any other minority racial and ethnic group and systematic study of the extent of mental health needs among Asian Americans is not yet complete (National Latino and Asian American Study). The best current estimate is that the level of overall need is similar to that of the overall national population (21% [U.S.DHHS, 2001a]).

Asian Americans and Pacific Islanders have been reported to experience several specific culture-bound syndromes. One is neurasthenia, a formal diagnosis in the international ICD-10 and recognized by Chinese culture, but not a diagnosis in the DSM-IV. Symptoms include loss of energy, frailty, memory loss, irritability, aches and other physical pains, concentration problems, and sleep irregularities (Zheng, Lin, Takeuchi, Kurasaki, Wang & Cheung, 1997). Another is hwa-byung, or "suppressed anger syndrome," which is primarily experienced in Korean culture and whose symptoms are similar to various types of anxiety disorders including a pounding heart or palpitations, chest discomfort, hot flashes, headache, sadness, anxiety, irritability, and poor concentration (Lin et al., 1992).

Asian American (including Hawaiians) rates of use of Colorado's public mental health system are less than half their proportion of the population (2.2% of the 2000 population [U.S. Census Bureau, 2001]and 1% of clients in state fiscal year 2001-02 and 1% at one point in time [Colorado MHS, 2003b]). Studies of service use among Asian Americans and Pacific Islanders have found the lowest rate of service utilization of all ethnic groups (U.S. DHHS, 2001a). Key informants for this study who are knowledgeable about services to Asian Americans and Pacific Islanders noted that cultural values related to relationships limit access to care. Studies have found a tendency to use services only when more ill than Whites using the same services (Durvasula & Sue, 1996; Bui & Takeuchi, 1992). Reasons cited for this include greater reluctance to use mental health care in general and discouragement by families to use such services. It has been suggested that both may be related to shame and stigma, cultural conceptions of treatment different from the Western world, and cultural and linguistic mismatch (Sue & Sue, 1999).

Nationally, Asian Americans have an uninsured rate of 21% (Brown et al., 2000). Key informants we spoke with who are knowledgeable about services to Asian Americans and Pacific Islanders underscored lack of insurance as a major barrier, particularly for those running small businesses. Language and the representation of Asian Americans and Pacific Islanders among mental health providers are key concerns. While Denver's Asian Pacific Development Center has a rich array of linguistic and culturally competent mental health resources, they have reported difficulty with recruitment of bilingual and bicultural providers (F. Kim, personal communication, December 4, 2002). Furthermore, the provider survey conducted for this study found an overall shortage. Only 0.9% of the Colorado providers we surveyed identified themselves as Asian Americans, which is just under half of their proportion of Colorado's 2000 population (2.2%) and less than one out of every 100 clinicians. Key informants we talked with noted the difficulty of recruiting Asian American and Pacific Islander therapists, particularly those who speak Asian languages or who are knowledgeable of key issues such as refugee status and trauma.

American Indians and Alaska Natives. As a group, American Indians experience similar rates of mental health problems overall as the population as a whole, but little is known about their rates of mental health service use. While the provider survey showed that a relatively high percentage of providers identified as American Indian, their geographic distribution is not known, nor do we know how accessible they are to American Indians in need of care. Key concerns include lack of insurance and the particular issues confronting American Indians living in urban areas such as Denver, far from family and human services on reservations.

American Indians make up 1% of the Colorado population, and a large proportion live in the Denver area (U.S. Census Bureau, 2001). This is a very diverse group in terms of language, customs, family structures, religion, and social culture (U.S. DHHS, 2001a). The Bureau of Indian Affairs recognizes 561 distinct American Indian and Alaska Native tribes in the United States (U.S. DHHS, 2001a). Colorado has fewer reservations than other western states, but members of many tribes from throughout the midwestern and southwestern United States live in Colorado, particularly in the Denver area. Overall, American Indians and Alaska Natives represent less than 1.5% of the U.S. population (U.S. Census Bureau, 2001a), so even large-scale nationally representative studies have not had large enough samples to generalize prevalence rates to American Indians (U.S. DHHS, 2001).

Most of Colorado's American Indian population lives in the Denver metro area, creating specific service needs for many related to living off the reservation in an urban setting (King, 1999). While systematic study of the extent of mental health needs among American Indians and Alaska Natives is in process (American Indian Services Utilization, Psychiatric Epidemiology, Risk and Protective Factors Project – AI-SUPERPFP), the best current estimate is that the level of overall need is similar to that of the overall population (21% [U.S. DHHS, 2001a]), other than as noted below.

Substance abuse is one area of difference that is sometimes noted. While alcohol abuse and dependence rates vary among different tribes and are difficult to estimate, a high percentage of

American Indians overall experience alcohol related difficulties (e.g., 27% of male and 13% of female American Indian deaths each year are alcohol related, according to May & Moran, 1995). Furthermore, several studies of school-based samples of American Indian adolescents have found that they have the highest rates of drug use of all racial and ethnic groups (e.g., Bachman, Wallace, O'Malley, Johnston, Jurth, & Neighbors, 1991; Beauvais, 1992). However, the large scale NIMH-sponsored AI-SUPERPFP study has recently revealed some interesting patterns related to lifetime and pathological use of drugs by American Indians. In that study, higher rates of marijuana and inhalant use were found, yet 40-60% of the entire sample reported that they had never used drugs and almost all of them (85-95%) had not developed a drug disorder (Mitchell et al., 2003). These findings appear to question common beliefs about greater drug use among American Indian youth and underscore the need for more study in this area. Nevertheless, the specific problem of co-occurring mental illness and substance use disorders has been documented for American Indians living in Denver (Chaney, 1997).

In addition, from 1979 to 1992, the suicide rate for American Indians was 1.5 times the national rate (U.S. DHHS, 1999). It was particularly high for males ages 15 to 24. Initial results from the AI-SUPERPFP study revealed that an individual American Indian's commitment to cultural spirituality was significantly associated with a reduction in suicide attempts, thereby suggesting the effectiveness of suicide prevention approaches focused on culture for American Indians (Barroutee et al., 2003). There were no available studies on Alaska Natives as a group.

American Indians and Alaska Natives also experience several specific culture-bound syndromes. Examples among some tribal groups include ghost sickness and heart-break syndrome (Manson et al., 1985, cited in U.S. DHHS, 2001a).

American Indian rates of use of Colorado's public mental health system are about double their proportion of the population (1% of the 2000 population [U.S. Census Bureau, 2001] and 2% of clients in state fiscal year 2001-02 and 2% at one point in time [Colorado MHS, 2003b]). Little is known about overall service use rates for American Indians and current findings are inconsistent

(U.S. DHHS, 2001a). Nationally, only 20% of American Indians report having access to Indian Health Service (IHS) services, which are not accessible to those who do not live on or close to reservations (Brown et al., 2000). This is a major issue for American Indians living in Denver. In addition, only about half of American Indians have employer-based insurance coverage, versus 73% of Whites (Brown et al., 2000).

Provider availability is also unclear. Nationally, there are very few American Indian and Alaska Native providers (approximately 101 providers per 100,000 of this population, as compared to 173 White providers per 100,000 Whites [Manderscheid & Henderson, 1998]). In Colorado, agencies like Denver's Eagle Lodge provide some linguistic and culturally competent mental health resources, and 2.8% of the Colorado providers we surveyed identified themselves as American Indian, which is more than twice their proportion of Colorado's 2000 population (1.0%). Key informants noted that the cultural competency of providers was the biggest concern.

The Mental Health Needs of Sexual Minorities

Sexual minorities are an important and growing subgroup within Colorado's population. The 2000 census found Denver County to have the sixth largest percentage of same-sex couples of any county in the United States at just under 3% of couples. The numbers of same-sex headed households in Colorado is growing, up 385% between the 1990 and 2000 censuses (Simmons & O'Connell, 2003). The stance of mental health providers toward gay, lesbian, bisexual and transgender people has also changed dramatically over the last three decades. This change has paralleled changes within these communities themselves over time, with increased visibility, more effective advocacy, evolving concepts of sexuality and family, and the emerging recognition of new subgroups such as transgender people even in the past decade.

Psychiatry has a long history of viewing non-heterosexual identity as pathological, and the concept of institutionalized bias can also be applied to the experience of anti-gay discrimination and bias across mental health services. While homosexuality was removed from the lists of psychiatric disorders by the American Psychiatric Association in 1973, pathologizing categories

such as "ego-dystonic homosexuality" and "sexual orientation disturbance" persisted even until the most recent edition of psychiatry's diagnostic manual (DSM-IV) in 1994 (Harris & Licata, 2000).

There has been progress in recent years, however, toward more acceptance among mental health providers and more appropriate treatment. In December 2000, the American Psychological Association published guidelines for psychotherapy with lesbian, gay, bisexual, transgender and other sexual minority clients that reaffirmed that homosexuality is not a mental illness and provided guidelines to support psychologists serving these populations (Division 44 / Committee on Lesbian, Gay, and Bisexual Concerns Joint Task Force, as cited in Cochran, 2001).

Until the late 1990s, very little empirical research had been available to inform understanding of mental health issues affecting lesbians and gay men (Cochran, 2001). While that deficit has been partially corrected in regard to gay, lesbian, and bisexual people, very little empirical research is available on the needs and experiences of transgender people (Clements-Nolle, Marx, Guzman, & Katz, 2001). Challenges to research include the politically-charged context surrounding perspectives on homosexuality, as well as practitioner bias, lack of training, and discouragement of research into sexual minority issues due to a lack of research resources and the potential negative impact of studying homosexuality on a researcher's career (Cochran, 2001). There are also real methodological barriers, including small sample sizes even in larger national studies and the difficulty of oversampling in a representative manner (Cochran, 2001).

Most attention in the mental health literature, as in society as a whole, focuses on gay men and, to a somewhat lesser degree, lesbians. Bisexual men and women have been recognized as a separate subgroup, but only in the past decade have they been included and identified as a separate group within most studies of sexual minority mental health needs (Cochran, 2001). Other groups, such as transgender people or people questioning their sexual identity, have received some public recognition of their distinct needs in the past decade, but no significant research attention (Ryan & Futterman, 1998; Ryan & Gruskin, in press). As a result, most of the

well-researched information presented in this section focuses on the needs and experiences of gay, lesbian and bisexual people. Information on the mental health needs and experience of transgender people is more limited and less definitive.

Mental health needs. When looking at the question of different levels of mental health need among gay, lesbian, bisexual, and transgender people, it is important to keep in mind that data on differential levels of mental health risk can be used to further political arguments for or against gay rights (Alexander, 2002; Cochran, 2001). In her review of the literature on gay, lesbian and bisexual mental health needs, Cochran clarified the importance of presenting conclusions precisely, in order to avoid unanticipated politicization or unintended support for an antigay agenda (2001). Toward that end, it is the clear conclusion of this review, based on the literature reviewed throughout this section and interviews with knowledgeable key informants nationally and in Colorado, that the differential levels of mental health need described below for gay, lesbian, bisexual, and transgender people are a function of the various stressors associated with minority status (particularly discrimination), rather than a function of simply having a gay, lesbian, bisexual or transgender identity.

Gay, lesbian, and bisexual people have been found to experience higher rates of discrimination, victimization, and violence by others than the general population (Mays and Cochran, 2001; Cochran, 2001), including particular stress during adolescence (Ryan & Futterman, 1998; Ryan & Gruskin, in press; Ryan, in press). Ryan and Gruskin have characterized the experience of victimization among these young people as the norm. Gay, lesbian, and bisexual youth are more than four times as likely to have been threatened with a weapon at school, over three times as likely to have been in a fight that required medical attention, and nearly five times as likely to have missed school out of fear (as cited in Ryan & Gruskin, in press).

Ryan and Gruskin cite another study that documented anti-gay crime or attempted crime among half of gay, lesbian, and bisexual adult respondents, many reporting the murder of a loved one based on sexual identity. Gay men seem to be more frequent victims of violence than bisexual

men or lesbian/bisexual women (Ryan & Gruskin, in press). While there has been some evidence of increased support for equal rights for sexual minorities in the past decade, the estimated rate of Americans who believe that homosexual relations should be illegal remained constant between 1977 and 1999 at 43% (Cochran, 2001).

The HIV/AIDS epidemic has also been a major source of grief, loss, and stress within gay, lesbian, and bisexual communities since it was first identified in 1981 (Cochran, 2001; Ryan & Gruskin, in press). These losses continue, with men who have sex with men continuing to represent the largest number of reported AIDS cases in 2000 and recent studies indicating a resurgence of high-risk sexual behavior among gay and bisexual men (as cited in Ryan & Gruskin, in press). The ongoing epidemic affects gay, lesbian, and bisexual individuals and communities at multiple levels, including individual well-being; social support and intimate relationships (including loss, fear of loss, and survivor guilt); allocation of resources and the focus of advocacy among community institutions; loss of two generations of community leaders to the disease; and the ongoing influence on societal perceptions, attitudes, and public policy about lesbians and gay men (Ryan & Gruskin, in press). Key informants underscored the ongoing impacts of HIV/AIDS within Colorado.

For all people, regardless of their sexual orientation, discrimination in general (Kessler et al., 1999), and the particular kinds of bias, social stresses, losses (such as those associated with HIV/AIDS), and victimization that are experienced by gay, lesbian and bisexual people (Cochran, 2001) have been clearly linked to increased risk for various mood and anxiety disorders and substance use problems. Many studies have theorized that higher rates of mental health need among gay, lesbian, and bisexual people are related to the experience of discrimination, largely based on the fact that the types of mental health disorders showing higher rates were those known to be affected by stress and negative life events (Paul et al., 2002; Gilman, Cochran, Mays, Hughes, Ostrow, & Kessler, 2001). Mays and Cochran (2001) examined this issue specifically through a large, nationally representative study that employed a behavioral definition of sexual orientation. They found a clear empirical link between higher

rates of perceived discrimination and mental health needs among gay, lesbian, and bisexual men and women.

The primary conclusion across nationally representative studies is that gay, lesbian, and bisexual people seem to be at elevated risk for mental health disorders influenced by social stigma, including depression, other mood disorders, post-traumatic stress disorder, other anxiety disorders, and substance use disorders (Ryan & Gruskin, in press; Cochran, Sullivan, & Mays, 2003; Mays & Cochran, 2001; Cochran, 2001; Gilman, et al., 2001; Ryan & Futterman, 1998). While it is important to view these findings as somewhat tentative given methodological limitations to these studies, the pattern of findings across multiple studies seems clear. Cochran and her colleagues (2003) were able to analyze a large national data set that looked explicitly at sexual orientation. They found that gay and bisexual men were more than twice as likely as heterosexual men to meet criteria for anxiety, mood, and substance use disorders. Differences between lesbian and bisexual women versus heterosexual women were less strong, but the same pattern of higher prevalence was observed (Cochran et al., 2003).

Data on the number of gay, lesbian, and bisexual people who die as a result of suicide each year are lacking (Cochran, 2001), but studies of suicide risk factors, including attempts, clearly document elevated risk for gay, lesbian, and bisexual people, particularly earlier in life and specifically during adolescence (Cochran, 2001; U.S. DHHS, 2001b; Goldman & Beardslee, 1999). Increased prevalence of suicide attempts reported in eight large-scale surveys conducted between 1998 and 2001 ranged from two to three times higher for gay, lesbian, and bisexual people, with higher rates generally being associated with samples that included adolescents (Cochran, 2001).

Studies of gay, lesbian, and bisexual youth have found the rate of suicide attempts to be more than three times as high as for heterosexual youth. Dropping out of school and running away from home because of gay-related stress, as well as family problems, internal conflict over sexual identity, and social pressure to conform to heterosexual gender norms were all found to be

associated with more suicide attempts (Ryan & Gruskin, in press; Russell & Joyner, 2001). Suicidal thinking, attempts, and risk factors for depression were found to be much higher in a large, diverse group of lesbian women, compared to heterosexual women (Matthews, Hughes, Johnson, Razzano, & Cassidy, 2002). Gay and bisexual men have been found to be at three times the risk of heterosexual men for suicide attempts (Paul et al., 2002). The increased risk tends to occur earlier in life, with 75% of suicide attempts happening before age 25. Paul and his colleagues (2002) also suggest that the risk of suicide among adolescent gay and bisexual men may be increasing.

Transgender people have received very little research attention in terms of prevalence of mental health needs, but one recent large study (Clements-Nolle et al., 2001) found elevated rates of suicide attempts, depression, and psychiatric hospitalization history. They also found elevated rates of HIV-positive status. The higher rates of suicide attempts and depression confirmed earlier studies and were seen by the authors to be related to increased risk of discrimination and victimization. It should be emphasized that even this large study included only individuals from a single city (San Francisco), and did not involve a random sample, so it is not known to what extent it represents the overall transgender population.

Transgender identity has been defined at various levels. More inclusive definitions encompass “a broad range of gender non-conforming identities and behaviors, including transsexuals, cross-dressers, biologically intersexed persons, and ‘gender benders’ who challenge gender norms for cultural or political reasons” (Ryan, in press). More narrow definitions focus on people who have a persistent and distressing discomfort with their biologically-assigned gender and live their lives to varying degrees as the opposite sex (Clements-Nolle et al., 2001). However, these definitions are expanding as more people, particularly youth, reject traditional “western” binary gender roles as not representing their gender expression. Transgender people are also often viewed incorrectly as homosexual, as they include people with gay, lesbian, bisexual, and heterosexual orientations.

The transgender group has only recently come into focus as a specific population of interest in studies of mental health needs and services and there is very little systematic information available (Ryan, in press). Most of the psychiatric literature has focused primarily on the needs of transsexuals (people seeking to change their sexual orientation), generally viewing their "gender dysphoria" as pathological. People undergoing sexual reassignment treatment generally have mental health needs and frequently receive counseling as part of their treatment. But since the late 1990s, with the first publications on transgender youth and their social needs appearing in the professional literature, the needs of transgender people have begun to be viewed more broadly. The information that is available suggests that risks are higher for stress-related needs across the group of transgender people (Ryan, in press; Ryan & Gruskin, in press).

Mental health needs are also not limited to higher rates of some mental disorders. There are also important developmental challenges affecting gay, lesbian, bisexual, and transgender people. For example, the coming out process has recently begun to be viewed as a specific developmental milestone associated with overall identity development and itself a focus of concern and support among adolescents (Ryan, in press). More recent studies have found the age of coming out to be younger (as cited in Ryan & Gruskin, in press; Ryan, in press). Other sub-clinical concerns have been documented, including chronic stress among gay, lesbian, and bisexual youth, particularly related to coming out, family acceptance, stigma, and bias (Ryan & Futterman, 1998; Ryan & Gruskin, in press). Another set of needs relates to the theoretical construct of internalized homophobia, which posits a link between the internalization of negative attitudes and beliefs about homosexuality during childhood and problems with self-image and social functioning in adolescence and adulthood (Cochran, 2001).

Differences in mental health need across the life course. Some researchers have increasingly begun to view gay, lesbian, bisexual, and transgender mental health needs in the context of the life course, considering healthy developmental pathways across life, as well as the cumulative interplay of risk and protective factors (Ryan & Gruskin, in press). In addition to being an important direction and model for future research, this perspective helps make sense of the

complicated findings related to gay, lesbian, bisexual, and transgender mental health needs. Higher rates of suicide and depression make sense during the developmentally conflicted times of identity development in adolescence and young adulthood. There has been increasing attention to the role of developmental milestones and aging on mental health for gay, lesbian, bisexual, and transgender youth (such as suicide risk and depression associated with sexual identity formation) (Ryan & Gruskin, in press; Ryan & Futterman, 1998).

Dynamics are less clear as gay, lesbian, and bisexual people age, but risk of suicide and depression seems to decrease despite continuing mental health needs. Midlife lesbians and gay men have been heavily affected by the AIDS epidemic and many have lost a large part of the support system that would have provided resources and practical support as they aged. Less is known about older lesbians and gay men than any other age group (Ryan & Gruskin, in press). While many middle-aged lesbians and gay men were among the first cohort to live openly gay lives, lesbian and gay seniors are much less likely to have been open with friends, family, and co-workers about their sexual orientation. Also, older adults who are gay or lesbian have limited supports outside of intimate partners and friendships, with few having children to support them and few older adult services specifically addressing the needs of gay and lesbian people, let alone other sexual minorities (Ryan & Gruskin, in press).

The literature is very limited, but as a group, older lesbians and gay men report high levels of life satisfaction and are less likely to use mental health services than younger gay and lesbian adults. While this observation affirms the protective function of identity formation and social support over time, one should not conclude that there are no important mental health needs among gay, lesbian and bisexual older adults that need to be addressed. The limited studies available document significant past victimization, mental health concerns and histories of suicidal thinking and attempts, as well as some continuing struggle with suicidal thoughts. Nearly all older gay, lesbian and bisexual adults in one study had lost a friend to AIDS. Many struggle with the legal and institutional structures that place barriers between them and their partners (Ryan & Gruskin, in press).

Differences associated with race and ethnicity. In addition to questions across the life cycle, research is emerging regarding the importance of culture, race, and ethnicity for gay, lesbian, bisexual, and transgender people (Harris & Licata, 2000; Ryan & Gruskin, in press). The paucity of research in this area is unfortunately well established (Harris & Licata, 2000; Ryan, in press). Ryan and Gruskin (in press) discuss the work of Diaz regarding the differential needs of gay men of color, including different levels of identification with the gay community, sources of social support, stronger familial ties, cultural definitions of masculinity/machismo, and dual minority status, noting that health promotion services must take into account these differences in order to be successful. They note that Diaz has also documented high levels of psychological distress among gay men of color. Ryan (in press) also notes research on the specific challenges encountered within Asian American families, which differ in complex ways from the dynamics of other American families.

Use of mental health services. The literature seems to clearly establish that gay, lesbian, and bisexual adults access treatment in higher numbers than heterosexual people. Adjusting for demographic differences and current insurance status, Cochran et al. (2003) found gay, lesbian, and bisexual men and women were more likely to seek help for mental health needs than their heterosexual counterparts, a finding that had been suggested in the literature for some time (Cochran, 2001). Increased use of therapy has been found in a large, relatively well-defined sample of lesbian women (Matthews et al., 2002). Positive community norms toward therapy, particularly among lesbian women, but also among gay men, have been noted (Cochran, 2001).

It is not clear that these findings apply to youth. Rates of service use among adolescents is complicated by lower rates of insurance and service use overall, and gay, lesbian, and bisexual youth seem particularly vulnerable to bias and stigma exhibited by health professionals (Ryan & Futterman, 1998; Ryan & Gruskin, in press). The adequacy of access to services for older adults who are gay, lesbian, or bisexual, as well as transgender people or ethnic and racial minorities among these groups has not been established empirically, but the documented bias affecting these groups overall suggests that there is reason to think that barriers to care are higher than the

general population. Upwards of half of male-to-female and female-to-male transgender people lacked health insurance in one recent large study (Clements-Nolle et al., 2001).

While more gay, lesbian, and bisexual adults seem to seek mental health treatment, both our review of the literature and our interviews with Colorado key informants suggest that one should not conclude that the treatment available is well-suited to the needs of these groups, let alone other sexual minorities such as transgender people whose experiences and needs are only now beginning to be recognized. Cochran (2001) summed up her sense of the treatment literature as "strong hints that although lesbians and gay men are higher consumers of treatment services than are heterosexual women and men, their therapeutic interventions may be especially vulnerable to factors that reduce effectiveness" (p. 941).

Recent studies of mental health providers have documented that although most do not view homosexuality as pathological, providers still frequently evidence attitudes and behaviors that can interfere with effective treatment, including heterosexual bias, negative views and stereotypes, avoidance of topics that make the therapist uncomfortable, and over- or under-emphasizing the relevance of sexual orientation in relation to actual mental health needs (Cochran, 2001). Gay, lesbian, and bisexual people consistently report inappropriate and discriminatory care, despite evidence of significant improvement in training and cultural competence in the past two decades (Ryan & Gruskin, in press). While a small minority of practitioners continue to promote controversial therapeutic approaches for sexual minority clients (for example, conversion or reparative therapy to try to change sexual orientation), the consensus among mental health practitioners and researchers is that homosexual identity and behavior are not pathological and are instead cultural factors in treatment (Cochran, 2001).

The use of inappropriate or discriminatory treatments could relate to a lack of training. Ryan and Gruskin (in press) cite an American Psychological Association study which found that over 90% of school-based providers said they lacked training, knowledge, or skills, and over three-quarters lacked service resources to effectively serve sexual minority youth. The appropriate training that

is a critical factor in providing effective services is minimally available in professional schools and clinical supervision.

In Colorado, the situation seems mixed. On the one hand, a relatively large number of mental health providers in our survey (16%) reported that they provide culturally specialized treatment for sexual minorities. The survey asked about sexual minorities overall, but only specified gay, lesbian and bisexual people, so its applicability to other sexual minorities such as transgender people is limited. The survey results revealed no statistically significant differences across provider type, regions of the state, or practice settings, although this could have been due to the low number of overall participants claiming to provide culturally specialized treatment for sexual minorities. There were trends in each area. Regionally, most of these providers were in the Denver Metro area (22%) and fewest in Northeast and Southeast Colorado (13% each). Providers in private practice settings were more likely to offer specialized treatment (21%) than those in agencies (11%). Across provider type, there were fewer psychiatrists (8%) claiming this specialty than other types of providers (19%).

Specialized therapy approaches have been developed and described since the early 1990s, including gay affirmative therapy and principles to help therapists in general respond more competently to the mental health needs of sexual minorities (Cochran, 2001). Gay affirmative therapy focuses on negative attitudes about homosexuality that can affect gay, lesbian, and bisexual people, as well as their heterosexual peers. However, this work has yet to be addressed with the level of research necessary to establish it as evidence-based (Cochran, 2001).

It has been observed that too much research attention has been paid to the presumed pathological effects of same-sex sexual orientation on adolescents' lives (Russell & Joyner, 2001; Ryan & Gruskin, in press). Increased awareness of a tendency to focus on pathology in studies of gay, lesbian, and bisexual people (Cochran, 2001) has stimulated research on positive coping and resilience, particularly among adolescents (Ryan & Gruskin, in press). Interestingly, youth with higher self-esteem report less distress and fewer mental health disorders. Positive websites,

social and recreational organizations for gay, lesbian, bisexual, and transgender youth, Gay/Straight Alliances (GSAs) in schools, and other community supports are increasingly seen as protective and promoting healthy development (Ryan & Gruskin, in press). However, these issues are complex and interrelated. For example, the coming out process and association with affirmative gay/lesbian/bisexual social networks can promote adjustment, but at the same time, disclosure of sexual orientation can subject a person to increased discrimination and violence from others (Paul et al., 2002; Ryan & Gruskin, in press).

In addition to psychotherapy guidelines, some innovative community-based interventions are being developed to address these concerns:

- The Family Acceptance Project/Proyecto en Familia coordinated by Ryan and Diaz (C. Ryan, personal communication, July 25, 2003) is a project funded by The California Endowment to study and develop training, assessment, and intervention resources to promote provider cultural competency based on youth risk and resilience and family strengths. The project focuses on adolescents who identify as lesbian, gay, bisexual, or queer and their families, with a cross-cultural emphasis on White and Latino cultures. As opposed to the focus on pathology and morbidity that prevails in services for sexual minority youth, the project emphasizes the identification of factors promoting healthy overall and sexual identity development, including the role of family.
- Another promising development specifically for transgender youth involves efforts in California to develop conduct and safety standards in public schools for the treatment of lesbian, gay, bisexual, and transgender youth (Ryan, in press).
- The National Mental Health Association has prioritized anti-gay bullying, supports for youth, and cultural competence standards in its national efforts.

Colorado has several innovative programs serving gay, lesbian, bisexual, and transgender people:

- The Gay, Lesbian, Bisexual & Transgender Community Center of Colorado, located in Denver, is a source of innovative programming and support. For youth, the Center runs Rainbow Alley, a drop-in center with comprehensive supports, including counseling referrals, support groups, and crisis services. Rainbow Alley reports that about 1000 youth a year visit a total of approximately 5000 times. In the first half of 2003, over 120 youth participated in support groups. Rainbow Alley is also developing its own counseling capacity. For adults, the Center offers support groups and referral help in finding mental health providers with appropriate training. The Center also partners with Parents, Friends, and Families of Lesbians and Gays (PFLAG) to offer family support services.
- Urban Peak is the primary provider of services for homeless and runaway youth in Denver and Colorado Springs. Urban Peak has developed its own services, as well as partnerships

with Rainbow Alley to provide services and support to gay, lesbian, bisexual, transgender and questioning youth. Urban Peak reports that these youth constitute over a fifth of the overall number of the runaway and homeless youth it served in the 2002 fiscal year, reflecting the nationally high proportion of sexual minority youth represented among runaway and homeless youth. Urban Peak has hired a lead staff member for gay, lesbian, bisexual, transgender, and questioning youth and maintains single rooms in its shelter for youth who are considered to be particularly at risk, such as transgender youth.

- The Colorado AIDS Project (CAP) provides comprehensive services for people living with HIV/AIDS in Colorado, including many gay, lesbian, and bisexual people. CAP is funded through federal Ryan White grants that define their services as a payer of last resort, but key informants noted that their services have fewer barriers to care – both financial and cultural – than many private providers and are often sought out by people with private insurance. This integrated approach to the care of people living with HIV/AIDS has helped to close the gap between mental heath, primary care, and substance abuse services that has historically complicated service delivery for people living with HIV/AIDS.
- Key informants also noted that the Mental Health Corporation of Denver (MHCD) provides specialized mental health and psychiatric services for people living with HIV/AIDS.
- Maria Droste Services of Colorado was seen by key informants as a competent mental health provider for gay, lesbian, and bisexual people.

The Mental Health Needs of People with Disabilities

For the purposes of this report, we differentiated two groups of people with disabilities. One major group includes people with developmental disabilities; the second group includes people with various physical disabilities, including hearing, mobility, and vision disabilities. In Colorado's population, 7.4% of people ages 5 to 20, 15.9% of people ages 21 to 64, and 40% of people ages 65 and older report having some type of disability, which includes both people with developmental disabilities and people with physical disabilities, as well as people with multiple disabilities (U.S. Census Bureau, 2003).

For people with severe disabilities and mental health needs, there is a national movement for states to develop what are called "Olmstead Plans." This movement grew out of a Supreme Court decision (Olmstead v. L.C.) in which it was found that persons with mental disabilities, including mental illness, should not be held unnecessarily in institutional settings (Olmstead v. L.C., 1999). As a result, states have been encouraged to develop plans that address this issue, and more recently President Bush signed an Executive Order requiring states to provide community-based

alternatives for individuals with disabilities in compliance with the terms of the Olmstead decision.

The Mental Health Needs of People with Developmental Disabilities

Overview of developmental disability. We use the term developmental disabilities in this report to refer to a range of conditions that limit people's intellectual and overall functioning. The federal government and various state governments use different definitions of developmental disability to determine eligibility for services. In the literature, "developmental disability" is often used interchangeably with "mental retardation" (Antochi, Stavrakaki, & Emery, 2003). In Colorado, however, developmental disability is defined more broadly as a "disability that is manifested before the person reaches twenty-two years of age, which constitutes a substantial disability to the affected individual, and is attributable to mental retardation or related conditions which include cerebral palsy, epilepsy, autism, or other neurological conditions when such conditions result in impairment of general intellectual functioning or adaptive behavior similar to that of a person with mental retardation" (Care and Treatment of the Developmentally Disabled, 2002). While children under five years of age cannot be diagnosed with a developmental disability, they can qualify for certain developmental disability services in Colorado (Colorado Developmental Disabilities Services [DDS], 2003a).

Confusion is common regarding the difference between developmental and other disabilities such as learning disability or mental illness (Colorado DDS, 2003a). This confusion has not been limited to the public, but has also included mental health providers (Szymanski, 1994). The key distinction is that a person with a developmental disability experiences impairment in both intelligence and adaptive skills that places them in the lowest one percentile of the general population (Colorado DDS, 2003b). Furthermore, while people with mental retardation typically constitute the largest group of those with developmental disabilities (97% of adults served in the Colorado DDS system [Colorado DDS, 2003b]) and have been the main focus of much of the services, research, and advocacy in this area, most people with developmental disabilities also

have other disabilities (73% of adults served in the Colorado DDS system [Colorado DDS, 2003b]).

The mental health needs of people with developmental disabilities. Although most people with developmental disabilities do not have a mental illness, people with developmental disabilities tend to have more mental health needs than the general population. This finding has been noted both in the literature (for example, Lovell & Reiss, 1993) and among key informants interviewed for this study. Paradoxically, while developmental disabilities have been found to increase the risk of mental illness, they have also been found to decrease access to mental health services (Reiss, 2001). In addition, there is some evidence that people with mental retardation may be more susceptible to sexual victimization (Valenti-Hein & Mueser, 1990) and other forms of victimization (such as physical abuse, robbery) than people without mental retardation (as cited in Reiss, 2001). Key informants noted that victimization may also extend to being more easily coerced by others to commit crimes or engage in other maladaptive behaviors.

Estimates of the prevalence rates of co-occurring developmental disability and mental illness vary greatly across studies, ranging from 20% to over 70% (Bregman & Harris, 1996; Campbell & Malone, 1991; Einfeld and Tonge, 1996; Lovell & Reiss, 1993; Szymanski, 1994; Walters, Barrett, Knapp, & Borden, 1995). These variations are mainly due to inconsistent definitions of developmental disability (such as only including mental retardation), dissimilar service settings (community-based versus institutional), and differing methods of determining the presence of a disorder (Szymanski, 1994). Other differences relate to the severity of the developmental disability, as well as the ages and genders of the populations studied (Jacobson, 1990). These differences are further complicated by the frequent lack of effective communication skills among people with more severe developmental disabilities, which can hamper accurate diagnosis of co-occurring disorders (R. Fletcher, personal communication, July 29, 2003). Estimates of mental health need are also complicated by inconsistent approaches to estimating prevalence, since most national prevalence estimates of mental health needs among people with developmental disabilities are not lifetime or annual estimates (Reiss, 1994a, 2001).

Notwithstanding the above complications, it is generally accepted that the prevalence rate of 30-35% most accurately captures the extent of co-occurring developmental disabilities and mental illness across settings, populations, and age groups (R. Fletcher, personal communication, July 29, 2003). A prevalence rate of 30-40% has been found in adults, and 40-60% in children (as cited in Dosen & Day, 2001). Prevalence rates have been found to decrease with age, with a 20% estimate for people ages 65 and older (as cited in Dosen & Day, 2001).

A national agenda was developed recently to promote research on mental illness and developmental disabilities, including a plan for more epidemiological research in this area (NIH, 2001). In Colorado, a survey conducted by the Colorado Department of Human Services has identified that 73% of adults served in the Colorado DDS system require close supervision because they experience consistent problems in behavior, mental health, major medical conditions, legal difficulties, or adaptive skills (as cited in Colorado DDS, 2003b). Approximately 7% of people with severe mental illness or emotional disorders (SMI or SED) are served in the Colorado DDS system (McGee et al., 2002), while 5.3% of people served in Colorado's public mental health system also have a developmental disability (Colorado MHS, 2003b).

Mental disorders affecting people with developmental disabilities include the range of difficulties found in the general population (Reiss, 2001; Sevin & Matson, 1994). Many psychiatric disorders have been found to be more prevalent among people with developmental disabilities, although specific prevalence rates are difficult to conclude given the early stage of research in this area. Greater risk for anxiety disorders, particularly phobias and generalized anxiety, has been found among people with developmental disabilities (Ollendick & Ollendick, 1982; Ollendick, Oswald, & Ollendick, 1993). Several studies have also found higher rates of personality disorders (Reid & Ballinger, 1987; Reiss, 2001), as well as severe behavior disorders and aggression (Dosen & Day, 2001; Lovell & Reiss, 1993; Reiss, 2001; Sevin & Matson, 1994), among people with mental retardation, the latter creating a significant barrier to living in the community (Reiss, 2001). While rates of major depression and bipolar disorder have been found

to be the same for people with mental retardation and the general population (Day, 1990; Sevin & Matson, 1994), some studies that specifically focused on children found higher rates of depression among children with developmental disabilities (Walters et al., 1995).

Mental health services for people with developmental disabilities. Even more than for people with mental illness, the national expectation is that most people with developmental disabilities will be served in the community instead of in institutional settings (Braddock, Hemp, Rizzolo, Parish, & Pomeranz, 2002). Colorado is no exception. Between 1977 and 2000, Colorado reduced its spending on public and private institutions by over 60% and increased spending on community-based services by nearly 90% (Braddock et al., 2002). This is not to say that all is as it should be in Colorado's DDS system. One leading researcher in the field who has looked at services nationally notes Colorado's "severe fiscal anemia" in the smaller proportion of its resources going to community supports for people with developmental disabilities, in comparison to other states (D. Braddock, personal communication, July 17, 2003).

As discussed above, the same services typically provided in the community for people with developmental disabilities may not be as accessible for people with a co-occurring mental illness, especially those with behavioral problems. These behaviors are often more challenging to work with in the community than in institutions, especially if the underlying mental illness causing the behavioral problem is undiagnosed and therefore untreated. This group has been referred to as among the most powerless and underserved (Reiss, 2001).

Inadequate access to appropriate mental health services and providers, especially in the community, has been well-documented through research (Einfeld & Tongue, 1996; Fletcher & Poindexter, 1996; Reiss, 2001) and by key informants. There are multiple barriers to access and appropriateness of mental health services for this population. Mental retardation and related behavioral problems, in particular, may "diagnostically overshadow" other mental disorders, resulting in the need for mental health services going unrecognized (Reiss, 2001; White, Nichols, Cook, Spengler, Walker, & Look, 1995). Furthermore, even when mental disorders are

recognized, there is a tendency to specify them as "secondary" diagnoses, typically resulting in funding for services for only the "primary" diagnosis of mental retardation (Reiss, 1994b).

There is also a lack of providers who are trained to work with the unique needs of this population, leading to recruiting difficulties (Reiss, 2001; Szymanski, Madow, Mallory, Menolascino, Pace, & Eidelman, 1991). The shortage of specialized providers is further compounded by high turnover rates for staff within developmental disabilities systems (including Colorado's [Colorado DDS, 2002]), as well as the high percentage of aging family caregivers who provide most of the home and community-based care for people with mental retardation both in the U.S. and Colorado (Braddock et al., 2002).

There are also system barriers. Administrative agencies for mental health and developmental disability services in Colorado and most other states are organizationally separated, including their funding streams and service systems (NASMHPD, 2000). This reinforces a lack of coordination of providers in the two systems, a known obstacle for effective service delivery for people with co-occurring mental illness and developmental disabilities (Beasley & duPree, 2003). Because of these factors, many people experience frequent referrals back and forth between mental health and developmental disabilities systems because they are assessed as having only a developmental disability or a mental health disorder, and each system tends to provide treatment only for one or the other (Reiss, 2001). Key informants reported that in the Colorado DDS system there has been a growing number of people with complex needs, including mental illness and other behavioral problems (such as sexual offenses) that are often interpreted as risk factors preventing access to some services. Key informants also reported long waiting lists within both the developmental disabilities and mental health systems.

The waiting list for adult services in the Colorado DDS system resulted in a class-action lawsuit in August 2000. As of June 2003, waiting list lawsuits were in the process of litigation in 16 states (Smith, 2003). Colorado's waiting list lawsuit (known as the Mandy R. Lawsuit) was filed by three plaintiffs on behalf of nearly 3000 people who the suit claims have not been able to

receive services in the Colorado DDS system, despite being eligible, and who have been placed on waiting lists (The Arc of Colorado, 2002). Key informants confirmed that long waiting lists exist, citing a historical lack of funding and reduced appropriations during the current budget crisis. As of August 2003, this lawsuit is still pending. There has been no court activity since November 2002 (Smith, 2003).

While the Colorado DDS system has embarked upon many strategies, including implementation of a Systems Change Project and a multi-year Strategic Plan to address service access and quality issues for people with developmental disabilities, key informants stressed that more efforts are needed o address the unique needs of people with co-occurring mental illness. Existing services in Colorado that address the needs of this population include the following:

- The Dual Disability Program provided by Aurora Mental Health Center offers day treatment and vocational services. Aurora Mental Health Center also has a residential facility, Mrachek House, in which life and social skills training are provided. Key informants noted that these are the only known specialized programs for people with co-occurring developmental disabilities and mental illness in Colorado's public mental health system.
- Another Colorado program that may address some of the complex needs of this population is the Arc of Colorado's Criminal Justice Advocacy Program, which offers training to law enforcement, probation officers, and prosecutors in interacting with people with developmental disabilities, and in some cases those with co-occurring disorders. In addition, in response to a recent Denver tragedy in which a boy with a developmental disability was shot and killed by a police officer, the city is promoting expansion of current Crisis Intervention Team (CIT) training for law enforcement officers regarding both mental illness and developmental disability, in addition to "suicide by cop" situations and pharmacological issues.

The Mental Health Needs of People with Physical Disabilities

Overview of physical disabilities. People with co-occurring physical disabilities and mental illness face many unique needs and barriers to appropriate mental health services. Our examination of these issues focused primarily on the following three categories of people: people who are blind or visually disabled; people who are deaf or hard of hearing; and people with mobility impairments. There are other physical disabilities (such as traumatic brain injury) and other hidden disabilities (such as cognitive disabilities related to multiple sclerosis) that can also

affect mental health or co-occur with mental illness, but the scope of this study was limited to these three categories because of their prevalence. However, many of the issues discussed below can apply to people with other physical disabilities and health conditions.

A small but significant number of people with physical disabilities receive services from Colorado's public mental health system. According to an annual report generated by Colorado Mental Health Services, 1.5% of people served in Colorado's public mental health system are also deaf, 1.3% are blind, and 2% are non-ambulatory (Colorado MHS, 2003b). According to key informants, these numbers probably reflect both an underestimate of the number of people who need mental health services and an overestimate of the number of people who are regularly able to access mental health services, since people with disabilities are more likely than others to initially seek services and then not return for more because of lack of cultural competency and physical access issues.

The mental health needs of people with physical disabilities. Like the general population, people with blindness, deafness, or impairments in mobility may experience a range of mental illnesses or mental health issues. Most of the research on prevalence of mental illness among people with physical disabilities has focused on depression. While it is clear that not all people with physical disabilities also experience depression, and most lead happy and productive lives, research has shown that there is a higher incidence of depression among people with physical disabilities than in the general population (Boekamp, Overholser, & Schubert, 1996; Hample, 2000; Jensen et al., 1993; Kishi, Robinson, & Kosier, 2001; National Multiple Sclerosis Society, 2003; Ravesloot, Seekins, & Walsh, 1997; Reinherz et al., 1989; Richards, Kewman, & Pierce, 2000). This finding extends across disabilities, encompassing vision, hearing, and mobility. Reasons for this higher incidence of depression vary across different types of disabilities and, in some cases, are still in the process of further research. Like people in the general population, the extent to which people with physical disabilities experience depression is based on a complex interplay among various biological, psychological, social, and environmental factors (Elliott, & Frank, 1996).

Most of the research we identified on mental health needs other than depression and barriers to mental health services focused on people with mobility and hearing disabilities. This may be due partly to the ways in which hearing and mobility disabilities affect mental health treatment, given its traditional dependence on the spoken word and physical access to clinical offices. While people with visual disabilities certainly experience barriers to care such as written materials and cultural issues, the added need for alternative means of verbal expression and physical access for people with hearing and mobility disabilities may heighten awareness of the needs of these groups. The following sections therefore focus on the specific needs documented for only two groups: people with mobility impairments and people who are deaf or hard of hearing.

