



PRAIRIE ST. JOHN'S™

**Appendix 2**  
Specialty Psychiatric Hospital  
Public Interest Review Application  
Submitted 11/9/2007

## **Appendix 2**

# **The Minnesota Mental Health System**

## **Demand, Capacity and Cost**



**Update 2006**



Dear Reader,

In February 2004, after six months of collaboration spearheaded by the Minnesota Psychiatric Society, stakeholders in Minnesota's mental health system published *The Minnesota Mental Health System: Demand, Capacity and Cost*. For original text, please see <http://www.mnpsychsoc.org/MH2004.pdf>

The satisfied aims of the original report included:

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?

There was an overwhelming positive response to the report across Minnesota. It was found to be both enlightening and a useful information source on our complex mental health system.

Since the publication of the report, the mental health system in Minnesota has experienced changes as a result of state and national legislation. As a result, our goal for Update 2006 was to determine the progress of the mental health system since February 2004.

1. What has changed?
2. What has improved?
3. What needs continued work and attention?
4. What are new challenges to the system?

From these data, we hope readers can determine what is needed to prepare the system for the future. What continues to be clear from Update 2006 is that Minnesota's mental health system is as complex as ever. As in 2004, it is our hope that the information gathered here will facilitate discussion and action to support our mental health system's continued improvement to address consumers' needs.

Signed,

Linda Vukelich  
Minnesota Psychiatric Society  
Executive Director

Kelly Lebak  
Minnesota Psychiatric Society  
Intern

<b>Table of Contents</b>
--------------------------

<i>Milestones</i> .....	<i>1</i>
<i>Measuring the Need for Mental Health Services</i> .....	<i>2</i>
<i>Measuring the Need for Mental Health Services: Children and Adolescents</i> .....	<i>3</i>
<i>Measuring the Need for Mental Health Services: Older Adults</i> .....	<i>4</i>
<i>Insurance Coverage</i> .....	<i>4</i>
<i>Other Coverage</i> .....	<i>5</i>
Medicare .....	<i>5</i>
Medicare Part D .....	<i>5</i>
Medicaid, MinnesotaCare, General Assistance Medical Care.....	<i>6</i>
<i>Prevalence of Mental Illness Among the Homeless</i> .....	<i>6</i>
<i>Impact of Mental on the lives of Minnesotans</i> .....	<i>7</i>
<i>System Capacity</i> .....	<i>7</i>
<i>System Capacity: Case Management</i> .....	<i>8</i>
<i>Publicly Funded Community Based Programs</i> .....	<i>9</i>
<i>Community Mental Health Centers</i> .....	<i>10</i>
<i>Hospital Beds</i> .....	<i>10</i>
<i>Hospital Wait Times, Diversions, and Transfers</i> .....	<i>11</i>
<i>Housing</i> .....	<i>12</i>
<i>Employment</i> .....	<i>12</i>
<i>Partnership Story</i> .....	<i>13</i>
<i>Comparing Health Costs</i> .....	<i>15</i>
<i>Uncompensated Care Nationwide</i> .....	<i>16</i>
<i>Minnesota Uncompensated Hospital Care</i> .....	<i>16</i>
<i>Hospital and Emergency Room Trends</i> .....	<i>17</i>
<i>Employer/Employee Costs</i> .....	<i>17</i>
<i>Return on Investment: The case for collaborative care</i> .....	<i>18</i>
<i>Acknowledgments</i> .....	<i>19</i>

## Milestones

**2004:** Centers for Medicaid and Medicare Services (CMS) starts the Cash and Counseling program in Minnesota which allows beneficiaries to choose and pay for their own personal care services.

