

The Minnesota Mental Health System

Demand, Capacity and Cost



February 2004



Dear Reader,

Over the last six months, stakeholders in our state's mental health system met and shared information for this publication. Convened by the Minnesota Psychiatric Society, this group of informed professionals, providers, advocates and others collaborated to produce this unique resource. Our goal was to provide readers with credible information and to produce a data-driven reference. We set out to answer these questions:

1. Who needs mental health services?
2. What is the system's current capacity?
3. What does the current system cost and what are the benefits gained?

Over the years, the Minnesota mental health system has changed to accommodate needs, address emerging situations and spread the responsibility to several state agencies. We know that federal regulations and state rules have also had a decided impact on the private sector. We have seen incredible advances in medicine in general and in mental health care in particular. Researching and implementing these advances is costly, but the gains are also beneficial. The continuum of care includes prevention, health education, early identification and early intervention as well as treatment and recovery. The Minnesota mental health system is an evolving complex public/private, multi-agency, multi-level partnership and it is our hope that the information we have gathered will support its continued improvement.

This document is organized focusing on three areas primarily associated with treatment of mental illness: demand, capacity and cost. We begin with a brief history to provide some background and understanding of how the system evolved. While the focus of this report is Minnesota's adult mental health system, it also touches on substance abuse and children's mental health since there is overlap. Both of these areas, as well as prevention and early intervention, require full reports of their own. We will look into their development at the appropriate time.

One of the overriding characteristics of this system is its complexity and lack of centralized administration. MPS thanks the stakeholders for joining together for multiple meetings to share their experiences and information. With their expertise, we have produced a document containing available data organized to provide new insight into this complex system. As a result of this process, we believe this is an enlightening and useful source for information about our Minnesota mental health system.

We would also like to acknowledge Gary McMillan, M.A.L.S., M.S., Director of the Melvin Sabshin Library & Archives for the American Psychiatric Association for his professionalism and contributions gathering data and organizing the bibliography.

Signed,

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MPS President

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MILESTONES IN MENTAL HEALTH

- 1947-51:** Governor Luther Youngdahl started development of community-based mental health services and humane treatment for people in state institutions.
- 1963:** President Kennedy proposed and signed legislation that started community mental health center movement to substitute comprehensive community care for custodial institutional care; 1965 Congress passed authorizing federal grants.
- 1975:** Coverage of Ambulatory mental health services (outpatient) by private health plans.
- 1978:** Medical Assistance (MA) added for community MH services (outpatient and day treatment).
- 1981-2:** Federal Mental Health Systems Act repealed and replaced by the Alcohol, Drug Abuse and Mental Health (ADMS) Block Grant, and in 1982, ADMS block grant decreased by 30% resulting in dramatic service reductions. Despite passage of block grants, the federal share of funding decreased to 11% of the total while state and local funding share increased.
- 1986:** Mental Health Planning Act of 1986 (Federal law requiring state plans) passed; Case management established as a distinct benefit under Medicaid; Medicaid amendments improve MH coverage of community MH services, add rehabilitative services, and expand clinical services to homeless.
- 1987:** Medicare adds to outpatient mental health benefit but retains large patient copayments and cost sharing.
- 1987:** Minnesota's Comprehensive Mental Health Act for adults passed, describing array of mandated services, authorizing MN Department of Human Services (DHS) as the state mental health (MH) authority and counties as local MH authority.
- 1988:** Prepaid Medical Assistance Demonstration projects started in Minnesota in Hennepin, Dakota and Itasca Counties. Mental health included in comprehensive benefits.
- 1988:** State grants provided for Community Residential Treatment Facilities (Rule 36).
- 1989:** Minnesota Comprehensive MH Act for Children passes (paralleled adult act); MH Coverage for outpatient mandated in private health plans if plan also covered inpatient care.
- 1990:** MA coverage for services of independent psychologists and clinical social workers in Minnesota.
- 1990:** Minnesota's Children's Health Plan includes limited MH benefits (limits were removed in 1992).
- 1991:** Community Mental Health Centers authorized to provide partial hospitalization services under Medicare.
- 1993:** MinnesotaCare legislation covers MH services.
- 1993:** State closes Moose Lake Regional Treatment Center and makes region service changes.
- 1994:** Minnesota statewide expansion of Prepaid Medical Assistance (PMAP) program authorized for all counties.
- 1994:** Minnesota Child MH Collaboratives authorized.
- 1995:** Minnesota one of first states to pass a comprehensive mental health and chemical dependency parity bill regulating private health plans.

- 1996:** Federal government passed limited mental health parity bill.
- 1996:** Minnesota Child MH rehabilitative services added to MA benefit set.
- 1996:** Temporary housing rental vouchers for people with SPMI funded, called Bridges.
- 1996:** Employability Projects initiated.
- 1997:** At federal level, Balanced Budget Act passed with reductions in Medicaid and Medicare, while authorizing Children's Health Insurance Program for states.
- 1997:** Medical Necessity for mental health defined in Minnesota statute.
- 1997:** Minnesota passed prescription privileges for MH clinical nurse specialists who have special training.
- 1999:** Supreme Court opinion: *Olmstead v. L.C.*: held it was a violation of the Americans with Disabilities Act to keep individuals in restrictive inpatient settings, requires states to make appropriate community services needed for community integration available.
- 1999:** First ever Surgeon General's report published which focused on mental health and mental illness published - *Mental Health: A Report of the Surgeon General*; report sought eradication of stigma and recognized that treatment is effective for persons with mental illness.
- 2000:** Nationwide, 80% of behavioral health providers' revenues now Medicaid, compared to 16% in late 1980s.
- 2000:** Children's Health Act establishes national standards for use of seclusion and restraint in federally funded psychiatric facilities.
- 2000:** Minnesota Attorney General sues BlueCross/BlueShield Minnesota; parties agree to settlement aiming to improve/reform MH system.
- 2001:** Minnesota advocates proposed Mental Health Act of 2001. Due to that effort, additional MH services and funding were added or expanded for adults and children.
- 2002:** An in-depth study on co-occurring disorders, mandated under the Children's Health Act of 2000, was delivered to Congress.
- 2002:** Community Health Centers funding appropriated for construction of additional centers and more services (e.g. behavioral healthcare).
- 2003:** President Bush's New Freedom Commission on Mental Health issued final report, "to conduct a comprehensive study of the United States mental health service delivery system, including both private and public sector providers." Objectives include reviewing the quality and effectiveness of private and public providers, identifying innovative services, treatments, technologies, and report on its subsequent recommendations.
- 2003:** Facing 4.5 billion dollar deficit, MN State Legislature approves copays, adjusts GAMC eligibility, and decreases eligible populations, creating a direct impact on the MH system.
- 2003:** The MH Action Group is created to recommend strategies to improve and reform the Minnesota MH system across both private and public sectors.



MEASURING THE NEED FOR MENTAL HEALTH SERVICES

The U.S. Surgeon General reports that one in five people in the United States will be affected by mental illness. In Minnesota, that means about one million people experience mental illness during a year and one in ten children have severe emotional disturbances. Mental illness is a leading cause of ill health and disability.

While treatments exist, many people with mental illness never seek help from a health professional. Stigma, discrimination and neglect are all blamed for preventing people from seeking care and treatment.