Specific needs of people with mobility impairments. Mobility impairments can stem from a wide range of causes, including congenital conditions, degenerative physical diseases such as multiple sclerosis or muscular dystrophy, and traumatic injury, such as injury to the spinal cord. Mental health concerns can also vary widely among people whose impairments derive from these different sources. For example, for people with spinal cord injuries (as opposed to people with congenital life-long disabilities), pre-existing ways of thinking about the world and oneself, accompanied by biological changes associated with the injury, may influence the individual's vulnerability to stressful life events. Furthermore, the nature and frequency of stressful life events following the injury, as well as perceived social support may affect the person’s coping skills and adaptation (Boekamp et al., 1996).

Issues for people with degenerative disease-based mobility impairments such as multiple sclerosis or muscular dystrophy are often quite different. For people who experience both depression and disease-based loss of mobility, there is evidence of a bi-directional impact, with depression affecting the disability and the disability affecting the depression (Jensen et al., 1993). Furthermore, some medications used to treat these diseases may also contribute to depression (Hample, 2000).

Suicide rates and suicide attempts have been found to be higher among people with spinal cord injuries (Judd & Brown, 1992; Kishi et al., 2001). The research has also shown that many spinal cord injuries are caused by suicide attempts, posing a serious risk factor for subsequent suicide attempts (Kennedy, Rogers, Speer, & Frankel, 1999). People with impairments in mobility are also at risk for concerns related to their sexuality and sexual functioning, particularly right after the injury or disease, if the impairment is not congenital (Mackelprang & Valentine, 1996; McDonald, Lloyd, Murphy, & Russert, 1993; Richards et al., 2000). For example, spinal cord injuries affect sexual functioning in both men and women. Key informants added that self-esteem and body image issues may co-occur and contribute to this problem.

Specific needs of deaf and hard of hearing people. We use the terms "deaf or hard of hearing" in our discussion of deafness to reflect the usage that key informants reported most of their clients prefer. People who are deaf or hard of hearing are quite heterogeneous and have been increasingly recognized as cultural and linguistic minority groups (Dolnick, 1993).While the two groups are typically defined together, their mental health needs and the strategies to address those needs may be different. Both the literature and key informants reported that people who are deaf or hard of hearing and have mental health needs are often misdiagnosed or underdiagnosed, as a result of the lack of specialized providers or interpreters with mental health knowledge who have the skills to appropriately communicate and knowledge of how various mental disorders may manifest themselves in this population (Hindley & Kitson, 2000).

While psychiatric disorders in earlier studies were found to be at least twice as common in children who are deaf or hard of hearing as they are in the general population (Hindley, Hill, McGuigan, & Kitson, 1994), these prevalence rates appear to be decreasing as a function of improvements in educational practices and parenting skills (Hindley & Kitson, 2000). For example, in one study that found equivalent prevalence rates, the author also found that in 1994, 100% of hearing mothers and 94% of hearing fathers of children who are deaf or hard of hearing had sign language skills, whereas in 1978, only 23% of hearing mothers and 9% of hearing fathers had sign language skills (Sinkkonen, 1994, as cited in Hindley, 2000). Deaf and hard of

hearing children have been found to be at increased risk of physical abuse (Sullivan & Knutson, 1998). Addressing these impediments to social support and sometimes traumatic stressors seems to have in part reduced differences in mental health needs between this group and the general population.

Provider specialization is particularly important for serving people who are deaf and hard of hearing. This need is multi-faceted. For example, a provider serving deaf and hard of hearing people has to understand and accommodate a broad range of linguistic needs with sign fluency (American Sign Language and other sign systems), as well as understand the specific cultural needs within subpopulations (such as the unique needs of people who have acquired deafness versus people who are born deaf, or deaf children who attend schools with hearing children, as opposed to those who attend schools for the deaf). Similarly, providers also need to be aware of how psychological assessment tools and best practice interventions may have to be modified for people who are deaf or hard of hearing. Finally, if specialist providers are not available for direct services, it is essential for non-specialist providers to at least have access to regular specialized consultation.

Our survey of Colorado mental health providers found a small number (4.2%) who indicated that they provide culturally specialized treatment to people who are deaf or hard of hearing. Even fewer providers (1%) reported they were able to conduct treatment using American Sign Language. There were no differences across provider types or regions of Colorado. Most of the Colorado mental health providers who provide culturally specialized services do so within an agency or clinic, rather than in private practice. Key informants confirmed that deaf and hard of hearing people tend to receive mental health services in the public mental health system, because such specialized (and more expensive) services tend to not be differentially reimbursed by private insurance. Furthermore, key informants noted that while some special education programs provide accessible mental health services for deaf and hard of hearing children (such as Adams School District 12), this is not true for the majority of school districts in Colorado.

Barriers that limit access to care. Key informants noted that access to appropriate mental health services is the single largest problem for people who experience a co-occurring physical disability and mental illness in Colorado. At an overall level, key informants described various institutional barriers that together convey an attitude that is not welcoming to people with physical disabilities. Although many mental health providers state that they can accommodate the needs of any person whose mental health needs match their specialization or program criteria, many of their practices or service settings are not readily accessible to people with physical disabilities. This can result not only in a lack of service, but also inappropriate service in more restrictive settings. Key informants noted that many younger adults with physical disabilities and mental illnesses are now being served in nursing homes because they have not been accurately diagnosed or treated for their mental health needs in the community.

Key informants compared this situation to the concept of institutional racism, stating that it includes two key aspects:
(1) Lack of physical accessibility – The offices of many private and public mental health providers are not physically set up to accommodate people with a range of physical disabilities. Problems include narrow bathroom stalls or tall reception desks that do not accommodate people who use wheelchairs, unavailability of literature in alternative formats for people who are blind, and ready access to interpreters trained in mental health issues for people who are deaf or hard of hearing. Furthermore, key informants noted that even those providers who think they are accessible still exhibit barriers in subtle ways. For example, if a deaf or hard of hearing person attempts to contact a mental health provider with their TTY device and the provider has such a device but does not have quick access or does not know how to effectively use it, this can limit access and result in poor follow-up for future mental health services.

(2) Lack of understanding by mental health providers about the culture of disability and cultural distinctions within individual disability groups – Even those providers who are more physically accessible may still convey an attitude of inaccessibility by what they do or say. Key informants suggested that much of this has to do with a lack of understanding about disability

cultures, including terminology, understanding how the person culturally identifies with their disability and the disability community, and how a disability may or may not relate to mental health needs. For example, many providers make eye contact with the interpreter who is speaking verbally rather than with their deaf client, who is signing. Similarly, differences within disability groups need to be understood and acknowledged, such as how a person who is congenitally blind may culturally identify with the blind community in a different way than a person who became blind during their lifetime. Key informants explained that while mental health issues may arise as a direct result of a disability (such as a person who becomes depressed after suffering a spinal cord injury), providers often assume this to be true for everyone.

In addition to cultural barriers across providers and agencies, key informants noted that with the exception of the need for specialized care or consultative approaches for people who are deaf or hard of hearing, people with other physical disabilities do not necessarily require specialized or more expensive mental health services. The informants emphasized that the perception that this is true has negatively affected efforts toward improving accessibility, because these efforts are viewed as more costly. Key informants added that service accessibility for these populations may be improved at a relatively small cost through consultation and training of unspecialized providers conducted by disability organizations or consumer groups.

Colorado services and initiatives to serve people with physical disabilities. There are several efforts to promote better mental health care for people with disabilities in Colorado. The Colorado Department of Health Care Policy and Financing (HCPF) has embarked on several such initiatives, including the following:

- The Systems Change for Real Choices Grant aims to expand options for people with disabilities to live in the community.
- The Community Personal Assistance Services and Supports (COmPASS) Grant allows adolescents, adults, and parents of children with disabilities to have more control over their home- and community-based care, and establishes consumer-oriented training and education for home health, personal care, and independent living center staff.
- The Medicaid “Buy-In” Grant seeks to create opportunities for people with disabilities to seek competitive employment.

Furthermore, key informants noted that telemedicine technology (discussed in more detail under Observation #5) may be used to bring accessible services to communities who do not have specialized providers. Culturally-specialized services identified by key informants include:

- The Mental Health Corporation of Denver's Deaf Counseling Services offer outpatient and school-based services to deaf and hard of hearing children, adolescents, and adults in the Denver metro area through specialized providers with cultural and linguistic expertise.
- Pikes Peak Mental Health Center has a therapist proficient in American Sign Language (ASL) who works with deaf children at the Colorado School for the Deaf and Blind, as well as a part time therapist proficient in ASL to work with adults.
- Services for deaf children and hearing parents of deaf children are available through the Colorado School for the Deaf and Blind in Colorado Springs.
- The Rocky Mountain Deaf School also provides services in the Denver metro area.

The Mental Health Needs of Rural and Frontier Populations

Large numbers of Colorado's residents live in rural and frontier areas and experience their own health disparities related to geography. There are other subpopulations with specific needs throughout Colorado (such as people living on military bases), but this report was able to look only at larger regional differences across the state. The map below shows areas across Colorado that qualify as rural or even less populated frontier areas. Interestingly, many of these areas are adjacent to or surrounded by what are often seen as urban areas.

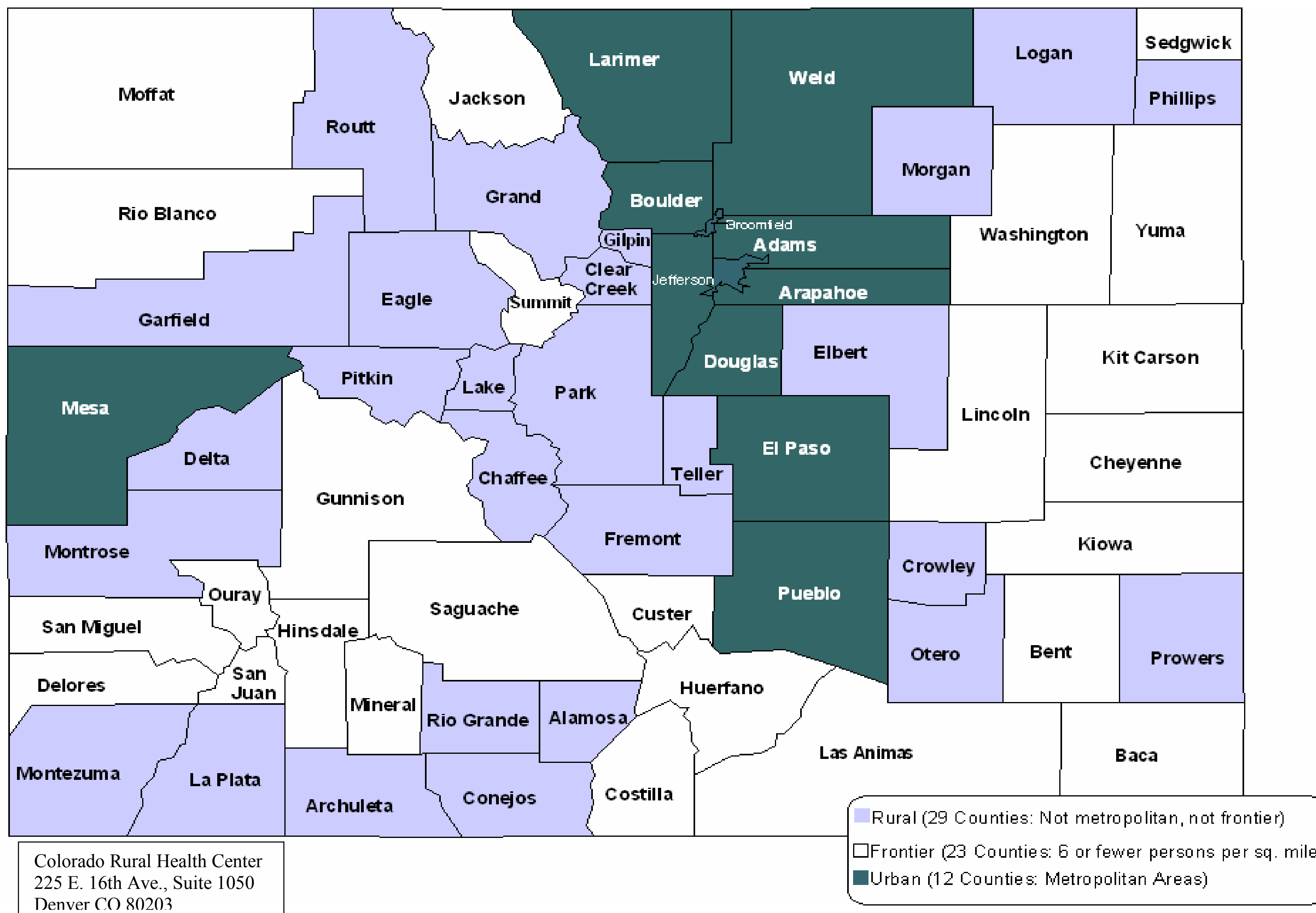
Overall, prevalence rates of mental illness in rural communities are similar to those in urban communities (Hartley, Bird, & Dempsey, 1999). Suicide rates and depression are the exception. Rates for both are higher for children and adults (Wagenfeld, Murray, Mohatt, & DeBruyn, 1994) and even higher among older adult males (Eberhardt, Ingram & Makuc, 2001) who live in rural areas. Depression rates among women living in rural communities are twice those of their urban counterparts (Hauenstein & Boyd, 1994). While prevalence rates of substance use disorders are also similar for rural and urban communities, some have suggested that use of methamphetamines, cocaine, alcohol, and tobacco may be higher in rural areas (CASA Study White Paper, 2000).

Various rural risk factors related to mental illness, which are also present in frontier settings, have been documented, including geographic and interpersonal isolation, the economics of extractive industries (e.g., mining, forestry), the overlap of work and home settings, and increased stigma associated with mental illness (Nease, 1993; Ortega, Johnson, Beeson, & Craft, 1994). Drug and alcohol abuse are significant problems in rural areas (U.S. GAO, 1990). Although less well studied than their rural and urban counterparts, people living in frontier areas have also been found to have less access to health care and to face unique hazards associated with their more isolated existence (McGuirk, Keller & Obata, 1997; National Rural Health Association [NRHA], 1994).

While prevalence rates are consistent with those of more populated areas, service use patterns differ. The following key factors appear to reduce service use in rural and frontier areas: accessibility (getting there and paying), availability (someone there when you are), and acceptability (choice, quality, knowledge) (Larson, Beeson, & Mohatt, 1993; Mohatt, 2000, 2003). As a result, rural and frontier residents tend to be served in primary care and other social service settings (U.S. Surgeon General, 1999). Gamm and colleagues (2002) summarized key issues related to primary care providers available to provide services in rural areas, including:

- Insufficient clinical skills among rural providers (Lambert & Agger, 1995) and underdetection of disorders (Schulberg, 1991)
- Lack of specialized backup (Rost et al., 1999)
- Insufficient training in mental health in medical school or residency (Geller, 1999; Lambert & Agger, 1995)
- Limited time for continuing education to better manage difficult cases (Rost et al., 1999)
- Heavy caseloads (Geller, 1999; Lambert & Agger, 1995), shorter patient visits (Geller, 1999)
- Not enough time for psychotherapy or counseling (Geller, 1999)

Colorado Rural, Frontier, and Urban Counties (2000 Census)



The shortage of providers in rural and frontier areas will be explored in more detail below under Observation #6 on the need for specialized mental health providers.

Recommendation: Provide education and balanced information to decision makers.

Given the persistently high level of unmet mental health needs in general and among specific populations, there is a need for organizations to facilitate communication and collaboration among the array of mental health advocates and decision makers. The former often feel that their data and stories are seen as biased and unreliable, while decision makers may be seen as unaware of needs or uncaring when they to make decisions that continue to erode the limited mental health services for those most in need.

Key informants perceived a unique role for foundations. Because foundations fund services, rather than seek funding, they are not seen as having the same self-serving bias that is often attributed to providers, advocates, and, at times, consumers and their families. Because foundations are intimately involved in the delivery of mental health services, particularly for underserved populations, they have a perspective that is often more informed than that of payers and decision makers, both public and private. In addition, foundations have a strong track record in Colorado for sound evaluation and an orientation toward research.

As a result, foundations are seen as uniquely positioned when it comes to educating decision makers (especially the legislature and public and private payers) about mental health needs in Colorado, the costs of unmet needs and stigma, and the specific value of different types of mental health treatment to individuals with mental health needs, their families, employers, insurers, taxpayers and the community as a whole. This includes both the dissemination of existing information in a systematic and coordinated way across foundations, as well as further efforts to study and document specific mental health needs in Colorado that are not well

understood (e.g., unmet needs among the privately insured) and public and private policies that can effectively address them.

Keeping in Mind Possible Unintended Consequences

As with the recommendations under Observation #1, decision makers should be aware of possible negative and other unintended consequences of the recommendations just offered. For example, one possible downside to increasing efforts to educate and inform decision makers is that it could affect the very quality that the stakeholders we talked with cited as the main advantage foundations have for this type of effort: their perceived neutrality. If the line between education and advocacy is crossed, foundations could erode the status of "honest broker" that the decision makers we talked with currently attribute to them. However, the danger for foundations of not engaging in education to promote their goals is a certainty, in that failure to educate decision makers will squander the opportunity to promote positive change.

In addition, legislative and other system-wide efforts to improve access to care can have unintended consequences. For example, our fictional couple of Barbara and Steve could potentially benefit in the short term from higher levels of mandated mental health insurance benefits that kept them from having such high deductibles. However, in the long run this might lead Steve's small business employer to forego offering insurance at all.

Observation #3: Mental Health Funding is Low and Shrinking

Snapshot of Key Findings Regarding Colorado's Mental Health Funding

Overall Funding Trends

- Nationally in 1997, $73.4 billion was spent on both private and public mental health services. Over half (55%) came from public sources. Private insurance (24%) and people paying out-of-pocket (18%) made up most of the rest. Compared to general health spending and adjusted for inflation, mental health spending levels fell.

Public Funding Trends

- Adjusted for inflation and population growth, public mental health spending fell over 8% between 1980 and 2001.
- In 2001, Colorado ranked 31st nationally for its level of public mental health spending per capita ($64.24 per person), 21% below the U.S. average of $81.16 per person.
- Since 2001, public mental health spending has fallen precipitously as a result of Colorado's budget crisis:
  - Estimates for FY 03-04 project that population-adjusted spending for non-Medicaid community mental health services will have fallen nearly 23% since FY 00-01.
  - Adjusted Medicaid funding was cut 2% in FY 02-03, the first decrease in many years.
  - Adjusted Colorado state hospital budgets will be up overall by 1% since FY 00-01, despite a cut of 28% of adult inpatient capacity and 35% of adolescent inpatient capacity.
  - Spending on antipsychotic medication for Medicaid recipients has gone up 59% since FY 00-01.

Impact on Public Services

- Decreased funding between FY 01-02 and 03-04 results in less public mental health service:
  - The number of people without Medicaid who receive mental health services is expected to drop by 23%. Nearly 10,000 fewer people will be served.
  - The number of people with Medicaid served dropped an estimated 18% between FY 01-02 and FY 02-03. Over 8,000 fewer people were served, although this estimate may somewhat overstate the reduction.
- While numbers served have only dropped by 23%, contractual requirements for community mental health center service to people without Medicaid has been reduced by 72%
- 14% of overall state hospital capacity has been lost over these three years.

Private Insurance

- From 1988 to 1998 as managed care helped overall health benefits fall in constant dollars, the value of private behavioral health insurance benefits fell four times faster than general health benefits due to managed behavioral health care organizations (MBHOs).

Snapshot of Key Findings Regarding Colorado's Mental Health Funding

Private Insurance (cont'd)

- Employers are under financial pressure to reduce all health care benefits, including mental health. Facing continuing double-digit premium growth, employers are increasingly asking employees to share more costs through deductibles, premium sharing, copayments, and reduced benefit levels.
- Mental health parity legislation removes certain limitations on mental health benefits. Colorado's parity law requires comparable benefits for six "biologically-based" diagnoses. Overall, the law appears to have resulted in modest change, but not significantly expanded mental health access.
- Colorado's over 600,000 uninsured residents (15.8% of the population) are increasingly on their own. Public services are limited to those most in need, and those resources are shrinking. Colorado ranks 8th nationally for high rates of uninsured and 49th in its Medicaid coverage.
- The underinsured are increasing in number. Increasingly managed and limited mental health benefits mean even those with insurance more often pay for their own care. In our provider survey, half of people with private insurance seen by providers in private practice and large numbers seen in agencies are viewed by their provider as having inadequate insurance.

Overview

"We don't have a health care crisis in this country. We provide some of the best care in the world. What we have here is a health care financing crisis." – **Mental health administrator in Southern Colorado**

"We're all suffering from the decrease in dollars in the public sector." – **Mental health provider in private practice**

Colorado's "crisis" of mental health funding was the single most frequently-mentioned concern among key informants. Mirroring the frequency with which this theme was mentioned was the level of concern, revealed in the use of words such as "crisis," "disaster," "catastrophic," "devastating," and "debacle." Our analysis of funding levels reinforces the urgency and concern expressed by the people we talked with.

Prior to the state budget crisis of the last two years, third-party funding for mental health services was at historic lows and was shrinking in real dollars per capita in both the public and private sectors. Unprecedented cuts in publicly-funded mental health services occurred in state fiscal year 2002-03 and are projected for state fiscal year 2003-04. As a result, the cost of care is borne increasingly by individuals, safety-net providers (such as emergency rooms), and primary care physicians. These trends are expected to worsen, perhaps dramatically, and the clear feeling of the stakeholders interviewed for this study was echoed in a June 30, 2003 Denver Post editorial about cuts in staff at Denver's community mental health center (the Mental Health Corporation of Denver): "Cutting social programs in general is a mistake, but eliminating services to those who need mental health treatment is like watching a train wreck in slow motion."

State General Fund - Funding provided from Colorado state operating budget.

As you read through the discussion of public and private funding trends that follow, keep in mind the context of Observations #1 and #2. While the most recent cuts focus on the public mental health system – Colorado's community mental health centers (CMHCs), state hospitals (CMHI-Pueblo and CMHI-Fort Logan), and Medicaid Mental Health Assessment and Service

Agencies (MHASAs) – they also have an impact on the other related mental health service delivery systems in the private sector, the primary health care system, and other public human services. These systems are also stressed financially. Private sector mental health funding is at historic lows, health care costs overall are rising and stressing employers, and other public human services are subject to the same state budget crisis (and associated cuts) as mental health. Child welfare, youth corrections, adult corrections, and public health service systems are all undergoing cuts of their own and refocusing on their core missions at the expense of many behavioral services and community-based alternatives.

How Funding Changes Affect People

Much of the burden of funding cuts falls on people with mental health needs. Colorado's over 66,000 low-income residents with severe mental health disorders who are not currently receiving any care will likely grow in number. The nearly 550,000 other Colorado residents with mental health needs not receiving care will be no more likely to receive it. The impact of budget cuts can be illustrated by revisiting the six fictional people we met earlier in this report.

An adult with insurance

> Barbara and Steve may find out that their deductible for mental health care will increase from $500 to $2500 per person later this summer when Steve's small business employer is faced with the choice between a 20% premium increase or increasing deductibles to cut the premium increase in half. Even after increasing the deductibles to reduce the increase to 10%, the employer will have to pass half of the premium increase on to Steve's family, which will more than erase the 4% raise Steve just received for his excellent performance. Steve knows things could be worse, since a colleague at another consulting firm faced the same deductible and premium increases, but also lost her mental health coverage altogether. Barbara is depressed and not in treatment and Steve is thinking that maybe they will just learn to live with that, given the new stresses on their finances.

Medicaid – A federal program administered individually by participating state and territorial governments that share in the program's costs to provide medical benefits to specific groups of low income and categorically eligible people.

An adult with serious mental illness.

Bob's chances of getting treatment for his schizophrenia and out of homelessness just got worse. The community mental health center had to eliminate its outreach position to the homeless shelter he often visits. The homeless shelter has some new federal funding and is hoping to replace the position, but that is not clear. To add insult to injury, the local MHASA just cut financial support for the drop-in center where he often sees his friends, so it is not clear if that will continue.

Bob's friend John, who has Medicaid coverage, is still doing well and continuing his treatment as before. However, he and John just talked about whether Medicaid would continue in Colorado given that it just had its first cut in a long time and the President is talking about converting the program to a block grant. Bob and John are not sure what that all means, but it does not sound good to them.

A youth and her family

Gabriela is still at the residential treatment center (RTC). Her most recent multiagency treatment planning meeting recommended in-home services again, which she is now eligible for given her extended RTC stay. However, cuts this year in Colorado's youth detention alternative program (SB-94) have led to the elimination of one of the three in-home treatment teams in her county, which depends on revenue from SB-94, child welfare, and mental health. None of the other agencies could pick up the extra costs, given their budget problems. Gabriela is on a waiting list for one of the remaining two teams, but she is likely to stay at the RTC an extra three months. She's not real sure she wants to go back to school when she gets out and is thinking she may just try to get a GED.

An older adult living in a rural area

Nadine continues to deteriorate in her functioning at the nursing home. She had been seeing a nursing home outreach worker from the local community mental health center. However, one of the two outreach positions funded by her local community mental health center was just cut. Nadine is not acting out in a way that disrupts other residents, and since her caregivers perceive that her depression is just a natural aging process, the nursing home has decided to prioritize the remaining outreach worker's time for other residents who are more in need. Nadine will continue to receive medication from her primary care physician, who oversees her care at the nursing home.

Nadine's friend Sally continues to do well in the town she lives in near Denver. She is no longer in treatment, and her depression has remitted.

Colorado SB-94 Program - Named after the bill passed by the Colorado legislature in 1991 authorizing these programs, SB-94 programs in each of the 22 judicial districts in Colorado fund and coordinate community-based alternatives to incarceration for youth offenders.

Medicare- A health insurance program for people 65 years of age and older; some people with disabilities under age 65; and people with permanent kidney failure. Has two parts: Part A helps pay for care in hospitals, critical access hospitals (small facilities that give limited outpatient and inpatient services to people in rural areas), skilled nursing facilities, hospice care, and some home health care. Part B typically requires a monthly premium payment and helps pay for doctors' services, outpatient hospital care, and some other medical services that Part A does not cover, such as the services of physical and occupational therapists, and some home health care. Part B can offer varying levels of prescription medications, including no coverage.

She is attending a meeting at the local senior center next week where they will be discussing both the promise of new Medicare coverage for medication and the concern that some staff positions at the senior center may be in jeopardy given the expected state budget shortfall in the coming year.

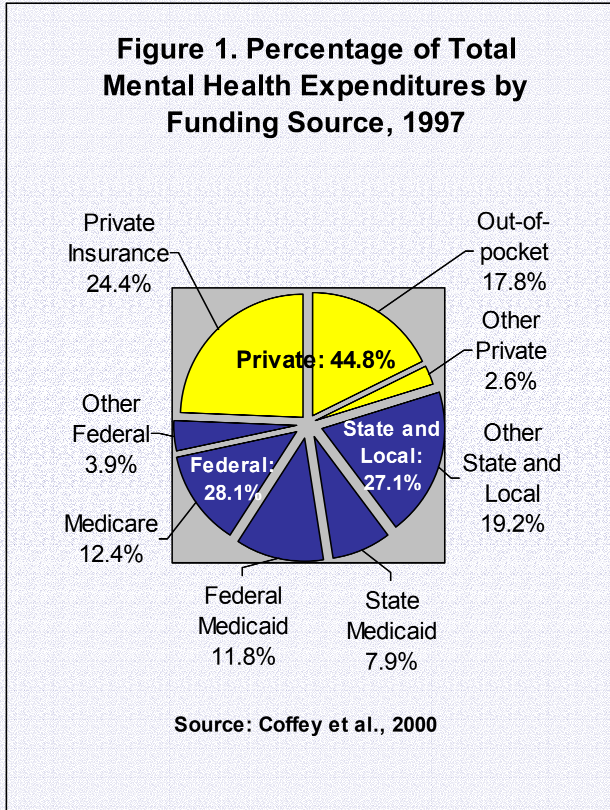


Figure 1. Percentage of Total Mental Health Expenditures by Funding Source, 1997

Source: Coffey et al., 2000

Long-Term Funding Trends

The most recent national estimates regarding public and private sector expenditures for mental health care come from a comprehensive analysis of trends between 1987 and 1997 (Coffey et al., 2000; Mark et al., 2000). In 1997, $73.4 billion was spent on both private and public sector mental health services. Over half (55.2%) of this amount was funded by federal, state, or local governments, with the remainder funded by private insurance and out-of-pocket payments.

At first glance, spending seems to have increased. Without adjusting for inflation or population growth, mental health care spending nearly doubled in the decade. However, when compared to overall health care expenditures and adjusted for inflation, mental health expenditures actually shrank as a percentage of general health care spending, increasing by only 4% annually compared to an annual 5% increase for health care spending overall (Coffey et al., 2000; Mark et al., 2000).

Most mental health spending growth is driven by Medicaid. Examination of the sources of funding show Medicaid and Medicare providing nearly all of the federal funding. After adjusting for population growth and inflation, Medicaid was the only source of public mental health revenue to grow between 1991 and 2001 (Lutterman, Hollen, & Shaw, 2003).

Furthermore, the pattern of public sources providing the majority of funding is the opposite of the pattern for health care funding in general, where funding comes primarily from private sources. Public mental health funding grew faster (at a rate of 4.3% per year) than private sector mental health funding (3.6% per year). This trend was primarily due to slower growth in private sector spending and rapid growth by Medicare and Medicaid (Coffey et al., 2000; Mark et al., 2000). Still, public sector spending controlled by state mental health agencies has increased by only 16% overall in inflation-adjusted spending over the 20-year period between 1981 and 2001 (Lutterman et al., 2003). When adjusted for population growth, spending per capita actually went down by 8.1% over those 20 years.

These are the long-term trends. In the past year, the state-level funding crisis in Colorado and elsewhere has led to dramatic cuts in public spending. The funding trends for mental health services discussed in detail below include both longer term funding trends and the more recent impact in Colorado of budget cuts and funding limitations in the public and private systems.

Public Sector Financing: Lower Over Time, Now Crisis-Driven Cuts

Historical trends in public mental health spending. Colorado ranked 31st among states in 2001 for its level of public mental health spending per capita ($64.24 per person), 21% below the U.S. average of $81.16 per person (Lutterman et al., 2003). That relatively low level of public mental health funding has dropped even more dramatically through the current budget crisis. While the recent budget shortfalls have led to dramatic cuts, state funding for mental health has been consistently decreasing over time, when adjusted for population growth.

Funding decreases prevail not just in Colorado but across the country. Nationally between 1990 and 1997, state appropriations for mental health decreased by 7% (National Council on Disability, 2002). During the 1990s, state and local mental health spending[26] declined in relation to other state spending: mental health spending grew by 33%, while other total state government

[26] This figure excludes funding from the federal Mental Health Block Grant, the federal Medicaid match, first- and third-party payments and other non-state sources.

spending grew by 56%, state government spending on health and welfare grew by 50%, and spending on corrections grew by 68% (Lutterman, Hirad, & Poindexter, 1999). Furthermore, there has been a substantial increase in the role of Medicaid to pay for mental health services in recent years, as states have shifted programs previously funded only by state and local dollars into Medicaid (Buck, 2001).

Dramatic cuts stemming from the state budget crisis. It is clear that the just completed 2002-2003 state fiscal year was one of crisis for Colorado government and, by extension, Colorado mental health services. The prior year, Colorado ranked second among states in the extent of its current budget shortfall (NCSL, 2002d). In state fiscal year 2002-03, Colorado faced an even bigger shortfall, although the even more extreme situations of states such as California dropped its national ranking. The situation does not appear likely to change any time soon. National Conference of State Legislatures data compiled for the Mental Health Funders Collaborative noted that states will face a third consecutive year of budget shortages in state fiscal year 2003-04 (Park, 2003). Solutions have grown progressively more difficult over time. In state fiscal year 2001-02, 37 states cut their already enacted budgets by more than $12.8 billion (National Association of State Budget Officers [NASBO], 2002). While 36 states reported budget shortfalls midway through state fiscal year 2002-03 with a total gap of nearly $26 billion, projected shortfalls for state fiscal year 2003-04 are expected to exceed $68 billion (Park, 2003).

Mental health services have borne a major share of the budget cuts identified in response to this year’s shortfall, as summarized in the table below.

Population-Adjusted Public Mental Health Funding in Colorado for the Last Four Years

- Between state fiscal year 2000-01 and state fiscal year 2003-04, population-adjusted spending for non-Medicaid community mental health services will have fallen nearly 23%.
- Medicaid funding was cut 2% in state fiscal year 2002-03, the first decrease in many years.
- Colorado's state hospital budgets will be up overall by 1% from state fiscal year 2000-01, despite a cut of 28% of adult inpatient capacity and 35% of adolescent inpatient capacity. The savings seem much less than the capacity loss.
- While overall spending on psychiatric medication is not tracked, spending on antipsychotic medication for Medicaid recipients is tracked and has gone up nearly 60% since state fiscal year 2000-01.

	FY 00-01	FY 01-02	FY 02-03	FY 03-04
Non-Medicaid Community Mental Health Funding	**$35,551,341**	**$33,189,118**	**$30,430,833**	**$28,755,080**
Per capita spending	$8.02	$7.36	$6.67	$6.21
Percent Change from Previous Year	n/a	-8.2%	-9.4%	-6.9%
Mental Health Institutes (State Hospitals)	**$76,076,161**	**$80,538,488**	**$77,657,724**	**$80,364,881**
Per capita spending	$17.17	$17.87	$17.03	$17.36
Percent Change from Previous Year	n/a	4.1%	-4.7%	2.0%
Medicaid Capitated and FFS Mental Health	**$142,393,225**	**$147,872,165**	**$146,889,870**	**$148,225,675**
Per capita spending	$32.14	$32.81	$32.21	$32.02
Percent Change from Previous Year	n/a	2.1%	-1.8%	-0.6%
Medicaid Antipsychotic Pharmaceuticals	**$16,765,464**	**$19,533,930**	**$22,570,954**	**$27,768,124**
Per capita spending	$3.78	$4.33	$4.95	$6.00
Percent Change from Previous Year	n/a	14.6%	14.2%	21.2%
State Population (fiscal year estimates)	**4.4310 million**	**4.5065 million**	**4.5606 million**	**4.6290 million**
Percent Change from Previous Year	n/a	1.7%	1.2%	1.5%
Basis for Funding Figures[27]	Actual	Actual	Appropriation	Appropriation

Cuts in funding for non-Medicaid community mental health services are the largest. These funds primarily underwrite the care of severely impaired people who do not have Medicaid coverage, and their level of severity is comparable to that of Medicaid recipients served.[28] However, the

[27] Colorado Mental Health Services, 2003a.
[28] Differences in clinical severity and functioning based upon the Colorado Client Assessment Record (CCAR) between Medicaid and non-Medicaid consumers in Colorado have shown a statistically higher level of need for Medicaid consumers in each major age group served. (Coen, A. and Ellis, D. February, 2001. Colorado Mental Health Services, personal communication. Cited in TriWest Group, 2001.)

difference in impairment is very slight for children and adolescents and small for adults and older adults, so it does not provide a justification for the dramatic differences in funding. These cuts have already resulted in fewer people being served, and the trend is expected to accelerate for next year. A comparison of clients served and funding per client for non-Medicaid and Medicaid community spending, as well as Institute spending, is presented in the table below.

Changes in Funding and Number of People Served by Public Mental Health Programs

- The number of people without Medicaid served is expected to drop by 23% between state fiscal year 2001-02 and state fiscal year 2003-04. Nearly 10,000 fewer people will be served.
- The number of people with Medicaid served dropped by nearly 18% between state fiscal year 2001-02 and state fiscal year 2002-03. Over 8,000 fewer people were served, although this estimate may somewhat overstate the reduction.
- 14% of overall state hospital capacity has been lost over the past three years.

	FY 01-02	FY 02-03	FY 03-04
Non-Medicaid Community Mental Health Funding	**$33,189,118**	**$30,430,833**	**$28,755,080**
Number of clients served	40,031	36,484	30,944
Percent Change from Previous Year	N/A	-9%	-15%
Per client funding	$829	$834	$929
Medicaid Capitated and FFS Mental Health	**$147,872,165**	**$146,889,870**	**$148,225,675**
Number of clients served[29]	46,131	37,954	37,954
Percent Change from Previous Year	N/A	-18%	0%
Per client funding	$3,205	$3,870	$3,905
Mental Health Institutes (State Hospitals)	**$80,538,488**	**$77,657,724**	**$80,364,881**
Number of beds (civil, forensic, medical, residential)	734 beds	700 beds[30]	631 beds
Percent Change from Previous Year	N/A	-5%	-10%
Per bed funding	$109,725	$110,940	$127,361
Basis for Service Figures[31]	Actual	Projected from 6 month data	MHS Estimate

[29] Mental Health Services believes that Medicaid service estimates are likely too low for both state fiscal years 2002-03 and 2003-04 given that they are based on six month data that likely do not include many services delivered outside of CMHC settings. However, these were seen as the best estimates available, and there is confidence that the number served was lower than previous years. FY 2000-01 data differ somewhat from Orchid Report data reported under Observation #1 due to different time frames.

[30] This does not include 18 adolescent beds at both CMHIs and 16 residential beds at CMHI-Fort Logan closed early in the state fiscal year, but does include 42 adult beds at CMHI-Pueblo that were closed late in the third quarter of the state fiscal year.

[31] Colorado Mental Health Services, 2003a.

The nearly 23% reduction in funding for non-Medicaid community mental health services is expected to have a major impact on the availability of mental health services for non-Medicaid recipients served in the public system in the coming fiscal year. However, the fragility of the situation is even more apparent when the number of contractually-required services is examined. Community mental health centers (CMHCs) have contractually-based requirements to serve a certain minimum number of clients each year. Until state fiscal year 2001-02, this contracting was based on historical service levels. In state fiscal year 2002-03 Colorado Mental Health Services (MHS) changed to contracting based on a case rate of $2,300 per client. Required numbers dropped in state fiscal year 2002-03 as a result of that change; they have dropped even further for next year because of the budget reductions for community mental health.

Traditionally, CMHCs have served more clients than they contract for, so the numbers of clients served will likely be higher than the contract numbers. However, the number of clients served dropped 10% in state fiscal year 2002-03 for non-Medicaid consumers and perhaps as much as 19% for Medicaid consumers. The number of people that the CMHCs are contractually required to serve is less than a quarter of current non-Medicaid service levels, so there is significant risk of even greater services cuts. The ratio of required numbers to numbers served was only 1:2 in state fiscal year 2001-02; it was down to 1:4 in state fiscal year 2002-03 and is expected to be under 1:4 in state fiscal year 2003-04. The table below presents the contract expectations for CMHCs over the most recent three state fiscal years. See Appendix A for a breakdown by CMHC.

Changes in Contractually-Required Service Expectations for Colorado CMHCs over Three Years

Contractual requirements for service to people without Medicaid have been reduced by 72%.

Mental Health Center or Clinic	FY 01-02	FY 02-03	FY 03-04	Percent Change FY01-02 to FY03-04
Contractual Requirements	25,240	10,601	7,066	-72.0%
Actual Non-Medicaid Served	40,511	36,484	N/A	-9.9% (FY02-03)

It is unclear to what extent action at the federal government level may further affect next year's state cuts. H.R.2 (the recently passed Tax Cut bill) became P.L. 108-27 on May 28, 2003. It mandates a $10 billion temporary increase of the Medicaid Federal medical assistance percentage and $5 billion in temporary state fiscal relief for each of state fiscal years 2003 and 2004 (Jobs and Growth Tax Relief Reconciliation Act, 2003). Another federal change with even more far-reaching and controversial potential impact is reportedly under consideration, with the Bush Administration's current proposal to convert state Medicaid funding into block grants with capped federal funding as part of proposed Medicaid reform (*Senate Concurrent Resolution on the Budget for State Fiscal Year 2004, 2003*).

Federal funding other than Medicaid accounts for a small amount of overall funding, and requires compliance with federal priorities. The primary mechanisms for this type of funding are the Community Mental Health Services Block Grant and funding for mental health services provided by the Department of Veterans Affairs and the Department of Defense (Mark et al., 2000). The Community Mental Health Block grant appropriation did increase over the past five years from $275 million to $399 million per year in 2002. However, it had previously declined in real terms (medical inflation adjusted dollars) from $293 million to under $100 million between 1980 and 1998 (Bazelon Center for Mental Health Law, 1999). Colorado's Community Mental Health Block grant in state fiscal year 2002-03 was approximately $5.6 million (Colorado Mental Health Services, 2003a).

Behavioral Health - A term used to be inclusive of both mental health and substance use disorders, programs, and systems. This term is commonly used within the private sector to refer to both sets of services inclusively.

Private Sector Financing: Under Pressure

Overall figures on private sector mental health spending are not kept. To try to get at private sector funding trends, we surveyed the industry literature and interviewed six key informants from Colorado-based insurers and the Colorado Division of Insurance. Overall, we found a mental health benefit that has decreased in its level of funding over time and that has lost even more value because of the same cost pressures that are currently facing the overall health care industry. We explore the complicated trends of increasing mental health care costs under Observation #4 below. This section focuses on funding trends.

Private funding trends have moved toward less spending over the past 15 years. Use of managed care approaches increased overall during that time. The mental health sector experienced the rise of managed behavioral health care organizations (MBHO), independent organizations focused on managing behavioral health benefits and reducing behavioral health care costs. While health care premiums have increased dramatically in recent years (see Observation #4 below for more information on this), they actually fell in constant dollars in the 1990s. A comparison of the value of health care benefits in constant dollars between 1988 and 1998 found the value of behavioral health benefits to have fallen by 54.7%, versus a drop of only 11.5% for general health benefits (excluding behavioral health) (Hay Group, April, 1999). Behavioral health care spending as a percentage of the overall health premium fell from 6.1% to 3.2%. Clearly, behavioral health care spending fell much more than overall health care costs.

This finding was reiterated by the Colorado key informants we spoke with. They reported stabilized behavioral health care premiums following many years of drops, with some recent upward pressure on costs for psychiatrists and inpatient care (discussed in more detail under Observation #4 below). Annual per member per month behavioral health premiums were reported to range widely, with most falling between $2.50 and $4.00. One informant reported "literally thousands" of variations in benefits, mostly in terms of co-pays, deductible amounts, and benefit levels (e.g., covered non-parity outpatient benefits ranging from zero to 20 to 40 to unlimited sessions).

Spending on mental health is not expected to increase. Employers – the group that controls most private health insurance decision making – are experiencing upward cost pressure. As a result, they are increasingly moving from providing defined benefits (where the employer provides a benefit and covers its entire cost) to defined contributions (where the employer provides a defined amount of money toward a benefit, but the employee must contribute a portion and often must absorb the cost of large increases).

Carve-out Model - A mental health care delivery and financing arrangement in which a separate specialized managed behavioral health care organization manages the behavioral health benefit under subcontract to the overall insurer or employer.

At the start of 2001, many employers were reporting large premium increases at their last renewal (CCMU, 2001). Only 7% reported no increase and only 18% reported an increase of less than 10%. Seventy-six percent reported increases over 10%, with 36% reporting increases over 20% and 16% reporting increases over 30%. Key informants confirmed that these trends are continuing. Recent health care cost increases have generally been passed on to employees in the form of higher out-of-pocket expenses (Coffey et al., 2000) and this trend is escalating in the current year (Martinez, June, 2003). Given increasing health care costs, there is reason to expect mental health benefits to shrink further. Colorado employer responses to increasing health costs in 2001 are reported in the table below (CCMU, 2001).