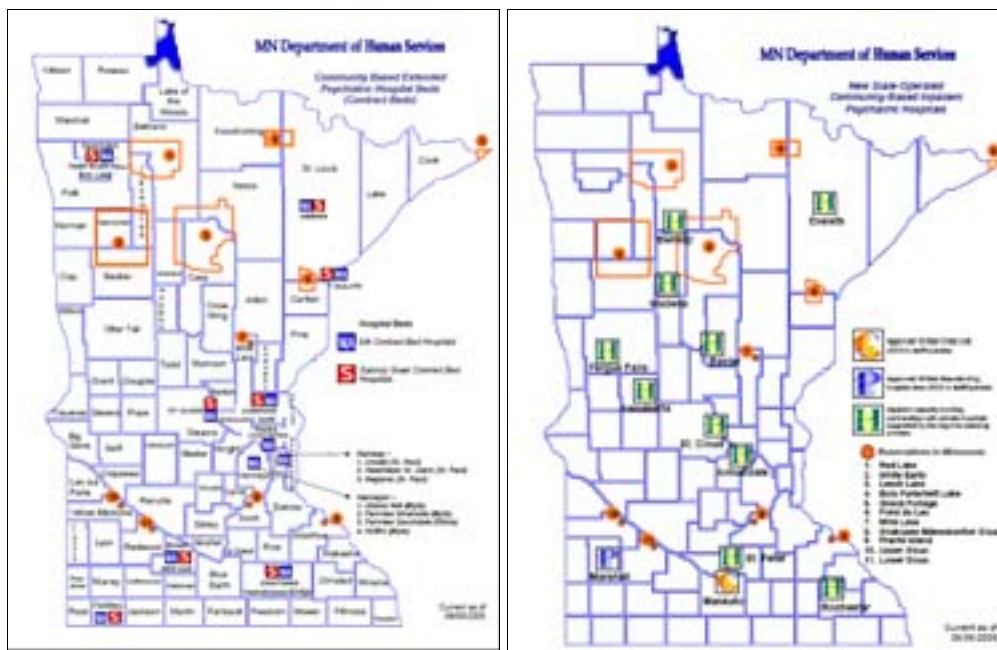
Alliance for Health Reform: Cash and Counseling: Part of the Long-Term Care Answer?, 2005.  
[http://www.allhealth.org/briefing\\_detail.asp?bi=60](http://www.allhealth.org/briefing_detail.asp?bi=60)

**2006:** As part of Governor Tim Pawlenty's Mental Health Initiative, over \$10 million in funding was approved to address the shortage of psychiatrists in Minnesota including a 23.7% rate increase for psychiatrists and other mental health professionals, improve crisis services, track service availability in real-time, and evaluate outcomes.

Minnesota Department of Human Services: Fast Facts: 2006 Legislative Session, 2006.  
<http://edocs.dhs.state.mn.us/lfsrserver/Legacy/DHS-4809-ENG>

Minnesota Department of Human Services: Governor's mental health initiative: Comparison of proposed versus final legislation, 2006.  
[http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs\\_id\\_058249.doc](http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs_id_058249.doc)

**2006:** Several widely dispersed 16-bed psychiatric hospitals were opened. These community behavioral health hospitals provide acute psychiatric inpatient care for adults. The hospitals will provide community services and also replace inpatient adult mental health services previously provided at regional treatment centers.



Minnesota Department of Human Services: Maps of Public Adult Mental Health Providers in Minnesota as of 6/15/2006

[http://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_DYNAMIC\\_CONVERSION&RevisionSelectionMethod=LatestReleased&Redirected=true&dDocName=id\\_059089](http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&Redirected=true&dDocName=id_059089)

**2006:** Telemedicine is approved for reimbursement by Medicaid in Minnesota.

## Measuring the Need for Mental Health Services

In 2001, the U.S. Surgeon General updated his 1999 report “Mental Health: Culture, Race, and Ethnicity, A Supplement to Mental Health: A Report of the Surgeon General” It was reported that ***now more than one in five*** Americans will be affected by mental illness. This translates to ***more than one million*** Minnesotans potentially needing mental health services.

There is a disproportionate level of disability burden on racial and ethnic minorities suffering from mental illness. The greater burden comes from minorities receiving *less care and poorer quality of care*, rather than from their illnesses being inherently more severe or prevalent in the community.

U.S. Public Health Service, Office of the Surgeon General: Mental Health: Culture, Race, and Ethnicity A Supplement to Mental Health: A Report of the Surgeon General, 2001.  
<http://www.surgeongeneral.gov/library/mentalhealth/cr/>

**Nationally, depression is one of the top ten conditions for patients admitted to the hospital in three different patient age groups: 1-17, 18-44, 45-64.<sup>1</sup>**

<sup>1</sup>Merrill CT, Elixhauser A. *Hospitalization in the United States, 2002*. Rockville, MD: Agency for Healthcare Research and Quality, 2005. HCUP Fact Book No. 6. AHRQ Publication No. 05-0056. ISBN 1-58763-217-9.