The burden of mental illness on health and productivity in the United States and throughout the world has long been profoundly underestimated.

Data developed by the massive Global Burden of Disease study, conducted by the World Health Organization, the World Bank, and Harvard University, reveal that mental illness, including suicide, ranks second in the burden of disease in the United States. This was measured based on Disability Adjusted Life Years (DALYs). The calculation expresses years of life lost to premature death and years lived with a disability of specified severity and duration.

According to the measurement, major depression is equivalent in burden to blindness or paraplegia. By this measure, major depression alone ranked second only to ischemic heart disease.

A lack of urgency, misinformation, and competing demands make it difficult for policy makers to take stock of mental illness and its role as one of the leading causes of disease and disability.

Depression is a chronic condition that needs to be addressed as such. As many as two-thirds of those living with depression are currently not receiving any treatment, while 11% have never received treatment. Non-whites are the least likely to have received treatment from a counselor, therapist or doctor for their depression (88% of whites have received treatment, compared to 77% of African-Americans and 64% of Hispanics).



Many individuals who have depression also exhibit risky behaviors that are detrimental to their overall health and well-being. Consider for example, that as many as 42% smoke and nearly one-fifth of this population are at-risk alcohol drinkers (17%). Source: Bethel C et al.: A Portrait of the Chronically Ill in America, 2001 (Robert Wood Johnson Foundation, 2002)

With proper treatment, people with mental illness can live productive lives and be a vital part of their communities.

Early diagnosis and treatment are known to be beneficial in general medicine. A study in Rochester, NY (published in Health Care Economics, October 26, 2000) found that primary care physicians who diagnosed the most psychiatric disorders in their patients saw lower hospitalization rates and lower costs overall.

More than 80% of people with schizophrenia can be free of relapses after one year of treatment including antipsychotic drugs. As many as 60% of people with depression can recover with a proper combination of antidepressant drugs and psychotherapy.

The adolescent population in Minnesota is also affected by emotional distress, which may be considered an indicator for mental illness later in adulthood.

In the 2001 Minnesota Student Survey of children in the 6th, 9th and 12th grade, students were asked the following question: Have you ever thought about killing yourself during the last year? Thirteen percent of the sixth graders, 23% of the ninth graders and 17% of the seniors said they had considered suicide that year.



Nearly one-fourth of Minnesota's 9th graders reported having suicidal thoughts.

INSURANCE COVERAGE

Health insurance coverage levels have changed very little in the past decade, fluctuating between 90% and 92%. **At 91%, Minnesota ranked second behind Rhode Island for health insurance coverage in 1999-2000.** For the years 1999-2000, 92% of Minnesota children were insured, compared to a national average of 88%. Source: Minnesota Department of Administration, 2003.

In the United States, most health insurance comes through employment. Therefore, it is important to note that, according to national household surveys conducted from 1996 to 1998, "individuals at risk of mental illness are significantly more likely than the rest of the population to leave a job that provided insurance, risking disruption of care." And, **"despite the economic vitality of the 1990s, the unemployment rate for the mentally ill population was three to five times higher than for the rest of the population."** Source: Sturm R, et al.: Labor Force Participation for Individuals with Mental Illness. *Psychiatric Services*, 1999 50(11):1407

In 2001, 71.6% of Minnesotans relied on the private market for health insurance; 23% were covered under public insurance and 5.4% were uninsured. Source: Minnesota Department of Health, Health Economics Program, Issue Brief 2003-07, 2001 Minnesota, Distribution of Insurance Coverage, September 2003.

Based on 2002 HEDIS report information, 7.5% of enrollees in commercial plans access mental health services. This figure represents 60,899 individuals and is primarily outpatient care with only 0.3% accessing inpatient care. The report captures effectiveness of care by measuring follow-ups times after discharge from the hospital for commercial enrollees. According to the report, 47.1% of the 2,015 individuals who were hospitalized received follow-up within one week after discharge and 74.9% re-

ceived follow-up care within 30 days of discharge. Source: Minnesota Dept. of Health: Health Plan Employer Data and Information Set.

Over the past 50 years, insurance coverage for psychiatric conditions has evolved. In the 1930s, private health insurance began to develop, however, mental health remained primarily a State responsibility until the 1950s. At that time, general hospitals began to provide psychiatric services, and employers began covering mental health in their benefits packages.

In the late 1980s, health care costs began to rise. This led many employers to look more closely at the benefits they offered and the cost of providing them. As cost-containment strategies increased, so too did restrictions on mental health care. According to one national study, 63% of plans imposed benefit limits on inpatient psychiatric care in 1990, compared with 88% in 1998. For outpatient care, the number of plans imposing such restrictions rose from 26 to 57% between 1988 and 1998. Source: Hay Group, 1999.

In 1995, Minnesota passed one of the strongest parity laws in the country. It prohibits unequal behavioral health insurance coverage including deductibles, copayments, and maximum allowable office visits. As a result, Minnesota's parity law requires that mental health coverage be equal to other health care coverage. However, 54% of the people in Minnesota have self-insured plans and are not covered by the parity law.

Other Coverage

Medicare

In Minnesota, 658,696 people were enrolled in Medicare during 2001. This accounted for 13% of the state's total populations. **While most Medicare services cost the**

patient a 20% copayment, outpatient psychiatric services require a 50% copayment. Source: Schmidt, Jr. CW: CPT Handbook for Psychiatrists, 1999

Medicaid

Medicaid is a health care program for people who meet certain income and other guidelines. It is funded by federal and state dollars. In Minnesota this program is called Medical Assistance (MA) and Prepaid Medical Assistance (PMAP)

MinnesotaCare

MinnesotaCare is a subsidized health insurance program for working Minnesota residents who do not have access to affordable health care coverage, including Medicare.

MA-EPD

Medical Assistance for Employed Persons with Disabilities promotes competitive employment and the economic self-sufficiency of people with disabilities by assuring continued access to Medical Assistance for necessary health care services. MA-EPD allows working people with disabilities to qualify for MA under higher income and asset limits than regular MA, encouraging them to work and enjoy the benefits of being employed. Fifty-five percent of MA-EPD enrollees have a mental illness.

GAMC

Minnesota's General Assistance Medical Care (GAMC) program pays for medical care for low-income Minnesotans who don't qualify for Medicaid or other state or federal health care programs - primarily adults who don't have dependent children. One-third have mental illness. **GAMC is 100 percent state funded.** The Minnesota Department of Human Services oversees the pro-

gram, administered locally by counties. (<http://www.dhs.state.mn.us/HealthCare/asstprog/gamc.htm>)

MCHA

Minnesota Comprehensive Health Association offers individual health insurance policies to Minnesota residents who have been turned down by the private market, due to pre-existing health conditions. **MCHA is sometimes referred to as Minnesota's "high risk pool" for health insurance.** Currently, about 30,000 Minnesota residents are insured by MCHA and pay premiums about 25% higher than commercial rates for a comparable policy.