Integrated Model - A mental health care delivery and financing arrangement in which a single organization manages both the overall and behavioral health benefits. Care is closely coordinated between the two benefits, resulting in improved clinical outcomes and cost-savings.

Cost Containment Strategies by Employers	
Increased employee contribution for family coverage	34%
Raised deductible, coinsurance, or copayment	32%
Increased employee contribution for single coverage	31%
Changed carrier or level/kind of coverage	31%
Reduced / eliminated benefit provisions	8%
Added tier rate schedule (e.g., employee +1 dependent)	5%
Converted to self-funding	4%
Converted to fully-insured	2%
Increased prescription copayment	2%

Key informants also reported changes in the structure of the managed behavioral health care industry in Colorado. One of the most interesting changes was a reported movement from "carve-out" approaches for behavioral health care to "carve-in" and (in limited cases) "integrated" approaches. These terms refer to the degree to which management of the behavioral health care benefit is independent from the management of the general health care benefit. In practice, the carve-in model closely resembles the carve-out model, with both offering some potential for administrative savings (e.g., claims processing), the ability to expense overhead costs across a larger range of direct health care costs (thus "lowering" overhead

Carve-in Model - A mental health care delivery and financing arrangement in which the insurer managing the overall health benefit also manages the behavioral health benefit through a separate, specialized internal division.

without reducing overhead costs), and positioning to potentially realize better coordinated care. In an integrated model, behavioral health care is closely coordinated with general health care. In Colorado, only Kaiser Permanente seems to approach behavioral health care delivery that could begin to be called integrated. This seems particularly related to Kaiser employing its own clinical staff (staff model versus the typical network model of most other Colorado insurers). National models of integrated care are limited to a handful of insurers, such as the Group Health Cooperative of Puget Sound and Kaiser of Northern California.

Network Model HMO - A type of HMO that contracts with multiple groups of physicians and clinicians who may bear financial risk, but do not necessarily practice exclusively with the HMO.

Various arguments have been offered regarding the relative value of carve-out versus integrated or carve-in approaches (Patterson, Happ, & Stelovich, 1998). While there are several advantages that have been attributed to the integrated care model (including the potential to integrate mental health with physical health care and the ability to realize offset savings across systems), most studies show that actual integration has rarely been realized beyond pilot initiatives and that implementation of an integrated model requires attention to the details of integration and the implementation of specific integration processes such as specialized information systems and communication protocols. One of the primary advantages to the behavioral health carve-out is that it prevents cost-shifting from primary care to behavioral health, which protects the funding of behavioral care. Scheffler and Ivey (1998), among others, have documented decreased spending on mental health staffing over time in integrated settings.

Staff Model HMO - A type of HMO that employs clinicians to provide health care directly to its members, reimbursing them through salaries and other incentives.

The reported movement from carve-out to carve-in approaches in Colorado has been attributed to several factors. At the national level, carve-out plans managed by specialty managed behavioral health care organizations (MBHOs) seem strong in terms of covered lives. Of approximately 250 million Americans with insurance in 2002, 164.1 million (66%) had mental health benefits that included some type of managed behavioral health care program (Oss, Jardine, & Pesare, October, 2002). While up from the 162 million enrolled in 2001, this is down from the 169 million enrolled in 2000 (Oss et al., October, 2002).

There are other signs of change. While the two biggest MBHOs are still carve-outs (Magellan Behavioral Health Services and ValueOptions), their overall enrollment has dropped. Another sign is the overall drop in the number of risk-based programs (programs where the MBHO bears financial risk, rather than managing care under contract) from a high of 67.4 million lives in 2000 to 58.6 million in 2002, representing a 13% drop (Oss et al., October, 2002).

Magellan Behavioral Health Services, the largest of the MBHOs, declared bankruptcy under Chapter 11 in March 2003 (Magellan Health Services, March, 2003). In addition, PRO Behavioral Health, a Colorado-based MBHO, was bought in June 2002 by Anthem Blue Cross Blue Shield to develop their carve-in capacity. The table below looks at the top 10 insurers in Colorado and compares them according to the structure of their managed behavioral health approach. Most Colorado insurers use a carve-in approach.

Insurance Companies (CCMU, 2001)	**2001 Market Share**	**Structure**[32]	**Behavioral Model**[33]
Pacificare of Colorado	17%	Network	Carve-In
Kaiser Foundation Health Plan Colorado	15%	Staff	Carve-In/Integrated
HMO Colorado	5%	Network	Information Not Available
Humana (Employers Health Insurance Company)	5%	Network	Carve-In
United Healthcare of Colorado (combined)	5%	Network	Carve-In
Rocky Mountain Hospital and Medical (Anthem BCBS)	4%	Network	Carve-In (formerly PRO)
Rocky Mountain HMO	4%	Network	Information Not Available
Colorado Access (primarily Medicaid, CHP+)	3%	Network	Carve-In
Aetna Health	2%	Network	Carve-Out (Magellan)
CIGNA Healthcare	1%	Network	Carve-In

[32] Key informant interviews
[33] Key informant interviews

The Impact of Mental Health Parity Legislation on Funding

One important movement to improve the quality of mental health insurance benefits is legislation that promotes insurance parity for mental health diagnoses. In 1996, Congress passed the Mental Health Parity Act (P.L. 104-204), which makes the mental health and overall health plan benefits more comparable within many private health plans (Mental Health Parity Act of 1996). It does not apply to Medicaid or Medicare. As of December 2002, 17 states were providing comprehensive ("full") parity for all mental health diagnoses and 21 states had diagnosis-specific ("limited") parity laws (Smith, 2002).

Parity – Refers to comparable insurance coverage between mental health services and primary physical health (or primary care) services.

Colorado's parity law is limited to "biologically-based mental illnesses," and only includes schizophrenia, schizoaffective disorder, bipolar mood disorder, major depressive disorder, specific obsessive-compulsive disorder, and panic disorder.

Schizophrenia - A psychiatric disorder characterized by symptoms such as hearing internal voices or believing that other people are reading one's mind, controlling one's thoughts, or plotting to harm oneself (delusions). People with schizophrenia may experience disorganized thinking and related functional deficits in vocational, inter-personal, or personal care skills.

Limited parity laws such as Colorado's do not cover many children's diagnoses or other potentially debilitating disorders such as post traumatic stress disorder (PTSD). Providers we interviewed noted that even when a child's diagnosis is covered, parents must be willing to go to great lengths to advocate for their children in order to receive required services. Despite parity mandates, insurance coverage for people who have mental disorders has been found to be limited (RAND, 2000). It has been suggested that the existing federal parity law is not only quite limited as defined, but is also easily circumvented. For example, the federal law affects only larger companies and applies only to health plans that already include mental health benefits; it does not require them to include such benefits if they do not (Centers for Medicare & Medicaid Services [CMS], 2002). Similarly, employers may sometimes place other restrictions such as even fewer outpatient visits or inpatient hospital days (National Mental Health Association [NMHA], 2003).

Schizoaffective Disorder - A psychiatric disorder characterized by a combination of extreme mood swings typical of bipolar mood disorder and psychotic symptoms typical of schizophrenia.

Bipolar Mood Disorder – A psychiatric disorder characterized by patterns of dramatic mood fluctuation with brief periods of stability in between. A person's mood may be primarily depressed with more brief periods of feeling normal or manic, or they may be primarily manic with brief periods of depression, or a mix of both.

Major Depressive Disorder - A psychiatric disorder characterized by profound sadness, depressed mood, loss of interest or pleasure in activities previously found to be of interest. Other symptoms may include a significant change in weight, appetite, sleep, or movement/motor activity, fatigue, feelings of worthlessness, excessive guilt, difficulty with concentration, recurrent thoughts of death, and suicidal ideas or actions.

Obsessive Compulsive Disorder - A psychiatric disorder characterized by a pattern of repetitive thoughts or behaviors that are distressing and may not have a practical purpose, but are extremely difficult for a person to overcome.

As might be expected, payers we interviewed reported a somewhat different experience of parity in Colorado. They emphasized that plans had made changes related to parity, including removing limitations for psychiatrist visits across the board, as well as removing limits for inpatient stays for parity diagnoses. The experience of parity is also confounded by the overall health insurance trends discussed earlier, which include higher deductibles, copayments, and other out-of-pocket expenses. One payer informant noted the irony that sometimes the unlimited psychiatrist visit benefit required a higher copayment than the limited specialized mental health benefit, given that copayments for each benefit are set separately and either can be lower than the other.

A major issue of interest among mental health stakeholders regarding parity is its effect on mental health expenditures. Payer informants noted that costs may have increased at first, but were now comparable to what they were before parity. Colorado has contracted with the actuarial firm of Milliman and Robertson to examine whether parity increased mental health costs. The study has the potential to cut both ways. To the extent costs increased as a result of parity, opponents can argue that it was problematic in a time of overall health inflation. To the extent costs did not increase, one wonders to what degree things have changed.

Preliminary data from the Milliman and Robertson study released publicly by the Colorado Mental Health Association in a legislative briefing reported that costs increased only $0.32 per member per month from 1998 to 1999 (Mental Health Association of Colorado, 2003). It will be interesting to see if the final report interprets this as a significant increase or not, given that overall premiums reported by key informants to be in the $2.50 to $4.00 range.

Overall, it appears that Colorado's parity law has resulted in some modest changes, but that hopes for significantly expanded access to mental health care have not been met. Both payers and consumer advocates reported that services and spending have not increased substantially. Recently passed Colorado House Bill 1164 will further reduce requirements for small employers to offer behavioral benefits.

Nationally, there appears to be some movement toward expanded requirements for private coverage. The "Senator Paul Wellstone Mental Health Equitable Treatment Act," (H.R. 953, 2003; S.486, 2003), which would expand the current federal parity law to require full parity for all mental health diagnoses, has won support from 62 Senate co-sponsors and 235 House co-sponsors, as of June 3, 2003. Both versions are in committee (The Library of Congress, June, 2003).

Panic Disorder - A psychiatric disorder characterized by unexpected, repeated episodes of intense fear accompanied by physical symptoms which mimic those of a heart attack or other life-threatening medical conditions. Between panic attacks, the person experiences pervasive fears that another attack will be experienced, which can result in avoidance of situations or settings that may be difficult for the person to leave and may develop into a phobia.

Post Traumatic Stress Disorder (PTSD) - A psychiatric disorder that may occur after experiencing or witnessing life-threatening events such as military combat, natural disasters, terrorist incidents, serious accidents, or violent personal assaults like rape. People who suffer from PTSD often relive the experience through nightmares and flashbacks, have difficulty sleeping, and feel detached or estranged, and these symptoms can be severe enough and last long enough to significantly impair life functioning.

The Uninsured

Colorado key informants saw a strong relationship between uninsurance and underinsurance and poor access to care. It is estimated that approximately 58 million people in the U.S. are either uninsured or live with a family member who is uninsured (Committee on the Consequences of Uninsurance et al., 2002). Health services research shows that people who have insurance are significantly healthier than their uninsured counterparts. Recent estimates are that expanding health insurance to everyone in the nation would decrease mortality rates by 10% to 15% (Hadley, 2002). Better health is also linked to higher educational attainment and higher annual employment earnings.

Using average rates of the number of uninsured at any given point across three years (generally seen as the most reliable estimate), over 600,000 Colorado residents (15.8%) are uninsured (CCMU, 2001). Colorado seems to have a greater problem with uninsurance rates than

other states, with Colorado ranking 8th nationally for having high rates of uninsured low income non-elderly and ranking 49th in estimates for its level of Medicaid coverage for that group (CCMU, 2001). CCMU (2001) reports that rates vary dramatically by race and ethnicity, with Hispanic, Black, and other non-White groups[34] in Colorado experiencing rates of over 20%. Rates of the uninsured also vary by age, as seen below.

Uninsured at Any Time During Year by Age Group

Older adults experience lower rates of uninsurance (because of Medicare coverage, which is often quite limited) and non-elderly adults have the highest estimated rates (CCMU, 2001).

Age Group	High Estimate	Low Estimate
Children (0-17)	14.1%	11.1%
Age 0-6	14.5%	
Age 7-17	13.8%	
Non-elderly Adults (18-64)	18.5%	14.1%
Elderly Adults (65 and older)	1.5%	

While the number of uninsured has risen nationally, this does not seem to be because employers are discontinuing their plans. In fact, more employers were offering health care coverage in 2001 and fewer workers were taking the coverage (Fronstin, 2001). However, this study did not find that fewer workers were covered. The percentage of workers declining insurance had consistently increased since 1995, in part as a result of workers being covered by a working spouse. Different subgroups were offered health insurance at somewhat different rates. For example, Hispanic workers did not experience the same increase in insurance offered as White and Black workers and also experienced more of a decrease in plan participation.

The Underinsured

The underinsured are those who have insurance but either do not have a mental health benefit or exhaust the small or short-term mental health benefit they do have. People with serious mental

[34] Hispanic, Black, and White are the terms used in the CCMU report.

illness are more likely to be uninsured and have limitations to their mental health coverage, a factor that is inconsistent with their need for more than just acute care (Manderscheid & Henderson, 2001). Furthermore, while approximately 98% of older adults receive Medicare, one-third of them can be considered as underinsured by virtue of not having a prescription drug benefit (Donelan et al., 2000). Service restrictions based on benefit limits and diagnostic exclusions also have been found to disrupt needed care for children with insurance (Peele, Lave, & Kelleher, 2002).

Key informants we interviewed extended the notion of “underinsurance” to include many, if not most, people with mental health benefits. Given the complex interaction between provider reimbursement, willingness and eligibility to participate on provider panels, utilization review hassles, and limited benefits with significant copayments, many key informants saw mental health insurance benefits as of limited value at best. Furthermore, for the privately insured with severe disorders requiring intensive services, the only option is often inpatient care, to which access is strictly controlled.

We examined this issue in the provider survey we conducted in March, 2003. The survey asked providers to look at the percentage of their clients with private insurance and categorize them as having adequate or inadequate insurance. Analysis of their responses indicates high levels of what providers consider to be inadequate coverage, but the pattern is complex. Providers in private practice report that about half of their clients with insurance have inadequate benefits. Psychiatrists and addictions counselors who work in programs have a somewhat more positive view of insurance adequacy, in that more of them rate the clients they serve as having adequate insurance.

Percentage of Clients with Private Insurance Seen by Providers as Adequate and Inadequate

Many people with private insurance are viewed by their mental health providers as having inadequate insurance. This is true of for half of people seen in private practice and large numbers of people with insurance seen in agencies.

Provider Type	Adequate Private Insurance	Inadequate Private Insurance
Providers in Private Practice		
Psychiatrists (n=24)	50%	50%
Mental Health Providers (n=63)	53%	47%
Certified Addictions Counselors (n=23)	54%	46%
Providers Working in Programs		
Psychiatrists (n=25)	75%	25%
Mental Health Providers (n=38)	47%	53%
Certified Addictions Counselors (n=39)	64%	36%

"n" refers to sample size.

Recommendation: Directly fund a targeted amount of needed care.

It should first be noted that all of the recommendations made for Observation #2 regarding the need to educate decision makers about unmet mental health needs also apply to mental health funding trends. As with unmet mental health needs, it is critical to educate decision makers (especially the legislature and public and private payers) about the dramatic changes in mental health funding in Colorado, the loss of important services (particularly for the uninsured), and the value of mental health treatment.

In addition, those stakeholders that fund any level of care need to continue to do their part within the mental health payer community. For example, Colorado stakeholders we spoke with strongly endorsed the need for flexible funders such as foundations to continue to support the important array of services they currently support. These included flexible initiatives that support care for

the indigent, uninsured, and other marginalized groups, as well as consideration of new funding to target areas of need not being met by other payers. Funding care at the margins (for example, for the uninsured, for specific populations that fit each foundation's areas of interest, for flexible funding), maintains important services in a time when other mental health services are shrinking. However, stakeholders also realized that foundation funds are limited and that initiatives with more strategic value might have greater impact.

Keeping in Mind Possible Unintended Consequences

As with the recommendations under the first two observations, decision makers should be aware of possible unintended consequences of the previous recommendation. One risk is the potential of doing too much and either (1) allowing payers that should be funding needed care to shift costs, or (2) underfunding more strategic initiatives that could leverage system change rather than meet a specific person’s needs. The other side of the risk is doing too little and either backing away from historical commitments that are still important or missing opportunities to meet new, emerging needs.

Observation #4: Mental Health Costs are Increasing

Snapshot of Key Findings Regarding Increasing Mental Health Costs

- Mental health care is costing more as a result of new and more effective treatment approaches, as well as for the same cost drivers as overall health care trends: inpatient and physician care.
- Most of the cost increase is attributable to rising inpatient costs related to lower inpatient capacity. Nationally, the percentage of hospital beds filled (occupancy rate) was up 36% between 1997 and 2002, reflecting scarce supply related to the closure of nearly 22% of all psychiatric inpatient facilities and units between 1992 and 2000. Colorado key informants reported similar trends.
- Some cost increases stem from the increased value of services. Analysis of advances in treatments for depression found increased costs (particularly medication) outweighed by treatment gains.
- Although not the largest cost driver, from 1987 to 1997 spending on psychiatric medication as a percentage of overall mental health expenditures nearly doubled, from 7% to 13%. Most of the increase was attributable to more prescriptions being written, not to increased costs per prescription.
- Overall health care spending, including mental health care, rose 8.7% between 2000 and 2001.
- Spending on Medicaid, hospital care, and prescription drugs grew fastest. Hospital spending contributed 30% of the increase. Prescription spending grew at twice its overall historic rates.
- As a result of all of these cost increases, insurance premiums rose 10.5% in 2001 and out-of-pocket spending rose about 5%.

Overview

> *"For every dollar increase in premiums, there is a proportional increase in the number of uninsured."* **– Administrator in private managed care company.**
>
> *"Cost pressures are leading to less access to new antipsychotic and antidepressant medications through proposed Medicaid formularies and, for the uninsured, more restrictive rules for [pharmaceutical company] patient assistance programs. There's more paperwork, more hassle, and it takes more staff time in a time of staff cutbacks."* **– Public sector pharmacist**

The cost of mental health care is increasing, both because of the inflation in costs for existing services (particularly inpatient care) and new costs for emerging services such as new medications. Thus, expenditure increases reflect a mix of both higher costs and additional value for mental health services.

Many Colorado key informants we spoke with cited rising health care expenditures and the impact of market forces as compounding the effects of inadequate overall funding for mental health services. Competition was seen as a double-edged sword, with innovation in care seen as improving the quality of services while also driving up overall health care expenditures. Although generally framed in the literature as simply an increase in costs or "medical inflation," it is more accurate to conceptualize increasing mental health care expenditures as encompassing both new costs attributable to newly available and more effective treatment approaches, as well as higher costs for existing treatments such as inpatient and psychiatrist services.

Analysis of the costs and benefits of technological advances in health care for five conditions – one of which was depression – found increased spending was outweighed by treatment gains (Cutler & McClellan, 2001). It should be noted, however, that improving the health of the overall population often correlates with increases in health disparities among social subgroups (Mechanic, 2002). Not all will necessarily experience the value of increased health care equally.

Health care prices are up in all areas, leading to higher insurance premiums and out-of-pocket expenses for health and mental health services alike. The Centers for Medicare and Medicaid Services (CMS) just released data on overall health care spending for 2001, reporting the largest increases in 10 years (Levit, Smith, Cowan, Lazenby, Sensenig, & Catlin, 2003):

- Total spending reached $1.4 trillion, up nearly 9% from 2000.
- Spending on hospital care and prescription drugs grew fastest. Hospital spending grew at its fastest rate since 1991 and contributed 30% of the increase, owing to greater use of services and higher prices. Prescription spending slowed from previous levels to just under 16% growth (Levit et al., 2003). Hospital spending and prescription trends were consistent with those in previous years (Levit, Smith, Cowan, Lazenby & Martin, 2002; Strunk, Ginsburg & Gabel, 2001) and similar to Colorado mental health care trends in the last year according to our interviews with key informants.
- Medicaid grew at its fastest rate since 1993, as a result of higher enrollment (related to the 2001 recession) and program expansion by states.
- These cost increases helped push insurance premiums up 10.5% in 2001 and out-of-pocket spending up 5.6% (Levit et al., 2003), again similar to Colorado mental health benefit trends in the last year according to our key informants.

Prices are up and people are using more health care – in any other industry, this might very well be cause to celebrate American productivity. For health care, the focus is instead on how to respond to escalating costs and the need to increase efficiency.

The cost of some types of mental health care has increased in recent years with the advent of new technologies, particularly new and more effective psychiatric medications. Between 1987 and 1997, spending on psychiatric medication increased dramatically in its percentage of overall mental health expenditures, from 8% to 13% (Coffey et al., 2002). This increase was fueled more by rising utilization than higher costs for the medications themselves. One study found that the ratio of volume-to-price increases for antidepressants was 3 to 1 (Dubois, Chawla, Neslusan, Smith, & Wade, 1999).

More people are taking antidepressants (increasing an average of nearly 11% per year) and new antipsychotic medications (increasing an average of almost 3% per year) (Coffey et al., 2002). Also, the Food and Drug Administration (FDA) accelerated approvals for new drugs. Several

new medications were introduced in 2002, including improved formulations of existing medications (e.g., a form of Paxil that can be taken less often) and new medications (e.g., aripriprozol, a new antipsychotic medication marketed under the brand name Abilify). The increased use of improved medication is reflected in higher Colorado Medicaid spending for new antipsychotic medications, up a projected 59% per capita between state fiscal year 2001-02 2003-04 (Mental Health Services, 2003a).

It is also true that many of the newer medications cost significantly more (U.S. Surgeon General, 1999). For example, the selective serotonin reuptake inhibitor (SSRI) antidepressants (e.g., Prozac, Paxil, Zoloft) were available only by name brand until 2002 when they came off patent. The cost of the patented version was a minimum of some $80 a month, depending on the dosage (Burke, Silkey, & Preskorn, 1994). Yet the cost:value equation must be taken into account. Cost-effectiveness studies have found the newer atypical antipsychotic medications to be more cost-effective over time and at least cost-neutral in the short term, despite being more expensive per pill (Loebel, Botts, & Feldman, 1998).

The primary mental health care cost drivers relate to inflation. The National Association of Psychiatric Health Systems (NAPHS, 2002) reports that, as inpatient hospitals have been closed across the country, occupancy rates have increased (from 69% in 2000 to 74% in 2001, a rate 36% higher than five years prior). This seems primarily a function of increasingly scarce supply, with nearly 22% of all psychiatric facilities and units closing between 1992 and 2000 (NAPHS, April, 2003) and over 40% of private psychiatric inpatient facilities nationally closing between 1995 and 2002 (NAPHS, 2002). Colorado payer informants we talked with reported inpatient cost increases over the last year in Colorado similar to or higher than national trends. Also, as with the rising costs for physician services found nationally (Levit et al., 2003), Colorado payers reported higher rates being charged by local psychiatry groups in 2003. For additional information, please refer to the discussion of inpatient closures from Observation #1 above and the discussion of psychiatrist shortages under Observation #6 below.

There is also some initial evidence that demand for mental health services may be increasing. In addition to the fact that the U.S. experienced 10% population growth between 1990 and 1999, the increase in the aging population, improved pharmacotherapies, and direct-to-consumer advertising are among the factors seen as increasing demand for mental health services (Goldman, 2001). More marketing of medications has occurred since the FDA broadened its requirements for advertising in 1997. The cost of this marketing is estimated to be $2.5 billion per year, and recent analyses found that between 1999 and 2000, prescriptions written for the top 50 most highly advertised medications (some of which are psychiatric medications) increased by 25%, compared to 4% for all other medications combined (NCSL, 2002b).

This area is growing in a number of ways, as companies such as PriceWaterhouseCoopers Global Pharmaceutical Group are marketing themselves to help pharmaceutical companies monitor and manage their regulatory and contract compliance with the new FDA requirements (PriceWaterhouseCoopers, 2003). The controversy surrounding direct-to-consumer advertising contrasts with its potential educational and informational value (which may improve consumer awareness of and therefore access to new and effective medications) with concerns about providing potentially misleading information about possible side effects and influencing consumers toward more expensive medications (Grantmakers In Health, [GIH], 2002).

How Rising Costs and Increased Service Value Affect People

The impact of rising mental health care costs on people in Colorado can be illustrated by revisiting the six fictional people we have looked at previously.

An adult with insurance

> Barbara and Steve are still struggling with Barbara's insurance, but after two weeks of research and eight weeks of waiting, Barbara has started seeing a psychiatrist she really likes and taking a mood stabilizing medication, as well as a new formulation of Paxil that she does not have to take every day. Barbara is feeling much better and her role functioning has improved back to earlier levels. One of the children said last week that: "It was good to have Mommy back."

The family has had to make some sacrifices. Although her diagnosis of bipolar disorder is a "biologically-based diagnosis" that qualifies her for parity benefits in Colorado, her overall medical deductible is now $2,500, so the family has cut down on eating out until that is met. Ironically, the recently increased cost of her psychiatrist visits (over $200 per session) means it will not be long. Also, she has a higher deductible for both of the medications she is taking, each of which now costs her $50 per prescription. But both Barbara and Steve say the cost is worth it. Steve jokes that next year it will be his turn to spend their "extra" money and that he is buying a big screen television.

An adult with serious mental illness

Bob has had to switch medications again, since he no longer can afford the expensive medication that he was previously receiving for free under a pharmaceutical company's indigent medication program. The program provided the medication free of charge, but a nurse at Bob's clinic had to keep up with sometimes hours of monthly paperwork to continue it. That nurse just left for a higher paying nursing position outside of the mental health industry and until the position is re-filled (which last time took over three months), Bob will have to settle for an older antipsychotic medication with more side effects. While the side effects can be managed through two additional medications, Bob is thinking that this all is not worth the hassle. He's considering taking off on a road trip north to visit a friend in Fort Collins and may just use this as a reason to stop treatment and his medication and leave town.

Bob's friend John, who has Medicaid, continues in treatment and continues to receive the same expensive antipsychotic medication Bob had been taking. However, his doctor just told him at his visit yesterday that the Medicaid managed care plan he is part of will be instituting a formulary next month that may make access to John's medication more difficult. John is not sure what that means, but it kind of worries him.

A youth and her family

Gabriela was just discharged from the residential treatment center (RTC) and is back home. Her care is being provided by the in-home treatment team from another community agency. However, her mother still has to drive her across town to the RTC once a week to see the psychiatrist there, since the in-home treatment team's part-time child psychiatrist was recruited away last month, and the agency is still trying to hire a replacement.

An older adult living in a rural area

Nadine is not doing well and her treatment team has decided to discontinue the expensive mood stabilizer she has been taking because of its cost. She is being switched to a different formulation that has additional side effects, but her condition has not noticeably changed as a result. She generally stays alone and

often seems incoherent, so the team does not believe that the medication change has made things worse.

Nadine's friend, Sally, is still doing well and has recently been reading a lot about the different Medicare prescription bills that are being debated in Congress. She is hopeful that her monthly medication costs for her general health conditions will go down. However, she finds the different bills somewhat confusing, and it is not clear how much the tiered benefit levels will cost her.

Recommendation: Factor in Return on Investment (ROI).

In the midst of rising health care costs, there is often confusion among all parties – payers, employers, and beneficiaries – about untangling rising costs from increased value. Is care simply costing more, or is more available to buy? As a result, there is a need to focus on the return on investment (ROI) attributable to mental health services (see Kessler, Barber, Beck et al., 2003 for an example of this approach to develop a workplace measure of productivity effects; for an example related to public services, see Washington State Institute for Public Policy [WSIPP], 2002). Extending this beyond a focus only on dollars yields the concept of social return on investment.

We recommend that the concept of social return on investment (ROI) be extended across mental health funding and development activities to factor in both the cost and value of mental health services. Considering cost alone overlooks the level of value that the services return. Looking only at cost-effectiveness without monetizing or otherwise quantifying the effects fails to translate the effects of services into a commonly understood and valued denominator that decision makers can weigh.

The construct of ROI also includes an awareness of differential ROI among stakeholders. For example, mental health services studies often focus on effectiveness measures that do not have a direct impact on decision makers. For example, the presentation of evidence that a new anti-depressant reduces symptoms focuses on the patient's experience. It could just as well focus on

the positive workplace effects of reduced symptoms and the resultant benefit for the employer funding the prescription coverage.

We recommend taking a multistakeholder approach to ROI and including ROI from the perspective of all stakeholders whose decisions are to be informed. These include:

- **Return on Investment to Employers** – The major decision maker regarding the availability and adequacy of private mental health insurance benefits is generally the employer purchaser. While employers may care about their employees' well-being, double-digit premium increases make the fiscal bottom line all the more important. Studies that monetize findings into employer costs (e.g., productivity loss and its estimated financial impact on employers) can help balance the movement toward higher copayments and out-of-pocket expenses that reduce demand for care. For example, Kessler, Barber, Beck et al. (2003) have developed a measure of workplace productivity that could be included in more studies of depression.
- **Return on Investment to State Decision Makers –** Public mental health expenditures are ultimately dependent on the actions of legislatures. The Washington State Institute for Public Policy was developed by the Washington State legislature to evaluate the effectiveness of policy changes, including their monetary impacts on taxpayers. While government agencies and taxpayers also benefit from this information, decisions on how to spend state revenue rest with the legislature and their analysts. Understanding the priorities of the Colorado legislature and its analysts involved in human services funding can help guide both investments in care development and their evaluation.
- **Return on Investment to People Receiving Care –** Children, youth, adults, and older adults receiving mental health care generally focus more on concrete life improvements such as work, family, relationships, and quality of life (as explored below in Observation #7), as opposed to the financial implications of symptom reduction. Yet being mindful of ROI for people receiving care is also important. As copayments and deductibles increase, health care costs are increasingly being borne by recipients of care. While mental health costs are generally seen as a burden, education about the benefits of mental health services can lead individuals to change their choices about health care, as seen in the response to the mass marketing of new pharmaceuticals.
- **Return on Investment to Families, Dependents and Communities –** Families, family advocacy groups, and communities have their own mental health care impacts to bear, and they both overlap with and differ from those of people directly needing care. Families and communities also often bear the costs of care not covered by insurance, particularly for children.
- **Return on Investment to Insurers –** The notion of "cost-offset" refers to the savings in general medical costs potentially achieved through the delivery of mental health services. This is a type of return on investment for insurers, as the increase in mental health spending reduces their overall medical costs.

- **Return on Investment to Providers –** Providers often are a primary target of research, particularly outcome research focused on symptoms. Providers are trained to assess, treat and reduce symptoms. Impacts on the priorities of other stakeholders (such as work, family, and recreational functioning) are often a secondary concern. While a worthy priority, the emphasis on symptom reduction too often distracts the focus of outcome research from the priorities of other stakeholders.
- **Return on Investment to Researchers –** Researchers also have a stake in the outcomes they document for mental health services, particularly in academic settings where publication rates are a condition of tenure and advancement. Often, they may use symptom measures and other clinical tools that differ from the priorities of other decision makers because those tools are well-established and well-accepted by other researchers. Explicitly factoring in the legitimate needs of researchers and ensuring that they consider the priorities of other stakeholders can lead to studies more targeted to the ultimate needs of decision makers.

Keeping in Mind Possible Unintended Consequences

As with earlier recommendations, decision makers should be aware of possible unintended consequences with the ROI approach. Perhaps the most obvious downside here is the risk of appearing too focused on financial concerns, rather than human concerns. While the “Return on Investment” construct connotes financial matters, the concept itself focuses on the measurement of return most meaningful to each stakeholder group. Nevertheless, the connotation remains and may limit the acceptance of this construct among some mental health constituencies.

Observation #5: Many Mental Health Services Are Known to Work, But Are Not Widely Available

Snapshot of Key Findings Regarding Mental Health Services Known to Work

- There is a growing evidence base for numerous mental health practices, many of which have been implemented in Colorado.
- Despite the knowledge base available, most services delivered in Colorado – like the nation as a whole – do not incorporate these practices.
- Recent efforts to promote increased use of empirically-based practices have included websites providing up-to-date research information for specific services, implementation toolkits, technical assistance, and training. These efforts seem to have had some impact in promoting dissemination.
- This report categorizes a thorough cross-section of practices across four levels:
  - **Well-established** practices with a rigorous and extensive research base;
  - **Established** practices with a strong, but less extensive research base;
  - **Promising** practices with a basic level of proven effectiveness; and
  - **Innovative** practices with limited research or only anecdotal evidence.
- We describe practices for children, youth, and families at three levels:
  1. Twenty early childhood programs
  2. Thirty-three leading programs for older children, youth and families
  3. Twenty-one examples of diagnostic-specific therapeutic interventions.
- We describe practices for adults and older adults at three levels:
  1. Six leading well-established practices for adults with serious mental illness
  2. Thirty-two outpatient psychotherapy interventions for adults and older adults
  3. Five promising treatment approaches for older adults.
- Integrated care programs with an empirical base are also available that focus on mental health consultation to primary care physicians, education of primary care physicians regarding diagnosis and medication use, conjoint treatment, follow-up to monitor treatment side effects and adherence, and coordination of care. School-based clinics offer an integrated model for children and youth.
- Improved psychiatric medications are widely available and increasingly so. Emerging prescription guidelines are available for specific subtypes of medications (particularly, antidepressants, antipsychotics) and age groups (including, adults with serious mental illness, children and youth).
- Suicide prevention programs with an empirical base are also increasingly available in Colorado.
- Telemedicine can help extend provider resources in rural and frontier areas.

Overview

"We need to document the evidence and value of the treatments that are out there and that work. . . . [W]e need to balance the inclination to build prisons and warehouse people." **– Community provider**

"Finally, there are some really wonderful initiatives in Colorado that are focused on early childhood. Traditionally, there has not been enough focus on programs for this group. There are many barriers to identification of mental health issues, given the fact that mental health diagnoses do not apply to children this young. There are also very few child care providers or even mental health professionals with this type of training. Children – my child – were being kicked out of placements because of their mental illness." **– Parent of a young child with a mental illness**

Colorado has very progressive, innovative programs that have been developed in the state. These strong and innovative programs – both clinically and cost-effectively - need to do more to promote evidence-based care." – **Community provider**

Many community-based programs and therapeutic techniques exist today that can help children, youth, adults, and families with a wide range of needs, with a growing evidence base demonstrating their effectiveness. There are examples of many empirically-based practices already implemented in Colorado that can be further disseminated, as well as other practices yet to be implemented. We use the term "empirically-based" to include the fullest possible range of programs and interventions determined to be effective based on results from outcome evaluations or research studies. Some of these services may have a strong empirical basis, while others may have a more limited empirical basis. These distinctions are detailed below.

Empirically-Based Practices - an inclusive reference to a range of programs and interventions determined to be effective based on results from outcome evaluations or research studies. Some of these services may have a strong empirical basis (Evidence-Based Practices), while others may have a more limited empirical basis (Innovative Programs).

Despite the available knowledge base, most services delivered in Colorado – like the nation as a whole – do not incorporate these practices. A recent analysis of depression treatment found that just over 40% of those receiving care received even minimally adequate treatment based on evidence-based standards (Kessler, Berglund, Demler et al., 2003). A landmark national study found that

less than 10% of people with schizophrenia received services in the community that are known to be effective (Lehman, Steinwachs, & the Co-Investigators of the PORT Project, 1998). As a result of the latter study, there have been several national efforts to promote the transfer of technology between research and practice (National Institute of Mental Health [NIMH], 1999), as well as the adoption of empirically-based approaches to mental health care (Drake, Goldman, et al., 2001; Torrey et al., 2001). These efforts have included websites providing the most up-to-date research information regarding specific services, toolkits for implementation, technical assistance, and training for direct service provision.

Such positive measures seem to have had some impact in promoting the dissemination of empirically-based practices. A recent survey of state mental health agencies found that 87% to 91% of responding states reported implementing at least one of three different types of evidence-based practice for people with serious mental illness (NASMHPD, 2002). Still, it is clear that these programs need to be made more widely available by mental health organizations and practitioners in order to better ensure quality care for people with or at risk for mental illnesses.

This section provides examples of empirically-based and innovative programs that are present in Colorado and national programs that could meet existing needs in Colorado. The following programs and therapeutic interventions were assembled by reviewing the national literature regarding empirically-based practices and through interviews with 64 (of the 136 overall) key informants about Colorado's empirically-based services. Our goal was to provide a thorough overview of such programs and any examples that we could find of their existence in Colorado. It is likely that many Colorado best practices were missed, given the approaches used. While it was beyond the scope of this study to provide a comprehensive examination of all empirically-based and innovative programs in Colorado, such an inventory would be an elusive goal for any study given the continuous development of such practices and ongoing evolution of Colorado's mental health systems. However, we hope that this provides a useful framework upon which a more extensive and systematic understanding of Colorado's empirically-based programs can be developed and updated over time.

The Importance of Fidelity

Fidelity of implementation is a critical concept for ensuring that empirically-based approaches are actually implemented and that their level of implementation is sound. Fidelity refers to the degree to which the implementation of a particular practice adheres to the principles and processes that have been empirically shown to result in good outcomes.

The work of Heflinger (1996) and others on the large scale Fort Bragg system of care evaluation drew the attention of many in the children's services arena to the importance of fidelity in understanding the processes and outcomes of services. More recently, Henggeler and colleagues (1999) and the Washington State Institute for Public Policy (WSIPP, 2002) have established a clear link between fidelity, the quality of intervention and ultimate system and client-level outcomes, including cost-benefits. For adults, systematic identification and evaluation of core components of integrated dual disorders treatment (IDDT) (Drake, Essock, et al., 2001) and assertive community treatment (ACT) (McGrew, Bond, Dietzen, & Salyers, 1994) have demonstrated that program fidelity is directly tied to better clinical outcomes. Yet, research completed over the past 25 to 30 years on more than 400 ACT teams in the United States has shown that no more than 75 ACT teams have achieved fidelity to the model (Kanapaux, 2000).

Simply put, calling a practice by the name of an empirically-based approach is not the same as actually implementing it. Unless a provider is sufficiently trained to understand the approach and supervised and supported over time to translate that understanding into practice, most empirically-based practices cannot be successfully implemented and will not achieve the outcomes they were intended to achieve.

How People's Lives can be Improved Through Empirically-Based Services

The current and potential impact of empirically-based services for people in Colorado can be illustrated by revisiting the six fictional people we introduced previously.

An adult with insurance

Barbara and Steve could have benefited from empirically-based practices when they were first addressing her illness. Had Barbara's primary care physician participated in integrated care initiatives educating him about common medication reactions and appropriate follow-up, he could have minimized the effects of her manic reaction to her first antidepressant regimen.

An adult with serious mental illness

Bob could benefit from empirically-based practices, particularly integrated outreach and supported housing services for homeless adults. Such services would provide needed supports – both mental health and basic needs – to help Bob keep a home and maintain treatments. Bob's friend, John, is already benefiting from a Medicaid-funded empirically-based approach called Assertive Community Treatment (ACT). Probably the best known and most researched practice for adults with serious mental illness, ACT involves a single team that provides intensive levels of medication support, alcohol and drug abuse services, vocational rehabilitation, and assertive case management in the community where John lives and works.

A youth and her family

The difficulties experienced by Gabriela and her family could have been addressed more appropriately at numerous junctures. Gabriela's acting out at school could have been caught earlier and addressed in a less stigmatizing setting by school-based mental health services. Then, had Gabriela's interagency planning team used a proven approach such as wraparound planning, both she and her mother would have been more centrally involved in planning and more attention would have been paid to already existing supports in their lives such as their church and extended family. Culture and language would also have been more appropriately addressed. Finally, in-home services with a research base such as Multisystemic Therapy (MST) would have helped her more quickly and with less cost than residential treatment, which has almost no research support for its effectiveness.

An older adult living in a rural area

For Nadine, integrated approaches that would have helped her care providers recognize her depression and grief for her lost spouse could have prevented the misdiagnosis of her depression as the onset of dementia. Once her depression was properly diagnosed, several treatments including cognitive behavior therapy and

reminiscence therapy could have augmented the antidepressant medication prescribed for her. Her friend Sally benefited from the integrated behavioral treatment prescribed for her spouse's Alzheimer's, and her depression was correctly diagnosed early on because her primary care providers were trained in integrated mental health and primary care.

Determining Levels of Evidence

Review of the literature on empirically-based programs and their categorization by researchers and stakeholders quickly leads to the conclusion that there are many perspectives on what constitute best practices. Approaches differ in the criteria they use to designate best practices and the language they use to describe them. For example, the Center for the Study and Prevention of Violence (CSPV) has developed a Program Matrix that shows how 12 different sources designated more than 200 prevention programs, describing them as "model, promising, highly promising, exemplary, effective, and favorable." Similarly, one group's use of the term "model" as the highest level of evidence (e.g., CSPV), may be the same term used for a lower designation by a different group (e.g., Strengthening America's Families).

To standardize our presentation of these service approaches, we aggregated these various distinctions as follows:

- **Well-Established –** Service approaches at this level were designated with the highest level of proven effectiveness by a source that reviewed their research base, such as CSPV's "model" programs, or the federal Center for Mental Health Services' (CMHS) "effective" programs. These approaches have been evaluated with rigorous research methods, typically employing randomized samples or quasi-experimental design with control groups, in addition to multi-site replication, and, in some cases, demonstrated sustained positive outcomes at extended program follow-up.
- **Established** – Service approaches at this level were designated by some sources with the highest level of proven effectiveness, but by the majority of sources at the second highest level of evidence. For example, the federal Center for Substance Abuse Prevention (CSAP) may have designated a program at the highest level, but three other sources designated it at a lower level, resulting in our categorization of the approach as "established."
- **Promising –** Approaches at this level were typically designated as "promising" approaches or otherwise in the second tier of proven effectiveness by all or most sources. These programs have been shown to be effective to some extent, but (1) with only a single trial of

effectiveness; (2) through studies with weaker research designs (e.g., no random assignment or control groups); or (3) through meta-analytic review of archival sources.

- **Innovative** – Approaches at this level have either some program evaluation results indicating positive results or anecdotal evidence pointing to their positive impact.

While several of the programs in this section may be more expensive or require significant start-up costs to implement in a time of scarce resources, many have also been found to have a positive return on investment, as indicated by various evaluations of cost-effectiveness, cost-benefits, and cost-offset. For example, one of the most widely cited examples in the area of early childhood is the High / Scope Perry Preschool Project, which has been found to save seven dollars for every dollar spent (Schweinhart, Barnes, & Weikart, 1993). While more comprehensive examination of the cost-benefits related to each of these interventions is beyond the scope of this study, it is an important issue to further examine when considering actual implementation among a subset of options.

Programs Serving Children, Youth, and Families

There has been a wealth of research performed on child and youth prevention, early intervention, and treatment programs. Programs may focus on the individual child, the family, or the child and family together. Service approaches were included in the following analysis of programs serving children, youth, and families if they were endorsed by at least three agencies or by literature reviews rating their effectiveness. For the latter, we particularly drew from the Program Matrix compiled by the Center for the Study and Prevention of Violence (CSPV; Mihalic, 2002); the *Surgeon General's Report on Mental Health* (U.S. Surgeon General, 1999); the matrix of evidence-based prevention interventions through the Center for Mental Health Services School Violence Prevention Initiative (SAMHSA & CMHS, 1999); and other key references (Curie, 2000; Greenberg, Domitrovich, & Bumbarger, 2001).