<sup>2</sup>Population based on the US Census Bureau, 2005 estimate. [www.quickfacts.census.gov](http://www.quickfacts.census.gov)

<sup>3</sup>Minnesota Department of Human Services: Estimating the Treatment Need for Substance Abuse in Minnesota: 2004/2005 Minnesota Survey on Adult Substance Use, 2006.  
[http://www.dhs.state.mn.us/main/groups/healthcare/documents/pub/dhs\\_id\\_055808.pdf](http://www.dhs.state.mn.us/main/groups/healthcare/documents/pub/dhs_id_055808.pdf)

**Mental illness also is also a risk to children of mentally ill parents.** A 20-year study by researchers at Columbia University and the New York State Psychiatric Institute shows that children of depressed parents are at higher risk for psychiatric and general medical problems. The risks for anxiety disorders and major depression were about **3 times as high** and the rate of phobias was **4 times as high**. There were increased rates in substance dependence, self-inflicted injury, cardiovascular disorders (5 times as likely) and neuromuscular disorders (twice as likely) when the children reached mid-adulthood. Overall, 83% of offspring experienced psychiatric disorders during their lifetimes, but only 38% received mental health treatment.

Weissman MM, Wickramaratne P, Nomura Y, Warner V, Pilowsky D, Verdelli H. Offspring of depressed parents: 20 years later. *Am J Psychiatry* 2006; 163: 1001-07.

Unlike in 1997, mood disorders are among the ten most frequent comorbidities and are listed as a secondary diagnosis for about 5% of all hospital stays.<sup>1</sup>

Approx. **7.7%** of Minnesota adults (299,186 people, *or more than the entire population of St. Paul, according to 2005 estimates*) reported significant depressive symptoms and 2.3% reported symptoms of serious mental illness (SMI), but only about 21% of those reported having received mental health treatment in the past year.<sup>2,3</sup>

Alcohol and drug abuse continue to be common comorbidities. *Drug abuse* is a top ten comorbidity for children and adolescents ages 1-17 and for adults ages 18-44. *Alcohol abuse* is a top ten comorbidity for adults in the 18-44 and 45-64 age groups.<sup>1</sup>

Minnesota adults with serious mental illness symptoms are more than **ten times** as likely to have a drug disorder and more than **three times** as likely to have a substance use disorder compared to those without SMI symptoms.<sup>3</sup>



### Measuring the Need for Mental Health Services: Children and Adolescents

- Fifteen percent of sixth graders (13% in 2001), 22% (23%) of ninth graders, and 15% (17%) of seniors said that they had suicidal thoughts in the past year.
- In 2004, 14% of males grades 6, 9, 12 reported that they had suicidal thoughts in the last year, and 6<sup>th</sup> and 12<sup>th</sup> grade females were slightly higher at 16% in 2004.
- But for 9<sup>th</sup> grade females, the rate of those having suicidal thoughts was about **double** that of males and younger and older females at **28%**

Minnesota Departments Of Education, Health, Human Services, Public Safety and Corrections: Student survey: MN Student survey, 1992-2004.  
[http://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs\\_id\\_054600](http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs_id_054600)



- Nine percent of Minnesota's children ages 9 to 17 and 5 percent of children under 8 years old have a serious emotional disturbance.<sup>1</sup>
- An estimated 69,000 have functional impairment due to mental illness.<sup>2</sup>
- An estimated 91,000 children in Minnesota need treatment for emotional disturbances.<sup>1</sup>
- For Minnesota children, 38% percent of mental health funds are spent on residential and inpatient services.<sup>1</sup>

<sup>1</sup>Minnesota Department of Human Services: Children's mental health: Offering a continuum of services to meet children's needs, 2004.  
[http://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_DYNAMIC\\_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id\\_005303](http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_005303)

<sup>2</sup>Children's Defense Fund Minnesota: Children's Mental Health Data in Minnesota, 2004.  
[http://www.cdf-mn.org/PDF/KidsCountData\\_05/MentalHealthData.pdf](http://www.cdf-mn.org/PDF/KidsCountData_05/MentalHealthData.pdf)