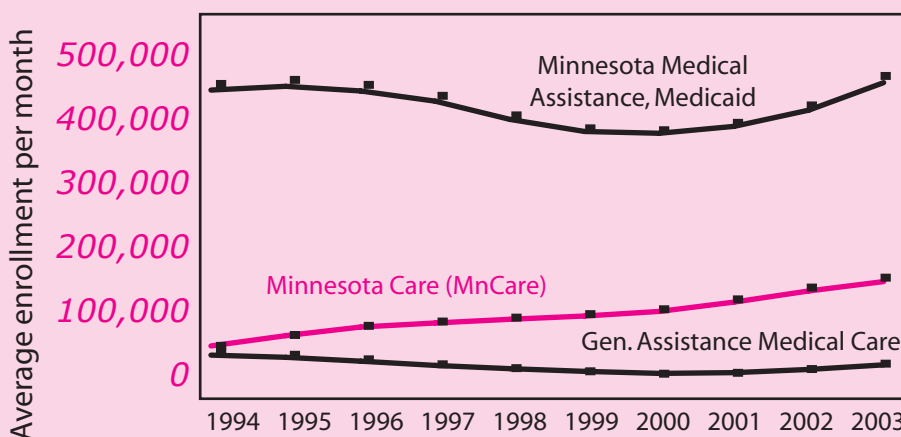
SSDI

Disabled people who have worked and paid enough Social Security taxes qualify for SSDI (Social Security Disability Insurance) as income. SSDI is financed through Social Security payroll taxes. According to NAMI (National Association for the Mentally Ill), 22% of SSDI beneficiaries and 30% of SSI beneficiaries are disabled as a result of a mental illness. Source: NAMI: Employment, Work, and Income Supports for People with Brain Disorders, 2000.

In 2002, the Department of Human Services published a report entitled "Minnesota Behavioral Health Treatment Need Assessment, Comparisons of Health Plans Participating in the Prepaid Medical Assistance Program." The report was based on a statewide telephone survey about mental illness and behavioral service usage in the Prepaid Medical Assistance Program (PMAP). **The survey revealed a significant prevalence of mental illness among PMAP members in Minnesota.**

- One-third of PMAP members had one of the eight disorders, with mental disorders much more common (32%) than substance use disorders (4%).
- Depression was the most common disorder reported by all the health plans; it was reported in 24% of cases.
- Nearly 7 out of 10 who had a disorder detected contacted a professional for treatment. A majority of members contacted a physician (55%) and almost 40% saw a mental health specialist.

MINNESOTANS RECEIVING MEDICAL ASSISTANCE



MENTAL ILLNESS AND THE CORRECTIONS SYSTEM

Based on national data obtained from personal interviews conducted through three Bureau of Justice Statistics surveys from 1995-1997:

- On average, inmates with mental illness serve a longer portion of their sentence than inmates without mental illness.
- Half of mentally ill inmates reported 3 or more prior sentences and over three-quarters of mentally ill inmates had been sentenced to time in prison or jail or on probation at least once prior to the current sentence.
- While on probation, only 55.9% were employed compared to 75.9% of others. Source: Ditton PM: Mental Health and Treatment of Inmates and Probationers, 1999.

The Minnesota Department of Corrections has significantly increased its mental health services to the inmate population in recent years.

For example, in 1998 there was a 23-bed adult male psychiatric unit, an 8-bed adult female residential unit and a 10-bed special needs unit. Today, there is a 46-bed adult male mental health unit at MCF-Oak Park Heights and supportive living services at all custody levels.

In 2001, a 10-bed mental health unit was opened for adult females. The department offers a 14-bed mental health services center for juvenile males, comprehensive discharge planning services for mentally ill offenders, specialized services for release violators and full outpatient services within all facilities.

In FY 2003, the total spent for adult health care in the Corrections Department was \$30,731,389. The average expenditure per inmate for health care

was \$12.02 per day and total costs of incarceration were \$80.52 per day.

Nationally, 16% of inmates have severe mental illness, compared to approximately 5% in the general population.*

In adult facilities, the Department of Corrections has seen a dramatic increase in mental health needs. From January 1, 2002, to August 31, 2002, there were 40,178 mental health encounters compared to 46,010 for the same period of 2003. The mental health encounters included assessments, interventions, release planning and treatment.

A clinical training program was established for doctoral candidates in psychology, master's candidates in social work and chemical dependency counselor interns. All clinical services are integrated with correctional interventions and across medical and behavioral domains.

A full system of care to transition discharged inmates into the community for continued care is also in place. Professional mental health providers are available to the inmate population approximately five days a week. In addition, an on-call psychologist is available seven days a week to assess and provide direction during off hours.

Recently, the department received funding to provide targeted release planning to severely mentally ill inmates. The program has been operational for over a year. During that time, more than 206 release plans have been developed for severely mentally ill offenders. Of those, 177 offenders have been released.

Today, 83% of the offenders with release plans remain in the community. On-site interventions and comprehensive release planning are integral components of the system.

*Source: R. C. Kessler et al., "A Methodology for Estimating the 12-Month Prevalence of Serious Mental Illness," 1999.

The Minnesota Department of Corrections estimates that 20 -24% of the total adult corrections population at any given time is on some kind of psychiatric medication.

PREVALENCE OF MENTAL ILLNESS AMONG THE HOMELESS

The Wilder Research Center published a report in 2003 that found that 36% of homeless adults have a mental illness and have been diagnosed with one of six serious and persistent mental disorders or have received inpatient or outpatient treatment for mental illness within the past two years.

Community surveys of the general population show that at any given time approximately 20% of U.S. adults experience some form of mental illness and 5.4% of those experience severe mental illness.

The Wilder Research Center conducted statewide homeless surveys in October 1992, 1994, 1997 and 2000. Over those years, dramatic changes have occurred. *The number of people suffering a serious and persistent mental illness has increased.* Source: Greg Owen: Homelessness 2000. Wilder Research Center, 2003. Survey results based on self report.

MENTAL ILLNESS IMPACTS MINNESOTA LIVES

Suicide was the second leading cause of death for 15 to 29 year olds and the third leading cause of death among 10 to 14 year olds and 30 to 34 year olds.

Men account for four of every five (83%) suicides. American Indians have the highest suicide rates among all racial/ethnic groups. Of all age groups, suicide rates were highest for Minnesotans 45 to 49 and 80 to 84. Over the last five years, an average of 447 Minnesotans have died each year from suicide, three times as many as have died from homicide.

Depression accounts for more “bed days” (people out of work and in bed) than all physical disorders except cardiovascular disorders. The “bed days” cost employers millions of dollars that could be saved with effective treatments.

Great strides have been made in the treatment of severe mental illness. When severe depression is treated with anti-depressant medication and psychotherapy, the success rate approaches 85%, according to the U.S. National Advisory Mental Health Council.

*Self-inflicted poisoning was the leading cause of hospitalized injury for females ages 10 - 44 in 2001.**

Approximately one in ten Minnesotans fill antidepressant prescriptions annually.

*Source: The Minnesota Department of Health Fact Sheet, Nonfatal Injury in Minnesota, 2001. *The report recommends increasing access to mental health services, making use of antidepressant medications, and promoting physical activity to prevent self-inflicted poisoning.*

MINNESOTA SUICIDE DEATHS 1997-2001

- Each year, 447 Minnesotans die from suicide, three times as many as have died from homicide.
- Males account for four of every five persons (83%) who die by suicide in Minnesota.
- American Indians have the highest suicide rate among all racial/ethnic groups in Minnesota.
- Of all age groups, suicide rates were highest for Minnesotans 45-49 and 80-84 years old.