School-based Services – Mental health services provided within or in conjunction with the school system to children from preschool age to age 18. Services include individual, classroom, systemic, and targeted interventions. These interventions may include empirically-supported treatment such as targeted classroom-based contingency management for children with ADHD and other conduct problems.

Early Childhood Prevention, Early Intervention, and Treatment Programs

Early childhood has been identified as a crucial time to begin preventing emotional, behavioral, and mental difficulties, as well as to promote healthy development. Many prevention and early intervention programs have been developed across the country in a variety of venues using multiple strategies, including center-based preschool education programs, home visitation and parenting skill development, and infant and child health programs (Curie, 2000). The goals of early intervention have tended to focus on short-term and intermediate outcomes such as providing a stimulating environment, improving nutrition, and increasing school readiness. Longer-term goals, while more difficult to track, focus on other goals in adulthood, such as higher education, better earnings, reduced use of social services, and lower crime rates (Curie, 2000). These programs also range from those that are publicly-funded and implemented more widely (such as Project Head Start) to "model" or "effective" programs that cost more and involve more supervision supports (such as the High Scope / Perry Preschool). The following table provides overviews of 20 programs.

Examples of Early Childhood Prevention, Early Intervention, and Treatment Programs

Programs noted with asterisks (*) have a school-based component or are entirely school-based.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Well-Established			
Nurse Family Partnership (NFP)	High-risk first-time pregnant mothers and infants	Home visits by trained nurses in the homes of high-risk women during their first pregnancies through the first year of their children's lives. Visits focus on learning how to be a parent and avoiding risky behavior.	Implemented in 49 out of 64 counties statewide (e.g., Summit County Nursing Service provides NFP in four intermountain counties).
High/Scope Perry Preschool Project*	Infants, toddlers, preschool children	May be implemented in a variety of settings (e.g., child care centers, Head Start, churches, child care homes, infant/toddler centers, preschools). Hallmark is the "Plan, Do, Review" approach, which posits that children learn best from activities that they plan for themselves, carry out, and reflect upon later. Often includes home visits, as well as direct parent involvement and collaboration.	Several programs in Colorado, including in Sterling, Pueblo, and Lakewood

Program / Level of Evidence	Target Population	Description	Colorado Examples
Established			
Carolina Abecedarian Project*	Infants to school-age children at risk for school failure	Includes both child care and preschool interventions. Preschool intervention includes an intensive curriculum to enhance development and parent activities. School-age children receive home visits augmented by the curriculum and community resources to the family.	None identified.
First Step to Success*	At-risk kindergarten children with early signs of antisocial behavior	Three-month curriculum includes three components: (1) Universal screening procedure, (2) School intervention for behaviorally challenging children, and (3) Home intervention, including parental skill building.	None identified.
Houston Parent-Child Development Center*	Mexican-American families of children ages 1-3	Home visits for parent education, center-based parent education, and developmental child care.	None identified.
Syracuse Family Development Research Program*	Single, low-income, pregnant mothers	Mothers receive home-based training and support from paraprofessional child development trainers. The child care center provides families with five years of specialized child care services run by highly trained staff.	None identified.
Promising			
Dare To Be You*	Children ages 2 to 5 and their families	Multicomponent primary prevention program that includes a structured curriculum and training for parents, families, teachers, child care providers, and community members from various agencies that interface with the family.	Montezuma County
I Can Problem-Solve*	At risk children ages 4-5	A comprehensive curriculum in which instructors utilize pictures, role-plays, puppets, group interaction, and real-life examples to help develop students' thinking skills and problem-solving techniques.	None identified.
Infant Health and Development Program	Low-birth-weight and premature infants to age 3	A multifaceted program that includes pediatric care, home visits, parent group meetings, and daily center-based schooling.	Denver: The Infant/Toddler Development Program (adapted), part of the Florence Crittenton School
Parents As Teachers (PAT)	Pregnant families up to age 5	Multifaceted early childhood parent education and family support program provided by parents to parents. There are local variations of the model, but core approaches include: personal visits, screening, group meetings, and providing resource networks.	42 sites across Colorado, in both rural (Alamosa, Burlington, Fairplay) and urban (Denver-Metro, Boulder) areas

Program / Level of Evidence	Target Population	Description	Colorado Examples
Promising (cont'd.)			
System of Care Initiative (Project Bloom in Colorado)	Children from birth to age 5 at risk for SED	Various system of care strategies toward early childhood treatment. The goal is to develop a system of care for early childhood mental health, to increase system wide capacity, improve quality, and ensure family involvement.	Project Bloom implemented in Arapahoe County, El Paso County, Fremont County, Mesa County
Innovative			
Blue Ribbon Policy Council	Families and children from birth to age 5	A council consisting of policy experts, legislators, and consumer and family advocates, committed to helping three Colorado early childhood programs to implement policy changes and reduce barriers to implementation. [35]	Statewide
Child Care Response Team	Families and children from birth to age 5	A team works with early education staff to develop specific prevention and intervention strategies for children who exhibit signs of emotional, behavioral, mental, or physical problems. Early identification, screening, and intervention services are provided to children in early education/child care settings. Parents are provided information and intervention strategies to use at home, along with training and linkages to appropriate services in the community.	Colorado Springs
Child Development Program*	Preschool age children	Early childhood mental health specialists provide training for staff in preschools and child care settings close to preschools and provide training for parents to promote positive mental health practices and behavior management to prevent child care expulsion. Will expand to monolingual Spanish-speaking families with recent SAMHSA grant funding.	Longmont and Boulder
Community Consolidated Child Care Pilot (CCCP) Mental Health Mini Grant Programs	Families and children from birth to age 5 and providers	Pilots can request state rule waivers to eliminate barriers to improved early childhood services, including consolidating funding. Grantee activities include training child care staff in empirically-based assessments and interventions such as the Devereaux Early Childhood Assessment (DECA), consultation to child care and preschool staff, and enhanced mental health intervention services available to early childhood education centers.	18 Colorado communities serving 30 counties (e.g., Costilla, Eagle, Saguache) and the Southern Ute Indian Reservation
Community Infant Program (CIP)/Circulo	High-risk families with children from birth to age 3	Interagency teams of therapists and nurses provide home and community-based services focusing on positive parenting, healthy nutrition and feeding practices, and creation of family support systems. The goal is to promote healthy attachment. Circulo is the Spanish-speaking version of this program.	Boulder County

35 These three initiatives are also listed in this table and include: Kid Connects (Child Development Program in Longmont and Boulder and PEARL in Denver), Harambe!, and Project Bloom.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Innovative (cont'd.)			
Early Childhood Mental Health Specialist Training	Children from birth to age 5	The community mental health center provides funding for one year of training and education in early childhood interventions.	Chaffee, Custer, Fremont, Lake Counties
Harambe!	Families and children from birth to age 5	Early childhood mental health initiative. Consists of a statewide network of families, child care providers, early childhood mental health programs, governmental agencies, researchers, child care resource and referral and other stakeholders who consult regarding mental health issues in child care settings and promote individualized intervention strategies to address them.	Pilot communities in Denver County (NE neighborhoods), Aurora, Fremont County, San Luis Valley
Parent Empowerment Alternatives with Resources and Learning (PEARL)	Preschool children	Trained mental health professionals work with children, teachers, and parents to keep children with behavioral challenges in preschool.	Denver
The Young Fathers Program*	Young fathers or fathers-to-be aged 14-26	A range of services helps young or expectant fathers learn how to become nurturing parents, establish paternity, complete their education, acquire marketable job skills, obtain employment and become positive, contributing members of their communities and families.	Denver metro area

Child, Youth, and Family Services

There has been considerable research on interventions programs for older children, youth and families. These programs vary in the age groups they target and settings in which they are provided. In particular, schools are increasingly being recognized as an important setting for children's mental health services (Holden & Santiago, 2002). Schools are a prime locus for case identification and referral, for developing collaboration across provider systems, for providing services, and for evaluating outcomes of services. Similarly, schools represent an excellent opportunity for addressing the lack of integration noted by many key informants. This is true for several reasons: youth spend a large amount of time in school, school systems usually offer well-trained personnel and support services, there is less stigma attached to services that are received through school, and the location of services at

School-Linked Services – Includes those mental health services that may not necessarily be based within schools, but that are provided in close collaboration with schools and school officials, often within school settings.

school decreases common barriers to accessing care such as time and transportation (Woodruff et al., 1999). As seen below, there are a growing number of school-based and school-linked services with evidence to support their effectiveness.

The following table provides an overview of 33 leading empirically-based service approaches for children, youth and families in schools and communities.

Examples of Community-Based Child, Youth, and Family Services
Programs noted with asterisks (*) have a school-based component or are entirely school-based.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Well-Established			
Adolescent Transitions Program (ATP)	High-risk adolescents and their families	Uses a combination of teen approaches to self-regulation of problem behavior, parent approaches to improving parent management skills, and combined groups with parents and adolescents.	None identified.
Big Brothers Big Sisters of America	Youth (aged 6 to 18) from single parent homes	Screened, trained and supervised volunteers are carefully matched with children and youth and interact regularly with them in whatever capacity allows them to promote positive development.	Nine sites: Denver, Boulder, Colorado Springs, Pueblo, La Junta, Ft. Morgan, Woodland Park, Limon, Lamar
Bullying Prevention Program*	Youth in elementary, middle, and junior high school	A universal prevention program targeting students, as well as individual victims and bullies. The school-wide component entails education and discussion about bullying and an assessment of need. Classroom component includes rule-making related to bullying and continued classroom discussion. Individual components include working with identified victims and bullies.	Schools in Ridgeway and Ouray
Functional Family Therapy	Youth (aged 11-18) at risk for delinquency, violence, and substance use	Flexible delivery of service by one and two person teams of trained paraprofessionals, probation officers, and mental health providers. Services are provided in-home, clinic, juvenile court, and at time of re-entry from institutional placement. Services are provided in phases, from engagement to family case management strategies focused on generalizing behavior change.	Metro-Denver, Boulder, Gilpin, Clear Creek. Contracts with Senate Bill-94, Littleton Public Schools, Adams County DSS, Cornerstone.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Well-Established (cont'd.)			
Life Skills Training*	Middle/junior high school students	Three-year intervention designed to prevent or reduce gateway drug use (i.e., tobacco, alcohol, and marijuana), primarily implemented in school classrooms by school teachers. 15 sessions in year one, 10 sessions in year two, and 5 sessions in year three to teach students (1) general self-management skills, (2) social skills, and (3) information and skills specifically related to drug use.	Louisville Middle School, Norwood School in San Miguel County, Cortez Middle School, Baseline Middle School in Boulder, Adams County School District, Silverton in San Juan County
Midwestern Prevention Project*	Middle/junior high school students	Comprehensive, community-based, multi-faceted program for adolescent drug abuse prevention. Involves an extended period of programming, beginning in schools and extending to family and community.	None identified.
Multidimensional Treatment Foster Care	Children with multiple co-morbid mental disorders	Foster parents receive specialized training to work with children with behavioral or emotional problems.	Various counties in the Colorado child welfare system
Multisystemic Therapy	Youth with serious emotional disorders (SED) in the juvenile justice system or at risk for placement in this system	An intensive, short-term, home- and family-focused approach, with the goal of helping families and communities develop skills to work more effectively with youth by targeting factors that contribute to youth problem behaviors.	5 sites: Larimer Center for Mental Health, Savio House (Denver), Southern Ute Community Action Program / Peaceful Spirit (Ignacio), Synergy (Denver), University of Colorado Health Sciences Center (Denver)
Promoting Alternative Thinking Strategies (PATHS)*	Elementary school-aged children	A comprehensive program that includes a curriculum designed to be used by educators and counselors in a multi-year, universal prevention model. Although primarily focused on the school and classroom settings, information and activities are also included for use with parents.	Knapp Elementary in Denver
Second Step*	Primarily grades 1-3; similar curricula available for other grades	Bi-weekly classroom teaching of anger management, empathy, and impulse control and problem-solving skills in a structured lesson format.	School Districts in the following counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Larimer County,

Program / Level of Evidence	Target Population	Description	Colorado Examples
Well-Established (cont'd.)			
The Incredible Years Series*	Children ages 2-8 at risk for or presenting with conduct problems	A set of three comprehensive, multi-faceted, and developmentally-based curriculums for parents, teachers and children designed to promote emotional and social competence and to prevent, reduce, and treat behavior and emotion problems in young children.	8 sites implementing the children's component: Denver, Longmont, Grand Junction, Gardner (Huerfano County), Pagosa Springs, Cortez (2 sites). One site in Montrose is implementing the Parenting component.
Established			
Across Ages*	Youth ages 9-13 at risk for substance use problems	A school- and community-based program that combines a various approaches, including mentoring by trained older adults, community service projects, training in social problem-solving, and weekend activities.	None identified.
Anger Coping Program*	Children and adolescents who have difficulty with anger management	45-60-minute group intervention held weekly for 12 weeks. Lessons focus on improving youth perspective-taking skills, affect recognition, and other social skills through role plays, along with reinforcement and feedback.	None identified.
CASASTART*	Youth ages 9-13	A neighborhood-based model that brings together the local school, a community-based organization, and the local police department. Eight core components: Intensive case management, education services, family services, recreational services, mentoring, community policing and enhanced enforcement, incentive program, and criminal justice and juvenile justice intervention.	Adams Community Mental Health Center, YMCA in Denver, Denver Public Schools middle school in collaboration with Mi Casa Resource Center.
Child Development Project*	Universal intervention designed for grades 3-6	Staff training in cooperative learning, "buddying" activities across grades, and disciplinary approaches that foster youth participation in decision making. Also includes school-wide community-building and parent involvement activities.	None identified.
FastTrack*	Children in grades 1-6, targeting kindergartners who displayed disruptive behavior and poor peer relations	Long-term comprehensive prevention program to prevent conduct problems for high-risk children. Four site school- and home-based trial. School-based curriculum includes the PATHS model (Kuche & Greenberg, 1994). Also includes an enrichment program consisting of parent training, home visits, child social skills training, child tutoring in reading, and peer-pairing during the school day.	Not applicable. Only four sites in the U.S.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Established (cont'd.)			
Good Behavior Game(GBG)*	Children in the early elementary grades	A behavior modification program that involves students and teachers in a game that promotes good behavior. Teachers identify disruptive behaviors that will result in a team's receiving a checkmark on the board. Teams that have not exceeded the maximum number of marks are rewarded, while teams that exceed this standard are not.	None identified.
Guiding Good Choices Training (formerly Preparing for the Drug Free Years)*	Parents of children in grades 4-8	A multimedia program focused on parent training and education with a focus on alcohol and other substance use prevention with their children.	None identified.
Improving Social Awareness-Social Problem Solving (ISA-SPS)*	Elementary and middle school children (ages 6-14)	Addresses normal stressors associated with transition from elementary to middle school through a curriculum that teaches social problem-solving skills. Three phases: Readiness, Instructional, and Application.	None identified.
Participate and Learn Skills (PALS)	Children and youth ages 5-15	After-school recreation program emphasizing social and recreational skill development and improving self-esteem.	None identified.
Preventive Treatment Program*	Preadolescent boys who are demonstrating early disruptive behavior	Combines parent training (e.g., behavior monitoring, effective use of positive reinforcement and punishment, crisis management) with individual social and self-control skills training for the youth.	None identified.
Primary Mental Health Project*	Children pre-K through grade 3	Includes screening for identification of school adjustment problems. Child associates (trained paraprofessionals) provide a caring and trusting relationship with the children. School professionals shift their role to incorporate both features above.	None identified.
Project ALERT*	Middle school students ages 11 to 14	A universal drug and alcohol abuse program that includes a two-year, 14-session classroom-based or after-school curriculum in addition to home-based parent training.	School Districts in the following counties: Adams-Arapahoe, Boulder, El Paso, Larimer
Project Northland*	Universal alcohol use intervention for students in grades 6-8	Parents and children complete homework assignments together that describe adolescent alcohol use, peer- and teacher-led classroom curriculum focuses on resistance skills and normative expectations regarding teen alcohol use and is implemented using discussions, games, problem-solving, and role plays. A peer participant program also creates alternative alcohol-free activities. Later can become active in preventing alcohol use.	Rio Blanco (Meeker)

Program / Level of Evidence	Target Population	Description	Colorado Examples
Established (cont'd.)			
School Transitional Environment Program (STEP)*	Adolescents in middle schools and high schools with multiple feeders	Students assigned to homerooms in which all classmates are STEP participants. Teachers in these classrooms act as administrators and guidance counselors, helping students choose classes, counseling them regarding school and personal problems, explaining the Project to parents, and notifying parents of student absences.	None identified.
Seattle Social Development Project*	General population, high-risk elementary school students	Teachers receive instruction that emphasizes proactive classroom management, interactive teaching, and cooperative learning. Parents receive optional training programs throughout their children's schooling.	None identified.
Strengthening Families Program	At-risk youth under age 13	Individual counseling for the child, parent/child counseling, parent education, play therapy, and skill building focused on increasing resilience, and reducing substance use, depression, violence, delinquency, and school failure.	Weld County School District
Promising			
Wraparound Planning	Children and youth with SED	A philosophy of care that includes a definable planning process involving the child and family that results in a unique set of community services (e.g., mental health, primary care, education) and natural supports (e.g., family friends, neighbors, clergy) individualized for that child and family to achieve a positive set of outcomes (Burns & Goldman, 1999, p. 13).	Jefferson Center for Mental Health, Boulder Integrated Managed Partnership for Adolescent and Community Treatment (IMPACT) (in progress)
Family preservation programs provided by the child welfare system (e.g., Homebuilders)	Children and youth in out-of-home placement due to abuse and neglect	Designed to reunify abused and neglected children with their families. Services are provided in the home and community, service planning is collaborative with family members, 24-hour back-up coverage is available, marital and family interventions are available, community services are coordinated, and assistance with basic needs is provided.	Jefferson County, Weld County
Linking the Interests of Families and Teachers (LIFT)*	First and fifth grade elementary school boys and girls and their families living in at-risk neighborhoods characterized by high rates of juvenile delinquency	Classroom component contains 20, one-hour sessions taught over ten weeks. Each session follows the same format: lecture and role play on a specific social or problem solving skill, structured group skills practice, unstructured free play, and skills review and daily awards. Modification of the Good Behavior Game serves as the playground component. Parents are taught how to create a home environment that is most conducive to the ongoing practice of good discipline and supervision through a series of 6 meetings at their child's school.	None identified.

Program / Level of Evidence	Target Population	Description	Colorado Examples
Promising (cont'd.)			
PeaceBuilders*	Children and youth in grades K-12	A universal, school-based prevention curriculum that focuses on changing characteristics of school setting to promote protective factors and decrease risk factors for healthy youth development.	None identified.
Preventive Intervention (PI)*	Middle/junior high schools students who demonstrate low academic motivation, family problems, or frequent or serious school discipline referrals	Includes daily and weekly monitoring of student's behavior, rewarding appropriate behavior, and increasing communication between teachers, students, and parents. During weekly meetings with school staff, youth learn the relationship between actions and their consequences, role-play prosocial alternatives to problem behaviors, and are rewarded for positive behavior during these meetings.	None identified.
Project PAVE (Promoting Alternatives to Violence through Education)	Youths ages 8-18 who are victims or perpetrators of violence and their families.	Family violence prevention education program, which covers gang violence, child abuse and incest, racism, and relationship and parenting skills. Individual and group counseling for victims, perpetrators, and witnesses of violence, as well as parent and family support services.	Denver metro area
Promoting Action Through Holistic Education (Project PATHE)*	Middle and high schools that serve high numbers of minority students in both inner-city and rural, impoverished areas.	Collaborative design with parents, staff, community members of community improvement programs. Academic weaknesses and discipline problems are diagnosed and strengthened through innovative teaching techniques and student team learning, as well as the development of clear, fair rules, added extra-curricular activities, peer counseling services, school pride campaigns, job-seeking skills programs, and career exploration programs. At-risk students receive additional monitoring, tutoring, and counseling	None identified.

Diagnosis-Specific Interventions with Children and Youth

A number of psychotherapeutic techniques have been identified as effective for children and youth with specific psychiatric disorders. While there have been several efficacy and effectiveness studies specifically targeting the impact of psychotherapy on children and youth, most of the research conducted to date has focused on treatment for adults and then has been extrapolated to children (U.S. Surgeon General, 1999).

The dearth of research in this area is very different from the progress made in the areas of prevention and intervention programming for young people. The table below shows the gap between techniques that are well-established and those that are promising (Lonigan, Elbert, & Johnson, 1998). The table provides 21 examples of psychotherapy interventions targeting the symptoms and behaviors that accompany specific psychiatric disorders. Nearly all of them may be applied within a school-based or other program setting by a well-trained mental health clinician. Given the technical nature of these approaches, descriptions have not been provided.

Examples of Diagnosis-Specific Interventions for Children and Youth

Program/Level of Evidence	Target Population	Colorado Examples
Well-Established		
Behavioral parent training - *Living with Children* manualized treatment, videotape modeling program	Families of children and youth with conduct disorder or oppositional-defiant disorder	None identified.
Behavioral training for teachers	Children and youth with attention-deficit hyperactivity disorder (ADHD)	Application of evidence-based clinical guidelines for ADHD: Jefferson Center for Mental Health
Behavior modification for enuresis	Children with urinary incontinence	Used in many private practice and specialized clinic settings
Contingency management	Children and youth with phobias	Used in many private practice and specialized clinic settings
Multisystemic family therapy	Adolescents with substance use and other behavioral problems	Used in many private practice and specialized clinic settings
Parent-Child Interaction Training	Conduct-disordered young children	Pikes Peak Mental Health Center service area

Program/Level of Evidence	Target Population	Colorado Examples
Promising		
Behavioral parent training	Families of children and youth with ADHD	Used in many private practice and specialized clinic settings
Behavior therapy, including the Lovaas model for autism	Autism, childhood obesity, bowel incontinence	Used in many private practice and specialized clinic settings
Cognitive Behavior Therapy (CBT)	Abuse and trauma, phobias, depression, suicide	Mental Health Corporation of Denver, many private and specialized clinic settings
Family interventions employing cognitive-behavior therapy (CBT)	Suicidal children and adolescents and their families	Used in many private practice and specialized clinic settings
Group-based cognitive behavior therapy (CBT) based on either self-control therapy or behavior-solving therapy	Preadolescents with depression	School-based application in Denver Schools in coordination with Mental Health Corporation of Denver
Interpersonal therapy	Adolescents with depression and suicidal thoughts	Used in many private practice and specialized clinic settings
Modeling, particularly observational learning techniques	Children and youth with phobias	Used in many private practice and specialized clinic settings
Positive Behavior Interventions and Supports (PBIS)*	Children and youth (preschool to 18) with ADHD and other conduct problems	Various schools
Systematic desensitization	Children and youth with phobias	Used in many private practice and specialized clinic settings
Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH)	Preschool children with autism	None identified.
Innovative		
Cognitive Behavior Therapy (CBT)	Young adult females with eating disorders	None identified.
Family anxiety management training	Families of children and youth with anxiety disorders	None identified.
Interpersonal therapy	Young adult females with eating disorders, children and youth with depression	None identified.
Multimodal treatment	Children and youth with ADHD	None identified.
Thinktank regarding treatment of bipolar disorder	Children and adolescents with bipolar disorder	Aurora, Adams County, Arapahoe/Douglas County

Services for Adults and Older Adults

Community-Based Interventions for Adults with Serious Mental Illness (SMI)

Six well-established practices are highlighted below for people with serious mental illness and are described in the table below. There have been many efforts within Colorado to implement these programs more widely, including recent grant applications to the federal Substance Abuse and Mental Health Services Administration (SAMHSA) for systematic dissemination of these evidence-based practices.

Empirically-Based Practices for Adults with Serious Mental Illness

Program	Description	Colorado Examples
Well-Established		
Assertive Community Treatment (ACT)	An intensive community-based service characterized by: assertive outreach, 24-hour, 7 days-a-week coverage, services provided primarily in the home and community, and services individually tailored to meet the range of a person's basic and psychosocial needs. Services are delivered by a multidisciplinary team which equally shares the caseload.	Multiple teams in Denver; Boulder, Longmont; Alamosa (modified rural); Colorado Springs and Pueblo (both modified)
Supported Employment	A program that assists people in finding competitive employment. "Competitive employment" refers to community jobs that pay at least minimum wage that any person would be eligible to apply for according to their choices and capabilities. Supported employment programs are staffed by employment specialists who help consumers look for jobs soon after entering the program.	Mental Health Corporation of Denver combines supported employment with clubhouse model
Integrated Dual Disorders Treatment (IDDT)	Include one clinician or one team in one agency which provides mental health and substance use treatments in an integrated fashion. They typically include key features such as: (1) stage-wise treatment over time, (2) consumer collaboration with clinicians to develop an individualized treatment plan, (3) motivational interviewing and treatment skills, and (4) substance use counseling.	Arapahoe/Douglas Mental Health Network Combined services with CMHC and Health Department in Boulder
Illness Management and Recovery	An approach that helps consumers learn more about managing severe mental illnesses and moving toward recovery. Sessions typically focus on the following nine topic areas: (1) recovery strategies, (2) practical facts about schizophrenia, bipolar, and major depression, (3) the stress-vulnerability model and treatment strategies, (4) building social support, (5) using medication effectively, (6) reducing relapses, (7) coping with stress, (8) coping with problems and symptoms, and (9) getting your needs met in the mental health system. Sessions generally last from three to six months.	Community Mental Health Center of Boulder County Training and education of consumers and providers conducted by SyCare in Alamosa, Canon City, Colorado Springs, Durango, Grand Junction, Greeley, La Junta, Montrose, Pueblo,

Program	Description	Colorado Examples
Well-Established (cont'd.)		
Family Support and Psychoeducation	An approach that provides family members with current information about another family member's mental illness and helps families to develop coping skills. This structured approach can be used with a single family or multi-family group arrangement. Phases typically have a specific format: (1) introductory sessions, (2) educational workshop, and (3) problem-solving sessions.	National Alliance for the Mentally Ill's (NAMI's) Family-to-Family Education Program
Medication Management Approaches in Psychiatry (MedMAP)	Provides guidelines and algorithms based on a combination of clinical research, expert consensus, and practitioner expertise.	Publication of Texas Medication Algorithm Project (TMAP) guidelines for prescribers in Aurora, Arapahoe/Douglas Counties, Adams County

In addition to these six primary approaches, several model programs have been developed to treat the unique needs of homeless adults with mental illness, including the AB-34 Projects program in California (named after California legislation in 2000, as cited in The President's New Freedom Commission on Mental Health, 2002). Key features of this program include: (1) assertive outreach in the community; (2) services to meet the range of a person's needs (often including basic needs); (3) 24-hour availability, 7 days a week; and (4) partnerships and coordination with community providers. Hallmark features of this program also include provision of services by formerly homeless individuals and the availability of flexible funding.

Colorado has several programs for people who are homeless, including various assertive community treatment teams and residential programs operated by the Mental Health Corporation of Denver, the Colorado Coalition for the Homeless' Stout Street Clinic, and the federally-funded Project to Assist the Homeless (PATH) Program. Furthermore, Colorado will be receiving an additional $12.5 million in federal grant funding from the Department of Housing and Urban Development to provide housing and services for the homeless (CDHS, December, 2002). Both the Stout Street Clinic and Aurora Mental Health Center, in collaboration with Metro Community Providers Network (MCPN), a community health center, are in the process of implementing outreach-focused integrated mental health and primary care programs with homeless people in the Denver metro area through funding from SAMHSA.

Outpatient Psychotherapy Interventions for Adults

There has been extensive and systematic research on the efficacy of diagnostic-specific therapies for adults. For example, there are several cognitive-behavioral and behavioral strategies that have been well-established for treatment of anxiety (cognitive behavioral therapy for panic disorder), stress (Stress Inoculation Training for Coping with Stressors), depression (cognitive therapy for depression), health problems (cognitive-behavioral therapy for bulimia), and marital discord (behavioral marital therapy). Interpersonal therapy has also been found to be effective for treating depression.

There is an even larger number of promising treatments for the disorders and problems listed below, as well as for treatment of substance-related disorders and sexual dysfunction. One such treatment that has received widespread attention and dissemination in recent years is Dialectical Behavior Therapy (DBT), which consists of an array of cognitive and behavior therapy strategies to treat people with borderline personality disorder, particularly targeting suicidal behaviors (Linehan, 1993a, 1993b).

The following list was adapted from Chambless and colleagues (1998). Many of the empirically-supported psychotherapy treatments for adults listed in the table below (particularly cognitive-behavioral approaches to treatment of depression) have been extended to older adults as well (Gatz et al., 1998).

The table below presents 32 approaches with some level of support or innovation. Given the technical nature of these approaches, descriptions have not been provided.

Empirically-Based Outpatient Psychotherapy Interventions for Adults

Type of Disorder or Presenting Issue	Colorado Examples
Well-Established	
Anxiety and Stress	
Cognitive behavior therapy for panic disorder, generalized anxiety disorder	Staff training and application: Jefferson Center for Mental Health
Exposure treatment for agoraphobia	Used in many private practice and specialized clinic settings
Exposure/guided mastery for specific phobia	Used in many private practice and specialized clinic settings
Stress Inoculation Training for Coping with Stressors	Used in many private practice and specialized clinic settings
Depression	
Behavior therapy for depression	Clinical practice guidelines for treatment of depression: Jefferson Center for Mental Health
Cognitive therapy for depression	Used in many private practice and specialized clinic settings
Interpersonal therapy for depression	Colorado Clinical Guidelines Collaborative (CCGC), a Colorado coalition of health plans, physicians, hospitals, and private providers
Health Problems	
Behavior therapy for headache	Used in many private practice and specialized clinic settings
Cognitive behavior therapy for bulimia	Used in many private practice and specialized clinic settings
Multi-component cognitive behavior therapy with relapse prevention for smoking cessation	Pueblo City-County Health Department; The Colorado QuitLine
Marital Discord	
Behavioral marital therapy	Used in many private practice and specialized clinic settings

Type of Disorder or Presenting Issue	Colorado Examples
Promising	
Anxiety	
Applied relaxation for panic disorder and generalized anxiety disorder	Used in many private practice and specialized clinic settings
Cognitive behavior therapy for social phobia	Used in many private practice and specialized clinic settings
Exposure treatment for post traumatic stress disorder (PTSD)	Denver Veterans Administration
EMDR for civilian post traumatic stress disorder (PTSD)	Peer supervision group of private providers in Colorado Springs
Substance Use and Dependence	
Behavior therapy for cocaine abuse	Used in many specialized clinic settings
Community Reinforcement Approach for alcohol dependence	Colorado Clinical Guidelines Collaborative (CCGC), a Colorado coalition of health plans, physicians, hospitals, and other private providers
Social skills training adjunctive to inpatient treatment for alcohol dependence	Used in many specialized clinic settings
Depression	
Brief dynamic therapy	Used in many private practice and specialized clinic settings
Self-control therapy	Used in many private practice and specialized clinic settings
Social problem-solving therapy	Used in many private practice and specialized clinic settings
Health Problems	
Cognitive behavior therapy adjunctive to physical therapy for chronic pain	Used in many specialized clinic settings
Interpersonal therapy for binge-eating disorder and bulimia	Used in many private practice and specialized clinic settings
Multicomponent cognitive therapy for irritable bowel syndrome	Used in many specialized clinic settings
Marital Discord	
Emotionally focused couples therapy for moderately distressed couples	Used in many private practice and specialized clinic settings

Type of Disorder or Presenting Issue	Colorado Examples
Promising (cont'd.)	
Insight-oriented marital therapy	Used in many private practice and specialized clinic settings
Sexual Dysfunction	
Master's and Johnson's sex therapy for female orgasmic disorder	Used primarily in specialized clinic settings only
Zimmer's combined sex and marital therapy for female hypoactive sexual desire	Used primarily in specialized clinic settings only
Other	
Dialectical Behavior Therapy (DBT) for borderline personality disorder	Arapahoe/Douglas Mental Health Network, Jefferson Center for Mental Health
Behavior modification for sex offenders	San Luis Valley
Innovative	
Toolkit for treatment of bipolar disorder, using CBT, Family-Focused Therapy, or Interpersonal and Social Rhythm Therapy (IPSRT)	Arapahoe/Douglas Counties, Aurora, Adams County

Mental Health Services for Older Adults

Addressing the mental health needs of older adults has recently become a national priority issue (The President's New Freedom Commission on Mental Health, 2002; U.S. Surgeon General, 1999). Considering the prevalence of depression among older adults in primary care settings, many of these efforts have focused on integrated care programs, as discussed earlier in this report under Observation #1 on service integration and coordination.

As discussed above, the empirically-supported psychotherapy treatments for adults listed in the previous section and table (particularly cognitive-behavioral approaches to treatment of depression) have been extended to older adults (Gatz et al., 1998). There also have been many national efforts to further evaluate and implement mental health / alcohol and drug use programs in primary care settings for older adults. The Primary Care Research in Substance Abuse and Mental Health for the Elderly (PRISMe) study, a multi-million dollar collaborative grant

program, is comparing models that refer people to specialty mental health and alcohol / drug use services outside of primary care to those that integrate such services within the primary care setting (AoA, 2002). Evidence-based approaches to address the specific needs of older adults are still in early stages of development. Examples of empirically-supported national and Colorado programs are listed below.

Example Programs Serving Older Adults

Program	Target Population	Features	Colorado Examples
Promising Approaches			
Cognitive behavioral approaches to depression	Older adults with depression	Combined behavioral (e.g., Activity monitoring and intervention) and cognitive (e.g., awareness of core beliefs and automatic thoughts) strategies are used to target symptoms of depression. Same process as for other adults.	Used in many private practice and specialized clinic settings, often in group format
Improving Mood: Providing Access to Collaborative Treatment for Late Life Depression (IMPACT)	Older adults with depression presenting in primary care settings	Interventions targeting depressive symptoms are delivered in a primary care setting by mental health professionals on a primary care team. Primary interventions are education and discussion of choices regarding psychotherapy and psychiatric medications. More intensive approaches may also be provided as needed.	None identified
Primary Care Research in Substance Abuse and Mental Health for the Elderly (PRISMe)	Older adults with co-occurring mental illness and alcohol/drug use presenting to primary care settings	A multi-million dollar collaborative grant program comparing models that refer people to specialty mental health and alcohol/drug use services outside of primary care to those that integrate such services within the primary care setting.	None identified
Psychogeriatric Assessment and Treatment in City Housing (PATCH)	Older adults living in urban public housing	Combines assertive case management and gatekeeper strategies. Includes training of building workers/managers to identify people at risk, identification and referral to a psychiatric nurse, and subsequent psychiatric evaluation and treatment in the home.	None identified.

Program	Target Population	Features	Colorado Examples
Promising Approaches			
Reminiscence Therapy	Older adults with depression or dementia	Group and individual processing regarding past experiences in a structured and managed way with the aim of resolving difficulties.	Used in many private practice and specialized clinic settings, often in group format

Other Service Approaches for All Ages

Integrated Care Programs

Integrated care is a well-established approach to treating mental health problems within primary care settings. It has been defined as "the delivery of physical and behavioral care in a way that meets the comprehensive mental health needs of each individual and family. From the patient's perspective, this care is delivered seamlessly, without regard to funding sources, organizational structures, policy and practice differences, and other barriers" (Thomas, 2001). Given the prevalence of depression that is diagnosed and treated in primary care settings, many of these efforts tend to focus on assessment and treatment of depression. Integrated care programs employ a range of practices, including:

- Mental health consultation to primary care physicians and staff;
- Mental health education of primary care staff emphasizing the importance of adequate psychopharmacological interventions and psychotherapy treatment;
- Mental health and primary care providers involved in combined or alternating/follow-up sessions with patients;
- Follow-up with patients to assess medication side effects, adherence to treatment and improvement in symptoms; and
- General coordination of care, including coordinated treatment planning and regular case conferences.

These programs have often been funded through grants such as those from the Robert Wood Johnson Foundation and the MacArthur Foundation, both of which allow the system to circumvent categorical funding and the behavioral health carve-out.

There are many examples of integrated care programs across Colorado. For example, in line with the direction of federal grants expanding funding to include mental health services within Federally Qualified Health Centers (FQHC), many community, migrant, homeless, and school-based health centers in Colorado have already begun initiatives and programs to implement some type of integrated care in their clinics. Known programs are located in at least 14 Colorado Community Health Centers, including (but not limited to) Salud Family Health Center in Ft. Lupton, People's Clinic in Boulder, MCPN clinics in Lakewood and Aurora, Eastside and Westside Clinics in Denver, Northern Colorado Medical Center in Greeley. Furthermore, there are several models of integrated care in the private sector, such as the Marillac Clinic in Grand Junction and Kaiser Permanente's programs.

School-based health clinics are one of the primary ways in which mental health and primary care are most effectively combined in treating children and youth. The Dallas School-Based Youth and Family Centers is an integrated care program in nine schools in Dallas, Texas, the 12th largest school system in the country (Jennings et al., 2000, as cited in The President's New Freedom Commission on Mental Health, 2002). The mental health component consists of family partnerships, six sessions of psychotherapy, and follow-up with teachers. There is also a significant training component of school personnel in order to promote early identification and classroom interventions.

Colorado has developed a strong network of school-based health clinics across the state, which continues to provide a range of services including medical care (e.g., immunizations, health education, management of chronic conditions), mental health services (e.g., assessment, consultation with staff and families, counseling), and other services such as assessment and counseling for alcohol and drug use, smoking cessation and prevention, reproductive health services, and violence prevention (Colorado Association for School-Based Health Care, 1998). Funding for these programs has been challenged in recent years, resulting in cuts to some programs while others are attempting to manage with existing funding resources. As of June 2003, Colorado had 26 school-based health clinics that also provide mental health services. Most

of these programs are within the Denver Public Schools (13), six in Commerce City, three in Jefferson County, one in Summit County, one in Fort Collins, one in Fountain, and one in Sheridan (B. Ford, personal communication, June 3, 2003).

As discussed above, there are also several programs that are beginning to target treatment of late-life depression in primary care settings. While integrated models appear to hold great promise for the future, it is essential to note that primary care is not necessarily appropriate for treatment of all mental health disorders, particularly depression. This is especially true for older adults for whom diagnosis can be very complicated and symptoms difficult to distinguish from other physical ailments. As a result, a set of recommendations has been developed for health care providers regarding when to refer patients out to a geriatric psychiatrist (American Association for Geriatric Psychiatry, 1997).

Suicide Prevention Programs

Over 30,000 people die from suicide annually. Ninety percent of these people have a diagnosable mental illness (Institute of Medicine, 2002, as cited in The President's New Freedom Commission on Mental Health, 2002). As a result, suicide prevention programs have become a national priority (The President's New Freedom Commission on Mental Health, 2002; U.S. DHHS, 1999). One empirically-supported national program is the Air Force Initiative to Prevent Suicide. Features of the program include: (1) hard-hitting messages to all active duty personnel encouraging them to seek help in times of stress and need; (2) education and training related to suicide prevention and depression; (3) improved surveillance; (4) critical incident stress management; and (5) integrated care approaches.

In 1998, Colorado's suicide rate ranked 12th in the nation. In order to address this devastating problem, The Colorado Trust and the Colorado Office of Suicide Prevention conducted a comprehensive study on suicide in the state. Key findings focused on identifying characteristics of people at risk for suicide, the range and type of suicide-prevention resources throughout Colorado, key components of a comprehensive suicide-prevention system of care, and strategies

to address the problem (The Colorado Trust, 2002). This comprehensive study also provided a snapshot of approximately 200 suicide-prevention programs in Colorado. One particular school-based model program is located at Denver's North and East High Schools, and Urban Peak, a shelter program for homeless youth in Denver and Colorado Springs.

Telemedicine

Telemental health and telehealth technologies have become increasingly effective and more widely disseminated over the past 10 years. This technology entails having a mental health professional in a more urban area communicate with a mental health professional or consumer in a rural area via video-conference, as if the two were face-to-face in the same location. There have been several successful models of telemental health across the country. One at the Northern Arizona Regional Behavioral Health Authority (NARBHA) delivers services among 15 sites over a 62,000 square mile area of northern Arizona. Services include psychiatry, training, case consultation, administrative meetings, case management, discharge planning and client case review (Gamm et al., 2002).

Western Colorado informants described current capacity to provide telepsychiatry consultation that extends the ability of limited psychiatry resources there to provide psychiatric consultation in rural outpatient, emergency room, and hospital settings. Other known telemedicine programs that offer mental health services to Colorado residents include: the High Plains Telemedicine Network in Fort Morgan, the Poudre Valley Telemedicine Program/High Plains Rural Health Network in Fort Collins, the TeleHealth/TeleEducation Program in Denver, Centura Health/Colorado Health Network programs in parts of the state, community mental health center activities on the Western Slope, and several Veterans Administration programs across the state.

Improved Psychiatric Medications

Medications for adults. In addition to specific interventions, more effective state-of-the-art psychiatric medications are now available. In particular, the newer atypical antipsychotic

medications have provided a reprieve from the common persistent, unpleasant, and sometimes disabling side effects offered by conventional antipsychotic medications (e.g., Haldol) used for treatment of persons with schizophrenia and other similar psychotic disorders. The first of these, Clozaril, was approved by the FDA in 1990. While offering a potentially life-threatening side-effect (i.e., *agranulocytosis*, a loss of the white blood cells that fight infections) to a small percentage (1%) of persons, it has been found to be effective for approximately 30-50% of persons with treatment-resistant schizophrenia (Kane, 1996). Its efficacy was just extended in December, 2002 when the FDA approved it for use in reducing risk of suicidal behavior in persons with schizophrenia and schizoaffective disorder (U.S. FDA, December, 2002).

More recent second-generation atypical antipsychotics, such as Risperidol (1993), Zyprexa (1996), Seroquel (1997), and Geodon (2001) have also been found to be very effective, particularly with negative symptoms, and with fewer side effects (Shore, 1998; Carnahan, Lund, & Perry, 2001). The atypical antipsychotics now account for more than 50% of the antipsychotic drug market in the United States (Clinical Antipsychotic Trials in Intervention Effectiveness, 2003). The Clinical Antipsychotic Trials in Intervention Effectiveness (CATIE) study funded by the National Institute of Mental Health and coordinated by the University of North Carolina at Chapel Hill compares the newer atypical antipsychotic medications with one another as well as to conventional antipsychotic medications, aiming to translate clinical efficacy trials to real world effectiveness (CATIE, 2003). Specific benefits that have been demonstrated include:

- Reduced hospital use (Reid, 1998; Viale, Mechling, Maislin, Durkin, Engelhart, & Lawrence, 1997).
- Reductions in state hospital treatment costs (Galvin, Knezek, Rush, Toprac, & Johnson, 1999), overall service costs (Nightengel, Crumly, Liao, Lawrence, & Jacobs, 1998; Nightengale, Garrett, Waugh, Lawrence, & Andrus, 1998), medication costs (Carter, Stevens, & Durkin, 1998; Hamilton, Revicki, Edgell, Genduso, & Tollefson, 1999), and readmission rates (Coley et al., 1999).
- Other improved treatment outcomes, including symptom reduction (Revicki, Genduso, Hamilton, Ganoczy, & Beasley, 1999) and improved quality of life (Aronson, 1997; Chouinard & Albright, 1997; Franz, Lis, Pluddeman, & Gallhofer, 1997). One comprehensive study noted improved interpersonal relations, social role function, the ability to perform normal life activities, the quality and frequency of meaningful employment, and suicidality (Tollefson, Deasley, & Tran, 1997).