### Measuring the Need for Mental Health Services: Older Adults

- Depression increases mortality *as much* as cardiovascular disease and diabetes in older primary care patients.<sup>1</sup>
- Studies have shown that up to 75% of older adults who die by suicide have visited their primary care physician within the last month of their life.<sup>2</sup>
- Two million out of 35 million Americans 65 years and older have a mood disorder.<sup>2</sup>
- Depression is *not* a normal occurrence of common diseases seen in older adults including heart disease, stroke, diabetes, cancer, and Parkinson's disease.<sup>2</sup>

<sup>1</sup>Gallo JJ, Bogner HR, Morales KH, Post EP, Ten Have T, Bruce ML. Depression, cardiovascular disease, diabetes, and two-year mortality among older, primary-care patients. *Am J Geriatr Psychiatry* 2005; 13: 748-55.

<sup>2</sup>National Institutes of Mental Health: Depression in Older Adults. [www.nimh.nih.gov/healthinformation/depoldermenu.cfm](http://www.nimh.nih.gov/healthinformation/depoldermenu.cfm)

**Insurance Coverage**

- Between 2002-2004, Minnesota had the lowest average rate of uninsured residents in the nation at about 2 times **under** the national average. Previously, Minnesota ranked second behind Rhode Island for the percent of residents insured.

U.S. Census Bureau: Income, Poverty, and Health Insurance Coverage in the United States, 2004.  
<http://www.census.gov/prod/2005pubs/p60-229.pdf>

- The rate of Minnesota's uninsured has **increased** since 1999.<sup>1,2</sup>

	2001	2004
Uninsured	5.7%	7.4%
Public program enrollment	23%	25.1%

- If the uninsured rate remained stable to 2006, this means approximately **383,000** people are uninsured in Minnesota.<sup>1,2</sup>
- In 2004, 5.4% of Minnesotan children were uninsured, an increase from 4.6% in 2001.<sup>1</sup> This translates to approximately **66,000 children** in Minnesota being uninsured as of July 2006.<sup>3</sup>
- In 2004, for the fifth year in a row, there was a decrease in the percent of Minnesotans that had private health insurance (67.5% vs.72.2% in 1999).<sup>2</sup>

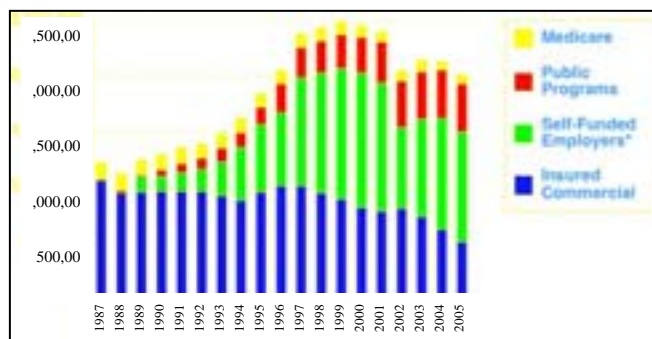
<sup>1</sup>Minnesota Department of Health, Health Economics program  
<http://www.health.state.mn.us/divs/hpsc/hep/publications/coverage/2006hhsrvrpt.pdf>

Population estimates based on numbers from the Minnesota Department of Administration  
<http://www.lmic.state.mn.us/datanetweb/php/census2000/estimate/menu.php>

<sup>2</sup>Minnesota Department of Health, Health Economics Program: Issue Brief Distribution of Health Insurance Coverage in Minnesota, 2004, 2006.  
<http://www.health.state.mn.us/divs/hpsc/hep/publications/coverage/2006-04.pdf>

<sup>3</sup>Minnesota Department of Health, Health Economics Program: How much would it cost to cover the uninsured in Minnesota? Preliminary Estimates, 2006.  
<http://www.health.state.mn.us/divs/hpsc/hep/publications/coverage/uninsurecost.pdf>

**2005 insured HMO enrollment dropped to lowest rate since 1985**



- Enrollment in insured HMO benefit plans declined again in 2005, dropping below 1 million, the lowest level since 1985.
- Premium revenue increases slowed and profitability for HMOs decreased from its peak in 2004.