Source: Minnesota Department of Health, Center for Health Statistics. "2001 Minnesota Mental Health Statistics: Annual Summary, 2003."

TREATMENT WORKS

Robert Van Zandt seemed to have it all – a lucrative job as a financial services manager for a top insurance brokerage, and the social life and trappings that any thirty-something executive would envy.

Over time, however, social drinking became a daily habit, a daily necessity, to the point where his ability to perform his job was impaired. His life then slowly began to collapse. Looking back, Van Zandt knows that bipolar disorder and depression were at the root of his problems, and that the alcohol was his way of escaping.



Robert VanZandt

His attempt at self-medicating led to a vicious circle of depression, anxiety, alcohol abuse, isolation. He lost his job, cycled in and out of chemical dependency treatments, stole money from house mates, alienated friends and family – a downward spiral that ended with a conviction for fraud, jail, homelessness, and eventually a suicide attempt.

However, once he was discharged from the hospital, he landed at a residential treatment center. The center specialized in helping those who suffer from mental illness and chemical dependency. By this time, he had been sober four or five months, but in his words, “it wasn’t that I liked being drunk, it was that I just couldn’t stand being sober.”

However, Van Zandt’s residential treatment proved pivotal. It was the first time he received treatment for both alcoholism and the underlying depression. His stay there marked the beginning of a journey into humility. “They taught me how to be human again – to be polite, to consider others, and how to be accountable for myself.”

-Used with permission from People Incorporated

SYSTEM CAPACITY

We know that mental illness is a chronic disease that can be treated successfully.

In Minnesota, the mental health system includes providers, insurers and programs that attend to the physical, emotional, social, financial and everyday needs of our citizens with mental illness. **One million Minnesotans count on the following providers for care:**

- There are **490 psychiatrists** in Minnesota providing direct patient care.¹
- There are **203 clinical nurse specialists** (nurses who evaluate, recommend treatment, and write prescriptions under the supervision of a doctor) certified to practice in Minnesota.²
- There are **3,557 licensed psychologists** in Minnesota, but we do not know how many provide direct patient care.³
- While we can assume that many individuals see their primary care doctors for mental health care, we cannot quantify the number of providers accessed.

1 American Medical Association: Directory of Physicians in the U.S. (2003). In 2002, there were 739 psychiatrists in Minnesota with 490 (66.3%) providing direct patient care. Fifty-eight (7.8%) were fully retired and seven more (0.9%) were semi-retired. There were 88 residents training that year in Minnesota. The rest were not practicing or were involved in research, administration, teaching or other non-patient care. Qualifications about the data: voluntary report gathered by AMA. Includes members and nonmembers. Does not reflect activity or full-time v. part-time practice status.

2 The general nursing shortage impacts all of healthcare, including mental health. The Minnesota Board of Nursing does not track the type of practice setting for general nursing licensure, so the number of registered nurses practicing in mental health settings is not available. The advanced practice designation is tracked separately. There are 203 clinical nurse specialists (advanced practice nurses with an advanced credential) in psychiatric and mental health nursing in Minnesota. These figures are certified professionals, not full-time equivalents.

3 The Minnesota Board of Psychology reports 3,557 licensed psychologists in Minnesota with 2,334 (65.6%) in the Twin Cities metropolitan area. These figures do not represent patient care providers, nor do they reflect full-time practice.

Case Management

According to the Minnesota Department of Human Services, there were 570 full-time workers providing case management services to 19,694 adults in 2003. These numbers reflect Medicaid reimbursable public system services to adults with severe and persistent mental illness only.

There are 273 full-time case management providers who served 8,322 children with severe emotional disturbance. In addition, some counties provide case management for the 7,078 Minnesotans who do not meet the threshold for Severe and Persistent Mental Illness (SPMI) but live with severe mental illness.

PUBLICLY FUNDED COMMUNITY BASED PROGRAMS

As noted in the “Mental Health Management Report, Information to help plan services from the Mental Health Division of DHS,” *Minnesota’s public mental health services are administered locally by each county and supervised by the Department of Human Services (DHS).*

The adult report included Service Utilization Tables for Adults in 2002 who have 25% or more of their costs paid with county-administered dollars. *In 2002, 54,360 adults received mental health services.* Those receiving diagnostic assessment/psychological

testing numbered 19,307 and the number receiving medication management was 16,957.

The children’s report includes clients aged 17 and younger who have 25% or more of their costs paid with county-administered dollars. *The count of children receiving mental health service, totaled 22,992 in 2002.* There were 2,940 children screened and assessed for mental illness. The report showed 4,786 children received medication/management and 8,276 received outpatient care.

Adults Receiving Mental Health Services Calendar Year 2002

Statewide, 54,360 clients received mental health services in 2002 (150 per 10,000 capita).

- 19,307 received diagnostic assessment and psychological testing;
- 22,393 received case management;
- 3,758 clients accessed day treatment at 77 hours per client;
- 16,957 clients accessed medication management;
- 6,465 adults received community psychiatric inpatient care;
- Adult inpatient treatment (RTC, Contract Bed, Community Inpatient) served 8,262 clients;
- 3,185 clients were treated in adult residential treatment (Rule 36) centers.

(http://www.dhs.state.mn.us/Contcare/pdf/All_adult_suts_tables1_CY_2002.pdf)

Children Receiving Mental Health Services Calendar Year 2002

(As Reported by the Counties to CMHRS)
Statewide, 22,992 clients received mental health services in 2002 (179 per 10,000 capita)

- 2,940 were screened and 7,257 were assessed;
- 1,634 clients accessed children's day treatment at 13 hours per child;
- 4,379 clients were served through FCSS at 41 hours per client;

- 1,547 clients received children's home based family treatment at an average of 33 hours each;
- 4,786 clients accessed medication management;
- 8,276 clients received an average of 10 hours of outpatient treatment;
- 901 Fee for Service Hospital Patients received community psychiatric inpatient care for 6.0 median days and 663 pre-paid plans hospital patients for 5.0 median days;
- Children's Residential Treatment (Rule 5) served 1,045 clients with an average of 135 bed days;
- Excluding the forensic population, 354 clients accessed RTC inpatient treatment for an average 49 bed days.

(http://www.dhs.state.mn.us/Contcare/pdf/All_child_suts_tables1_CY_2002.pdf)

The Adult Mental Health Initiative

The Adult Mental Health Initiative is a new type of multi-county service delivery system that involves collaboration, integration of funding, and use of state hospital staff to fill gaps in the community-based services. Minnesota has steadily moved people with disabilities-including people with mental illness-out of institutional settings and into communities.

Source: The Publicly-funded Adult Mental Health System, DHS, 2001.

COMMUNITY MENTAL HEALTH CENTERS

Community Mental Health Centers are defined in the Public Health Act in Minnesota law. They are governmental or non-profit organizations that provide an array of services to a community. These services may include a sliding fee scale, day treatment, outpatient care, screening and other services. (MN Statutes: 245.62-245.69 and 256B.0625, Subd. 5)

According to the Minnesota Association of Community Mental Health Programs, Inc., *there are about 36 community mental health centers and 79 Rule 29 mental health centers and clinics in Minnesota serving 120,000 people, 17,000 with severe and persistent mental illness and 18,000 children.*

HOSPITAL BEDS

Based on a hospital survey by the Minnesota Hospital Association (MHA) in 2002, the following staffed mental health and chemical dependency bed counts were identified in the state. This number includes VA hospitals, but not beds at state-operated regional treatment centers.