- Decreased side effects (Bond & Meyer, 1999).
- Improved outcomes with children and adolescents (Lewis, 1998).

In Colorado, there is evidence that the use of atypical antipsychotics has had an impact on the use of state hospital care. In an analysis of readmission rates by CMHI-Pueblo reported by TriWest Group (2001), over the past 24 years there has been a marked increase in time between readmissions that correlates with the broad introduction of atypical antipsychotics in the latter half of the 1990s. Further, while the SSRIs and newer antidepressants demonstrate similar efficacy (Agency for Health Care Policy and Research [AHCPR], 1999), the latter are now typically the first medications prescribed for treatment of depression because of their ease of use (i.e., one daily dose, less titration), more manageable side effects, and less potential lethality from overdose (Preskorn & Burke, 1992).

Children and youth. Pharmacological treatment for children and youth has also grown in recent years. However, there is great concern about the widespread use of psychiatric medications introduced to the market primarily by adults, but used "off-label" for children and adolescents (U.S. Surgeon General, 1999). Much of this concern derives from lack of efficacy studies on medications for treating this population. Key informants noted that many people are simply concerned overall about the use of mood and behavior altering medication with children.

Several recent efforts have begun addressing these concerns. One is the Best Pharmaceuticals for Children Act (Public Law [P.L.] 107-109), which reauthorizes the provision related to improving the safety and efficacy of medications for children based in the Food and Drug Administration Modernization and Accountability Act of 1997. P.L. 107-109 provides incentives for drug companies to conduct studies of patented medications currently used with pediatric populations but not labeled for such use, while encouraging further studies of off-patent drugs by the Federal Government or other entities with the expertise to conduct pediatric clinical trials (Office of Legislative Policy and Analysis, 2003). P.L. 107-109 has been combined with the 1998 FDA Pediatric Rule, which requires drug companies to study new and marketed drugs and their efficacy, safety, and dosing as applied to children. Of the efficacy studies that have been

conducted on pharmacological treatment of children, there is currently strong support for the efficacy and safety of SSRIs (e.g., Paxil) for obsessive-compulsive disorder (OCD) and psychostimulants (e.g., Ritalin) for ADHD (Burns et al., 2002; Jensen et al., 1999).

Emerging Prescription Guidelines

Adults with serious mental illness. There have been multiple efforts to combat the overuse of medications and develop more consistent and appropriate clinical practice (Mellman et al., 2001). Many of these efforts have specifically focused on persons with serious mental illness. Four types of guidelines have been identified in the literature:

1. Recommendations supported by rigorous research (e.g., The Patient Outcomes Research Team [PORT] treatment recommendations for persons with schizophrenia);
2. Practice guidelines promoted by professional organizations, for example practice guidelines for the treatment of post traumatic stress disorder (PTSD) developed by the International Society for Traumatic Stress Studies (ISTSS) (Foa, Keane, & Friedman, 1998, as cited in Mellman et al., 2001);
3. Medication algorithms that provide a set of decision rules for medication evaluation and prescription (e.g., Texas Medication Algorithm Project (TMAP); and
4. Expert consensus guidelines based on expert surveys (e.g., for the treatment of schizophrenia, bipolar disorder, obsessive compulsive disorder, agitation in older persons with dementia, and post traumatic stress disorder).

One approach that makes use of all of the above guidelines is Medication Management Approaches in Psychiatry (MedMAP), an evidence-based treatment for persons with schizophrenia (Miller, Mellman, & the Development Team, 2002). MedMAP provides guidelines and algorithms based on a combination of clinical research, expert consensus, and practitioner expertise.

Children and youth. While most pharmacological treatment guidelines have tended to focus on adults with serious mental illness, there are several efforts targeted at improving the quality of medication treatment for children. For example, the American Academy of Child and Adolescent Psychiatry (AACAP) has published 20 practice parameters, including medication recommendations related to specific psychiatric disorders and behaviors in children and youth

ranging from Attention-Deficit/Hyperactivity Disorder (ADHD) to suicidal behavior (AACAP, 2002; see, e.g., Practice Parameters for the Assessment and Treatment of Children and Adolescents with Depressive Disorders, AACAP, 1998). The Texas Mental Health and Mental Retardation Division, in collaboration with regional medical centers, has recently developed the children's medication algorithm project (CMAP) to develop medication algorithms and guidelines for ADHD and major depressive disorder in children and adolescents (Hughes et al., 1999; Pliszka et al., 2000).

Recommendation: Disseminate and promote empirically-based services.

Colorado decision makers should promote the dissemination and development of empirically-based approaches to mental health care. Successful implementation and dissemination may be supported through targeted evaluation, outcome tracking, training, and attention to the fidelity of implementation. Targeted modifications of empirically-based practices for specific cultural or regional needs are also needed.

- To the extent possible, Colorado decision makers should require proven services with some level of empirical basis for their effectiveness, when such models are available and fit within budgetary constraints;
- Where possible, Colorado decision makers should include evaluation approaches that ensure the faithful implementation of these services.
- Model or best practice programs may not always be feasible to implement in rural areas or with small subpopulations of need because of the lack of resources or other unique characteristics. In these situations, there is a need for assistance to identify best practice programs or program components that will work. Colorado decision makers should work to extend and modify empirically-based approaches for new populations.

Keeping in Mind Possible Unintended Consequences

Decision makers should be aware of possible unintended consequences even with promoting care models that are known to work. For example, demonstrations of empirically-based approaches can raise expectations that are not sustainable with available funding levels. One major risk here is that of stifling innovation by only funding what is already known to work. Given how little the

current system features empirically-based practice, this risk is limited. However, many payers such as foundations play an important role in funding programs that meet diverse needs that would probably not otherwise be met and for which practices proven by systematic research are sometimes not available. This is particularly true for responsive grant-making foundations.

Observation #6: Providers with Specialized Skills are Needed

Snapshot of Key Findings Regarding Colorado's Need for Providers with Specialized Skills

- In 1998, Colorado ranked high among states overall in its numbers of the three provider types tracked by the federal government: 13th nationally in its number of psychiatrists, 7th overall for psychologists, and 21st overall for social workers (broadly defined).
- While Colorado ranked 13th in the number of psychiatrists, the number was just above the national average (11.7 versus 11.1 per 100,000). Stakeholders reported an especially difficult time accessing psychiatrists. When age group is taken into account, the need for child psychiatrists is particularly disproportionate to supply.
- Older adult specialists are also lacking, according to stakeholders. Less than 7% of psychiatrists and only 4% of other mental health providers in private practice in our survey accept Medicare.
- More rural areas of Colorado such as Northeast Colorado and the Western Slope have fewer psychiatrists (6.1 and 8.7 per 100,000, respectively) than federal standards suggest are needed (10 per 100,000). The number of psychologists and social workers exceed minimum standards, but many are located in the larger cities within these regions.
- Nationally, most mental health providers are not members of racial or ethnic minorities, nor do they tend to be bilingual or trained in culturally competent care strategies.
- In Colorado, the percentage of mental health providers in the following groups are lower than their percentage of the Colorado population: Latino/Hispanic Americans (17% of population, but only 8% of providers), African Americans (nearly 4% of population, but only 1.4% of providers), and Asian Americans (over 2% of the population, but just under 1% of providers). Interestingly, American Indians make up only 1% of the Colorado population, but almost 3% of provider survey respondents.
- The proportion of providers claiming specialized expertise in working with each racial and ethnic group exceeds the population proportion for African Americans (over 4% of providers) and American Indians (over 5% of providers). Proportions of providers claiming expertise are below, but close to population proportions for Latino/Hispanic Americans (about 14.5%) and Asian Americans (about 1.5%).
- Various cultural competency guidelines are available that include strategies for training providers to provide culturally competent care to members of their own and other racial and ethnic groups. Experience as a member of a specific group can help increase a provider's competence treating that group.
- Few providers speak Spanish (12.5%), American Sign Language (1%), or other non-English languages (3.5%).

Overview

"There is a chronic shortage of rural mental health professionals and children's mental health professionals both in rural and urban areas." **– Mental health provider**

"Professionals are not diverse. I'm hard-pressed to find even one African American home-based case manager or African American psychiatrist." **– African American mental health provider**

"Somehow, we need to support more scholarships to train professionals to move into the profession and serve underserved people." **– Mental health agency administrator**

The shortage of certain types of mental health providers in Colorado was the third most frequently-mentioned issue brought up by key informants. There are too few providers of certain specialized mental health services (e.g., psychiatry, those trained in empirically-based approaches) and too few providers for specific subpopulations (e.g., children, older adults, those living in rural areas, racial and ethnic groups, and people who speak languages other than English). As we examined this issue, it became clear that the issue was less a shortage of mental health providers overall than a shortage of particular subgroups of providers.

The federal Health Resources and Services Administration (HRSA) includes a National Center for Health Workforce Information and Analysis that publishes state-level profiles of the health care workforce (HRSA, 2000). For the mental health provider types tracked by the profile, Colorado compares quite favorably with national figures. Colorado has more therapists overall in each category (psychiatrists, psychologists, and social workers) than most of the country, although that is not the same as having enough therapists for every part of the state and every sub-group of Colorado residents.

Major Mental Health Provider Types Per Capita in Colorado and Nationally

Colorado's psychiatrists, psychologists, and social workers per capita compare well with national figures. Yet, the overall number of psychiatrists exceeds the criteria for a shortage by only 17%.

Provider Type	1998 Level	Colorado Per 100,000	National Per 100,000	Colorado Ranking	Specific Health Professional Shortage Area (HPSA) Most Stringent Criteria[36]
Psychiatrist	464	11.7	11.1	13th	10.0 per 100,000
Psychologist	1,620	40.8	31.2	7th	Combined[37] of 33.3 per 100,000
Social Worker[38]	9,430	237.6	216.0	21st	

How Colorado's Provider Shortages Affect People

An adult with insurance

Barbara and Steve found several psychiatrists in the Denver metro area who took their insurance, but the shortest wait for a first session was over a month. To see the psychiatrist they wanted to see, they had to wait eight weeks.

An adult with serious mental illness

Bob had to switch medications because his psychiatric nurse was recruited away and it took too long to recruit a replacement. If Bob's or John's psychiatrist leaves, they will need to be seen for an interim of several weeks to several months by another clinic psychiatrist, doubling that doctor's caseload during that time.

A youth and her family

Gabriela had to wait for nearly every service she received. She ended up at the runaway shelter because of a lack of available intensive family-based services. Once she was referred for residential treatment center (RTC) services, she had to wait over 60 days at the shelter, which is not uncommon for adolescent girls in Colorado given that all Colorado RTCs generally have multiweek waits and most have limited female capacity. When discharged from the RTC, she had to wait again (and even longer because of program cutbacks) for intensive family-based services. Once back home, she had to continue to travel weekly to see her RTC

[36] These are the highest per capita figures for that provider type that could trigger a HPSA designation. The higher per capita figures must occur in combination with other shortages in order to qualify for a HPSA designation. See the Health Professional Shortage Area (HPSA) Mental Health Designation Criteria, at http:/bhpr.hrsa.gov/shortage/hpsacritmental.htm

[37] This would include all licensed mental health professionals, not just psychologists and social workers.

[38] The HRSA study used a much broader definition of social worker than our provider survey.

psychiatrist for several months until her new team was able to recruit a new child psychiatrist. If Gabriela did not live in the Denver metro area, many of these child services and providers might never have been available. The failure of the interagency planning team to find a Spanish-speaking therapist or interpreter in the Denver metro area reflected a lack of cultural competence, not a lack of an available therapist.

An older adult living in a rural area

Nadine has no psychiatrists in her town or any town within 100 miles. While there are some mental health therapists in her area, there are no older adult specialists within an even greater distance. Sally, on the other hand, lives in the Denver metro area and was able to find needed, well-trained professionals.

Provider Needs by Age Group

Children, adolescents, adults, and older adults generally have different types of mental health needs and often need a specialized provider to serve them. Health Resources and Services Administration (HRSA) data are not broken down by age group served, so we examined this issue using our March 2003 provider survey data. To estimate the percentage of provider capacity dedicated to each age group for each type of provider, we took the subgroup of providers claiming to serve anyone in that age group and multiplied the percent of their caseload for that subgroup by their overall caseload. This very likely overstates the number of specialists for each age group (since seeing a member of an age group is not the same as being specifically trained to provide care to their age group), but it was our best estimate of available capacity.

We know from the prevalence studies discussed under Observation #2 above that mental health needs are not evenly distributed across age groups. While the age groups for the *Population in Need Study* (McGee et al., 2002) differ slightly from those of our provider survey, they allow for some level of comparison. They likely understate the needs being met by older adult provider capacity, and overstate the needs being met by child and adult provider capacity.

Current Provider Capacity by Age Group and Level of Need by Age Group

Colorado's psychiatry and mental health provider capacity proportions exceed or match the proportion of need in the population in all areas other than capacity for children. The ratio of psychiatry capacity for children is extremely low. This suggests a disproportionately low number of available child providers, particularly child psychiatrists, which is consistent with Colorado key informant findings.

Provider Type	Percent of Provider Capacity	Percent of Need	Percent of Provider Capacity	Percent of Need	Percent of Provider Capacity	Percent of Need
	Age 0 - 18	Age 0 - 20	Age 18 - 59	Age 18 - 64	Age 60 & Older	Age 65 & Older
Psychiatrists (n=51)	8%	38%	80%	55%	13%	67%
Mental Health Providers (n=102)	24%		63%		13%	
Certified Addictions Counselors (n=64)	21%		75%		5%	

"n" refers to sample size.

Child psychiatry (and to a lesser extent, psychiatry in general) was overwhelmingly identified by Colorado key informants as a major area of need. This finding has been well-supported in the literature, in particular a critical need for psychiatrists to serve children and youth (U.S. Surgeon General, 1999).

The numbers on older adults reflect the other provider survey finding that under 7% of psychiatrists and 4% of other mental health providers in private practice accept Medicare. Key informants noted that the number of providers accepting Medicare is declining as a result of low rates of reimbursement. Nationally, there is also a shortage of providers who specialize in geriatric mental health, as well as those trained to provide integrated primary care services to this population, which tends to seek mental health services in the primary care setting (NCSL, 2002c). Even in nursing homes, mental health problems often go undiagnosed and untreated.

Provider Needs by Geographic Region

Former Surgeon General David Satcher identified the need to improve the supply of mental health providers in his first report on mental health (U.S. Surgeon General, 1999). Overall, there

is a shortage of mental health providers in many parts of the country, particularly in rural areas. Figures from 2001 estimate that, although 20% of the nation's population lives in rural areas, only 9% of the nation's physicians practice in rural areas (National Advisory Committee on Rural Health, 2001, cited in U.S. Department of Health and Human Services Rural Task Force, 2002). The table below compares actual distribution of mental health providers in Colorado to Health Resources and Services Administration criteria.

Major Mental Health Provider Types by Region in Colorado Compared to HRSA Criteria

Large rural areas of Colorado (Northeast Colorado and the Western Slope) have fewer psychiatrists than national standards suggest are needed. Numbers of other professionals exceed standards, but many of these providers are in the larger cities within these regions (e.g., Pueblo, Grand Junction, Fort Collins).

Providers Per 100,000 Population	Denver Metro	Southeast	Northeast	Western Slope	Specific Health Professional Shortage Area (HPSA) Most Stringent Criteria[39]
Psychiatrist	20.6	12.2	6.1	8.7	10.0 per 100,000
Psychologist	49.1	28.6	33.9	21.9	Combined[40] of 33.3 per 100,000
Social Worker	69.1	53.3	40.2	36.9	

Colorado's shortage of psychiatrists in rural areas reflects a national trend. The Surgeon General's report noted a critical need for psychiatrists to serve people who live in rural areas (U.S. Surgeon General, 1999). For example, three-fourths of rural counties evaluated in one study lacked a psychiatrist, and 95% lacked a child psychiatrist (Gamm et al., 2002). In addition to psychiatry there is a need for other mental health providers, particularly in rural areas and for minority populations. For example, one study found that 87% of the designated Mental Health Professional Shortage Areas in the U.S. were located in non-urban areas in 1999 (Gamm et al.,

[39] These are the highest per capita figures for that provider type that could trigger a HPSA designation. The higher per capita figures must occur in combination with other shortages in order to qualify for a HPSA designation. See the Health Professional Shortage Area (HPSA) Mental Health Designation Criteria, at http:/bhpr.hrsa.gov/shortage/hpsacritmental.htm

[40] This would include all licensed mental health professionals, not just psychologists and social workers

2002). The same study found that only 50% of counties had a psychologist employed in the area and only 42% had a social worker, percentages which were much smaller in counties with fewer than 2,500 people. Furthermore, all of the concerns raised for age groups and cultural groups are even more prominent in rural and frontier areas.

In 1997, McGuirk, Keller and Obata published a paper on frontier and rural mental health workforce strategies. This paper reviewed the unique mental health stressors and needs in rural areas and outlined several strategies for providing access to mental health providers, both specialists and generalists. Some key observations from the paper are noted in the following paragraphs. Service availability has been defined as the single biggest challenge for rural areas, with severe shortages of professionals, programs, support services, and infrastructure (Beeson, 1994). However, the lack of people – including mental health providers – is also a component of what makes an area rural in the first place and causes many people to want to live there.

A common picture of the characteristics for a successful rural mental health therapist has been well known for much of the last two decades. The rural mental health therapist should:

- Be a generalist with a broad base of skills, since sufficient numbers of specialists are unlikely to be reached (Murray & Keller, 1986),
- Have a practical outlook (Beeson, 1991b);
- Accept and value rural realities such as isolation, distance, weather, and a lack of resources (Beeson, 1991a; Beeson, 1991b); and
- Possess a long-term commitment to the community (Beeson, 1991b).

Many have catalogued the challenges faced by rural mental health professionals (e.g., McGuirk, Keller, & Obata, 1997), including:

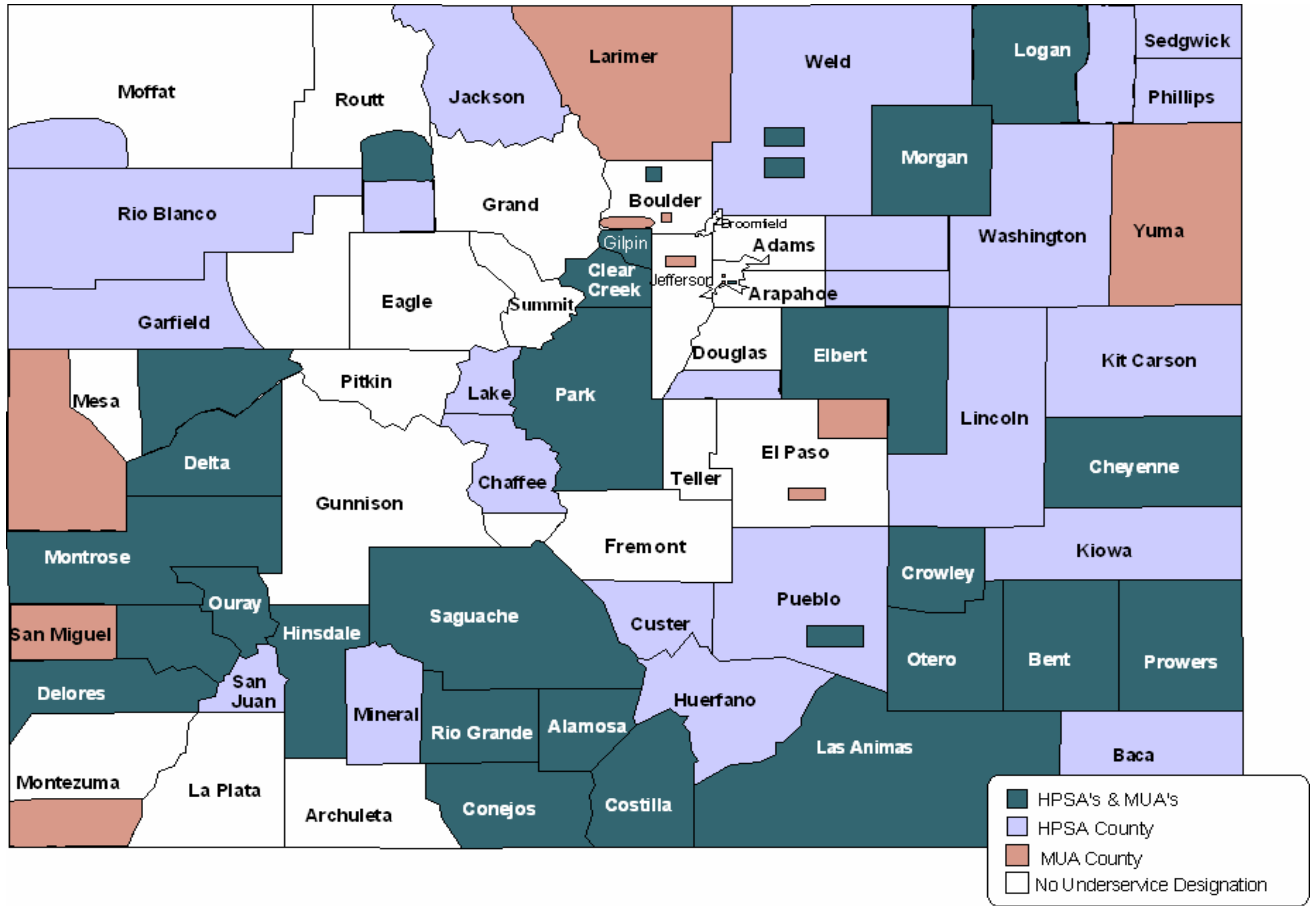
- The limits and demands of practice in a generalist environment (Beeson, 1991a ; Hargrove, 1982; Sullivan, Hasler, & Otis, 1993);
- Lack of resources and underfunded programs (Sullivan et al., 1993; Wagenfeld et al., 1994);
- High personal visibility and the ethical challenges of dual relationships (Beeson, 1991a; Solomon, 1986; Van Dyke, 1986); and
- Personal challenges, including: cultural isolation (Van Dyke, 1986) and difficulty winning the trust of the community (Solomon, 1986).

Despite these challenges, Sullivan and colleagues (1993) have found rural mental health providers to be highly satisfied with their work. The positive aspects of rural practice include the benefits of a rural lifestyle and community, the opportunity of practice within a network of community providers, diverse caseloads and practice opportunities, and professional autonomy. Van Dyke (1986) the rewards of a generalist practice and treatment results that are often more visible and dramatic.

Many rural and frontier parts of Colorado qualify as medically underserved. The map on the following page shows areas meeting some level of criteria for medical underservice by HRSA's Bureau of Health Professions. The specific criteria for mental health are very complex and can apply to distinct regional areas, subpopulations and even facilities (e.g., prisons or CMHCs).[41] The following map gives an overview of underserved areas across the state. Specific areas and facilities with mental health professional shortages can be found using the HRSA database query engine at the www.bhpr.hrsa.gov site.

[41] The Health Professional Shortage Area (HPSA) Mental Health Designation Criteria can be found at http:/bhpr.hrsa.gov/shortage/hpsacritmental.htm.

Colorado Health Professional Shortage Areas (HPSA) and Medically Underserved Areas (MUA) – August 2001



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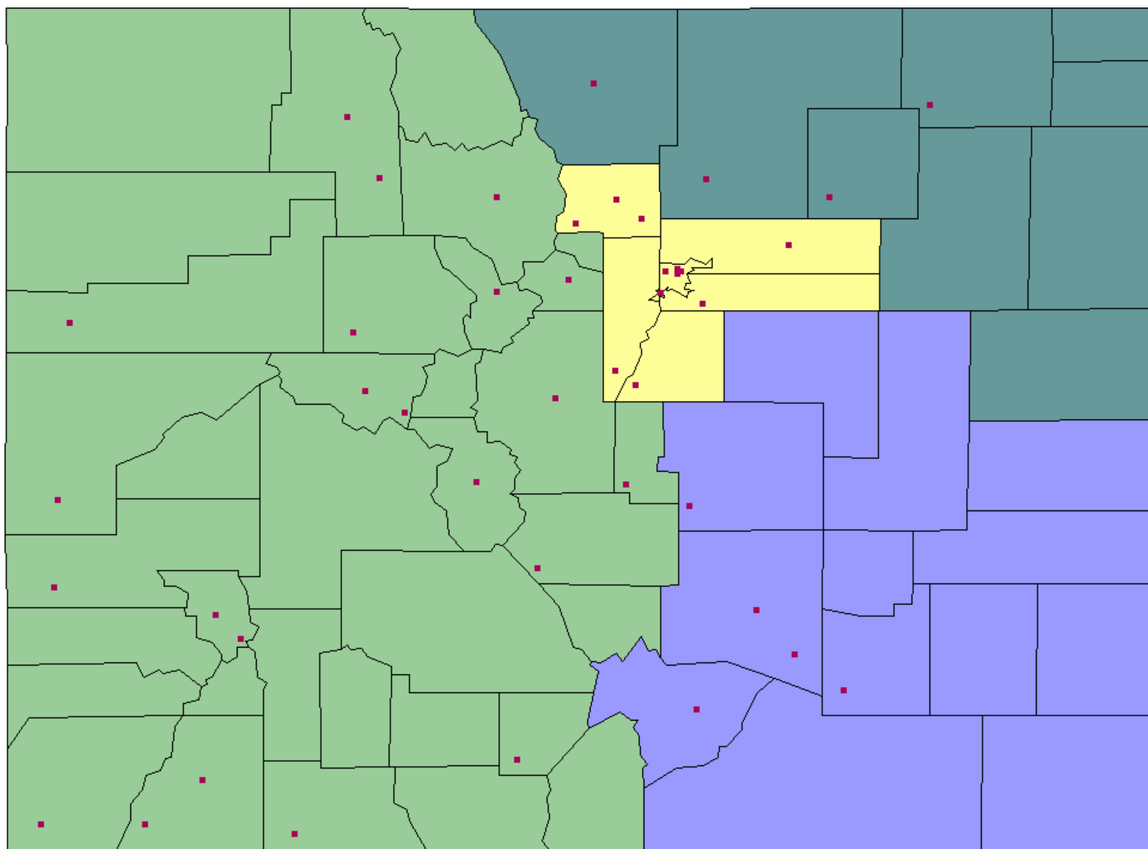
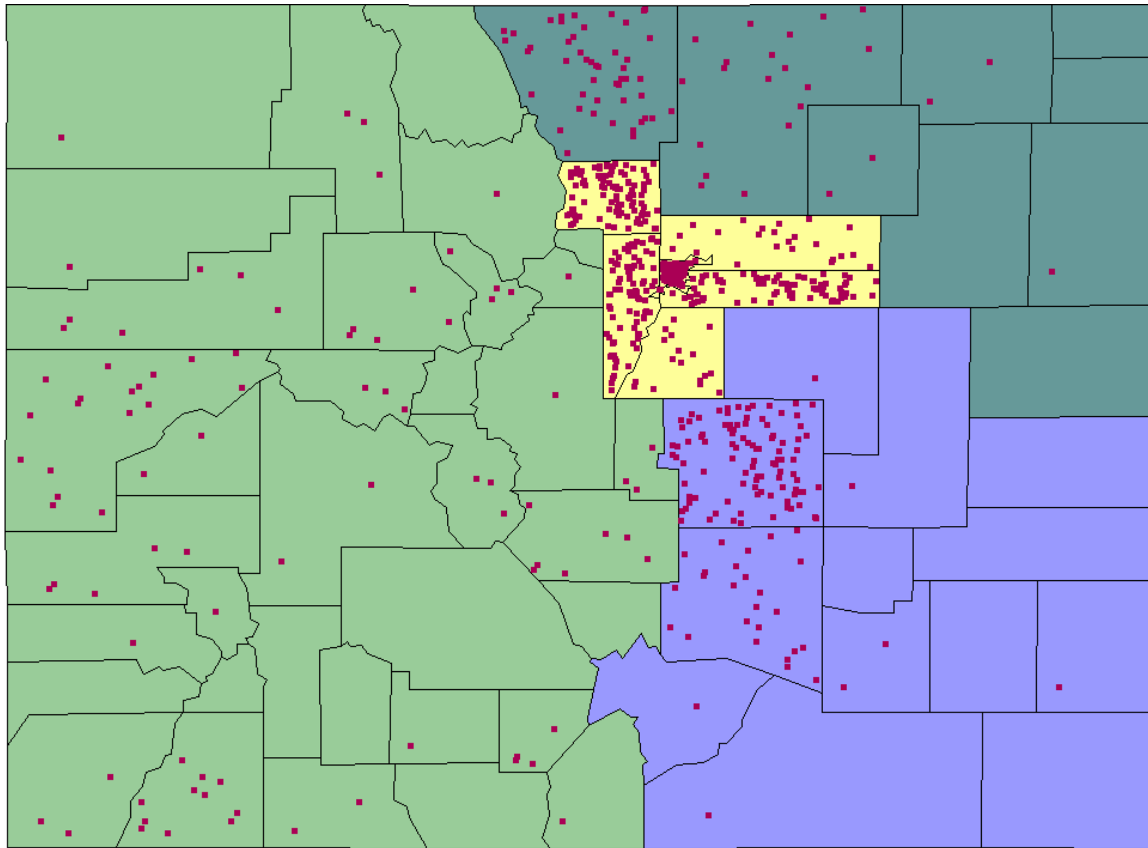
The maps on this and the next two pages show the distribution of psychiatrists, other licensed mental health therapists, and Certified Addictions Counselors across Colorado, standardized on a per capita basis. The maps reveal some interesting patterns:

- Many areas of the state do not have any psychiatrists.
- As for other mental health therapists, some Colorado counties do not have any, and the majority are clustered along the Central Front Range, where there does not seem to be a shortage.
- Certified Addition Counselors are more evenly distributed throughout the state and present in more counties than other providers.

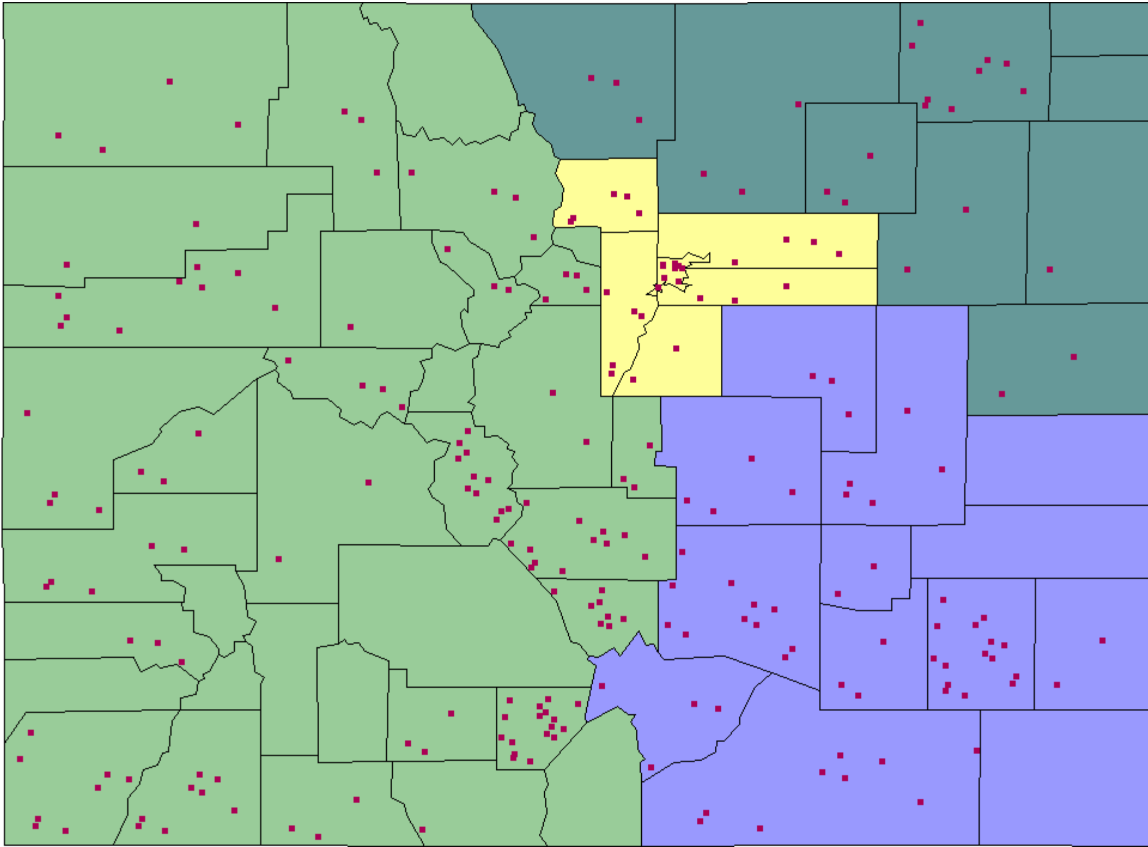
Distribution of Psychiatrists: Rate per 100,000 Population
(1 dot = 10, or if the rate was more than 0 but less than 10, 1 dot is shown)



Distribution of Mental Health Providers: Rate per 100,000 Population
(1 dot = 10, or if the rate was more than 0 but less than 10, 1 dot is shown)



Distribution of Certified Addictions Counselors (CACs): Rate per 100,000 Population
(1 dot = 10, or if the rate was more than 0 but less than 10, 1 dot is shown)



Provider Needs for Minority Groups

Nationally and in Colorado, most mental health providers are not members of racial or ethnic minorities (Hernandez, Isaacs, Nesman, & Burns, 1998), nor do they tend to be bilingual or trained in culturally competent care strategies. In 1998, 84% of psychologists and 65% of social work providers were White (HRSA, 2000). In particular, there is a critical need for psychiatrists to serve non-English speaking populations (U.S. Surgeon General, 1999).

Since state provider registries do not report provider race or ethnicity, we asked about this in our provider survey. The percentages are compared with 2000 Census data for Colorado (U.S. Census Bureau, 2001) in the table below to show the relative disparity between provider representativeness and the population.

Provider Capacity to serve Racial and Ethnic Groups

African American, Asian American, and Latino populations are particularly under-represented among providers. The percentage of providers claiming that they are able to provide specialized care to each population is much closer to the proportion of each group, suggesting that training to increase cultural competency could yield adequate numbers of specialists.

	African American	American Indian	Asian American	Latino / Hispanic	White
2000 Colorado Population	3.7%	1.0%	2.2%	17.1%[42]	82.7%
Provider Race / Ethnicity	1.4%	2.8%	0.9%	7.9%	90.2%
Providers Claiming They Are Able to Provide Specialized Care	4.2%	5.6%	1.4%	14.6%	n/a

Getting access to mental health care can be especially difficult for those from a different culture who speak a primary language other than English. Our provider survey looked at language spoken by providers. Since we only anticipated a sample of around 200, we did not ask about

[42] On October 30, 1997, the Office of Management and Budget (OMB) issued *Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity*. All federal agencies, including the Census Bureau, who collect and report data on race and ethnicity must follow these standards. Race and ethnicity are considered to be two separate and distinct concepts in this standard, and OMB accepted the Interagency Committee for the Review of the Racial and Ethnic Standards recommendation that two separate questions – one for race and one for ethnicity or Hispanic origin – be used whenever feasible to provide flexibility and ensure data quality. For example, 48.6% of those identifying themselves as Latino or Hispanic also identified themselves as White.

specific language capabilities other than Spanish and American Sign Language. Results include: Spanish (12.5%), American Sign Language (ASL) (just under 1%), and other languages (over 3.5%). As was the case with culture and race, a higher percentage of providers claimed that they were able to provide specialized care to deaf and hard-of-hearing clients (4%) than could communicate in ASL (just under 1%).

Cultural Competence – At the most basic level, cultural competence means to be respectful and not promote ethnocentric interpretation of others' histories, traditions, beliefs, values, and behaviors. On the most encompassing level, the overarching goal of cultural competence is to provide services that are equally effective for all sociocultural groups.

The lack of bicultural and bilingual therapists nationally has resulted in increased national efforts to promote culturally competent mental health care to improve services and ensure better utilization by diverse populations (U.S. Surgeon General, 1999). There is no single method for achieving cultural competence. It tends to be defined by a set of attitudes, practices, structures, and policies that help an agency, program, or provider to work more successfully in cross-cultural circumstances (U.S. Surgeon General, 1999). The federal Center for Mental Health Services has developed cultural competence guidelines for managed behavioral health care services for African Americans, American Indians, Asian Americans / Pacific Islanders, and Latino / Hispanic Americans (CMHS, 2001).

Other standards for cultural competence extend the concept to other minority groups, including sexual minorities, people with disabilities, and people living in rural areas. The National Mental Health Association's (NMHA) approach to cultural competency is specifically inclusive of people with diverse values, beliefs, and backgrounds that vary by race, ethnicity, sexual orientation, religion, and language. They also include considerations for cross-disabilities (NMHA, 1998). In December 2000, the American Psychological Association published guidelines for psychotherapy with lesbian, gay, bisexual, transgender, and other sexual minority clients (Division 44 / Committee on Lesbian, Gay, and Bisexual Concerns Joint Task Force, as cited in Cochran, 2001). The American Psychological Association also just released updated *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* (American Psychological Association, 2003) that provide systematic

guidance for "culture-centered" mental health research, training, and practice across all of these groups.

In terms of whether being a member of a particular cultural group makes a provider qualified to provide culturally competent mental health care to people of that group, there is wide consensus that simply being a member of a given group does not make one a specialist. Although having providers from the same cultural group as the person being served is generally seen as a good thing, it also is not included in most standards as a requirement for culturally competent care. The standards instead focus on knowledge, skills, and attitudes. On the other hand, many of these skills and attitudes are easier to develop if a provider has life experience as a member of a minority group.

Language issues are even clearer. There is specific recognition that linguistic competency requires the ability to communicate in speech and writing in the primary language of the person receiving care, whether spoken or signed. However, the standards also recognize that interpreters sometimes need to be used and, when they are, they should have knowledge, not just of the language spoken, but also of the cultural values, beliefs, and non-verbal expressions involved. Furthermore, family members should never be used as interpreters in mental health settings, even with consent.

Provider Capacity to serve Minority Cultural Groups

Several approaches to cultural competence have been recommended. At the most basic level, it is important to be respectful and not promote ethnocentric interpretation of others' histories, traditions, beliefs, values, and behaviors. On the most encompassing level, the overarching goal of cultural competence is to provide services that are equally effective for all sociocultural groups, including racial and ethnic populations and other groups with specific culturally-based needs such as gay, lesbian, bisexual, and transgender people (U.S. Surgeon General, 1999). Standards and performance indicators for culturally competent services have also been developed. The CMHS (2001) standards, while specifically developed for managed behavioral

health care plans, include comprehensive consensus-based standards for staff development and training, providing services in languages other than English, monitoring caseloads for ethnic diversity, and ongoing decision-support and performance improvement activities to monitor effectiveness (CMHS, 2001).

Who Are Colorado's Providers Treating?

Looking more closely at the people who Colorado's providers are treating reveals some capacity that could be redeployed to people with greater needs. If we recall that only 56% of the people suffering each year from a mental health disorder receive some form of care (see analysis under Observation #2 above), it would seemingly take a lot more mental health capacity to serve the remaining number of people. While this appears to be true to some degree, it may be that capacity for some types of providers could be extended to more needy groups. Mental health therapists serve both people with diagnoses and those without. The 1999 Surgeon General's Report (U.S. Surgeon General, 1999), drawing upon findings from Regier and his colleagues (1993) and Kessler and his colleagues (1996) estimate that only about half (8%) of the 15% of people receiving mental health services in a given year meet criteria for a diagnosable mental health problem. The other 7% have concerns, but they are not severe enough to warrant a clinical diagnosis.

One of the items we asked about on our provider survey was the proportion of each provider's caseload that has a clinical diagnosis. The provider survey results found a higher percentage serving people with diagnoses than did the national study (Regier et al., 1993), which may reflect either our survey's focus on licensed therapists (rather than registered unlicensed therapists), or which may represent higher levels of service to people with diagnosable disorders in Colorado in 2003 as compared to the 1993 national study. In the following discussion of need, we will focus on people whose needs are severe enough to warrant a clinical diagnosis.

Percentage of Clients Served with Diagnosable Conditions

Nearly all people seen by psychiatrists have clinical diagnoses, but nearly one quarter of those seen by other mental health therapists and certified addictions counselors do not.

Provider Type	Clinical Diagnosis[43]	Other Problem
Psychiatrists (n=48)	96%	4%
Mental Health Providers (n=101)	73%	26%
Certified Addictions Counselors (n=63)	77%	18%

"n" refers to sample size.

Another question involves the availability of providers to take on new cases, particularly as this differs across different payers for mental health services. We asked about this in the provider survey and the responses by provider type are presented in the table below.

Percent of Providers Accepting New Clients by Payer Type

While just over three-quarters of psychiatrists are taking on new clients, almost nine out of ten other providers are doing so. Those who pay for their own care have the best access.

Payer Type	Psychiatrists (n=49)	Mental Health Providers (n=100)	Certified Addictions Counselors (n=64)
Overall	**78%**	**87%**	**88%**
Self-Pay	57%	69%	68%
Private Insurance	51%	55%	40%
Medicare	32%	20%	14%
Other State Funding	26%	33%	35%
Medicaid	21%	23%	14%
Sliding Scale	17%	30%	38%
Pro bono	2%	8%	14%

"n" refers to sample size.

[43] This was defined as an Axis I or Axis II diagnosis from DSM-IV

Analysis of these findings confirms the concern about psychiatrist availability in the state, given that nearly a quarter are not taking on any new clients (nearly twice the percentage of closed practices reported by the other two groups of providers). If we look only at providers in private practice, access for new cases is easier, with 83% of psychiatrists, 91% of psychologists, and 87% of addictions counselors accepting new cases.

It is clear that different subgroups of people have differential access to licensed providers:

- **People who pay for their own care have the greatest access to services**. They are able to access over half of psychiatrists and nearly seven out of ten other mental health and addiction therapists. Again, access is higher for providers in private practice, ranging from 83% (psychiatrists) to 87% (addictions counselors).
- **People with private insurance have the next best access,** but only to about half the mental health providers and under 40% of the addictions counselors. Again, access is higher for providers in private practice, ranging from 57% (addictions counselors) to 70% (psychiatrists).
- **People with government funded care have the least access of those not receiving discounted care.** Although less than one-third of providers are accepting people with either coverage, people with Medicare have somewhat better access to psychiatrists than people with Medicaid (32% versus 21%) and similar access to other mental health providers (20% for Medicare versus 20% for Medicaid).
- **People with Medicaid or state funded care (e.g., CMHCs) have little access to providers in private practice.** No psychiatrists (0%) in private practice have openings for either group, and only 18% and 14% of other mental health providers have openings for people with Medicaid or other state funding, respectively.
- **Few psychiatrists offer pro bono or sliding scale services** (perhaps a reflection of their relative scarcity), compared with significant numbers of the other provider types. A significant number of addictions counselors are taking on new people for free or discounted treatment. No psychiatrists (0%) in private practice take pro bono cases and only 13% have a sliding scale.