Minnesota Managed Care Review 2006  
[http://www.allanbaumgarten.com/index.cfm?fuseaction=dsp\\_report&state=mn](http://www.allanbaumgarten.com/index.cfm?fuseaction=dsp_report&state=mn)



## Other Coverage



### Medicare

**The number of Minnesotans enrolled in Medicare has increased from 658,696 people in 2001 to 711,498 in 2006. This continues to be stable at 13% of the state's population.**

Minnesota Department of Human Services: [Minnesota Medicare Part D enrollment numbers, 2006.](http://www.dhs.state.mn.us/main/groups/aging/documents/pub/dhs_id_057720.pdf)

[http://www.dhs.state.mn.us/main/groups/aging/documents/pub/dhs\\_id\\_057720.pdf](http://www.dhs.state.mn.us/main/groups/aging/documents/pub/dhs_id_057720.pdf) for 2005

### Medicare Part D

- **Medicare Part D is not just for the elderly. Of the 711,498 beneficiaries<sup>1</sup> enrolled in Medicare, about 90,000 are persons with disabilities and 95,000 are both eligible for Medical Assistance and Medicare<sup>2</sup>.**

Minnesota Department of Human Services: [Minnesota Medicare Part D enrollment numbers, 2006.](http://www.dhs.state.mn.us/main/groups/aging/documents/pub/dhs_id_057720.pdf)

<sup>2</sup>Kaiser Family Foundation, [www.statehealthfacts.org](http://www.statehealthfacts.org)

- **The total enrollment in Medicare Part D as of June 2006 was 547,376 Minnesotans.**

U.S. Department of Health & Human Services, Centers for Medicare & Medicaid Services: [Part D Enrollment Data.](http://www.cms.hhs.gov/PrescriptionDrugCovGenIn/02_EnrollmentData.asp)

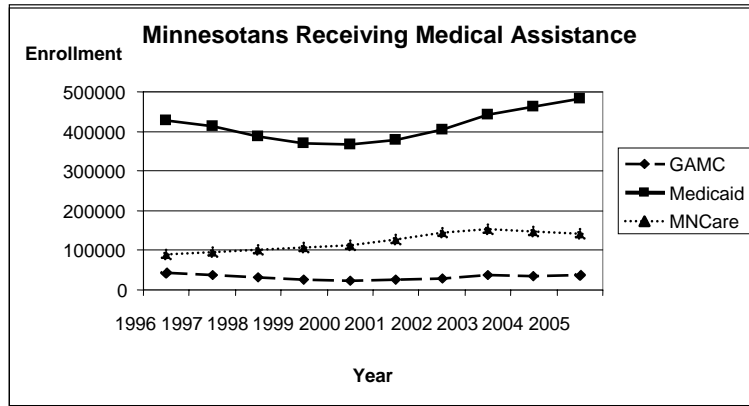
[http://www.cms.hhs.gov/PrescriptionDrugCovGenIn/02\\_EnrollmentData.asp](http://www.cms.hhs.gov/PrescriptionDrugCovGenIn/02_EnrollmentData.asp)



- **The total number of people *under* age 65 who receive *both* Medicaid and Medicare, is 32,656.**
  - **In 2004, when at least one mental health drug was taken, the average prescription cost for those under age 65 who receive both Medicaid and Medicare, was \$458/month. Fifty-seven (57)% of drug costs are for psychiatric medications**

Minnesota Department of Human Services, Minnesota State Advisory Council on Mental Health Subcommittee on Children's Mental Health: [Fact Sheet on the New Medicare Prescription Drug Benefit.](#)

## Medicaid, MinnesotaCare, General Assistance Medical Care



### Total 2006 enrollment as of July:

Medicaid	503,491
MNCare	120,054
GAMC	40,988

Minnesota Department of Human Services,  
Reports and Forecasts: Family Self-Sufficiency  
and Health Care Program Statistics, 2006.

[http://www.dhs.state.mn.us/main/groups/agencywide/documents/pub/DHS\\_id\\_016338.pdf](http://www.dhs.state.mn.us/main/groups/agencywide/documents/pub/DHS_id_016338.pdf)

- Nationwide, mood disorders are ranked as the 5<sup>th</sup> most common diagnosis for Medicaid payment while schizophrenia is 8<sup>th</sup> and accounts for 32.6% and 54.2% of Medicaid's share of *all* hospital stays respectively.