	1999	2001
Adult inpatient mental health beds	830	852
Pediatric* inpatient mental health beds	132	126
Adult inpatient chemical dependency beds	298	386
Pediatric* inpatient chemical dependency beds	30	46

*Note: Some hospitals indicated that adult beds could also be used for pediatric admissions depending on the demand and availability of beds. Data was gathered in 2002 through a special survey to facilitate discussions of MHA's Committee on Mental Health Capacity.

HOUSING

Housing services are provided as part of the comprehensive mental health service system. Beginning in 1993, the Minnesota Housing Finance Agency (MHFA) and the Department of Human Services Mental Health Division partnered to develop the Bridges program. This program provides a state funded temporary Section 8 subsidy administered by the MHFA and local public housing authorities while the DHS Mental Health Division works with counties and their vendors to provide the necessary housing support services for persons who have a serious and persistent mental illness.

Participants who receive a Bridges temporary housing subsidy must be on a waiting list for federal housing

subsidy programs. **Bridges funding may be used to pay rent directly to a landlord, security and utility deposits, and the full rent, for up to 90 days, during a medical or psychiatric crisis.**

The Bridges program is available in 52 counties. In federal fiscal year 1999, a total of 519 households received services through the Bridges program. In 2002 DHS reports that 41 individuals were served, impacting 381 Minnesota households at an average of \$476 per month.

Source: Minnesota Department of Human Services, Adult Mental Health Division., For the Toward Better Mental Health in Minnesota: A Community Approach Initiative 2001.

EE-SMI Program

Extended Employment - Severely Mentally Ill provides supported employment services to persons with serious and persistent mental illness (SMI) who secure employment through 23 Coordinated Employability Projects.

According to national household surveys conducted from 1996 to 1998, “individuals at risk of mental health disorders are significantly more likely than the rest of the population to leave a job that provided insurance, risking disruption of care.” *And, “despite the economic vitality of the 1990s, the unemployment rate for the mentally ill population was three to five times higher than for the rest of the population.”* Source: Sturm R, et al.: Labor Force Participation nor Individuals with Mental Illness. Psychiatric Services, 1999 50(11):1407.

During 1999-2000, 56,535* people with serious and persistent mental illness needed work. Over 625 were served in EE-SMPI projects, accounting for approximately 1.1% of the need.

*The number of persons with SPMI needing work is calculated by taking 85% (the typical unemployment rate for people with SPMI) of the people with SPMI in the public sector, as reflected in the Federal Block Grant application. (MN Dept. of Human Services Community Mental Health Services Block Grant Application 1999-2001 (August, 1999). Source: Status and Evaluation of Employment and Support Services for Persons with Mental Illness Rehabilitation Services Branch Minnesota Department of Economic Security December 20, 2000.

PARTNERSHIP STORY

The East Metro Adult Crisis Stabilization (EMACS) collaborative formed to address the unmet needs of adults who are experiencing mental health crises. Counties, community hospitals, health plans, and the Department of Human Services have joined to address the shortage of inpatient psychiatric beds, long inpatient stays due to delays in discharge, and the lack of community based crisis response services.

EMACS is funded by the Community Mental Health Fund, a partnership of Blue Cross and Blue Shield of Minnesota, HealthPartners, Inc., Medica Health Plans, Preferred One Community Health Plan and UCare Minnesota Health Plans. The Fund was created in December 2002 to expand community resources in crisis intervention, with the goal of providing innovative alternatives to hospitalization whenever possible.

The members of the collaborative have demonstrated a vested interest in improving service efficiency and effectiveness through coordinated efforts across the private and public sectors. The collaborative has developed a crisis service delivery model, which utilizes a Crisis Stabilization Team that relies on public/private collaboration.

These crisis services are available to those experiencing emotional, behavioral or psychiatric difficulties, including depression, suicidal thoughts or attempts, overwhelming fears or anxiety, difficulties with anger, acute confusion, bizarre behavior or other emotional concerns.

Since the EMACS team began taking referrals from three east-metro hospital inpatient units May 21, 2003, they have provided services to over 160 clients. The EMACS team has worked closely with the hospitals in providing stabilization services to patients who no longer require hospital level of care, but otherwise could not be discharged because of lack of community and outpatient resources.

The result of the hospitals working in concert with the EMACS team is a reduction in the number of non-acute hospital days. Of the clients served, there has been an average reduction of one to three non-acute hospital days.

Although this measure is subjective due to the hospitals and EMACS working toward refining data collection methods, it is expected that as EMACS has tenure working together, there will be an improved capacity for collecting, defining and measuring data that provides more objective conclusions.

In addition to the inpatient unit work being done with EMACS, the East Metro Hospitals are working with the EMACS team to provide crisis stabilization services at the community level for those individuals with a mental health crisis who present to one of the three emergency departments.

If the emergency department crisis staff assesses an individual who is at risk of hospitalization, but could be stabilized with an intervention, referrals are made for stabilization services.

This newly formed relationship between the hospitals and the EMACS team allows individuals the opportunity to be stabilized in the community; reducing the number of “soft admissions” for those who can be safely treated with alternative community based services such as EMACS.

EMACS is working with its county and health plan partners to offer enhanced crisis assessment and stabilization services for those not seen by the hospitals.

Through continued collection and analysis of common data, EMACS will bring to light both individual provider and systems issues to its Leadership Team.

The Leadership Team is charged with identifying barriers to integrated rapid crisis stabilization, to problem solve once these barriers are identified, to plan new or enhanced services, and to develop better access to care. Specifically, the EMACS Leadership Team members are challenging each organization to work differently though the contribution of time, expertise, and other resources. They are changing business practices to benefit adults in crisis, and are organizing and using client-centered, evidence-based best practices as the basis for program development.

The members of the collaborative have demonstrated a vested interest in improving service efficiency and effectiveness through coordinated efforts across the private and public sectors.



COMPARING HEALTH COSTS

The earlier mental illness is identified and treated, the better the prognosis. We know that patients of primary care physicians who diagnose the most mental illness are less likely to be admitted for an avoidable hospitalization.

- *Average daily cost for antipsychotic medication - \$7.45¹*
- *Average daily cost for supported housing - \$15.87²*
- *Average daily cost for incarceration - \$80.52³*
- *Average daily cost for state hospitalization - \$505⁴*
- *Average daily cost for hospitalization - \$1,563.59⁵*

Health care spending in Minnesota during 2000 totaled approximately \$19.3 billion, or \$3,928 per person, and comprised 10.5% of the state's economy. - Minnesota Department of Health October 2002 Report to the Minnesota Legislature, "Labor Availability and Health Care Costs."

1 The average net cost per day for antipsychotic medications in state hospitals is \$7.45. - Minnesota Multistate Contract Alliance for Pharmacy or MMCAP, Minnesota Dept. of Admin.

2 In 2002, DHS reported that 41 individuals received supported housing, impacting 381 Minnesota households at an average of \$476 per month (see Housing page 13).