Recommendation: **Promote specialized provider capacity through education of existing providers and recruitment of new providers.**

Colorado mental health decision makers should carry out strategies at multiple levels to increase the availability of needed providers, including:

- Efforts to recruit and retain more child psychiatrists across Colorado, particularly in rural areas.
- Efforts to educate existing providers at all levels to improve the quality of their practice and promote competencies relevant to specific needs and populations.
- Support of the development of a curriculum for specialized bachelors or masters level training in human services which would focus on the generalist/broker role in a contemporary rural mental health delivery system. This curriculum could be adapted to a certificate program for existing providers desiring more skills in providing access to care through modern electronic delivery systems.
- Design and support efforts to recruit specific types of urban-based providers to specifically serve as expert resources in underserved areas via telecommunication or web-based strategies to providers in rural areas. This could include child specialists (especially psychiatrists), older adult specialists, and specialists for ethnic and racial minorities (including bilingual and bicultural providers).
- Particular attention should be paid to opportunities to promote cultural competency, especially for African American, Latino / Hispanic American, Asian American / Pacific Islander, and American Indian populations who are underrepresented among providers, as well as other groups in need of culturally-specific treatment approaches, including gay, lesbian, bisexual and transgender people and people with disabilities.
- Support for continuing education opportunities for primary care providers regarding differential diagnoses and up-to-date psychopharmacology is also needed.

Keeping in Mind Possible Unintended Consequences

Decision makers should also be aware of possible unintended consequences in this area. For example, promoting training and recruitment for some specialties raises the risk of diverting capacity from other needed specialties. It also raises issues of fairness, since measures to address all groups in need of more providers are unlikely to be supported from the start.

Legislative and other large-scale efforts to promote provider access can also backfire. Many policy-makers thought that people like our fictional older adult Nadine would benefit from enhanced network requirements for health plans offering mental health benefits in rural parts of Colorado. But legislation requiring health plans that offer benefits in rural and frontier areas to recruit more mental health providers could raise the cost to insurers to the extent that they would simply abandon the rural areas, especially large plans with more profitable markets elsewhere. Some stakeholders we talked with thought that this had already occurred in Colorado.

Observation #7: Emphasis on Resilience and Recovery is Needed

Snapshot of Key Findings Regarding Resilience and Recovery

- The federal Substance Abuse and Mental Health Services Administration (SAMHSA), has a newly established vision of "A life in the community for everyone." The associated mission is "Building resilience and facilitating recovery."
- For adults, the notion of recovery from mental illness is reshaping expectations for people and their treatment. Perhaps the best definition of recovery is that "a person with mental illness can recover even though the illness is not 'cured'… [it] is a way of living a satisfying, hopeful, and contributing life even with the limitations caused by illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness." The foundation of the recovery concept lies in longitudinal study findings that approximately one-third of people with schizophrenia recover from their disorder and many more significantly improve.
- Since their beginnings in the late 1970s, advocacy groups for families of people with mental illness or children with emotional disorders have become increasingly prominent and influential. The three largest and most well-known national and state chapter family organizations are the National Alliance for the Mentally Ill (NAMI), the Federation of Families for Children's Mental Health (FFCMH), and the National Mental Health Association (NMHA). All three of these organizations have both state chapters and local affiliates in Colorado.
- National initiatives for children with severe needs increasingly focus on support of resilience through the implementation of systems of care. The system of care approach is based on three hallmark tenets: (1) mental health service systems should be driven by the needs of the child and family; (2) services should be community-based and built on multiagency collaboration; and (3) the services offered, and structures to support them, should be responsive to the cultural context of those being served.
- In recent years, a subtle shift in emphasis has taken place towards "communities of care" that seek to augment formal services by engaging a broader base of community support, including the private sector and faith-based communities, as well as state, federal, and local resources.

Overview

"We must overcome stigma before our communities, the legislature, or even private insurers are willing to invest in treatment and the other resources that are vital to sustained recovery." **– Colorado family advocacy organization**

"We need more community-based, consumer-driven, recovery-focused, strength-based approaches . . .programs like this have been critical to helping me become the person I am today . . . working, contributing to this cause, living meaningfully." **– Mental health consumer**

"[The federal government's current mental health priorities are] Built on the principle that people of all ages, with or at risk for mental or substance use disorders, should have the opportunity for a fulfilling life that includes a job, a home, and meaningful relationships with family and friends" – **Charles G. Curie, SAMHSA Administrator**

There is a growing national movement among consumers, providers, and decision makers to look beyond traditional notions of mental health services to broader issues of health, community, and involvement in the lives of adults with mental illness and children with emotional disorders. Charles G. Curie, the current Administrator of the federal Substance Abuse and Mental Health Services Administration (SAMHSA), has issued the *SAMHSA Program Priorities and Cross-Cutting Principles* to guide all federal behavioral grant-making and initiatives (Curie, 2002). The newly established vision for SAMHSA is "A life in the community for everyone" and the associated mission is "Building resilience and facilitating recovery." See Appendix F for a copy of the SAMHSA document.

In recent years, the role of consumers and families in mental health care has been redefined as that of a partnership with service providers (U.S. Surgeon General, 1999). This role has been realized in a variety of ways, from working collaboratively on treatment and service planning to being trained and hired to provide direct services. Additionally, both families and consumers of services (adults and adolescents) are collaboratively involved at the state level in each state's

planning council. This involvement was federally mandated by Public Law 102-321, which governs state block grant funding eligibility (U.S. Surgeon General, 1999).

Recovery and Adult Services

The recovery model of mental illness has had a significant positive impact on adult consumers, their families, and the public. One comprehensive definition of recovery is the following:

> "…a person with mental illness can recover even though the illness is not 'cured'…(Recovery) is a way of living a satisfying, hopeful, and contributing life even with the limitations caused by illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness" (Anthony, 1993).

The foundation of this concept lies in longitudinal study findings that approximately one-third of people with schizophrenia significantly improve or "recover" from their disorder (as summarized in Harding & Keller, 1998; Harding & Zahniser, 1994; and Harding, Strauss, & Zubin, 1992). Services that embrace this definition of recovery emphasize a sense of hope, a pragmatic focus on functional improvement in major life domains (e.g., work, independent living, relationships, leisure), and an individual sense of empowerment.

More attention is being drawn to the need for an empowered involvement of people with mental disorders and their family members within mental health systems. In particular, consumer advocacy organizations have developed community education and self-help groups as part of their advocacy for quality mental health services. Throughout Colorado, consumers of mental health services have also become more involved in policy, planning, administrative activities, providing direct services, and conducting evaluation and research. Twenty-seven states have established offices of consumer affairs staffed by paid consumers (Geller, Brown, Fisher, Grudzinskas, & Manning, 1998). Colorado has established offices of consumer affairs at the state, as well as local levels in multiple parts of the state.

Family-driven efforts are also central to the development and promotion of recovery for adults with mental illness. Since its beginnings in the late 1970s, the family movement has become

increasingly prominent and grown considerably (Lefley, 1996). Families have been very instrumental at the grassroots advocacy and public education level, as well as in direct service delivery and research studies. For example, the work of Colorado families and consumers was the primary mechanism for the development of an independent organization dedicated to helping consumers and families get their needs met in the public mental health system (the Mental Health Ombuds Program of Colorado). Family-driven efforts as they relate to adult consumers emphasize support and education of family members to help them better understand mental illness, development of strategies for family coping, and family-to-family support. The largest and most well-known national and state chapter advocacy organizations that focus primarily on families of adult consumers are the National Alliance for the Mentally Ill (NAMI) and the National Mental Health Association (NMHA), which have state chapters and local affiliates in Colorado. Many of their initiatives and services are represented in the tables below.

Research in this area, while still somewhat new, promises progress for consumer-driven, peer provided, recovery-oriented initiatives and services for mental health consumers. Perhaps the most rigorous and far-reaching research results will come from a four-year, controlled, multisite study funded by the Center for Mental Health Services (CMHS) to examine the extent to which consumer-operated programs (e.g., consumer-run drop-in centers, peer support programs, and education and advocacy programs), coupled with traditional community-based services are effective for adult mental health consumers (Furlong-Norman, 2002). Another promising study is the Assessing Consumer-Centered Services (ACCS) project. This study seeks to identify and describe effective characteristics of consumer-run drop-in centers and clubhouses in the state of Michigan in order to develop fidelity criteria and a program manual for consumer-operated services (Holter, Mowbray, Bellamy, & MacFarlane, in press).

Examples of 14 consumer-driven models are presented in the following table, grouped by the four levels of evidence defined previously under Observation #5.

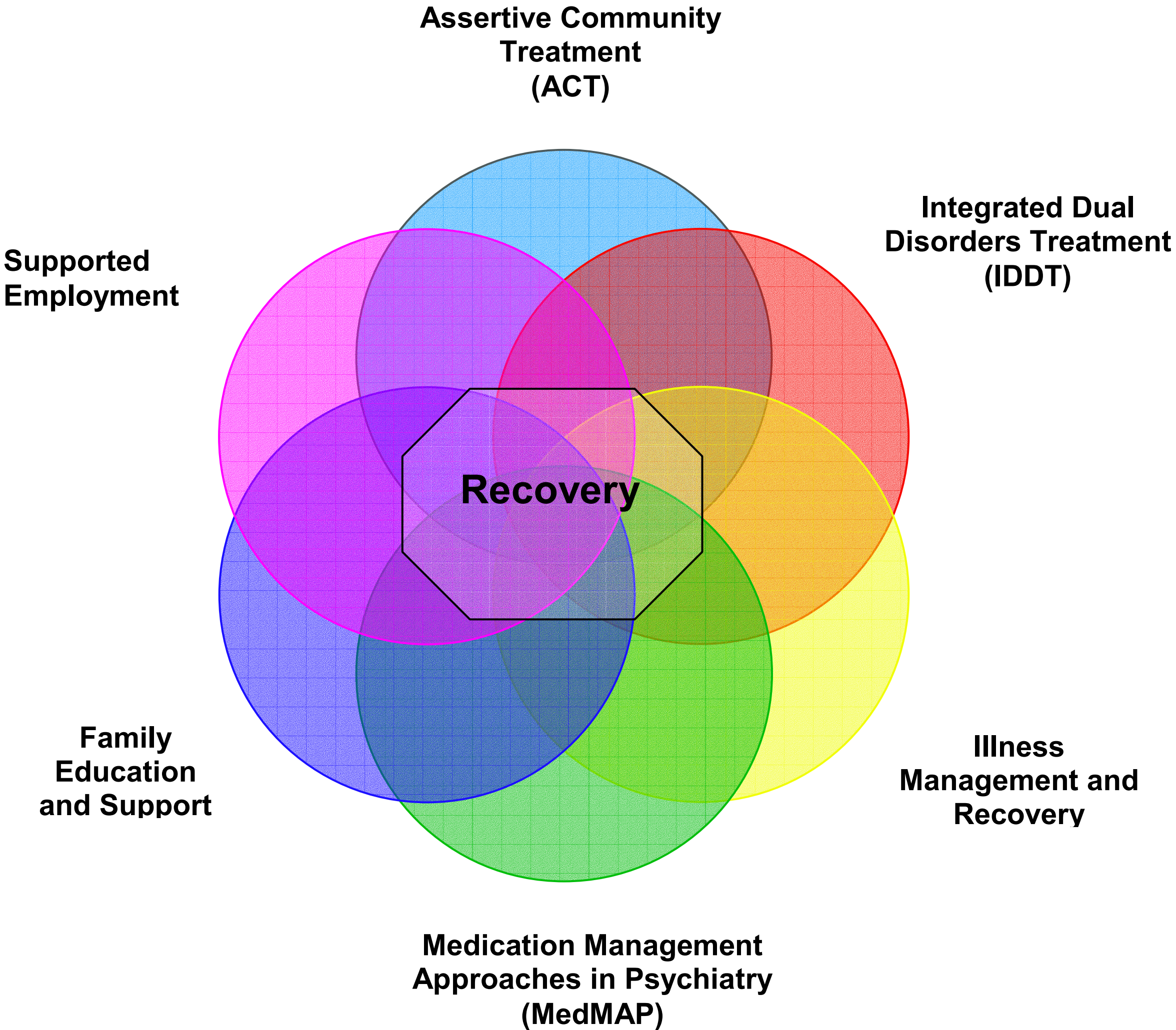
Examples of Empirically-Based Consumer-Driven and Family-Driven Models

Program/Level of Evidence	Description	Colorado Examples
Well-Established		
National Alliance for the Mentally Ill's (NAMI) Family-to-Family Education Program	12-week structured education program delivered by trained family members to other family member volunteers.	13 counties in Colorado, from Adams County to Weld County
Established		
Integration of Evidence-Based Practices with Recovery Approaches	Incorporation of the recovery philosophy and approaches with the provision of other evidence-based practices such as ACT or IDDT.	Denver, Pikes Peak region
Wishing Well	A combination supported employment program with a clubhouse model	Denver
Promising		
Fountain House Clubhouse Model	A consumer-run vocational day program with very clearly established components and training materials, but less well documented outcomes.	10 across Colorado in Boulder, Colorado Springs, Commerce City, Denver, Fort Collins, Grand Junction, Greeley, Littleton, Sterling, and Wheat Ridge
Consumer Drop-In Centers	Provide a safe place outside the traditional mental health system for consumers to socialize, relax, and share information during the day.	8 across Colorado in Aurora, Canon City, Colorado Springs, Denver (2), Glenwood Springs, Pueblo, and Thornton
Wellness Recovery Action Plan (WRAP)	Plans developed by consumers, often with the help of other consumers trained in the model, to facilitate individual recovery. Plans include a five-part system for monitoring and addressing psychiatric symptoms and related crises.	Jefferson Center for Mental Health
Innovative		
Capitol Hill Action and Recreation Group, Inc. (CHARG Resource Center	Consumer-board directed and consumer-run drop-in center and day program	Denver
Consumer Case Management Aide Program	Consumers are trained extensively in case management skills to work with other consumers.	Statewide
Consumer-Directed Research Teams	Consumers trained in evaluation methods design and carry out independent studies.	Mental Health Corporation of Denver, Colorado West Regional Mental Health Center, West Central Mental Health Center
Empowerment Centers	Consumer-run centers that may include any one or more of the programs listed above.	Montrose

Program/Level of Evidence	Description	Colorado Examples
Innovative (cont'd.)		
Peer to Peer Program	A program that trains consumers to be employed peer counselors. Provides onsite supervision and regular team meetings	Delta, Denver-Metro, Colorado Springs, Montrose
Southeast Mental Health Services' Recovery Model	Revamped delivery system with the primary focus being recovery-oriented. Includes crisis hostels which a consumer can go to for a full day or for overnight if the consumer feels the need to, regardless of whether they are in crisis.	La Junta
We Can! of Colorado	A grassroots consumer organization that convenes a Board of consumers from all over the state that solicits and provides feedback and solutions regarding key consumer issues for consumers in their area. They also provide training, education, and advocacy.	Statewide
Young Adult Peer Specialist Program	A training program for young adults ages 18 to 24 to work in an adolescent day treatment program.	Not yet fully implemented

The models above are most effective when their design is integrated with other empirically-based services. These programs are complementary, not mutually exclusive (Friese, Stanley, Kress, & Vogel-Scibilia, 2001). For example, with respect to evidence-based practices for adults, the following diagram shows this overlay.

Integrating Recovery with Evidence-Based Practices



Resilience and Youth and Family Services

Resilience refers to an individual's capacity for adapting to change and stressful events in healthy and flexible ways (Catalano, Berglund, Ryan, & Hawkins, 1998). Resilience has been identified in research studies as a characteristic of youth who, when exposed to multiple risk factors, show successful responses to challenge and use this learning to achieve successful outcomes (Hawkins, Catalano, & Associates, 1992; Masten, Best & Garmezy, 1990; Rutter, 1985, 1987; Werner, 1995, 1989).

Resilience – refers to an individual's capacity for adapting to change and stressful events in healthy and flexible ways. Resilience has been identified in research studies as a characteristic of youth who, when exposed to multiple risk factors, show successful responses to challenge, and use this learning to achieve successful outcomes.

For children and families, the role of systems of care in promoting resilience has moved to the center of national interest. Careful research supports the notion that mental health services by child-serving agencies work best in partnership with each other and the communities they serve. The role of parent advocates in promoting and developing this concept has been central, particularly the Federation of Families for Children's Mental Health. Complementing its national efforts, the Federation's Colorado chapter has been very active in providing and advocating primarily for child- and family-driven initiatives that promote child, youth, and family resilience and development.

The system of care approach is built on three hallmark tenets: (1) mental health service systems should be driven by the needs of the child and family; (2) services should be community-based and built on multi-agency collaboration; and (3) the services offered, and structures to support them, should be responsive to the cultural context of those being served (Center for Mental Health Services, 1999).

The development of children's mental health practice has been described in terms of four major shifts related to: (1) family participation, (2) intensity of services, (3) cultural sensitivity, and (4) the development of community-based service systems (Knitzer, 1993).

- The first shift involves family participation in care. Traditionally, families have been viewed primarily as the cause of their children's problems. With the advancement of system of care principles, families have begun to participate more fully in treatment planning and even in

service delivery. As noted, the Federation of Families for Children's Mental Health has been central to the development and dissemination of this approach.

- The second shift involves a change in the way service intensity is understood. Traditionally, intensive services took place only in secure residential placement away from family and community. Currently, models such as family preservation and wraparound planning have begun to convince practitioners that children can receive intensive services in their natural community settings.
- The third shift relates to culturally competent service systems. With an increasing acknowledgment of cultural differences has come an increased commitment to developing services that meet the needs of diverse families.
- The fourth shift is described in terms of the development and implementation of community based services such as intensive family-based treatment, rather than restrictive approaches such as residential treatment.

Because system integration has been established as critical to providing effective child and youth services, national initiatives increasingly support development of systems of care (Kenny, Oliver, & Poppe, 2002). One example is the Substance Abuse and Mental Health Services Administration (SAMHSA)-administered Comprehensive Community Mental Health Services for Children and Families Program, which provides six-year grants to states for the development of systems of care for children and youth who meet the criteria for serious emotional disturbance (SED) and their families. Colorado received one of these grants in Denver in 1998 and another in 2002. Another example, the National Technical Assistance Center for Children's Mental Health at the Georgetown University Center for Child and Human Development, provides technical assistance to states for implementation of systems of care for a broader population, including children and youth who have or are at risk for mental health needs, and their families.

In recent years, a subtle shift in emphasis towards communities of care has focused on the process of strengthening positive bonds to family, friends, and community as a primary route to a secure and productive adulthood. Working together, these collaborations build on the unique strengths of specific communities to meet the multiple needs of youth in transition from residential care settings. As an adjunct to the system of care efforts, which center on formal providers of care, communities of care focus on the process of strengthening positive bonds to family, friends, and community as a primary route to a secure and productive adulthood. In

addition to the coordination of services, these efforts seek to engage a broader base of community support, including the private sector and the faith-based community, as well as leveraging state, federal, and local resources.

Examples of 10 models are presented below, grouped by the four levels of evidence defined previously under Observation #5.

Examples of Empirically-Based Family- and Youth-Driven Models

Program/Level of Evidence	Description	Colorado Examples
Well-Established		
National Alliance for the Mentally Ill's (NAMI) Family-to-Family Education Program	12-week structured education program delivered by trained family members to other family member volunteers.	13 counties in Colorado, from Adams County to Weld County
Promising		
Assets for Colorado Youth (ACY) (Search Institute's Youth Assets model)	Provides leadership, training, and education to promote implementation of the Assets approach to youth development promotion within child- and youth-serving organizations.	Statewide
Build A Generation (Communities That Care model)	A prevention initiative for Colorado communities to promote healthy youth development, using the Communities That Care model.	Many counties across the state, including Fremont County
Colorado's Cornerstone Initiative (System of Care Grant)	A System of Care initiative that uses a dyad of a family advocate (who is a parent) and a service coordinator to work with youth with serious emotional disorders at risk for juvenile justice involvement and their families.	Clear Creek, Denver, Gilpin, and Jefferson Counties
Families First	Staffs a family support line, and provides support and education groups to families experiencing problems with abuse and neglect issues.	Primarily Denver metro area. Support line is statewide
Project Bloom (System of Care Grant)	Also listed under Observation #5 as an early childhood intervention, this is also a System of Care initiative. The goal is to develop a system of care for early childhood mental health, to increase system wide capacity, improve quality, and ensure family involvement. The project works with the local Federation of Families for Children's Mental Health chapter to recruit parent involvement.	Arapahoe County, El Paso County, Fremont County, Mesa County

Program/Level of Evidence	Description	Colorado Examples
Innovative		
Colorado Youth Leadership Project	Developed to address identifiable drug-risk factors through school-based program components. Includes a Youth Leadership Training and Leadership Council.	Ft. Lupton Middle School
Empower Colorado	Sponsors support groups for families as well as an on-line email listserv. Education classes, workshops, and conferences are available for families and professionals.	Denver Metro area
Parent to Parent of Colorado	A parent initiated, parent controlled, organized group that provides advocacy and support for families with children with various disabilities.	Statewide
Visions for Tomorrow Education Course	An 8-12 week workshop curriculum to educate caregivers of children with emotional disorders and other mental illnesses.	Various counties in Colorado

How a Focus on Recovery and Resilience can Affect People in Colorado

The notions of recovery for adults and communities of care for children focus most on people with severe levels of need. Therefore, we will look at them in the context of two of our fictional case examples and their friends.

An adult with serious mental illness.

Bob has been able to find informal support at the local drop-in center for consumers. This is a place with a pool table, books, and other leisure activities, but no formal mental health staff other than volunteers who are themselves people with serious mental illness. As Bob ages, he has a one in three chance of recovering to the extent that he no longer experiences symptoms sufficient for a diagnosis of schizophrenia. He has about a two in three chance of significant functional recovery and improved quality of life through work, a home, friends and significant others. A treatment approach that took a recovery perspective might also support Bob's desire to take a road trip, because it is something that he enjoys and gives him a sense of hope and purpose. However, the approach should also build in treatment supports, particularly those related to ongoing medication compliance, perhaps helping him make a WRAP plan that coordinates the trip with a friend who can help monitor if he takes his medicine.

Bob's friend, John, is served by an assertive community treatment (ACT) team. Increasingly, ACT teams are employing peer specialists, consumers of mental health services trained in advocacy and outreach who bring an innovative self-help focus to the teams. As he does better and begins to seek work, John himself may become involved in a consumer-run research team at his community mental health center. These initiatives across Colorado involve teams of consumers with support from trained researchers who independently plan, carry out, and report on program evaluation activities related to consumer satisfaction and consumer outcomes.

A youth and her family

A "system of care approach" to Gabriela's care would have guided the interagency team to involve her and her mother more in planning her care program and to respond to their cultural (and linguistic) needs. If the approach had then progressed to what is often termed a "community of care model," Gabriela's family, friends, church, and other supports would have been more involved. The agencies would have had a plan to minimize their own roles over time. In addition, more resources from local businesses, recreational organizations, and schools would have been available to respond to, monitor and support Gabriela's initial response to her father's death and difficult behavior sooner, and to empower her mother and extended family to help her remain at home.

Recommendation: Promote recovery and resilience.

Colorado mental health decision makers can support recovery and resilience in multiple ways:

- **Direct support for consumer, youth, parent, and family-driven initiatives –** Increasingly, adult consumers, youth, parents, and family members are taking an active role in the delivery of mental health services. Many of the programs in which they are involved have an empirically-established level of effectiveness. For example, Family Support and Psychoeducation (Dixon et al., 2001) is an empirically-based approach through which trained family members of people with mental illness may provide other families with current information about their family member's mental illness and help them develop coping skills. Another example is Illness Management and Recovery (Mueser et al., 2002), which helps consumers to learn more about managing severe mental illnesses and to move toward individually-defined recovery.

  In the area of child and youth services, parents and youth are beginning to influence services through national and local federations of parents who provide support and advocacy to other, less-experienced families. Similarly, the growing interest in Wraparound Planning is being

driven, to a large extent, by family advocacy groups (Kendziora, Bruns, Osher, Pacchiano, & Mejia, 2001). Through the Substance Abuse and Mental Health Services Administration (SAMHSA) system of care grants, many provider organizations and local administrative bodies are including "parent partners" on their decision making and advisory boards.

- **Involve consumers, youth, parents, and families at multiple levels in mental health initiatives –** This would include a range of activities including focus groups, conferences, events, community forums, and outreach activities to promote representative participation from members of the racial/ethnic and other cultural groups targeted by the project. Direct involvement in projects could occur at multiple levels, including: (1) participation in project oversight; (2) providing direct interventions; and (3) involvement in the design, oversight and implementation of evaluation activities.
- **Fund and promote responsive and strategic initiatives that support healthy community living for adults with mental health needs and communities of care for children and youth** – Such supports include prevention, resilience and asset promotion, faith-based initiatives, natural supports, education, peer counseling, work promotion, recovery-oriented services, and skill building. Evaluation of the impact of these initiatives for individual consumers, children, youth, and their families, as well as the systems delivering mental health services, should be incorporated in order to add to the developing body of empirical information about the effectiveness of these approaches.

Keeping in Mind Possible Unintended Consequences

There are possible unintended consequences in this area. One possible downside to this recommendation is the risk of creating positive life experiences that cannot be sustained. For example, positive experiences on a consumer research team or job placements that end before the person involved would naturally end them can create losses that otherwise would not have been experienced. On the other hand, the focus on recovery and resilience has underscored the tendency of providers and systems to sometimes be overly paternalistic and protective, often keeping people from trying new experiences. While the risk of trying something new and failing should not be taken away from people just because they have a mental illness, it is also not good to promise something that cannot be delivered or maintained. Involving stakeholders in these decisions and liberally employing informed consent is probably the best guard against all of these risks.

Appendix A: Additional Supplementary Detail

Additional Detail from Observation #1

Changes in Adult State Psychiatric Hospital Beds by CMHC[44] Catchment Areas

	Original Bed Capacity		Beds Downsized (4/1/03)	(6/30/03)	Remaining Bed Capacity	
	Pueblo	**Ft. Logan**	**Pueblo**	**Ft. Logan**	**Pueblo**	**Ft. Logan**
Adams Community Mental Health		18		-5		13
Arapahoe/Douglas MH Network	12		-2		10	
Aurora Mental Health Center		13		-2		11
Mental Health Center of Boulder County		15		-1		14
Centennial Mental Health Center	4		0		4	
Jefferson Center for Mental Health		28		-6		22
Larimer Center for Mental Health	8		0		8	
Mental Health Corporation of Denver		42		-11		31
North Range Mental Health Center	4		-2		2	
Pikes Peak Mental Health Center	23		-8		15	
San Luis Valley Comprehensive CMHC	4		-2		2	
Southeast Mental Health Center	4		0		4	
Spanish Peaks Mental Health Center	16		-8		8	
West Central Mental Health Center	4		0		4	
Colorado West Regional Mental Health Center	9					
Midwestern Colorado Mental Health Center	4		-10		7 shared	
Southwest Colorado Mental Health Center	4					
Total Cuts from CMHC Adult Bed Allocations	**96**	**116**	**-32**	**-25**	**64**	**91**

[44] CMHCs are community mental health centers.

Additional Detail from Observation #3

Changes in Contractually-Required Service Expectations for Colorado CMHCs[45] over Three Years

Mental Health Center or Clinic	FY 01-02	FY 02-03	FY 03-04	% Change FY01-02 to FY03-04
Adams	1,339	637	418	-68.8%
Arapahoe	1,496	444	280	-81.3%
Asian Pacific	214	13	23	-89.3%
Aurora	1,276	420	265	-79.2%
Boulder	1,479	130	6	-99.6%
Centennial	956	476	337	-64.7%
Children's Hospital	160	28	17	-89.4%
Colorado West	1,862	624	442	-76.3%
Jefferson	2,463	2,508	1,700	-31.0%
Larimer	1,291	1,049	709	-45.1%
MHCD	3,357	561	385	-88.5%
Midwestern	524	269	185	-64.7%
North Range Behavioral Health	1,692	800	573	-66.1%
Pikes Peak	2,640	842	579	-78.1%
San Luis	604	343	212	-64.9%
Servicios de La Raza	134	28	19	-85.8%
SE Colorado	594	258	185	-68.9%
SW Colorado	820	419	214	-73.9%
Spanish Peaks	1,719	507	359	-79.1%
West Central	620	245	158	-74.5%
TOTAL	**25,240**	**10,600**	**7,065**	**-72.0%**
Actual Non-Medicaid Served	**40,511**	**36,484**	**N/A**	**-9.9% (FY02-03)**

[45] CMHCs are community mental health centers.

Appendix B: Methodology for the Study of the Status of Mental Health Care in Colorado: Key Informant Interviews, Provider Survey, and Focus Groups

The Key Informant Interviews

A wide array of key informants from across the state was interviewed at four different points in time to obtain different types of information for this study, including:

(1) Key trends in mental health and existing data or reports that would be helpful to better understand these trends or other important aspects of Colorado's mental health system (n[46]=52);
(2) Input on ways to improve Colorado's mental health system (n=86);
(3) Documentation of unpublished private sector funding trends (n=6); and
(4) Documentation of unpublished empirically-based and other programs in Colorado (n=64).

An extensive list of key informants was developed through a nomination process that involved the foundations, TriWest Group, and the key informants themselves. The people nominated were mental health and other professionals who could identify key trends that influence Colorado mental health systems and services and also provide perspective on aspects of the status of the mental health system in Colorado. Across all four sets of informants, TriWest Group interviewed a total of 136 unduplicated key informants.[47] Please see Appendix C for an unduplicated count of key informants broken down by stakeholder group categories.

The sample of key informants was designed to include:

- People whose positions or experience provided essential perspectives on current issues and trends in Colorado mental health, including empirically-based and other innovative practices;
- Representatives of major stakeholder groups, including consumers, parents, family members, advocates, providers, administrators, and policy makers from among the following systems: mental health, child welfare, substance abuse, vocational rehabilitation, juvenile justice, criminal justice, child care, primary care, schools, health, insurance, and pharmacy;
- Representatives of both rural and urban communities; and
- Representatives of the public and private sectors.

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[46] All references to "n" refer to the number of key informants that provided information regarding each topic area. The total number added together is a duplicated count since several key informants were asked questions related to mulitiple topic areas. The duplicated count of key informants can be thought of as the number of interviews conducted.

[47] 136 is the unduplicated count of key informants and therefore counts each person only once, even if they were interviewed multiple times.

Across all interviews, interviewers provided a brief introduction to the project, including background information from the press release developed by the collaborative.

Initial Set of 52 Interviews on Trends and Issues. The protocol for the first set of 52 interviews was the most structured in order to ensure that consistent information on Colorado mental health trends was collected. Each key informant was then asked to identify trends affecting the mental health system. They were asked to consider trends that had either positive or negative impacts, trends at the national level that may be affecting Colorado, trends in Colorado, and both public and private sector trends. Example trend areas were provided such as policies, financing, intersystem service delivery (including gaps), access to care, and quality of care. Key informants were asked to rank the trends they identified in terms of importance, and in particular to identify their three most important trends. For each trend identified, the key informant was asked to talk about what contributed to the trend (such as policies, financing mechanisms, or other issues), and what could be done to address the trend. The key informants were also asked to identify existing data or reports that could help TriWest Group better understand the trends or other important aspects of Colorado's mental health system. And they were asked to identify other key informants who could provide additional information about the trends identified.

Second Set of 86 Interviews on Ways to Improve Colorado's Mental Health Services. Key informants were also asked about ways to improve Colorado's mental health services. A total of 86 key informants provided information related to this question. All 52 key informants who provided information on key trends were also asked this question as part of their semi-structured interview protocol. Additional key informants who provided input related to this question included: (1) 12 key informants who were interviewed in a group at a monthly Colorado Behavioral Healthcare Council (CBHC) meeting, consisting of community mental health center (CMHC) and Mental Health Assessment and Service Agency (MHASA) directors and CBHC staff; (2) 17 stakeholders who were involved in the process of obtaining reports or other data, or who wanted to provide additional information after the consumer and family focus groups, and voluntarily provided feedback and recommendations about how to improve the mental health

system; and (3) five payer key informants, representing private insurers and the state insurance regulatory agency.

Third Set of Six Interviews to Document Unpublished Private Funding Trends. Six payer key informants from Colorado-based insurers and the Colorado Division of Insurance were also interviewed about private funding trends, since these data are not publicly available. Key informants were interviewed using a semi-structured interview protocol that addressed the following areas: (1) health plan structure; (2) cost range of mental health benefits offered by private insurers; (3) typical and maximum service array included in the mental health benefit; (4) limitations to benefits, including cost-sharing components (e.g., copayments); (5) impact of parity legislation; and (6) inquiry about available published data.

Fourth Set of 64 Interviews to Document Unpublished Information on Empirically-Based and Other Innovative Programs in Colorado. A total of 64 key informants interviews were conducted about specific programs and therapeutic interventions that exist in Colorado. Key informants included both public and private sector mental health providers and those providing mental health services in other service systems across Colorado. A semi-structured interview protocol was used to obtain this information in a systematic way. Many of these informants were involved in earlier sets of interviews.

Fifth Set of 14 Interviews Regarding Issues Faced by Gay, Lesbian, Bisexual, and Transgender People and People With Disabilities. A total of 14 key informant interviews were conducted regarding the specific needs of these groups with experts in Colorado and nationally.

The 2003 Colorado Foundations Provider Survey

In order to obtain data about mental health care providers and the services they deliver, we identified seven types of licensed service providers to be surveyed: Certified Addictions Counselors, Licensed Professional Counselors, Licensed Social Workers, Licensed Marriage and Family Therapists, Licensed Psychologists, and Psychiatrists.

Names and addresses of all service providers except psychiatrists were obtained from the Colorado Department of Regulatory Agencies. Names and address of psychiatrists were obtained from the American Psychiatric Association. All lists were up to date when obtained in February 2003.

Three groups of service providers were developed for sampling and analysis purposes, as shown in the Sampling Matrix below: (1) Psychiatrists, who were important to look at independently because of their unique and increasingly dominant role prescribing psychiatric medication; (2) other mental health therapists, including marriage and family therapists, professional counselors, psychologists, and social workers who provide psychosocial interventions; and (3) alcohol and drug counselors, who were an important group to include to ensure that we were looking across systems. Unlicensed therapists were excluded, since they were seen as not being part of the formal mental health system, other than to the extent they were employed by facility providers, in which case information on their services would be obtained when we look at agencies and facilities.

To ensure that all parts of the state were sampled and included in the analysis, the state was divided into four regions. The breakdown of the state counties into four regions is shown below:

- Denver Metro counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson.
- Southeast counties: Baca, Bent, Cheyenne, Crowley, Elbert, El Paso, Huerfano, Kiowa, Las Animas, Lincoln, Otero, Prowers, Pueblo
- Northeast counties: Kit Carson, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld, Yuma
- Western Slope counties: Alamosa, Archuleta, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Dolores, Eagle, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Jackson, Lake, La Plata, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Summit, Teller

The study sought to sample 100 from each of the three provider groups and 100 within each of the four regions, assuming that with a return rate of approximately 20% evenly distributed across groups sufficient power would be available to be sensitive to important differences. The sample

for the mental health therapists group reflected the proportional composition of the providers within each region, as shown below in the sampling matrix table. Not every region had 100 psychiatrists. In those regions with fewer than 100, all psychiatrists were included in the sample. The final sample included a total of 1,093 providers.

	1 Northeast		2 Denver-Metro		3 Southeast		4 Western Slope		Total	
Provider Type	Total	Sample	Total	Sample	Total	Sample	Total	Sample	Total	Sample
Alcohol & Drug Counselor (CAC)	**192**	**100**	**1270**	**100**	**401**	**100**	**344**	**100**	**2207**	**400**
Licensed Professoral Counselor (LPC)	244	34	1502	32	533	41	425	48	2704	154
Licensed Social Worker (LSW)	224	31	1753	37	429	33	250	28	2656	129
Marriage-Family Therapist (MFT)	68	9	227	5	115	9	66	7	476	30
Psychologist (PSY)	189	26	1245	26	230	18	148	17	1812	87
Mental Health Therapists Subtotal	**725**	**100**	**4727**	**100**	**1307**	**100**	**889**	**100**	**7648**	**400**
Psychiatrists (MD) *	**34**	**34**	**519**	**100**	**100**	**100**	**59**	**59**	**712**	**293**
Total	**951**	**234**	**6516**	**300**	**1808**	**300**	**1292**	**259**	**10567**	**1093**

The survey form, shown on the next page, consisted of 14 questions about caseload, demographic characteristics of clients served, the nature of the provider's practice, whether the provider offers culturally specialized treatment, who pays for treatment, types of new clients being accepted, the degree to which clients' mental health needs are addressed by other providers or systems, and the time spent by providers in various administrative activities.

The survey form was mailed to each provider, and then approximately one week later a second mailing of the form was sent to all providers. The second mailing was for those providers who had not already completed the form. It stressed the importance of the survey. If the provider had already completed the survey, it asked them not to complete the second survey form.
Both mailings gave a background and introduction to the survey, including the confidential nature of the information provided and directions for completion and return. The form was designed so that when completed the provider simply folded the form and sealed it with an

enclosed removable strip. Once closed, the outside was preaddressed and stamped for return mailing to TriWest Group. The return survey contained no identifying information other than the zip code and type of provider so that the responses could be analyzed by region and provider type.

A total of 229 providers responded to the survey for a 21.6% response rate, as shown in the Sampling and Response Matrix below. Some retired providers (11) returned forms that were not completed, and some surveys (35) were returned undelivered because of incorrect addresses. The number sampled was adjusted for the incorrect address returns and the responses of retired providers were included in the response rate. Because of missing zip code information on some returns, three surveys were not identified by region but were included in the statewide total.

Sampling & Response Matrix	Colorado Regions and Statewide									
	1 Northeast		2 Denver-Metro		3 Southeast		4 Western Slope		Statewide	
Provider Types	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alcohol & Drug Counselors										
Sampled	100		96		98		96		390	
Responses l % of Sample	**21**	**21.0%**	**17**	**17.7%**	**9**	**9.2%**	**19**	**19.8%**	**66**	**16.9%**
Mental Health Providers										
Sampled	98		92		97		93		380	
Responses l % of Sample	**22**	**22.4%**	**31**	**33.7%**	**31**	**32.0%**	**22**	**23.7%**	**107**	**28.2%**
Psychiatrists										
Sampled	34		100		96		58		288	
Responses l % of Sample	**6**	**17.6%**	**23**	**23.0%**	**16**	**16.7%**	**9**	**15.5%**	**55**	**19.1%**
Overall										
Sampled	232		288		291		247		1058	
Responses l % of Sample	**49**	**21.1%**	**71**	**24.7%**	**56**	**19.2%**	**50**	**20.2%**	**229**	**21.6%**

2003 Colorado Foundations Provider Survey

1. About how many clients do you typically see? I typically see about _____ people on my active caseload at any one time.

2. About how many hours per week are you typically available to see clients (current and new)? ____ hours per typical week

3. What age groups of clients do you serve in your clinical practice? Please write in the approximate percentage for each.

___% Age 0-5 ___% Age 6-12 ___% Age 13-17 ___% Age 18-59 ___% Age 60 & over

Some questions below may have overlapping answers. It's ok if the total percent is sometimes over 100%.

4. What is the nature of your practice? Please write in the percentage of your time spent in each type of clinical practice.

____% Self-employed (as an individual or part of a group)

____% Milieu Program (eg, inpatient, day treatment, etc.)

____% Outpatient Program

____% Other (Specify:________________________________)

5. On average, what percent of your clients have diagnosable conditions? Please write in the approximate percents with:

____% DSM IV Axis I or II diagnoses

____% Non-Axis I / II problems (eg, marital counseling, V-codes)

6. In what languages are you able to provide treatment? First, please check all that apply to you. Second, please circle the one choice that you consider to be your primary language.

□ Spanish □ English □ American Sign Language

□ Other(s) (List: ________________________________)

7. How do you describe your race / ethnicity? First, please check all that apply to you. Second, please circle the one choice that you consider to be your primary race / ethnicity.

□ African American □ American Indian / Native American

□ Latino / Hispanic □ Asian American / Pacific Islander

□ White / Caucasian □ Other(s) (List:)

8. Do you provide culturally specialized treatment for any of the following groups? Please check all that apply. (Do not check just because you serve members of that group. Check only if you provide specialized cultural treatment.)

□ African American □ American Indian / Native American

□ Latino / Hispanic □ Asian American / Pacific Islander

□ Religious subgroup □ Sexual minorities (gay/lesbian/bisexual)

□ Deaf/Hard of hearing □ Other(s) (List: _________________)

9. What types of financial support do your clients have for mental health treatment? Please write in the approximate percentage of clients you serve with each type of support.

____% Private insurance paying adequately for needed care

____% Private insurance not paying adequately for needed care

____% Medicare ____% Medicaid ____% Self-pay

____% Sliding Scale ____% Pro Bono

____% State program (e.g., CMHC, social services)

____% Other(s) (List:________________________________)

10. Are you accepting new clients at this time? If yes, please place a check next to the types of clients you are accepting.

____ Not accepting new clients ____ Private insurance

____ Medicare ____ Medicaid ____ Self-pay ____ Pro Bono

____ Sliding Scale ____ State program (CMHC, social services)

____ Other(s) (List:________________________________)

11. About what percent of your clients need mental health care that you do not directly provide? (eg, inpatient, day treatment)

____% needing other services (Type(s): ____________________)

Of those clients, what percent can and cannot receive them?

____% typically able to receive those services when needed

____% typically not able to receive them when needed

12. About what percent of your clients currently receive mental health services from other systems of care? (eg, physical health care services, child welfare services, social services, corrections) Please write in the approximate percentage.

____% served by other systems

(Specify system(s): ________________________________)

Of those served by other systems, please write in the approximate percentage in each category specified below:

____% served by one other system

____% in two other systems ____% in three or more systems

13. About how many hours a week do you spend on average on the following activities? Please write in the hours for each.

____ Coordination with other mental health providers

____ Coordination with other systems (eg, schools, child welfare)

____ Clinical record-keeping (notes, treatment plans)

____ Compliance with managed care requirements

____ Direct billing of insurance ____ Other billing administration

____ Other (Describe: ________________________________)

14. If you could change three things about Colorado's mental health system, what would they be? Please list them in order of priority. If you have less than three, it's ok to leave lines blank.

□ I would not change anything □ I would change the following:

Most important: ________________________________

Second most important: ________________________________

Third most important: ________________________________

The Focus Groups

In order to obtain the perspectives of consumers of mental health services, family members of consumers, and parents of children with emotional disturbances, TriWest Group staff conducted a series of focus groups to discuss the project and collect information about the mental health system and how foundations could get involved. Project staff initiated the focus group process by contacting three primary agencies: the Colorado chapter of the National Alliance for the Mentally Ill (NAMI), the Colorado Federation of Families for Children's Mental Health, and WE CAN! Of Colorado. We worked with each organization to identify contact people in four regions: Northeast, Denver Metro, Southeast, and Western Slope.

We called suggested contact people and asked them for information about how, in that area, to contact adult consumers, family members of consumers, and parents of children with emotional disturbances. They were also asked for suggestions about where to hold the focus groups and good dates for the focus groups. Participants were invited through a combination of means including letters, emails, and phone calls, as well as through the contact persons in those cases where the contact person was willing to assist in the process.

The process was designed to involve approximately 20 people in any given focus group, for a total of 80 people across four groups, evenly distributed across consumers, family members of adult consumers, and parents of children with emotional disturbances. The Denver focus group was the only one where attendance was higher, with approximately 34 people providing feedback. In all cases, and especially in the case of the Denver focus group, if people did not have enough opportunity to provide input, they were given the option of talking with a TriWest Group project person individually at a later time (usually by phone) or emailing input. When special accommodations were required, such as wheelchair access or translation services, those were addressed and arranged for by TriWest Group. For parents of children, child care costs were reimbursed. Transportation costs were also reimbursed in cases where people traveled long distances or requested reimbursement.