3 The average cost per day to incarcerate an adult inmate in FY 2003 was \$80.52. The average cost per inmate for health care was \$12.02 per day. - 2003 Data from the MN Department of Corrections.

4 The average cost per day in 2003 for inpatient mental health care through State Operated Services was \$505. The average length of stay for S.O.S. adult MH programs (excluding the forensic population) for FY 2003 was 66 days. - Minnesota Department of Human Services State Operated Services, Comparison of Facility Per Diem Rates for Fiscal Year 2000 to Fiscal Year 2004.

5 The average cost per day for private sector provided mental health hospitalizations was \$1,563.59 in 2002. [The average length of stay was 7.8 days and the average hospitalization cost was \$12,196. In 2002, the total cost for 30,207 hospitalizations was \$3.68 million (\$368, 404, 570).] These figures do not include federal, VA or state owned facilities. Data from the Minnesota Hospital Association based on UB-92 claims from 6-year hospitals. Psychiatry is defined using CMS orgs 424-432. The state-wide collection of claims is incomplete. Charges exclude professional fees.

Attention-deficit hyperactivity disorder is associated with an increased use of medical care. A Minnesota study showed the median costs for care were more than twice as high with ADHD than without (\$4,306 vs. \$1,944). Researchers at the Mayo Clinic in Rochester followed 309 children (born between 1976 and 1982) with ADHD and 3,810 control children without ADHD for 9 years. The estimates don't include the other costs such as medication, services not covered by insurance, or special education.

Source: Leibson CL, et al.: Use and Costs of Medical Care for Children and Adolescents With and Without Attention-Deficit/Hyperactivity Disorder. JAMA 2001;285:60-66.

UNCOMPENSATED CARE NATIONWIDE

Three mental conditions – alcohol-related mental disorders, depression and substance-related mental disorders – account for about 135,000 hospital stays per year that are not covered by either private insurance or public insurance programs, such as Medicare and

Medicaid. These three conditions together are second only to childbirth in the number of uninsured stays in U.S. hospitals. Source: Elixhauser A., et al.: Hospitalization in the United States, 1997 HCUP Fact Book No. 1.

MINNESOTA UNCOMPENSATED HOSPITAL CARE

Uncompensated Hospital Care (Not limited to psychiatric care)				
	1999	2000	2001	2002
Bad Debt*	\$128.4 mil.	\$169.6 mil.	\$162.6 mil.	\$162.6 mil.
Charity Care**	\$56.6 mil.	\$ 53.5 mil.	\$66.7 mil.	\$75.1 mil.

Source: Health Care Cost Information System (HCCIS)

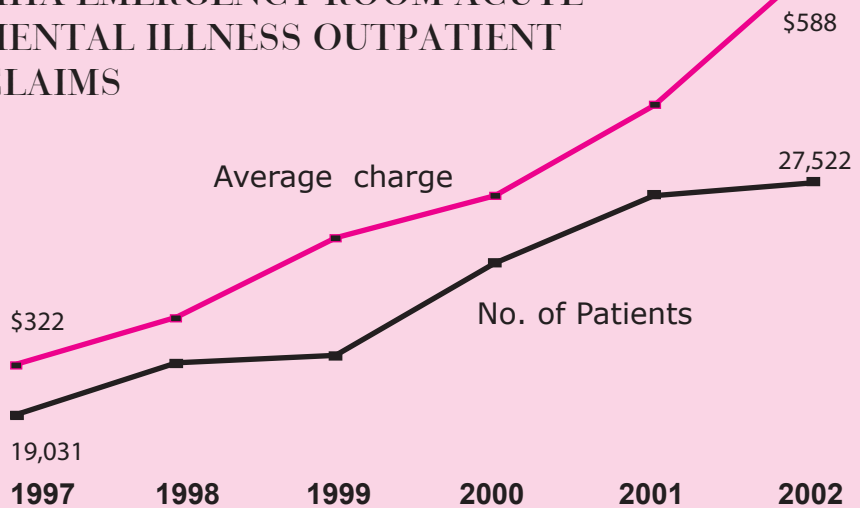
***Bad Debt** expense is the dollar amount charged for care for which there was an expectation of payment but for which the patient is unwilling to pay.

****Charity Care** adjustments show the amount that would have been charged by a facility for rendering free or discounted care to persons who cannot afford to pay and for which the facility did not expect payment. Definitions excerpted from Minnesota Rules, Section 4560, HCCIS Definitions and Reporting Guidelines.

HOSPITAL AND EMERGENCY ROOM TRENDS

Self-inflicted poisoning was the leading cause of hospitalized injury for females ages 10-44 in 2001.

MHA EMERGENCY ROOM ACUTE MENTAL ILLNESS OUTPATIENT CLAIMS



Over the five years from 1997 to 2002, we have seen an increase of over 40% in the number of Emergency Room acute mental illness outpatient claims. In 1997, there were 19,031 claims and in 2002, there were 27,522. The total cost rose from \$6,318,292 to \$16,182,936. - Calculated using N x average charge (\$322 in 1997 and \$588 in 2002). Source: Minnesota Hospital Association based on voluntary reporting by hospitals of administrative billing data. Does not include data from federal or state operated facilities. The charges reflect the hospitalization charges for Mental Disorders as defined by the Agency for Healthcare Research and Quality (AHRQ).

EMPLOYER/EMPLOYEE COSTS

By far, the largest workplace impact of untreated mental health problems is absenteeism, lost productivity and greater utilization of health care services. This was

stated in A Citizen's League Research Report prepared for the Minnesota Department of Health and the Minnesota Department of Human Services.

A 1990 study by the International Labor Organization found that clinical depression alone causes a loss of 200 million working days per year in the U.S.¹

According to the American Psychological Association, **50% to 70% of visits to primary care physicians are for medical complaints that originate from psychological factors.**²

*Overall, individuals with psychological disorders visit their primary care physician twice as often as individuals without psychological disorders.*³

Clinical
depression alone
causes a loss
of 200 million
working days per
year in the U.S.

1 Grenber PE, et al.: "The Economic Burden of Depression in 1990," Journal of Clinical Psychiatry, 1993.

2. American Psychological Association, Practice Directorate: "The Costs of Failing to Provide Appropriate Mental Health Care." Practice Directorate, American Psychological Association.

3. Michigan Psychological Association: Medical & Surgical Costs and Mental Health Benefits..

Employees
with
depression cost
U. S. employers
\$44 billion per
year in lost
productive time.

While many physical illnesses can be directly tracked to a loss of productivity in the workplace, (migraines, asthma, etc.) depression has been an elusive condition to measure. However, research is beginning to reveal the dramatic toll depression takes in the workforce.

Research on depression and lost productive time conducted by AdvancePCS found only one-third of the workers involved in the study were receiving medications for their depression. According to the study, employees with depression cost employers \$44 billion per year in lost productive time.

Source: Stewart FW, et al.: Cost of Lost Productive Work Time Among US Workers With Depression. JAMA 2003; 289:31335-3144.

2003 CHANGE IN BENEFITS IMPACTS BOTH CLINICS AND CLIENTS

The Minnesota Association of Community Mental Health Programs recently asked its clinic members how the October 1, 2003 change in MinnesotaCare benefits that limited coverage for certain people to hospital and physician services only has impacted the clinics and their clients.

Northwestern Mental Health Center, Inc., in Crookston, tells about a 60 year old client who was in seven times before the funding change was caught. Her therapist explained the funding problem. **The patient canceled her next appointment and didn't return.** Her therapist believes discontinuing therapy is detrimental to the patient's well being.

Northwestern Mental Health Center, Inc., identified seven clients with the limited benefit and has realized a loss of \$1,500. Up to mid-January none of the clients had completed a sliding fee application so the clinic did not know if its current schedule will fit with their income or not.

When staff contacted clients with limited benefits who had visits in December all just canceled their appointments and did not come inquire about other funding options or payment schedules. **Staff are very concerned that these**

people stopped therapy and expect to see some again but probably in a crisis condition. Also in checking the appointment records, they note that some clients are delaying their medication management checks, perhaps due to concerns that these will not be covered either.

A community mental health center in Bemidji reported lost revenue for services provided in October alone at \$1,790. Services provided were for office based mental health services to 14 clients that month.

Southwestern Mental Health Center, Inc. of Luverne reported losing \$750 in claims and another \$1,140 in charges since the benefit change went into effect. They have decided to waiver the insurance and place clients on the sliding fee scale if possible. **Residents of counties without a sliding scale provider will have to pay out-of-pocket.**

A large community mental health center in Duluth noted that they had 25 clients who were currently in therapy who lost coverage October 1. Another center reported that 22 clients lost coverage during their course of treatment.

ADDITIONAL RESOURCES

- American Psychological Association (<http://www.apa.org>)
- Kaiser Commission on Medicaid and the Uninsured (<http://www.kff.org/about/kcmu.cfm>)
- Minnesota Department of Education (http://education.state.mn.us/html/mde_home.htm)
- Minnesota Department of Human Services (<http://www.dhs.state.mn.us>)
- People Incorporated (<http://www.peopleincorporated.org/>)
- US Department of Justice (<http://www.usdoj.gov/>)
- Urban Institute (<http://www.urban.org/>)
- Wilder Research Center (<http://www.wilder.org/research/>)

GLOSSARY

Acute Care Hospital Inpatient Treatment Services: Short-term medical, nursing and psychosocial services provided in an acute care hospital.

Case Management Services: Services include a functional assessment, individual community support plan, referral and assistance in getting needed mental health and other services, coordination of services and monitoring of the delivery of services.

Community Support Program Services: Services, other than inpatient or residential treatment, provided or coordinated by an identified program and staff under the clinical supervision of a mental health professional designed to help adults with serious and persistent mental illness to function and remain in the community.

Copayment: Payment by the patient that is made to the provider at the time of service.

DALY: Disability-adjusted Life Year - a measure that expresses years of life lost to pre-mature death and years lived with a disability of specified severity and duration. The burden of mental illness on health and productivity in the U.S. and throughout the world has long been profoundly underestimated by not taking into account the number of healthy years lost to premature death and disability.

Disability: The condition of being disabled; inability to pursue an occupation because of physical or mental impairment; lack of legal qualification to do something; nonlegal disqualification, restriction or disadvantage.

Education and Prevention Services: Information on predictors and symptoms of mental disorders, where mental health services are available in the county and how to access the services.

Emergency Services: Immediate response service available on a 24-hour, seven-day-a-week basis for persons having a psychiatric crisis, a mental health crisis, or emergency.

Fee-for-service: A method of paying for medical services where doctors, hospitals or others are paid for each service provided. Bills are either paid by the patient who then submits a claim to the insurance company, or are submitted by the provider to the patient's insurance carrier for reimbursement.

Health Maintenance Organization (HMO): An entity that provides comprehensive health services, or arranges for the provision of these services, to people enrolled in their plan for a fixed prepaid premium. HMOs licensed to serve Minnesotans are by law, nonprofit companies, and focus on preventive services and improving the quality of care received by enrollees.

Health Plan: The National Committee on Quality Assurance defines health plan to include HMO, POS and PPO plans. Sometimes "health plan" refers to your health care coverage. The word is also used to refer to a company that offers various health care coverage products.

HEDIS: HEDIS is the performance measurement tool for more than 90 percent of the nation's managed care organizations. It is a set of standardized measures that specifies how health plans collect, audit and report on their performance in important areas ranging from breast cancer screening, to helping patients control their cholesterol to customer satisfaction. Purchasers and others use HEDIS data to compare health plan performance. HEDIS is a registered trademark of NCQA.

Incidence: refers to new cases of a condition which occur during a specified period of time.

Managed Behavioral Healthcare Organization (MBHO): A system of behavioral healthcare delivery that manages quality, utilization and cost of services, and which measures performance in the area of mental and substance abuse disorders.

Managed Care Organization: A general term for health plans that provide health care in return for pre-set monthly payments and coordinate care through a defined network of primary care physicians and hospitals.

Medicare: The federal government's health care program for all persons over the age of 65 and for younger persons who have disabilities and cannot work.

Medicaid: A health care program for people who meet certain income and other guidelines. Medicaid is paid for by federal and state dollars. In Minnesota this program is called Medical Assistance (MA) and Prepaid Medical Assistance (PMAP).

Mental Health: A state of successful performance of mental function resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and cope with adversity. Mental health is indispensable to personal well-being, family and interpersonal relationships, and contributing to community and society.

Mental Illness: Term that refers collectively to all diagnosable mental disorders. Mental disorders are health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning. Examples: thinking disorder/Alzheimer's disease; mood disorder/depression; thinking disorder (inability to concentrate) or behavior disorder/attention-deficit/hyperactivity disorder. Mental disorders are characterized by abnormalities in cognition, emotion or mood, or the highest integrative aspects of behavior, such as social interactions or planning of future activities.

Mental Health Problems: Term for signs and symptoms of insufficient intensity or duration to meet the criteria for any mental disorder. Almost everyone has experienced a mental health problem in which the distress one feels matches some signs and symptoms of mental disorders, which would warrant active efforts in mental health promotion, prevention and/or treatment (e.g. bereavement).

Outpatient Services: Individual, group and family therapy; individual treatment planning; diagnostic assess-

ments; medication management; and psychological testing.

Point of Service (POS): Many HMOs offer an indemnity-type option known as a POS plan. The primary care doctors in a POS plan usually make referrals to other providers in the plan. But in a POS plan, members can refer themselves outside the plan and still get some coverage. If the doctor makes a referral out of the network, the plan pays all or most of the bill. If you refer yourself to a provider outside the network and the service is covered by the plan, you will have to pay coinsurance.

Preferred Provider Organization (PPO): A network of medical providers that contracts with an insurer to provide services for fees that are negotiated before services are provided.

Prevalence: Refers to cases (i.e. new and existing) of a condition observed at a point in time or during a period of time

Residential Treatment Services: 24-hour-a-day program under the clinical supervision of a mental health professional, in a community residential setting other than an acute care hospital or regional treatment center inpatient unit.

Regional Treatment Center Inpatient Services: 24-hour-a-day comprehensive medical, nursing, or psychosocial services provided in a regional treatment center operated by the state.