In cases where the groups contained both consumers and family members, feedback was identified so that those two perspectives could be summarized separately. Family members of adult consumers and parents of children with emotional disturbances ended up being counted together, but thematically different responses (e.g., for child versus adult services) were grouped and analyzed separately. Individual names were not identified in the feedback process in order to protect the confidentiality of responses.

In total, TriWest Group project staff met with 110 consumers and family members across seven communities in four different regions of the state. The extra groups were conducted in response to regional requests to accommodate different times or to have separate meetings for different stakeholder groups (e.g., consumers versus family members). The participants included 56 consumers, 46 family members, and 8 people who identified themselves as both consumers and family members. The numbers and types of focus groups and number of attendees are listed below.

- Three consumer focus groups (N=40), including one in Wray, CO (n=8), one in Fort Collins (n=23), and one in Pueblo (n=9);
- Two family focus groups (N=23), including one in Fort Collins (n=19) and one in Pueblo (n=4); and,
- Two consumer and family focus groups (N=47), including one in Montrose (n=13) and one in Denver (n=34).

Appendix C: Breakdown of Key Informants by Stakeholder Group

Stakeholder Group / Perspective	Number of Key Informants	Private Sector	Public Sector	Both	Rural / Frontier	Urban / Suburban	Mix or Statewide
ADVOCACY							
Mental Health Advocacy Groups	**4**	0	1	3	0	0	4
Total	**4**	**0**	**1**	**3**	**0**	**0**	**4**
CONSUMERS AND FAMILIES							
Adult Consumers	**5**	1	1	3	0	0	5
Families of Consumers / Parents of Children	**12**	1	2	9	0	0	12
Total	**17**	**2**	**3**	**12**	**0**	**0**	**17**
PRIMARY CARE							
Community Health Centers	**13**	0	13	0	6	6	1
Health Districts	**1**	0	1	0	0	0	1
Primary Care Providers	**2**	1	0	1	1	1	0
Total	**16**	**1**	**14**	**1**	**7**	**7**	**2**
CULTURE-SPECIFIC MENTAL HEALTH PROVIDERS AND RESEARCHERS							
African American	**3**	0	3	0	0	3	0
American Indian / Alaska Native	**1**	0	1	0	1	0	0
Asian American / Pacific Islander	**1**	0	0	1	0	1	0
Latino / Hispanic American	**2**	0	1	1	1	1	0
Other Cultural Groups	**3**	0	3	0	0	3	0
Gay, Lesbian, Bisexual, Transgender People	**4**	0	3	1	0	3	1
People with Developmental Disabilities	**5**	0	2	3	0	2	3
People with Physical Disabilities	**5**	0	2	3	0	2	3
Total	**24**	**0**	**15**	**9**	**2**	**15**	**7**
INSURANCE							
Child Health Plan Plus	**1**	0	0	1	0	0	1
Division of Insurance	**1**	1	0	0	0	0	1
Private Insurer	**6**	6	0	0	0	0	6
Total	**8**	**7**	**0**	**1**	**0**	**0**	**8**
STATE GOVERNMENT AGENCY AND OTHER POLICY MAKERS							
Adult Corrections	**1**	0	1	0	0	0	1
Alcohol & Drug Abuse	**1**	0	1	0	0	0	1
Child Care	**1**	0	0	1	0	0	1
Child Welfare	**1**	0	1	0	0	0	1
Health Care Policy & Financing	**1**	0	1	0	0	0	1

Stakeholder Group / Perspective	Number of Key Informants	Private Sector	Public Sector	Both	Rural / Frontier	Urban / Suburban	Mix or Statewide
Legislature	**2**	0	2	0	0	1	1
State Mental Health Agency	**3**	0	2	1	1	0	2
Education	**4**	0	4	0	0	0	4
Youth Corrections	**1**	0	0	1	0	0	1
Total	**15**	**0**	**12**	**3**	**1**	**1**	**13**
PHARMACY							
Pharmacists	**2**	0	1	1	0	2	0
Total	**2**	**0**	**1**	**1**	**0**	**2**	**0**
MENTAL HEALTH PROVIDERS - INPATIENT							
Community Hospital / Emergency Room	**1**	0	1	0	0	1	0
State Psychiatric Hospital	**1**	0	1	0	0	0	1
Other Hospital	**2**	0	1	1	0	0	2
Total	**4**	**0**	**3**	**1**	**0**	**1**	**3**
MENTAL HEALTH PROVIDERS - OUTPATIENT							
CMHC / MHASA[48]	**36**	2	29	5	12	13	11
Community Agency - All Ages	**1**	0	0	1	0	1	0
Community-Based Programs for Children and Youth	**7**	0	4	3	0	0	7
Consumer-Directed Programs for Adults	**3**	0	1	2	0	1	2
Employee Assistance Program	**3**	2	1	0	0	3	0
Outpatient Clinic for the Indigent and Uninsured	**1**	0	0	1	0	1	0
Psychiatrists	**5**	3	1	1	1	4	0
Psychologists	**3**	1	1	1	0	2	1
Other Private Providers	**1**	1	0	0	0	1	0
Total	**60**	**9**	**37**	**14**	**13**	**26**	**21**
ALL KEY INFORMANTS							
OVERALL TOTAL	**150**	**19**	**86**	**45**	**23**	**52**	**75**

[48] CMHCs are community mental health centers. MHASAs are mental health assessment and service agencies.

Appendix D: Prevalence of Mental Illness in Colorado: Approach to Estimating Prevalence, Prevalence Estimates for Geographic Areas, and Prevalence Estimates for Age Groups

Approach to Estimating Prevalence

This study relied primarily on the work of McGee, Holzer, Pandiani, and Banks (2002) for Colorado prevalence estimates of youth with SED and adults and older adults with SMI (these are defined under Observation #2 and in the Glossary in Appendix E. Our analysis also drew upon findings from national studies published by Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin (1993) and Kessler and colleagues (1996), and summarized in the report of the U.S. Surgeon General (1999), which we used to estimate the prevalence of overall diagnosable mental disorders and the overall number of people who utilize services. All estimates were for 12-month periods, in order to provide information in a way complementary to commonly utilized financing, reporting and planning time frames or cycles.

McGee and colleagues, with funding from the Colorado State Legislature, worked with Colorado Mental Health Services in the Department of Human Services to update population in need estimates, which have historically been provided by Colorado Mental Health Services. Using contemporary and rigorous methods to estimate the prevalence (number) of people with serious mental disorders in the Colorado population, they reported prevalence of SED and SMI for those people who were at or below 300% of the Federal Poverty Level (FPL).

Since their effort was directed at people likely to need services through public agencies, they did not present estimates of severe emotional disturbance (SED) and severe mental illness (SMI) for people above 300% FPL. However, they do make those numbers available on their web site[49] for Colorado and a number of other states. For purposes of reporting data for the current project, TriWest Group obtained a data file from Mr. Chuck McGee containing the same data available through look-up tables on the web site. Mr. McGee also was very helpful in clarifying

[49] http://129.109.4.19/estimation/wiche2k/wiche2k.htm

questions[50] about how the data were reported for the population in need project (McGee et al., 2002) and on the web site.

Specifically, they used an indirect model to estimate the number of people with mental health disorders in counties, and then combined those to obtain prevalence estimates for the 17 community mental health center (CMHC) catchment areas. The model applied prevalence estimates from national studies adjusted for several demographic characteristics, including age, gender, race, marital status, educational level, poverty level, and type of residence. The demographic characteristics of a county and the prevalence rates associated with those characteristics determined the overall number and prevalence for that area. For example, higher prevalence rates are generally associated with higher poverty levels, lower educational status, being separated, widowed or divorced, and living in an institutional setting. We report the county-specific numbers at the end of this Appendix, along with regional and age-specific numbers.

One component of the population-in-need work of McGee and colleagues was to estimate the number of people at or below 300% federal poverty level (FPL) who were served in the public mental health system or in other public systems such as youth corrections, child welfare, alcohol and drug abuse services, or special education. However, they did not estimate the number of people above 300% FPL who might have received services, or the number of people with any diagnosable mental illness. The number of people with any diagnosable mental illness was defined as 21% based on information summarized in the Surgeon General's report and on work by Regier et al. (1993), Kessler et al. (1996), and others. Also, the number of people with mental disorders utilizing services was similarly estimated using the 31.9% estimate from Regier et al. (1993). Those national sources also provided information to separate the 31.9% into different service sectors.

[50] C. McGee, personal communication, June 13, 2003.

In the table below, we present the available information from McGee et al. (2002) and from the national sources. The gold colored cells of the table contain numbers based the Colorado-specific work of McGee et al. (2002). The darker grey cells are estimates based on the 21% of the population who are in need (903,265) and the 31.9% of people estimated to utilize services during a 12-month period (people served in mental health settings rounded to 14% and people served in other settings rounded to 18%). The total number of people in need who are not served (615,123 or 68% of those in need) is 903,265 minus the people served (127,935 + 160,207).

The 640,478 other diagnosable disorders figure was obtained by subtracting the severe mental illness/severe emotional disturbance (SMI/SED) numbers from the total 903,265 (21% of 2000 census population) people in need. Similarly, the numbers in the lighter shading are the difference between the total for each column and the numbers from McGee et al. (2002). The lighter shading is used to identify areas where less specific information is available.

<table>
<tr><th colspan="5">Comparison of Annual Levels of Mental Health Need with Annual Levels of People Served</th></tr>
<tr><th>Level of Need</th><th>People in Need</th><th>People Served in Mental Health Settings</th><th>People Served in Other Settings</th><th>People In Need Who Are Not Served</th></tr>
<tr><td>Severe Disorders (SMI/SED) Under 300% FPL - Public Sector Need</td><td>168,878</td><td>77,138[51]</td><td>25,287[52]</td><td>66,453</td></tr>
<tr><td>Percentages</td><td>100%</td><td>46%</td><td>15%</td><td>39%</td></tr>
<tr><td>Severe Disorders (SMI/SED) Over 300% FPL - Private Sector Need</td><td>93,909</td><td rowspan="4">50,797
(7%)</td><td rowspan="4">134,920
(18%)</td><td rowspan="4">548,670
(75%)</td></tr>
<tr><td>Percentages</td><td>100%</td></tr>
<tr><td>Other Diagnosable Disorders</td><td>640,478</td></tr>
<tr><td>Percentages</td><td>100%</td></tr>
<tr><td>Total</td><td>903,265</td><td>127,935[53]</td><td>160,207[54]</td><td>615,123</td></tr>
<tr><td>Percentages</td><td>100%</td><td>14%</td><td>18%</td><td>68%</td></tr>
</table>

[51] Information from the Colorado Populations in Need Study (McGee, Holzer, Pandiani & Banks, 2002)
[52] Primarily other child-serving systems (McGee et al., 2002)
[53] Applied 44.4% (4% of population receiving services in mental health setting divided by total of 9% receiving services from any setting) to 31.9% of people with mental health diagnosis (288,184) estimated by Regier et al. (1993) for people who utilize mental health services in one year.
[54] Applied 55.6% (5% of population receiving services in mental health settings divided by total of 9% receiving services from any setting) to 31.9% of people with mental health diagnosis (288,184) estimated by Regier et al. (1993) for people who utilize mental health services in one year.

This table can be used to make a number of important points:

- Available prevalence estimates can provide very helpful information to show the extent of the need for mental health services.
- More is known about met and unmet need in the public mental health sector than in the private sector.
- Not enough is known about how many people with severe disorders are served in the private mental health sector or in other settings.

Specifying the need and unmet need for mental health treatment has always been a complicated puzzle because of the issues discussed above and many others. Current information is much more extensive than what was available in the past prior to the work of McGee and his colleagues, and will hopefully continue to improve. Although we have presented the best prevalence and utilization information available, there are still many gaps in the available knowledge base about the numbers of people who have mental health disorders and the numbers of those people who are served.

The severe disorders prevalence numbers from McGee et al. (2002) are presented in more detail below, broken down first by region and county, then separately by age group and region/county. We provide these numbers because they present a picture of the prevalence in specific counties and regions around the state that may be helpful in future planning, funding, and service efforts.

Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group

MHS Service Area	Total Population (2000)	Need Public SED/SMI Services	Percent of Population	Need Private SED/SMI Services	Percent of Population	Total SED/SMI Need	Percent of Population
State Total	**4,301,261**	**168,878**	**3.9%**	**93,909**	**2.2%**	**262,787**	**6.1%**
Denver Metro							
Adams	363,857	14,930	4.1%	8,374	2.3%	23,304	6.4%
Arapahoe	487,967	13,305	2.7%	13,539	2.8%	26,844	5.5%
Boulder	291,288	9,570	3.3%	7,048	2.4%	16,618	5.7%
Denver	554,636	26,568	4.8%	9,696	1.7%	36,264	6.5%

Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Total Population (2000)**	**Need Public SED/SMI Services**	**Percent of Population**	**Need Private SED/SMI Services**	**Percent of Population**	**Total SED/SMI Need**	**Percent of Population**
Douglas	175,766	3,973	2.3%	5,253	3.0%	9,226	5.2%
Jefferson	527,056	14,619	2.8%	14,778	2.8%	29,397	5.6%
Region	**2,400,570**	**82,965**	**3.5%**	**58,688**	**2.4%**	**141,653**	**5.9%**
Northeast Colorado							
Kit Carson	8,011	393	4.9%	116	1.4%	509	6.4%
Larimer	251,494	9,563	3.8%	5,313	2.1%	14,876	5.9%
Logan	20,504	1,022	5.0%	294	1.4%	1,316	6.4%
Morgan	27,171	1,556	5.7%	339	1.2%	1,895	7.0%
Phillips	4,480	211	4.7%	66	1.5%	277	6.2%
Sedgwick	2,747	122	4.4%	38	1.4%	160	5.8%
Washington	4,926	234	4.8%	72	1.5%	306	6.2%
Weld	180,936	8,734	4.8%	3,277	1.8%	12,011	6.6%
Yuma	9,841	489	5.0%	141	1.4%	630	6.4%
Region	**510,110**	**22,324**	**4.4%**	**9,656**	**1.9%**	**31,980**	**6.3%**
Southeast Colorado							
Baca	4,517	225	5.0%	62	1.4%	287	6.4%
Bent	5,998	352	5.9%	66	1.1%	418	7.0%
Cheyenne	2,231	106	4.8%	35	1.6%	141	6.3%
Crowley	5,518	729	13.2%	57	1.0%	786	14.2%
Elbert	19,872	530	2.7%	576	2.9%	1,106	5.6%
El Paso	516,929	20,439	4.0%	10,773	2.1%	31,212	6.0%
Huerfano	7,862	416	5.3%	88	1.1%	504	6.4%
Kiowa	1,622	77	4.7%	27	1.7%	104	6.4%
Las Animas	15,207	814	5.4%	163	1.1%	977	6.4%
Lincoln	6,087	304	5.0%	88	1.4%	392	6.4%
Otero	20,311	1,130	5.6%	228	1.1%	1,358	6.7%
Prowers	14,483	823	5.7%	171	1.2%	994	6.9%
Pueblo	141,472	7,659	5.4%	2,033	1.4%	9,692	6.9%

Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Total Population (2000)**	**Need Public SED/SMI Services**	**Percent of Population**	**Need Private SED/SMI Services**	**Percent of Population**	**Total SED/SMI Need**	**Percent of Population**
Region	**762,109**	**33,604**	**4.4%**	**14,367**	**1.9%**	**47,971**	**6.3%**
Western Slope							
Alamosa	14,966	892	6.0%	161	1.1%	1,053	7.0%
Archuleta	9,898	412	4.2%	161	1.6%	573	5.8%
Chafee	16,242	1,258	7.7%	215	1.3%	1,473	9.1%
Clear Creek	9,322	245	2.6%	247	2.6%	492	5.3%
Conejos	8,400	497	5.9%	76	0.9%	573	6.8%
Costilla	3,663	203	5.5%	32	0.9%	235	6.4%
Custer	3,503	152	4.3%	52	1.5%	204	5.8%
Delta	27,834	1,381	5.0%	430	1.5%	1,811	6.5%
Dolores	1,844	79	4.3%	31	1.7%	110	6.0%
Eagle	41,659	1,506	3.6%	910	2.2%	2,416	5.8%
Fremont	46,145	4,270	9.3%	563	1.2%	4,833	10.5%
Garfield	43,791	1,730	4.0%	970	2.2%	2,700	6.2%
Gilpin	4,757	127	2.7%	122	2.6%	249	5.2%
Grand	12,442	431	3.5%	285	2.3%	716	5.8%
Gunnison	13,956	680	4.9%	212	1.5%	892	6.4%
Hinsdale	790	29	3.7%	15	1.9%	44	5.6%
Jackson	1,577	55	3.5%	34	2.2%	89	5.6%
Lake	7,812	385	4.9%	103	1.3%	488	6.2%
La Plata	43,941	2,089	4.8%	676	1.5%	2,765	6.3%
Mesa	116,255	5,686	4.9%	1,931	1.7%	7,617	6.6%
Mineral	831	33	4.0%	13	1.6%	46	5.5%
Moffat	13,184	512	3.9%	303	2.3%	815	6.2%
Montezuma	23,830	1,197	5.0%	350	1.5%	1,547	6.5%
Montrose	33,432	1,581	4.7%	524	1.6%	2,105	6.3%
Ouray	3,742	135	3.6%	67	1.8%	202	5.4%
Park	14,523	372	2.6%	386	2.7%	758	5.2%

Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Total Population (2000)**	**Need Public SED/SMI Services**	**Percent of Population**	**Need Private SED/SMI Services**	**Percent of Population**	**Total SED/SMI Need**	**Percent of Population**
Pitkin	14,872	441	3.0%	340	2.3%	781	5.3%
Rio Blanco	5,986	229	3.8%	133	2.2%	362	6.0%
Rio Grande	12,413	688	5.5%	139	1.1%	827	6.7%
Routt	19,690	654	3.3%	466	2.4%	1,120	5.7%
Saguache	5,917	348	5.9%	60	1.0%	408	6.9%
San Juan	558	23	4.1%	9	1.6%	32	5.7%
San Miguel	6,594	295	4.5%	110	1.7%	405	6.1%
Summit	23,548	808	3.4%	525	2.2%	1,333	5.7%
Teller	20,555	562	2.7%	547	2.7%	1,109	5.4%
Region	**628,472**	**29,985**	**4.8%**	**11,198**	**1.8%**	**41,183**	**6.6%**
State Total	**4,301,261**	**168,878**	**3.9%**	**93,909**	**2.2%**	**262,787**	**6.1%**

Youth 0 to 20 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Youth 0 to 20 Population (2000)**	**Need Public SED Services**	**Percent of Population**	**Need Private SED Services**	**Percent of Population**	**Total SED Need**	**Percent of Population**
State Total	**1,281,157**	**67,822**	**5.3%**	**32,504**	**2.5%**	**100,326**	**7.8%**
Denver Metro							
Adams	118,711	6,229	5.2%	2,857	2.4%	9,086	7.7%
Arapahoe	146,853	5,360	3.6%	5,169	3.5%	10,529	7.2%
Boulder	83,997	4,074	4.9%	2,532	3.0%	6,606	7.9%
Denver	142,772	9,954	7.0%	2,357	1.7%	12,311	8.6%
Douglas	59,010	1,959	3.3%	2,169	3.7%	4,128	7.0%
Jefferson	151,789	5,891	3.9%	5,349	3.5%	11,240	7.4%
Region	**703,132**	**33,467**	**4.8%**	**20,433**	**2.9%**	**53,900**	**7.7%**
Northeast Colorado							
Kit Carson	2,407	159	6.6%	36	1.5%	195	8.1%
Larimer	75,221	4,043	5.4%	1,934	2.6%	5,977	7.9%
Logan	6,304	427	6.8%	94	1.5%	521	8.3%
Morgan	9,266	666	7.2%	112	1.2%	778	8.4%
Phillips	1,342	87	6.5%	20	1.5%	107	8.0%
Sedgwick	698	44	6.3%	11	1.6%	55	7.9%
Washington	1,454	96	6.6%	22	1.5%	118	8.1%
Weld	62,493	4,037	6.5%	1,153	1.8%	5,190	8.3%
Yuma	3,105	203	6.5%	46	1.5%	249	8.0%
Region	**162,290**	**9,762**	**6.0%**	**3,428**	**2.1%**	**13,190**	**8.1%**
Southeast Colorado							
Baca	1,249	81	6.5%	18	1.4%	99	7.9%
Bent	1,662	121	7.3%	18	1.1%	139	8.4%
Cheyenne	724	45	6.2%	12	1.7%	57	7.9%
Crowley	1,182	106	9.0%	14	1.2%	120	10.2%
Elbert	6,673	239	3.6%	233	3.5%	472	7.1%
El Paso	166,230	8,940	5.4%	3,876	2.3%	12,816	7.7%
Huerfano	1,838	135	7.3%	23	1.3%	158	8.6%
Kiowa	483	29	6.0%	9	1.9%	38	7.9%

Youth 0 to 20 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Youth 0 to 20 Population (2000)**	**Need Public SED Services**	**Percent of Population**	**Need Private SED Services**	**Percent of Population**	**Total SED Need**	**Percent of Population**
Las Animas	4,346	313	7.2%	50	1.2%	363	8.4%
Lincoln	1,649	110	6.7%	26	1.6%	136	8.2%
Otero	6,297	477	7.6%	69	1.1%	546	8.7%
Prowers	5,087	371	7.3%	57	1.1%	428	8.4%
Pueblo	42,372	2,978	7.0%	647	1.5%	3,625	8.6%
Region	**239,792**	**13,945**	**5.8%**	**5,052**	**2.1%**	**18,997**	**7.9%**
Western Slope							
Alamosa	5,301	402	7.6%	56	1.1%	458	8.6%
Archuleta	2,792	168	6.0%	51	1.8%	219	7.8%
Chafee	3,731	274	7.3%	61	1.6%	335	9.0%
Clear Creek	2,343	93	4.0%	79	3.4%	172	7.3%
Conejos	3,076	228	7.4%	30	1.0%	258	8.4%
Costilla	1,060	82	7.7%	9	0.8%	91	8.6%
Custer	876	55	6.3%	14	1.6%	69	7.9%
Delta	7,433	473	6.4%	134	1.8%	607	8.2%
Dolores	441	26	5.9%	10	2.3%	36	8.2%
Eagle	11,204	561	5.0%	281	2.5%	842	7.5%
Fremont	10,919	799	7.3%	168	1.5%	967	8.9%
Garfield	13,630	695	5.1%	350	2.6%	1,045	7.7%
Gilpin	1,078	46	4.3%	35	3.2%	81	7.5%
Grand	3,113	149	4.8%	87	2.8%	236	7.6%
Gunnison	3,885	276	7.1%	59	1.5%	335	8.6%
Hinsdale	172	10	5.8%	3	1.7%	13	7.6%
Jackson	437	22	5.0%	12	2.7%	34	7.8%
Lake	2,474	162	6.5%	34	1.4%	196	7.9%
La Plata	12,802	860	6.7%	208	1.6%	1,068	8.3%
Mesa	34,365	2,264	6.6%	628	1.8%	2,892	8.4%
Mineral	175	12	6.9%	3	1.7%	15	8.6%
Moffat	4,256	207	4.9%	115	2.7%	322	7.6%
Montezuma	7,371	465	6.3%	123	1.7%	588	8.0%

Youth 0 to 20 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Youth 0 to 20 Population (2000)**	**Need Public SED Services**	**Percent of Population**	**Need Private SED Services**	**Percent of Population**	**Total SED Need**	**Percent of Population**
Montrose	10,212	609	6.0%	188	1.8%	797	7.8%
Ouray	927	52	5.6%	19	2.0%	71	7.7%
Park	3,775	153	4.1%	126	3.3%	279	7.4%
Pitkin	2,796	129	4.6%	81	2.9%	210	7.5%
Rio Blanco	1,930	100	5.2%	49	2.5%	149	7.7%
Rio Grande	3,912	284	7.3%	47	1.2%	331	8.5%
Routt	5,147	238	4.6%	148	2.9%	386	7.5%
Saguache	1,895	154	8.1%	18	0.9%	172	9.1%
San Juan	120	7	5.8%	2	1.7%	9	7.5%
San Miguel	1,371	95	6.9%	24	1.8%	119	8.7%
Summit	4,969	258	5.2%	139	2.8%	397	8.0%
Teller	5,955	240	4.0%	200	3.4%	440	7.4%
Region	**175,943**	**10,648**	**6.1%**	**3,591**	**2.0%**	**14,239**	**8.1%**
State Total	**1,281,157**	**67,822**	**5.3%**	**32,504**	**2.5%**	**100,326**	**7.8%**

Adults 21 to 64 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 21 to 64 Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
State Total	**2,604,322**	**88,079**	**3.4%**	**57,526**	**2.2%**	**145,605**	**5.6%**
Denver Metro							
Adams	216,640	7,759	3.6%	5,252	2.4%	13,011	6.0%
Arapahoe	299,010	6,994	2.3%	7,862	2.6%	14,856	5.0%
Boulder	184,552	4,891	2.7%	4,274	2.3%	9,165	5.0%
Denver	349,543	14,632	4.2%	6,744	1.9%	21,376	6.1%
Douglas	109,629	1,860	1.7%	3,009	2.7%	4,869	4.4%
Jefferson	324,647	7,268	2.2%	8,876	2.7%	16,144	5.0%
Region	**1,484,021**	**43,404**	**2.9%**	**36,017**	**2.4%**	**79,421**	**5.4%**
Northeast Colorado							
Kit Carson	4,414	192	4.3%	72	1.6%	264	6.0%
Larimer	152,241	4,844	3.2%	3,174	2.1%	8,018	5.3%
Logan	11,234	492	4.4%	178	1.6%	670	6.0%
Morgan	14,390	751	5.2%	203	1.4%	954	6.6%
Phillips	2,272	96	4.2%	39	1.7%	135	5.9%
Sedgwick	1,433	62	4.3%	22	1.5%	84	5.9%
Washington	2,572	112	4.4%	43	1.7%	155	6.0%
Weld	102,140	4,134	4.0%	2,005	2.0%	6,139	6.0%
Yuma	5,157	226	4.4%	83	1.6%	309	6.0%
Region	**295,853**	**10,909**	**3.7%**	**5,819**	**2.0%**	**16,728**	**5.7%**
Southeast Colorado							
Baca	2,261	107	4.7%	36	1.6%	143	6.3%
Bent	3,376	189	5.6%	43	1.3%	232	6.9%
Cheyenne	1,138	48	4.2%	20	1.8%	68	6.0%
Crowley	3,734	517	13.8%	41	1.1%	558	14.9%
Elbert	12,004	262	2.2%	330	2.7%	592	4.9%
El Paso	306,121	10,327	3.4%	6,416	2.1%	16,743	5.5%
Huerfano	4,677	235	5.0%	58	1.2%	293	6.3%

Adults 21 to 64 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 21 to 64 Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
Kiowa	856	36	4.2%	16	1.9%	52	6.1%
Las Animas	7,996	403	5.0%	98	1.2%	501	6.3%
Lincoln	3,582	160	4.5%	56	1.6%	216	6.0%
Otero	10,740	540	5.0%	138	1.3%	678	6.3%
Prowers	7,536	391	5.2%	101	1.3%	492	6.5%
Pueblo	77,476	3,913	5.1%	1,210	1.6%	5,123	6.6%
Region	**441,497**	**17,128**	**3.9%**	**8,563**	**1.9%**	**25,691**	**5.8%**
Western Slope							
Alamosa	8,225	443	5.4%	96	1.2%	539	6.6%
Archuleta	5,930	215	3.6%	103	1.7%	318	5.4%
Chafee	9,760	829	8.5%	136	1.4%	965	9.9%
Clear Creek	6,323	135	2.1%	161	2.5%	296	4.7%
Conejos	4,054	229	5.6%	40	1.0%	269	6.6%
Costilla	1,989	102	5.1%	20	1.0%	122	6.1%
Custer	2,102	82	3.9%	35	1.7%	117	5.6%
Delta	14,912	687	4.6%	259	1.7%	946	6.3%
Dolores	1,081	43	4.0%	19	1.8%	62	5.7%
Eagle	29,294	914	3.1%	620	2.1%	1,534	5.2%
Fremont	28,531	2,904	10.2%	358	1.3%	3,262	11.4%
Garfield	26,337	868	3.3%	588	2.2%	1,456	5.5%
Gilpin	3,366	75	2.2%	85	2.5%	160	4.8%
Grand	8,351	257	3.1%	189	2.3%	446	5.3%
Gunnison	9,133	381	4.2%	146	1.6%	527	5.8%
Hinsdale	527	17	3.2%	11	2.1%	28	5.3%
Jackson	940	28	3.0%	20	2.1%	48	5.1%
Lake	4,845	206	4.3%	66	1.4%	272	5.6%
La Plata	27,037	1,101	4.1%	442	1.6%	1,543	5.7%
Mesa	64,346	2,843	4.4%	1,177	1.8%	4,020	6.2%
Mineral	515	18	3.5%	9	1.7%	27	5.2%
Moffat	7,700	253	3.3%	177	2.3%	430	5.6%

Adults 21 to 64 Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 21 to 64 Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
Montezuma	13,124	614	4.7%	208	1.6%	822	6.3%
Montrose	18,113	783	4.3%	305	1.7%	1,088	6.0%
Ouray	2,353	72	3.1%	45	1.9%	117	5.0%
Park	9,666	201	2.1%	249	2.6%	450	4.7%
Pitkin	11,079	295	2.7%	250	2.3%	545	4.9%
Rio Blanco	3,387	105	3.1%	78	2.3%	183	5.4%
Rio Grande	6,653	342	5.1%	82	1.2%	424	6.4%
Routt	13,557	390	2.9%	310	2.3%	700	5.2%
Saguache	3,397	174	5.1%	39	1.1%	213	6.3%
San Juan	396	15	3.8%	7	1.8%	22	5.6%
San Miguel	4,999	195	3.9%	85	1.7%	280	5.6%
Summit	17,833	534	3.0%	380	2.1%	914	5.1%
Teller	13,096	288	2.2%	332	2.5%	620	4.7%
Region	**382,951**	**16,638**	**4.3%**	**7,127**	**1.9%**	**23,765**	**6.2%**
State Total	**2,604,322**	**88,079**	**3.4%**	**57,526**	**2.2%**	**145,605**	**5.6%**

Adults 65 & UP Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 65 & Up Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
State Total	**415,782**	**12,977**	**3.1%**	**3,879**	**0.9%**	**16,856**	**4.1%**
Denver Metro							
Adams	28,506	942	3.3%	265	0.9%	1,207	4.2%
Arapahoe	42,104	951	2.3%	508	1.2%	1,459	3.5%
Boulder	22,739	605	2.7%	242	1.1%	847	3.7%
Denver	62,321	1,982	3.2%	595	1.0%	2,577	4.1%
Douglas	7,127	154	2.2%	75	1.1%	229	3.2%
Jefferson	50,620	1,460	2.9%	553	1.1%	2,013	4.0%
Region	**213,417**	**6,094**	**2.9%**	**2,238**	**1.0%**	**8,332**	**3.9%**
Northeast Colorado							
Kit Carson	1,190	42	3.5%	8	0.7%	50	4.2%
Larimer	24,032	676	2.8%	205	0.9%	881	3.7%
Logan	2,966	103	3.5%	22	0.7%	125	4.2%
Morgan	3,515	139	4.0%	24	0.7%	163	4.6%
Phillips	866	28	3.2%	7	0.8%	35	4.0%
Sedgwick	616	16	2.6%	5	0.8%	21	3.4%
Washington	900	26	2.9%	7	0.8%	33	3.7%
Weld	16,303	563	3.5%	119	0.7%	682	4.2%
Yuma	1,579	60	3.8%	12	0.8%	72	4.6%
Region	**51,967**	**1,653**	**3.2%**	**409**	**0.8%**	**2,062**	**4.0%**
Southeast Colorado							
Baca	1,007	37	3.7%	8	0.8%	45	4.5%
Bent	960	42	4.4%	5	0.5%	47	4.9%
Cheyenne	369	13	3.5%	3	0.8%	16	4.3%
Crowley	602	106	17.6%	2	0.3%	108	17.9%
Elbert	1,195	29	2.4%	13	1.1%	42	3.5%
El Paso	44,578	1,172	2.6%	481	1.1%	1,653	3.7%
Huerfano	1,347	46	3.4%	7	0.5%	53	3.9%

Adults 65 & UP Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 65 & Up Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
Kiowa	283	12	4.2%	2	0.7%	14	4.9%
Las Animas	2,865	98	3.4%	15	0.5%	113	3.9%
Lincoln	856	34	4.0%	6	0.7%	40	4.7%
Otero	3,274	113	3.5%	21	0.6%	134	4.1%
Prowers	1,860	61	3.3%	13	0.7%	74	4.0%
Pueblo	21,624	768	3.6%	176	0.8%	944	4.4%
Region	**80,820**	**2,531**	**3.1%**	**752**	**0.9%**	**3,283**	**4.1%**
Western Slope							
Alamosa	1,440	47	3.3%	9	0.6%	56	3.9%
Archuleta	1,176	29	2.5%	7	0.6%	36	3.1%
Chafee	2,751	155	5.6%	18	0.7%	173	6.3%
Clear Creek	656	17	2.6%	7	1.1%	24	3.7%
Conejos	1,270	40	3.1%	6	0.5%	46	3.6%
Costilla	614	19	3.1%	3	0.5%	22	3.6%
Custer	525	15	2.9%	3	0.6%	18	3.4%
Delta	5,489	221	4.0%	37	0.7%	258	4.7%
Dolores	322	10	3.1%	2	0.6%	12	3.7%
Eagle	1,161	31	2.7%	9	0.8%	40	3.4%
Fremont	6,695	567	8.5%	37	0.6%	604	9.0%
Garfield	3,824	167	4.4%	32	0.8%	199	5.2%
Gilpin	313	6	1.9%	2	0.6%	8	2.6%
Grand	978	25	2.6%	9	0.9%	34	3.5%
Gunnison	938	23	2.5%	7	0.7%	30	3.2%
Hinsdale	91	2	2.2%	1	1.1%	3	3.3%
Jackson	200	5	2.5%	2	1.0%	7	3.5%
Lake	493	17	3.4%	3	0.6%	20	4.1%
La Plata	4,102	128	3.1%	26	0.6%	154	3.8%
Mesa	17,544	579	3.3%	126	0.7%	705	4.0%
Mineral	141	3	2.1%	1	0.7%	4	2.8%
Moffat	1,228	52	4.2%	11	0.9%	63	5.1%

Adults 65 & UP Population and Prevalence Groups for Colorado Counties and Regions: Numbers and Percents in Each Prevalence Group							
MHS Service Area	**Adult 65 & Up Population (2000)**	**Need Public SMI Services**	**Percent of Population**	**Need Private SMI Services**	**Percent of Population**	**Total SMI Need**	**Percent of Population**
Montezuma	3,335	118	3.5%	19	0.6%	137	4.1%
Montrose	5,107	189	3.7%	31	0.6%	220	4.3%
Ouray	462	11	2.4%	3	0.6%	14	3.0%
Park	1,082	18	1.7%	11	1.0%	29	2.7%
Pitkin	997	17	1.7%	9	0.9%	26	2.6%
Rio Blanco	669	24	3.6%	6	0.9%	30	4.5%
Rio Grande	1,848	62	3.4%	10	0.5%	72	3.9%
Routt	986	26	2.6%	8	0.8%	34	3.4%
Saguache	625	20	3.2%	3	0.5%	23	3.7%
San Juan	42	1	2.4%	0	0.0%	1	2.4%
San Miguel	224	5	2.2%	1	0.4%	6	2.7%
Summit	746	16	2.1%	6	0.8%	22	2.9%
Teller	1,504	34	2.3%	15	1.0%	49	3.3%
Region	**69,578**	**2,699**	**3.9%**	**480**	**0.7%**	**3,179**	**4.6%**
State Total	**415,782**	**12,977**	**3.1%**	**3,879**	**0.9%**	**16,856**	**4.1%**

Appendix E: A Glossary of Key Terms Used in This Report

The following glossary definitions are for terms used within the report. The intent of this glossary is to facilitate understanding for a broad range of audiences with varying levels of familiarity with mental health issues.

Some of the definitions build upon other mental health glossaries or mental health terms defined elsewhere, and are cited in the references section of this report. With the authors' permission, many financial terms from McGuirk, Keller, and Croze (1995) were used and are not specifically referenced below.

Access: The availability of appropriate services to people who need them in a manner that facilitates their use.

Acute Treatment Unit (ATU): A community-based, overnight facility outside of a hospital setting that offers 24-hour supervision and 24-hour medical staffing for mental health consumers who need short-term supervised care or medical stabilization. This type of service is typically only available to people served in the public sector.

Advocacy: The process by which various stakeholders (consumers, families, providers, payers) make their perspectives known and affect the process of change.

Alcohol and Drug Abuse Division (ADAD): The Colorado state agency responsible for administering and funding public sector alcohol and drug abuse treatment and prevention services.

Alcohol and Drug Abuse Services: Prevention and treatment services specifically for people with alcohol or other substance use disorders. See also *Substance Use Disorder*.

Alternative Care Facility (ACF): Residential facilities for people who need support and assistance with daily needs, but who do not require skilled nursing. ACFs are licensed by the State of Colorado to provide 24-hour residential care, support services, three meals a day (including special diets for medical conditions), assistance with personal care, social and recreational activities, and transportation assistance.

African American: People living in the U.S. from African and Caribbean descent.

American Indian/Alaska Native: People living in the U.S. who are indigenous to the continental U.S. or Alaska.

Antidepressant Medication: Psychiatric medication typically used to treat major depression and related mood disorders. See also: *Psychiatric Medication, Major Depressive Disorder*.

Antipsychotic Medication: Psychiatric medication typically used to treat the psychotic symptoms of schizophrenia and other disorders, including hallucinations (e.g., hearing voices), paranoia, and delusions. They can also be used for other symptoms and disorders, including mania and neurological disorders. See also: *Atypical Antipsychotic, Psychiatric Medication, Schizophrenia.*

Asian American/Pacific Islander: People of various Asian descents living in the U.S., including Hmong, Cambodian, Laotian, Vietnamese, Korean, Chinese, Japanese, Philippino, Asian Indian, and others. This term also includes the following Pacific Islander cultures: Native Hawaiian, Samoan, Guamanian/Chamorro, and other Pacific Islanders.

Assertive Community Treatment (ACT): An intensive community-based service characterized by: assertive outreach; 24-hour, 7 day a week coverage; services provided primarily in the home and community; and services individually tailored to meet the range of a person's psychosocial and basic needs. Services are delivered by a multidisciplinary team that shares responsibility for cases. ACT is an evidence-based practice (EBP) for people with serious mental illness. See also: *Evidence-Based Practice (EBP), Serious Mental Illness (SMI).*

Atypical Antipsychotic: Antipsychotic medications that tend to be particularly effective in treating symptoms of schizophrenia and other psychotic disorders without some of the more debilitating side effects (e.g., movement disorders) previously found with older antipsychotic medications. They have also been found to be more effective for treating the negative symptoms of psychotic disorders, such as withdrawal. Common atypical antipsychotics include Clozaril, Risperdal, Zyprexa, Seroquel, Geodon, and Abilify. See also: *Antipsychotic Medication*, *Negative Symptoms*.

Attention-Deficit/Hyperactivity Disorder (ADHD): A psychiatric disorder classified in the DSM-IV that affects children, adolescents, and adults, characterized by distractibility, impulsivity, and hyperactivity. The symptoms are severe enough to interfere with the person's ability to function well in daily activities at school, work, or home. See also *DSM-IV.*

Behavioral Health: A term used to be inclusive of both mental health and substance use disorders, programs, and systems. This term is commonly used within the private sector to refer to both sets of services inclusively.

Beneficiary: A person covered by a particular health plan benefit.

Benefits: The collection of services provided to the enrolled members of a health plan.

Big Brothers Big Sisters of America: A well-established program that pairs youth (aged 6 to 18) from single parent homes with trained and supervised volunteers who interact regularly with them. Research has demonstrated that this paired mentoring is effective in preventing future mental health problems and related behaviors. See also *Well-Established Practices.*

Bipolar Mood Disorder: A psychiatric disorder classified in the DSM-IV, characterized by patterns of dramatic mood fluctuation for variable periods of time with brief periods of mood stability in between. A person's mood may be primarily depressed with more brief periods of feeling normal or manic, or they may be primarily manic with brief periods of depression, or a mix of both. See also *DSM-IV.*

Blended Funding: Also called "integrated funding." This is funding from various agencies and sources that have been pooled or consolidated in a way that allows more seamless service provision, typically across various agencies.

Blindness: Difficulty in or lack of visual functioning. Blindness has a variety of different causes, and can present at birth or develop throughout the lifespan, particularly later in life.

Board-and-Care Homes: Residential facilities that offer assisted living supports for people who need help preparing meals, taking their medications, and personal care. This residential setting is typically provided for people with mental illness or other disabilities, or older adults.

Capitation: A term used to refer to any type of at-risk contracting between a payer and provider that involves prospective and pre-set funding that is assigned on the basis of the number of people covered by the benefit plan (as opposed to the number and type of enrolled people who present for services). See also: *Payer, Provider.*

Carve-In Model: A mental health care delivery and financing arrangement in which the insurer managing the overall health benefit also manages the behavioral health benefit through a separate, specialized internal division.

Carve-Out Model: A mental health care delivery and financing arrangement in which a separate specialized managed behavioral health care organization manages the behavioral health benefit under subcontract to the overall insurer or employer. See also: *Managed Behavioral Health Care Organization (MBHO).*

Case Management: Case management is a community-based service that includes activities such as referring and linking consumers with other services, monitoring, follow-up, referral, advocacy, service planning, and crisis management. Typically a service provided in the public sector. The term is sometimes used in insurance settings to refer to the administrative tracking and management of high cost cases.

Categorical Eligibility: In reference to Medicaid, this refers to people who qualify for coverage due to their membership in a given class, as opposed to income.

Center for Substance Abuse Prevention (CSAP): One of three centers within the federal Substance Abuse and Mental Health Services Administration (SAMHSA). Its focus is on substance abuse prevention, research, and practice. See also *Substance Abuse and Mental Health Services Administration (SAMHSA).*

Center for Substance Abuse Treatment (CSAT): One of three centers within the federal Substance Abuse and Mental Health Services Administration (SAMHSA). Its focus is on substance abuse treatment, research, and practice. See also *Substance Abuse and Mental Health Services Administration (SAMHSA).*

Center for the Study and Prevention of Violence (CSPV): Based out of the University of Colorado at Boulder, CSPV provides technical assistance and research to groups regarding the understanding and prevention of violence in the community across all ages.

Certified Addictions Counselor (CAC): A counselor with the education and training to perform assessment and diagnosis of substance related disorders, clinical case management, therapeutic counseling, and monitoring of sobriety and vital signs in detoxification centers. In Colorado, Certified Addictions Counselors must hold at least a bachelors degree and have completed a minimum number of hours of supervised work in addictions settings. In Colorado, there are three levels of this certification, which are distinguished by their varying number of hours of supervised experience and training, and resulting commensurate responsibilities.