REFERENCES

- American Medical Association: Directory of Physicians in the United States. Chicago, Ill.: Division of Survey and Data Resources, 2003.
- American Psychological Association, Government Relations, Practice Directorate: The Costs of Failing to Provide Appropriate Mental Health Care. Washington, DC: The Association, n.d. (<http://www.apa.org/practice/failing.html>)
- Bethell C, Lansky D, Fiorillo J: A Portrait of the Chronically Ill in America, 2001: A Report from the Robert Wood Johnson Foundation, National Strategic Indicator Surveys. Princeton, NJ: Robert Wood Johnson Foundation (and Foundation for Accountability), 2002. (http://www.rwjf.org/publications/publicationsPdfs/report_chronic_illness.pdf)
- Council of State Governments, Criminal Justice / Mental Health Consensus Project: Fact Sheet About the Problem. New York: The Council, n.d. (<http://consensusproject.org/infocenter/factsheet>)

- Ditton PM: Mental Health and Treatment of Inmates and Probationers. (Bureau of Justice Statistics Special Report), July 1999 (<http://www.ojp.usdoj.gov/bjs/pub/pdf/mhtip.pdf>).
- Elixhauser A, Yu K, Steiner C, Bierman AS: Hospitalization in the United States, 1997. Rockville, MD: Agency for Healthcare Research and Quality, 2000. (HCUP Fact Book No. 1; AHRQ Publication No. 00-0031). (<http://www.ahrq.gov/data/hcup/factbk1/>)
- Hay Group: Health Care Plan Design and Cost Trends: 1988 through 1998: A Report Prepared for the National Association of Psychiatric Health Systems, Association of Behavioral Group Practices, and the National Alliance for the Mentally Ill. Arlington, VA.: The Group, 1999. (See also: Hay Group: Health Care Plan Design and Cost Trends - 1988 through 1997. Arlington, VA.: The Group, 1998.)
- Greenberg PE, Stiglin LE, Finkelstein SN, Berndt ER: The economic burden of depression in 1990. *J Clin Psychiatry*. 1993 Nov;54(11):405-18.
- Kessler RC et al.: "A Methodology for Estimating the 12-Month Prevalence of Serious Mental Illness," Chapter 9 in Mental Health, United States, 1998, Manderscheid, R.W., and Henderson, M.J., eds. (Center for Mental Health Services.) DHHS Pub. No. (SMA)99-3285. Washington, D.C.: Supt. of Docs., U.S. Govt. Print. Off., 1998.
- Leibson CL, Katusic SK, Barbaresi WJ, Ransom J, O'Brien PC: Use and Costs of Medical Care for Children and Adolescents With and Without Attention-Deficit/Hyperactivity Disorder. *JAMA* 2001; 285: 60-66.
- Michigan Psychological Association: Medical & Surgical Costs. Okemos, MI: The Association, n.d. (<http://www.michpsych.org/index.cfm?location=3&subsectionid=2>)
- Michigan Psychological Association: Mental Health Benefits. Okemos, MI: The Association, n.d. (<http://www.michpsych.org/index.cfm?location=3&subsectionid=1>)
- Minnesota Department of Administration. "Indicator 15: Health insurance." Minnesota Milestones. St. Paul, MN: The Department, 2003. (<http://www.mnplan.state.mn.us/mm/goal.html>)
- Minnesota Department of Children, Families & Learning and Minnesota Department of Humans Services: 2001 Minnesota Student Survey. (<http://www.mnschoolhealth.com/resources.html?ac=data>)
- Minnesota Department of Economic Security, Rehabilitation Services Branch: Status and Evaluation of Employment and Support Services for Persons with Mental Illness. St. Paul, MN: The Branch, 2000.
- Minnesota Department of Health: Health Plan Employer Data and Information Set: HEDIS Reports Homepage (reporting years 1996 to 2002). St. Paul, MN: The Department, 1997-2003. (<http://www.health.state.mn.us/divs/hpsc/mcs/hedishome.htm>)
- Minnesota Department of Health: Nonfatal Injury in Minnesota: Hospitalized and Emergency Department-Treated: Fact Sheet, 2001. St. Paul, MN: The Department, n.d. (<http://www.health.state.mn.us/injury/pub/ed2001/index.cfm>)
- Minnesota Department of Health, Center for Health Statistics: 2001 Minnesota Health Statistics: Annual Summary. St. Paul, MN: The Center, 2003. (<http://www.health.state.mn.us/divs/chs/annsum2.htm>).

- Minnesota Department of Health, Health Economics Program: 2001 Minnesota Distribution of Insurance Coverage (Issue Brief 2003-07). St. Paul, MN: The Program, September 2003. (<http://www.health.state.mn.us/divs/hpsc/hep/issbrief/2003-07.pdf>)
- Minnesota Department of Human Services, Adult Mental Health Division: The Publicly-funded Adult Mental Health System, prepared for the “Toward Better Mental Health in Minnesota: A Community Approach Initiative” Project. St. Paul, MN: The Department, 2001. (<http://www.dhs.state.mn.us/Contcare/pdf/TBMHAdultsystem.pdf>)
- NAMI: Employment, Work, and Income Supports for People with Brain Disorders: Where We Stand. Arlington, VA: NAMI, December 17, 2000. (<http://web.nami.org/update/unitedemploy.html>)
- Owen G: Understanding Homelessness 2000: Facts and Faces from the Survey of Minnesotans without Permanent Housing. St. Paul, MN: Wilder Research Center, Nov. 2003 (<http://www.wilder.org/research/reports/pdf/homeless2000%2011-03sum.pdf>)
- Schmidt, Jr., CW: CPT Handbook for Psychiatrists (2nd ed.). Washington, D.C.: American Psychiatric Publishing, 1999.
- Stewart FW, Ricci JA, Chee E, Hahn SR, Morganstein D: Cost of Lost Productive Work Time Among US Workers With Depression. *JAMA*. 2003; 289:3135-3144.
- Sturm R., Gresenz CR, Pacula RL, Wells KB: Labor Force Participation for Individuals with Mental Illness. *Psychiatric Services* 1999; 50(11): 1407.
- U.S. National Advisory Mental Health Council: Health Care Reform with Severe Mental Illnesses: Report of the National Advisory Mental Health Council. Rockville, MD: U.S. National Institute of Mental Health, 1993. (See selected works of the Council at: <http://www.nimh.nih.gov/council/advis.cfm>)
- U.S. Department of Health and Human Services: Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, 1999. (<http://www.surgeongeneral.gov/library/mentalhealth/home.html>)
- U.S. Department of Health and Human Services: Mental Health: Culture, Race, and Ethnicity -- A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, 2001. (<http://www.surgeongeneral.gov/library/mentalhealth/cre/>)
- U.S. National Advisory Mental Health Council: Parity in Coverage of Mental Health Services in an Era of Managed Care: Interim Report to Congress. Rockville, MD: U.S. National Institute of Mental Health, 1997.
- U.S. Public Health Service: Report of the Surgeon General’s Conference on Children’s Mental Health: A National Action Agenda. Washington, DC: Department of Health and Human Services, 2000. (<http://www.surgeongeneral.gov/topics/cmh/childreport.htm>)
- World Health Organization: Global Burden of Disease project (http://www.who.int/health_topics/global_burden_of_disease/en/)

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