Child Care: Services provided within a home or facility to provide for the needs of young children. **Early child care** involves a specialized focus on children from birth to age five and their families. An increasing body of research supports the effectiveness of well-designed child care programs in preventing mental and behavioral health problems in children.

Child Health Plan Plus (CHP+): An insurance program for low-income families with children who do not qualify for Medicaid. Programs differ by state. Colorado's program requires a small monthly premium ranging from $9 to $30 a month, depending on family size and income. A mental health benefit is included.

Child Welfare System: The human service system charged with preserving, protecting, and promoting the well-being of children, youth, and families. The child welfare system protects abused and neglected children and supports vulnerable families to improve their functioning to provide adequate care for their children. In Colorado, child welfare is part of the Department of Human Services.

Cognitive-Behavior Therapy (CBT): A psychotherapy approach based on the theory that a person's thoughts (cognitions) influence how they feel (emotions) and act (behavior). CBT entails many cognitive and behavioral strategies that promote more active examination and adjustment of a person's thoughts and behaviors in order to treat mental health disorders. CBT is typically provided to individuals and couples in both inpatient and outpatient settings.

Colorado Behavioral Healthcare Council (CBHC): The CBHC is a nonprofit corporation that represents and includes membership from the 17 Colorado community mental health centers, eight MHASAs, two specialty clinics (Servicios de La Raza and Asian Pacific Development Center), and the two mental health institutes at Pueblo and Ft. Logan. CBHC services include coordination and collaboration among its members and other providers, advocacy at the state

policy level, marketing of provider services, education and evaluation, and sponsorship of an annual mental health conference. See also: *Community Mental Health Center, MHASA, Specialty Clinic.*

Colorado Department of Corrections (DOC): The Colorado state agency responsible for managing legal offenders in controlled environments (e.g., correctional facilities, prisons), while providing some mental health/drug and alcohol abuse treatment, work and educational opportunities, and other supports to assist with community reintegration.

Colorado Department of Human Services (CDHS): CDHS, the second largest agency in Colorado state government, provides oversight to the state's public mental health system (Colorado Mental Health Services), all of the county departments of social and human services (including child welfare), the developmental disabilities system, the juvenile corrections system (Colorado Division of Youth Corrections), and all state and veterans' nursing homes. See also: *Colorado Mental Health Services, Colorado Division of Youth Corrections.*

Colorado Developmental Disability Services (DDS): The state agency that administers, funds, and operates services for people with developmental disabilities within Colorado. See also *Developmental Disability.*

Colorado Division of Youth Corrections (DYC): Also commonly referred to as the "youth corrections" or the state "juvenile justice" system. The Division of Youth Corrections is the Colorado state agency responsible for management and oversight of state-operated and privately contracted residential facilities, as well as for community alternative programs (e.g., SB-94 programs) that serve and treat youth aged 10 to 21 who have demonstrated delinquent behavior. Oversight of DYC is provided by the Colorado Department of Human Services. See also: *Youth Corrections System, Colorado Department of Human Services, SB-94 Programs*.

Colorado Mental Health Institute (CMHI): Colorado's term for a "state hospital" or "state psychiatric hospital" that provides inpatient mental health services to people who need longer term or more intensive treatment of their mental illnesses. One CMHI is located in Pueblo (CMHI-Pueblo) and the other is located in Denver (CMHI-Ft. Logan). All CMHI services are directly managed and funded by Colorado Mental Health Services. See also: *State Psychiatric Hospital, Colorado Mental Health Services.*

Colorado Mental Health Services (MHS): The State Mental Health Authority (SMHA), or state government agency charged with administering, managing, and funding Colorado's public mental health system and services provided within that system.

Community Alternative: Commonly used to refer to intensive mental health services that may be used to provide community-based treatment for mental health consumers as an alternative to services provided in one of the Colorado Mental Health Institutes (state hospitals).

Community Health Center (CHC): A community-based center that provides comprehensive primary medical care services to anyone needing care regardless of ability to pay. These centers tailor their services to meet the specific needs of a community and its local populations that include the homeless, migrant and seasonal farm workers, people infected with HIV/AIDS, the elderly and people with mental health and substance use disorders (NCSL, 2003). They typically are designated as federally qualified health centers (FQHCs). See also: *Federally Qualified Health Center (FQHC).*

Community Mental Health Center (CMHC): CMHCs are the main provider of community-based mental health services in the public sector. They are nonprofit entities that provide a range of mental health services, primarily to impoverished people with severe needs and no insurance and to people with Medicaid coverage.

Community Mental Health Services Block Grant: Funding grants to state mental health agencies from the federal government for administering community mental health services.

Conduct Disorder: A psychiatric disorder classified in the DSM-IV, experienced by children and adolescents and characterized by difficulty behaving in a socially acceptable way. Behaviors may include harming people or animals; lying, cheating, or stealing; difficulty or lack of following established rules, or destruction of property. See also *DSM-IV.*

Consumer (also Mental Health Consumer): A term used in public mental health settings to refer to a person who receives mental health services.

Co-Occurring Disorders: This term refers to any disorder that is present at the same time, or co-occurs, with a mental disorder, including substance use disorders, developmental disabilities, and physical health conditions. In this report, it is typically used to refer to mental health and substance use disorders that occur at the same time for an individual.

Copayment: An arrangement by which costs are shared with the covered person through their payment of a specified charge for a specified service.

Cost-Effectiveness: The interaction between the degree to which a service accomplishes its intended goal and its cost.

Cost Offset: The degree to which a provided service leads to cost savings in other areas such as general medical costs, disability payments, or government financial assistance.

Counselor: A general term used for a mental health provider who delivers mental health counseling, advice, and other types of therapeutic approaches.

C.R.S. 27-10: The Colorado statute that allows people to receive inpatient and outpatient mental health treatment involuntarily if they pose a danger to themselves, others, or are determined to be unable to care for themselves (i.e., gravely disabled).

Cultural Competence: At the most basic level, cultural competence means to be respectful and not promote ethnocentric interpretation of others' histories, traditions, beliefs, values, and behaviors. On the most encompassing level, the overarching goal of cultural competence is to provide services that are equally effective for all sociocultural groups (U.S. Surgeon General, 1999).

Day Treatment: An older, dated term, to refer to partial hospital or partial care programs in a hospital or other facility that provide 4 to 12 hours of daily mental health care in a structured therapeutic environment, during daytime hours, several times a week.

Deafness: Total or near total hearing loss. Deafness has been technically defined as a degree of hearing loss severe enough that the perception of human speech is ineffective for communication (Pollard, Miner, & Cioffi, 2000).

Developmental Disability: This term generally refers to conditions that limit intellectual and overall functioning. In Colorado, it is defined as a "disability that is manifested before the person reaches twenty-two years of age, which constitutes a substantial disability to the affected individual, and is attributable to mental retardation or related conditions which include cerebral palsy, epilepsy, autism, or other neurological conditions when such conditions result in impairment of general intellectual functioning or adaptive behavior similar to that of a person with mental retardation" (Care and Treatment of the Developmentally Disabled, 2002).

Diagnosable Mental Health Condition: Refers to any mental illness or disorder that is listed in Axis I or Axis II of the DSM-IV, the classification manual for diagnosing specific mental disorders for children, adolescents, and adults in a standardized way. See also *DSM-IV.*

Diagnosis: See Diagnosable Mental Health Condition.

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV): The primary source used in the United States to define and provide criteria for diagnosing categories of mental disorders. Criteria typically include specific symptoms, behaviors, and demonstrated functional impairments, as they relate to severity and duration.

Dialectical Behavior Therapy (DBT): A psychotherapy approach for treating people with Borderline Personality Disorder that uses a combination of skills training approaches that target problem behaviors, particularly suicidal behaviors. DBT uses combined therapy modalities of individual and group therapy. See also *Individual Therapy, Group Therapy.*

Dual Disorders (or Dual Diagnosis): See Co-*Occurring Disorders*.

Emergency Room Care: Services provided within a hospital emergency room, some of which may or may not be mental health services. Some emergency rooms, such as Denver Health Medical Center's, have a separate Psychiatric Emergency Room, which specifically provides emergency mental health care.

Empirically-Based Practice: This term was used in this report to refer to a range of programs and interventions determined to be effective based on results from outcome evaluations or research studies. Some of these services may have a strong empirical basis (Evidence-Based Practices), while others may have a more limited empirical basis (Innovative Programs). See also: *Evidence-Based Practices (EBP), Innovative Practices.*

Enrollee: A person covered by or enrolled in a particular health plan.

Established Practices: In this report, a term for to those service approaches designated with the highest level of proven effectiveness by some sources, but the majority of which designated it at a lower level. For example, the federal Center for Substance Abuse Prevention (CSAP) may have designated a program at the highest level, but three other sources designated it at a lower level, resulting in our categorization of the approach as "established."

Evidence-Based Practice (EBP): This term is used more generally within medicine and has more recently been a term used within mental health, particularly as it applies to services for adults with serious mental illness. An EBP is a mental health service or program that has been proven through rigorous research replications to be consistently effective in improving mental health conditions.

Family Therapy: Psychotherapy with two or more family members, using a range of psychotherapy approaches. Family therapy may be provided both in inpatient and outpatient settings.

Federal Poverty Level (FPL): This federal term that indicates the maximum income an individual or family may earn in order to be considered to live in poverty. Various levels are determined based on size of the family unit and number of children under 18. The FPL is used mainly for statistical purposes such as preparing estimates of the number of Americans in poverty each year. All official poverty population figures are calculated using these numbers and are updated each year by the U.S. Census Bureau (U.S. DHHS, 2003).

Federally Qualified Health Center (FQHC): Public or not for profit, consumer-directed health care corporations which provide primary and preventive care to medically underserved and uninsured people. This nationwide network of safety-net providers is primarily made up of health centers which are supported by federal grants under the U.S. Public Health Service Act (PHSA): Community Health Centers, Migrant Health Centers, Health Care for the Homeless Programs, Public Housing Primary Care Programs and Urban Indian and Tribal Health Centers. These providers must meet rigorous federal standards related to quality of care and services as well as cost, and they are qualified to receive cost-based reimbursement under Medicaid and Medicare (National Association of Community Health Centers, 2003). See also: *Community Health Center.*

Federation of Families for Children's Mental Health (FFCMH): A national parent-run nonprofit organization, focused on advocacy and supports for families, children, and adolescents

affected by mental health and other emotional problems. In addition to advocacy, FFCMH develops partnerships with child- and family-serving organizations at the local, state, and national level to that promote family involvement. Each state, including Colorado, has its own FFCMH chapter, as well as local affiliates.

Fee-for-Service: A payment approach that pays providers for each unit of service delivered.

Fidelity (or Program Fidelity): The degree to which the implementation of a particular practice adheres to the principles and processes of that practice that have been empirically shown to result in good outcomes.

Frontier: A term frequently used to refer to geographic areas with very few people living in them, typically less than six people per square mile (Popper, 1986).

Funding Method: The mechanism through which a payer (e.g., Medicaid, an employer, the state) pays for the health care of a particular group of people. See also *Payer.*

Group Home: A supportive residence for people with disabilities that varies widely in level of support. Some group homes provide 24-hour supervision, medication monitoring, and assistance with daily living skills, while others may only provide day time staff who provide minimal supervision or support.

Group Therapy: Therapy provided to three or more unrelated people using a range of psychotherapy approaches. Group therapy may be provided both in inpatient and outpatient settings.

Hard of Hearing: This term refers to hearing loss less severe than deafness that may be improved through the use of assistive mechanisms such as hearing aids.

Health Maintenance Organization (HMO): A health care organization that meets the following characteristics: (1) it offers an organized system for providing health care within a specific geographic area; (2) it provides a set of basic and supplemental health maintenance and treatment services; and (3) it provides care to an enrolled group of people. There are four basic models of HMO's: group model, individual practice association model, network model, and staff model. See also: *Network Model HMO* and *Staff Model HMO*.

Health Plan: Insurance coverage that provides individuals and groups with a defined array of health services in return for a monthly payment or premium.

Health Professional Shortage Area (HPSA): An area with too few health professionals of some type as designated by the federal Health Resources and Services Administration's (HRSA) Bureau of Health Professions. The specific criteria for mental health focus on psychiatrists, psychologists, and social workers. They are very complex and can apply to distinct regional areas, subpopulations, and even facilities (e.g., prisons or CMHCs). HPSA Mental Health

Designation Criteria can be found at http:/bhpr.hrsa.gov/shortage/hpsacritmental.htm. See also: *Health Resources and Services Administration (HRSA).*

Health Resources and Services Administration (HRSA): A federal agency within the Department of Health and Human Services (DHHS) devoted to improving and expanding access to quality health care for everyone, regardless of who they are, where they live, or how much money or insurance they have. Key HRSA programs are in the areas of HIV/AIDS services, primary health care, maternal and child health, health professions, rural health policy, and other special programs.

High Intensity Community Treatment: A community-based, team approach to care for adults with high levels of service need, typically provided within the public sector. Services are provided by a multi-disciplinary team and the staff-to-client ratio is typically low (e.g., 1 staff member for every 10 clients). The majority of services are often provided outside of a mental health office, and the team includes some capacity for 24-hour coverage. Some of these programs employ a version of Assertive Community Treatment (ACT), which is an empirically-based model of care for adults with serious mental illness. See also: *Assertive Community Treatment.*

Home and Community-Based Services for the Mentally Ill (HCBS-MI): The HCBS-MI Waiver program is a nursing home diversion program for adults with mental illness that provides case management and home health care services. To qualify, individuals must be eligible for Medicaid and meet nursing home level of care requirements. Individuals may qualify if their income is within a designated range above Medicaid eligibility requirements, as long as they are assessed as in need.

Homeless Shelter: Temporary shelter serving people who are homeless. At least one meal is typically included. Primary care and mental health services are provided in some shelters.

Hospital Diversion Services: Services for people needing services more intensive that traditional outpatient therapy (e.g., Acute Treatment Unit, High Intensity Community Treatment) that may function as an alternative setting that avoids the need for a hospital stay. See also: *Acute Treatment Unit, High Intensity Community Treatment.*

Human Services Systems: These include service systems that may intersect with mental health services systems or provide some degree of mental health services, such as the child welfare system, schools, and the corrections system.

Individuals with Disabilities Education Act of 1997 (IDEA): The Act strengthens academic expectations and accountability for children with disabilities, and ensures that, to the extent possible, those children learn the regular school curriculum. The Act mandates that school systems provide “functional behavioral assessments” (FBA) to determine the causes of behavioral problems interfering with school functioning. Each youth with a disability must have an Individualized Education Program (IEP), the plan that spells out the educational goals for

each child and the services to be received. This plan must relate clearly to the general curriculum that children in regular classrooms receive. The law also requires regular progress reports to parents and that children with disabilities be included in state and district assessments and performance goals alongside non-disabled children. Finally, the Act supports teachers through professional development initiatives.

Illness Management and Recovery: An Evidence-Based Practice (EBP) that helps people learn more about managing their severe mental illnesses and to move toward recovery. Sessions typically focus on the following nine topic areas: (1) recovery strategies; (2) practical facts about schizophrenia, bipolar disorder, and major depression; (3) the stress-vulnerability model and treatment strategies; (4) building social support; (5) using medication effectively; (6) reducing relapses; (7) coping with stress; (8) coping with problems and symptoms; and (9) getting needs met in the mental health system. Sessions generally last from three to six months. See also: *Evidence-Based Practice (EBP).*

Indian Health Service (IHS): An agency within the U.S. Department of Health and Human Services that operates and provides comprehensive health care services specifically for American Indians and Alaska Natives, typically on or near reservations, or with some contracted providers in urban areas. See also: *American Indian/Alaska Native, U.S. Department of Health and Human Services (DHHS).*

Indigent: A term used to refer to a person who lacks insurance or other resources to pay for services.

Individual Therapy: Therapy provided to an individual person using a range of psychotherapy approaches. Individual therapy may be provided both in inpatient and outpatient settings.

Innovative Practices: In this report, this term is used to refer to mental health service approaches or programs that have either some program evaluation results indicating positive results or anecdotal evidence pointing to their positive impact.

Inpatient Care: 24-hour care provided to people with a mental illness in a public or private licensed hospital setting. The unit may be locked or unlocked. The hospital may provide care to people who are both voluntarily seeking it or involuntarily receiving it.

Institute of Mental Disease (IMD) Exclusion: A distinction specified by federal regulations that mandates that Medicaid funding cannot pay for long-term inpatient care for adults in state psychiatric hospitals (e.g., Colorado Mental Health Institutes). See also: *Medicaid, Colorado Mental Health Institutes.*

Integrated Care: This refers to the delivery of both physical and mental health care in a way that meets the comprehensive mental health needs of an individual or family. From the perspective of the person receiving care, this care is delivered seamlessly, without regard to funding sources, organizational structures, policy and practice differences, and other barriers

(Thomas, 2001). Many integrated care approaches tend to focus on assessment and treatment of depression in primary care settings.

Integrated Dual Disorders Treatment (IDDT): An evidence-based practice for people with serious mental illness. One clinician or one team in a single agency provides both mental health and alcohol/drug abuse treatments in an integrated fashion. They typically include: (1) stage-wise treatment over time, (2) consumer collaboration with clinicians to develop an individualized treatment plan, (3) motivational interviewing and treatment skills, and (4) alcohol and drug abuse counseling. See also: *Evidence-Based Practice (EBP), Well-Established Practice, Serious Mental Illness (SMI).*

Integrated Funding: Also called "blended funding." This is funding from various agencies and sources that has been pooled or consolidated in a way that allows more seamless service provision, typically across various agencies.

Integrated Model: A mental health care delivery and financing arrangement in which a single organization manages both the overall and behavioral health benefits. Care is closely coordinated between the two benefits, resulting in improved clinical outcomes and cost-savings.

Intensive Adult Residential Care: Residential facilities with 24-hour staffing that provide a minimum of 10 hours a week of in-house mental health services. Nursing care is available. Group homes, alternative care facilities, and board-and care homes may fall under this category if adequately staffed. Other residential facilities with less staffing are categorized in this report as "housing." Intensive residential care is sometimes paid for by private insurance for adults with diagnoses falling under Colorado's parity law. See also: *Group Home, Alternative Care Facility, Board-and-Care Home.*

Intensive Case Management: Case management services (e.g., linkages to needed resources and supports such as housing, supportive services, educational interventions, crisis response) for children or adults where case managers have a limited number of cases. Caseloads are typically between 15 and 25 people per case manager. This is typically a service provided in the public sector.

Intensive Family Preservation: These services are short-term, in-home, intensive crisis intervention services with an ecological perspective and a family-based focus. Family preservation programs are typically offered within the child welfare, public mental health, or juvenile justice systems. These services have three primary goals: (1) to preserve the integrity of the family and prevent unnecessary placement of children in substitute care, while ensuring the safety of the child; (2) develop an ongoing community support system by linking the family with appropriate community agencies and individuals; and (3) to increase the coping skills of the family and its capacity to effectively support the child or youth in the community.

Intensive Family Treatment: This refers to a range of intensive, home-based approaches to working with families in which a child has high needs, and is usually at risk for being placed

outside of the home (e.g., child welfare placement, residential treatment). The approach may involve the family's community network, including schools, clergy, and social service agencies. See also: *Intensive Family Preservation Services*, *Wraparound Planning*, and *Multisystemic Therapy (MST)*.

Joint Budget Committee (JBC): The permanent fiscal and budget review agency of the Colorado General Assembly (i.e., Legislature) that is responsible for initiating the budget for all state agency operations. Specific activities of the JBC legislators and staff include analysis of the management, operations, programs, and fiscal needs of all of the departments of Colorado state government, which are primarily done through hearings and reviews of the executive budget requests for each state agency and institution. The JBC's role is different from what is found in many other states in which budgets are initiated by the executive branch of state government (Colorado General Assembly, 2001).

Juvenile Justice System: Also commonly referred to as the "youth corrections system," the juvenile justice system is the system of law enforcement officers, juvenile courts, detention centers, private residential facilities, and juvenile correctional and community-based services to youth offenders.

Latino/Hispanic American: This term is inclusive of people with European (Spanish) ancestry and the four main Latino groups (Mexican, Puerto Rican, Cuban, Central American). This group may also have ancestral ties to Asia or Africa.

Licensed Addiction Counselor (LAC): A license available only to Certified Addictions Counselors (CAC) at the highest level of training and certification (CAC-III). This distinction requires a master's degree in the social sciences or an equivalent program and passage of a national examination. See also: *Certified Addictions Counselors (CAC).*

Licensed Professional Counselor (LPC): Mental health professionals with generalized training in the area of psychology and counseling, as well as testing and other methods of assessment. In Colorado, they must have a master's or doctoral degree in professional counseling (or its equivalent) in a program that includes a practicum or internship in the principles and the practice of professional counseling. They must have at least one year of supervised post-degree experience (two years with a masters degree), pass an examination in professional counseling, and complete an approved jurisprudence workshop.

Major Depressive Disorder (also Major Depression): A psychiatric disorder classified in the DSM-IV and characterized by profound sadness, depressed mood, and typically loss of interest or pleasure in activities previously found to be of interest. Other symptoms may include a significant change (either increase or decrease) in weight, appetite, sleep, or movement/motor activity, in addition to fatigue, feelings of worthlessness, excessive guilt, difficulty with concentration, recurrent thoughts of death, and suicidal ideas or actions. See also: *DSM-IV.*

Managed Behavioral Health Care Organization (MBHO): Independent organizations focused on managing behavioral health benefits and reducing behavioral health care costs, usually under contract to private insurers, employers, or government payers.

Managed Care: Various strategies that seek to optimize the value of provided services by controlling their cost and utilization, promoting their quality, and measuring performance to ensure cost-effective outcomes.

Marriage and Family Therapist (MFT): Mental health professionals with specialized training in the area of family systems, as applied to assessment of and psychotherapy with couples and families. In Colorado, they must hold a masters or doctoral degree that included a practicum or internship in the principles and practice of marriage and family therapy. They must have at least one year of supervised post-degree experience (two years with a masters degree), pass an examination in marriage and family therapy, and complete a jurisprudence examination.

Medicaid: A federal program administered individually by participating state and territorial governments that share in the program's costs to provide medical benefits to specific groups of low income and categorically eligible people.

Medically Underserved Area (MUA): Designation by the federal Health Resources and Services Administration's (HRSA) Bureau of Health Professions of a geographic region in which there is a shortage of personal health services based on four factors: (1) the ratio of primary medical care physicians per 1,000 population, (2) infant mortality rate, (3) percentage of the population with incomes below the poverty level, and (4) percentage of the population age 65 or over. Health Professional Shortage Areas (HPSAs) for specific health care providers (primary care, mental health, dental) are within Medically Underserved Areas. See also: *Health Professional Shortage Area (HPSA), Health Resources and Services Administration (HRSA).*

Medicare: A health insurance program for: (1) people 65 years of age and older; (2) some people with disabilities under age 65; and (3) people with permanent kidney failure requiring dialysis or a transplant. Medicare has two parts: Part A and Part B. Part A (Hospital Insurance) helps pay for care in hospitals, critical access hospitals (small facilities that give limited outpatient and inpatient services to people in rural areas), skilled nursing facilities, hospice care, and some home health care. Part B (Medical Insurance) typically requires a monthly premium payment and helps pay for doctors' services, outpatient hospital care, and some other medical services that Part A does not cover, such as the services of physical and occupational therapists, and some home health care. Part B can offer varying levels of prescription medications, including no coverage (CMS, 2003).

Member Month: A way of conceptualizing health plan enrollees over time. One unit is counted for each month a person is enrolled.

Member: A person covered by or enrolled in a particular health plan.

Mental Health Assessment and Services Agencies (MHASA): MHASAs administer all mental health services for the Colorado Medicaid program in eight geographic regions under capitated payment arrangements. MHASAs do not provide care directly. MHASAs may include CMHCs, or partnerships between CMHCs and various health care management organizations (managed behavioral health care organizations and health maintenance organizations). See also: *Capitation, Managed Behavioral Health Care Organization (MBHO), Health Maintenance Organization (HMO).*

Mental Health Diagnosis: Refers to any mental illness or disorder that is listed in Axis I or Axis II of the DSM-IV, the classification manual for diagnosing specific mental disorders for children, adolescents, and adults in a standardized manner. See also: *DSM-IV*.

Mobility Impairment: An impairment that results in difficulty or inability to physically ambulate through the use of feet and legs.

Mood Disorder: A group of psychiatric disorders classified in the DSM-IV in which a person experiences extreme patterns of symptoms and behaviors related to his or her mood, without a sense of control over them, resulting in feelings of distress. Examples of mood disorders are *Bipolar Mood Disorder* and *Major Depressive Disorder*. (See definitions for each). See also: *DSM-IV.*

Multidimensional Treatment Foster Care (MTFC): MTFC is a well-established, cost-effective alternative to group or residential treatment, incarceration, and hospitalization for adolescents who have problems with chronic antisocial behavior, emotional disturbance, and delinquency. Community families are recruited, trained, and closely supervised to provide MTFC-placed adolescents with treatment and intensive supervision at home, in school, and in the community; clear and consistent limits with follow-through on consequences; positive reinforcement for appropriate behavior; a relationship with a mentoring adult; and separation from delinquent peers. See also: *Well-Established Practices.*

Multisystemic Therapy (MST): MST is a well-established practice. It is an intensive family- and community-based treatment that addresses the multiple determinants of serious antisocial behavior in juvenile offenders. The multisystemic approach views individuals as being nested within a complex network of interconnected systems that encompass individual, family, and extrafamilial (peer, school, neighborhood) factors. Intervention may be necessary in any one or a combination of these systems. Services typically target youth with serious emotional disorders (SED) in the juvenile justice system or at risk for placement in this system. Services are intensive, time-limited, and home- and family-focused, with the goal of helping families and communities develop skills to work more effectively with youth, targeting factors that contribute to youth problem behaviors. See also: *Serious Emotional Disorders (SED), Well-Established Practices.*

National Alliance for the Mentally Ill (NAMI): National association of advocacy and mutual aid groups for family members of people with a serious mental illness. State chapters and local affiliates of NAMI are available in Colorado.

National Association of State Mental Health Program Directors (NASMHPD): An organization which provides technical assistance, advocacy, and other support for state mental health agencies and authorities.

National Institutes of Health (NIH): An agency of the U.S. Department of Health and Human Services, NIH conducts and supports innovative medical and behavioral research across the U.S. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability (NIH, 2002).

National Institute of Mental Health (NIMH): A division of the National Institutes of Health (NIH), NIMH works to accomplish a better understanding of treatment and prevention of mental illness through research. See also: *National Institutes of Health (NIH).*

National Mental Health Association (NMHA): The oldest and largest nonprofit organization that addresses all aspects of mental health and mental illness. NMHA works to improve the mental health of all Americans through advocacy, education, research, and service. Colorado's state chapter is the Mental Health Association of Colorado (MHAC).

Negative Symptoms: Symptoms of schizophrenia or other psychotic disorders that are typically not as easily visible to others (e.g., social withdrawal, apathy), but are also very debilitating to the person experiencing them. These symptoms are distinguished from the typically more visible or "positive" symptoms of schizophrenia (e.g., hallucinations, delusions). See also: *Positive Symptoms, Antipsychotic Medication.*

Network Model HMO: A type of HMO that contracts with multiple groups of physicians and clinicians who may bear financial risk, but do not necessarily practice exclusively with the HMO. See also: *Health Maintenance Organization (HMO).*

Nurse Family Partnership: A well-established approach targeting high-risk pregnant first time mothers and infants. The approach includes home visits by trained nurses in the homes of high-risk women during their first pregnancies through the first year of their children's lives. Visits focus on learning how to be a parent and avoiding risky behavior. While the primary mode of service delivery is home visitation, the program depends upon a variety of other health and human services in order to achieve its positive effects. See also: *Well-Established Practices.*

Nursing Home with Specialized Mental Health Services: Licensed nursing home facilities that are able to accommodate mental health consumers with specialized needs. On-site mental health services are typically provided by community mental health center (CMHC) staff or other providers who travel to the nursing home. Private behavioral health insurance does not pay for

this, although some people may receive services through their nursing home care insurer. See also: *Community Mental Health Center (CMHC).*

Obsessive Compulsive Disorder: A psychiatric disorder, classified in the DSM-IV, characterized by a pattern of repetitive thoughts (e.g., thoughts of being contaminated) or behaviors (e.g., repeatedly washing hands multiple times a day) that are distressing and may not have a practical purpose, but are extremely difficult for a person to overcome. See also: *DSM-IV.*

Olmstead: Refers to a 1999 Supreme Court decision that holds states accountable in certain circumstances for individuals treated in institutions when these individuals could be more appropriately served in less restrictive community-based settings. This decision also directs states to move individuals with disabilities in institutions to more integrated settings when (1) the individuals desire such transitions, (2) professional staff decide the transitions are clinically appropriate, and (3) there are available community resources. In response, many states are implementing "Olmstead Plans," which address these needs.

Outpatient Services: These include the traditional office-based modalities of individual, group, and family therapy typically available in both the private and public sector. See also: *Individual Therapy, Group Therapy, and Family Therapy.*

Panic Disorder: A psychiatric disorder, classified in the DSM-IV, characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms that may include chest pain, heart palpitations, shortness of breath, dizziness, or abdominal distress (i.e., "panic attacks"), which mimic symptoms of a heart attack or other life-threatening medical conditions (NIMH, 2003). In between panic attacks, the person experiences pervasive fears that another attack will be experienced, which can result in avoidance of situations or settings in which it may be difficult for the person to leave (e.g., large crowds, closed spaces), and may develop into a phobia. See also: *DSM-IV.*

Parity (Also Mental Health Parity): Refers to comparable insurance coverage between mental health services and primary physical health (or primary care) services. See also: *Parity Diagnoses, Primary Care.*

Parity Diagnoses: Parity diagnoses are those psychiatric disorders classified in the DSM-IV for which insurance coverage and related mental health services are comparable to those for physical health problems and primary care services. Colorado's parity diagnoses include: *Schizophrenia, Schizoaffective Disorder, Bipolar Mood Disorder, Major Depressive Disorder, specific Obsessive-Compulsive Disorder, and Panic Disorder* (See definitions for all).

Partial Care: Contemporary term for programs in a hospital or other facility that provide 4 to 12 hours of daily mental health care in a structured therapeutic environment, during daytime hours, several times a week.

Payer/Payor: The public or private organization that is responsible for payment for health care expenses.

Per Member Per Month: A means of describing health care benefit costs by dividing the overall costs by the total number of member months. See also: *Member Month.*

Positive Symptoms: Symptoms of schizophrenia or other psychotic disorders more visible to others (e.g., hallucinations, delusions). These symptoms are distinguished from “negative” symptoms that may not be as visible to others (e.g., social withdrawal, apathy). See also: *Negative Symptoms, Antipsychotic Medication.*

Post Traumatic Stress Disorder (PTSD): A psychiatric disorder, classified by the DSM-IV, that may occur following the experience or witnessing of life-threatening events such as military combat, natural disasters, terrorist incidents, serious accidents, or violent personal assaults like rape. People who suffer from PTSD often relive the experience through nightmares and flashbacks, have difficulty sleeping, and feel detached or estranged, and these symptoms can be severe enough and last long enough to significantly impair life functioning (National Center for Post-Traumatic Stress Disorder, 2003).

Practice Guidelines: Systematically developed descriptions of sound clinical practice that assist providers in making appropriate decisions regarding health care provided for specific psychiatric conditions.

Premium: The amount of money paid to a health plan to provide coverage over a specified time period, generally a month or year.

Prevalence: The number of people in a given period of time who meet criteria for a health condition of epidemiological interest. In this report, prevalence data focus on annual prevalence figures – the number of people suffering from a mental health condition over a year’s time. Other prevalence approaches can look at a single point in time (e.g., point prevalence) or over a person’s lifetime (i.e., lifetime prevalence).

Primary Care (also Primary Health Care): Health care services for physical health needs provided by a physician or other general health care provider (e.g., nurse, nurse practitioner), in public, private, office-based, or clinic-based settings.

Primary Care Physician: A physician whose practice primarily focuses upon internal medicine, family practice, pediatrics, or obstetrics/gynecology.

Private Practice: A setting in which primary care or mental health services are provided in a private office instead of a clinic or hospital. An individual or group of providers may be involved in the practice.

Private Sector: In this report, this refers to mental health services that are privately funded by health insurers or people paying for their own care.

Promising Practices: In this report, this refers to service approaches typically designated as "promising" approaches or otherwise in the second highest tier of proven effectiveness by most researchers or agencies. These programs have been shown to be effective to some extent, but (1) with only a single trial of effectiveness, (2) through studies with weaker research designs (e.g., no random assignment or control groups), or (3) through only meta-analytic review of archival sources.

Provider (also Mental Health Provider): In this report, an organization or individual that provides and is reimbursed for providing health care services.

Psychiatric Medication: Also commonly referred to as "psychotropic medication," these include all medications that are used to treat psychiatric and mental disorders. Examples include antipsychotic medications to treat psychotic disorders and antidepressant medications to treat depressive disorders. See also: *Antipsychotic Medication, Antidepressant Medication.*

Psychiatrist: Physicians with the education and training to diagnose mental health disorders, prescribe psychiatric medications, and provide psychotherapy. All psychiatrists have a medical degree (MD or DO) and have completed at least four years of residency in general psychiatry.

Psychologist: Mental health professionals with education and training in diagnostic assessment and psychological testing, psychotherapy, and in many cases, research design and statistics. In Colorado, licensed psychologists must hold a doctorate in psychology (PhD, EdD, or PsyD), have completed one year post degree experience under supervision, and passed the national written, state oral and state jurisprudence examinations.

Public Sector: In this report, refers to the mental health services that are publicly funded by local, state, tribal, and federal governments.

Recovery/Recovery Model: Refers to the notion that "a person with mental illness can recover even though the illness is not 'cured'…(Recovery) is a way of living a satisfying, hopeful, and contributing life even with the limitations caused by illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness" (Anthony, 1993).

Registered Unlicensed Therapist: Therapists who are not licensed to practice psychotherapy, but who have completed a required course in jurisprudence and registered with the State of Colorado. They sometimes provide services to people with mental health needs.

Residential Treatment Center (RTC): This is an overnight, residential service for children and youth. There are various RTCs that serve youth in the mental health, child welfare, and youth

corrections systems, but most serve youth in the child welfare and youth corrections systems. Private insurance rarely covers this.

Resilience: This refers to an individual's capacity for adapting to change and stressful events in healthy and flexible ways. Resilience has been identified in research studies as a characteristic of youth who, when exposed to multiple risk factors, show successful responses to challenge, and use this learning to achieve successful outcomes.

Rural: Any geographic area not considered urban or metropolitan, characterized by smaller populations and often limited resources.

SB-94 Program: Named after the bill passed by the Colorado legislature in 1991 authorizing these programs, SB-94 programs in each of the 22 judicial districts in Colorado fund and coordinate community-based alternatives to incarceration for youth offenders. The program is overseen by the *Colorado Division of Youth Corrections (DYC)* (See definition).

Schizoaffective Disorder: A psychiatric disorder, classified in the DSM-IV, characterized by a combination of extreme mood swings typical of bipolar mood disorder and psychotic symptoms typical of schizophrenia. See also: *DSM-IV, Bipolar Mood Disorder, Schizophrenia.*

Schizophrenia: A psychiatric disorder, classified in the DSM-IV, characterized by symptoms such as hearing internal voices not heard by others, or believing that other people are reading one's mind, controlling one's thoughts, or plotting to harm oneself (these beliefs are called delusions). People with schizophrenia may experience disorganized thinking and related functional deficits in a variety of areas such as vocational, interpersonal, or personal care skills. See also: *DSM-IV.*

School-Based Health Centers: Programs that provide a range of services including medical care (e.g., immunizations, health education, management of chronic conditions), mental health services (e.g., assessment, consultation with staff and families, counseling), and other services such as assessment and counseling for substance abuse, smoking cessation and prevention, reproductive health, and violence prevention within schools.

School-Linked Services: Includes those mental health services that may not necessarily be based within schools, but that are provided in close collaboration with schools and school officials, often within school settings. An example includes *Wraparound Planning* (See definition).

School-Based Services: Mental health services provided within or in conjunction with the school system to children from preschool age to age 18. Services include individual, classroom, systemic, and targeted interventions. These interventions may include empirically-supported treatment such as targeted classroom-based contingency management for children with ADHD and other conduct problems.

Selective Serotonin Reuptake Inhibitor (SSRI): A more recent and popular class of antidepressant medications typically used to treat depression with fewer negative side effects than older classes of antidepressants. Examples of SSRIs include Paxil (paroxetine), Prozac (fluoxetine), and Zoloft (sertraline). See also: *Antidepressant Medication*.

Self-Pay: A term to distinguish when a person directly pays for mental health services, rather than using insurance. This designation may include people who are *Uninsured*, *Indigent,* or *Underinsured* (See definitions).

Serious Emotional Disturbance (SED): Refers to children and youth ages 0-17 who have emotional or mental health problems so serious that their ability to function is significantly impaired or their ability to stay in their natural homes may be in jeopardy.

Service Delivery System (or Service System): An organized array of service providers coordinated to deliver a range of services.

Severe Mental Disorder: In this report, this term is used to refer to two constructs (Serious Mental Illness for adults and Serious Emotional Disturbance for children) that define a more severely impacted subset of people with diagnosable mental health needs who are defined in Colorado and most states as "most in need" of services. Also see: *Serious Mental Illness (SMI)* and *Serious Emotional Disturbance (SED).*

Serious Mental Illness (SMI): Refers to adults and older adults with diagnoses seen as more severe, such as schizophrenia or severe bipolar disorder or depression.

Severe and Persistent Mental Illness (SPMI): A subgroup of adults and older adults who meet the criteria for serious mental illness (SMI), but whose illness also more seriously impairs their ability to be self-sufficient and has either persisted for over a year or resulted in psychiatric hospitalization. See also: *Serious Mental Illness (SMI).*

Social Worker: Mental health professionals with training and education in assessment, psychotherapy, case management, mediation, advocacy, discharge planning, consultation, and research. There are several types of licensure for social workers in Colorado, including licensed social worker (LSW), licensed independent social worker (LISW) and licensed clinical social worker (LCSW). Each of these types of licensure require at least a masters degree in social work (MSW), supervised social work experience for at least two years, and passage of required examinations.

Specialty Clinic: One of six clinics in Colorado that receive public funding from state Mental Health Services to provide mental health services to a defined population. Examples include the Asian Pacific Development Center in Denver, which provides services to Asian Americans and Pacific Islanders, and Servicios de La Raza in Denver, which provides services primarily to Latino/Hispanic Americans. See also: *Primary Care*.

Specialty Mental Health System (also Mental Health System): A public or private service system that provides mental health services delivered by specialized mental health providers.

Staff Model HMO: A type of HMO that employs clinicians to provide health care directly to its members, reimbursing them through salaries and other incentives.

Stakeholders: Groups of people with a vested interest in the design and functioning of a service or product. In the private and public mental health systems, stakeholders include consumers of service, family members of consumers, parents of children receiving services, service providers, employers, legislators, state and local administrators, and researchers.

State General Fund: Funding provided from the Colorado state operating budget.

State Mental Health Authority or Agency (SMHA): State government agencies charged with administering and funding their state's public mental health services.

State Psychiatric Hospital (also State Hospital): A publicly-funded hospital that provides inpatient mental health services to people who need longer term and more intensive treatment of their mental illnesses. See also: *Colorado Mental Health Institute.*

Stepdown: Intensive mental health services that allow a person to leave inpatient care sooner than they otherwise would without the provision of such intensive services. An example includes an *Acute Treatment Unit* (see definition).

Substance Abuse and Mental Health Services Administration (SAMHSA): An agency of the U.S. Department of Health & Human Services that provides resources, publications, links, and funding information related to substance abuse and mental illness prevention, treatment, and rehabilitative services. It includes three centers: (1) Center for Mental Health Services, (2) Center for Substance Abuse Prevention, and (3) Center for Substance Abuse Treatment (see definitions of these).

Substance Use Disorder (also Substance-Related Disorder): A psychiatric disorder classified by the DSM-IV characterized by extreme use, abuse, or dependence on alcohol or other mind and mood altering substances (e.g., marijuana, cocaine, heroin). See also: *DSM-IV.*

Sub-Threshold Mental Health Condition: A term used in this report to refer to less intensive mental health problems that do not rise to a level of severity to meet criteria for formal diagnoses defined within the *DSM-IV* (See definition).

Underinsured: A term to refer to people or families who have insurance but either do not have a mental health benefit or have a mental health benefit that does not adequately cover their needed care.

Uninsured: A term to refer to people or families who do not have public or private insurance coverage of any type.

U.S. Department of Health and Human Services (DHHS): The federal government's principal agency for protecting the health of U.S. residents and providing essential human services (especially for vulnerable populations) through its more than 300 programs. The largest DHHS operating divisions and agencies include the Administration for Children and Families (ACF), Administration on Aging (AoA), Centers for Disease Control (CDC) and Prevention, Centers for Medicare & Medicaid (CMS), Food and Drug Administration (FDA), *Health Resources and Services Administration (HRSA)*, *Indian Health Service (IHS)*, *National Institutes of Health (NIH)*, *Substance Abuse and Mental Health Services Administration (SAMHSA)* (See definitions for italicized agencies).

Utilization: The level of use of a particular service over time.

Vocational Services: Services for adults that promote and enhance skills needed to be employed.

Well-Established Practices: In this report, this refers to service approaches that have been designated with the highest level of proven effectiveness by more than one source that reviewed their research base. These approaches have been evaluated with rigorous research methods, typically employing randomized samples or quasi-experimental design with control groups, in addition to multisite replication, and, in some cases, demonstrated sustained positive outcomes at extended program follow-up.

Wraparound Planning: A promising practice, Wraparound Planning is a philosophy of care to guide the planning process for child and family services. This approach involves the child and family in setting goals and developing a plan of care that coordinates both community services (e.g., mental health, primary care, education) and natural supports (e.g., family friends, neighbors, clergy) in an individually-tailored manner in order to achieve a targeted set of outcomes (Burns & Goldman, 1999). See also: *Promising Practices.*

Youth Corrections System: Also commonly referred to as the “juvenile justice system,” the youth corrections system is a system of law enforcement officers, juvenile courts, detention centers, private residential facilities, and juvenile correctional and community-based services to youth offenders.

Appendix F: SAMHSA Program Priorities and Cross-Cutting Principles

"Built on the principle that people of all ages, with or at risk for mental or substance use disorders, should have the opportunity for a fulfilling life that includes a job, a home, and meaningful relationships with family and friends."

Charles G. Curie, M.A., A.C.S.W.
Administrator, SAMHSA

Accountability
Capacity
Effectiveness

SAMHSA Priorities: Programs & Principles

Cross-Cutting Principles

- Data & Evidence-based Outcomes
- Collaboration with Public & Private Partners
- Recovery: Reducing Stigma, Barriers to Srvcs
- Cultural Competency / Eliminating Disparities
- Community and Faith-Based Approaches
- Trauma & Violence (e.g., Physical & Sexual Abuse)
- Financing Strategies & Cost-effectiveness
- Rural & Other Specific Settings
- Workforce Development

Programs/Issues

- Co-Occurring Disorders
- Substance Abuse Treatment Capacity
- Seclusion & Restraint
- Prevention & Early Intervention
- Children & Families
- New Freedom Initiative (Including President's Mental Health Commission)
- Disaster Response
- Homelessness
- Aging
- HIV/AIDS and Hepatitis
- Criminal Justice

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