Merrill CT, Elixhauser A. Hospitalization in the United States, 2002.  
Rockville, MD: Agency for Healthcare Research and Quality, 2005. HCUP  
Fact Book No. 6. AHRQ Publication No. 05-0056. ISBN 1-58763-217-9.

## Prevalence of Mental Illness Among the Homeless

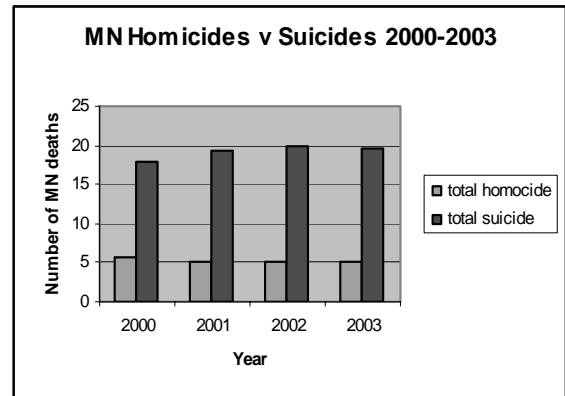
- In a 2004 updated report, the Wilder Research Center found that 47% (an increase from 25% in 1991 and 36% in 2000) of homeless adults have some sort of mental illness with depression being the most common in 31% of all homeless adults.
  - 30% of homeless men and 25% of homeless adults overall had a recent diagnosis of a chemical abuse disorder.
  - Over *half* of homeless people have a serious problem with alcohol or drugs.
  - Greater than 16% have both mental illness and a chemical abuse disorder.
  - **56%** of homeless people reported having a mental illness medication prescribed, but were not taking it.

Wilder Research Center: Homelessness 2003: Key facts from the survey of Minnesotans without permanent housing, 2004.

<http://www.ppl-inc.org/documents/Homeless2003.pdf>

### Mental Illness Impacts Minnesota Lives

- Suicide was the second leading cause of death for 15 to 34 years olds and the third leading cause of death among 10 to 14 year olds between 1999 and 2002. Previously suicide was the third leading cause of death for 30-34 year olds.
- In Minnesota, the age groups at highest risk for suicide are 45-49 year old women and 80-84 year old men.
- From 2000 to 2004, the average number of suicides in Minnesota was **479**. This is an average of almost **4 times as many** deaths from suicides as from homicides.
- In 2004, for self-inflicted injury, the hospital charges (not including physician charges) **totaled \$48.2 million** with a median per patient charge of **\$7,557**; this is up from \$28.3 million and a median charge of \$5,234 per patient in 2000.



Minnesota Department of Health Injury & Violence Prevention Unit: [Suicide & Self-inflicted Injury in Minnesota Residents Powerpoint, 2005](#).

### System Capacity

Seventy of eighty-seven Minnesota counties meet federal criteria for mental health professional shortage areas.<sup>1</sup> In 2006, more than one million Minnesotans used the following providers for their mental health care:



- **30** psychiatric nurse practitioners out of a total 2,081 nurse practitioners (1.4%)<sup>2</sup>
- **229** psychiatric clinical nurse specialists out of a total 459 clinical nurse specialists (50%)<sup>2</sup>
- **3,600** licensed psychologists with an unknown number providing direct patient care<sup>3</sup>
- **402** psychiatrists in Minnesota provided direct patient care.<sup>4</sup>

**Only the white counties do not meet federal criteria for mental health professional shortage areas.**

- There are approximately **33% fewer** psychiatrists per capita in Minnesota than the national average and even more of a shortage of child and adolescent psychiatrists. There are 4.6 child and adolescent psychiatrics per 100,000 compared with the national average of 6.7 per 100,000.<sup>5</sup>
- *In 2010, Minnesota will need an estimated **818** psychiatrists based on the recommended 15 psychiatrist:100,000 people.*<sup>6</sup>
- The average age of a Minnesota psychiatrist is 54.<sup>5</sup>

<sup>1</sup>Counties WITHOUT a mental health professional shortage as of December 2005: Anoka, Dakota, Carver, Fillmore, Goodhue, Hennepin, Houston, Kandiyohi, Olmsted, Meeker, McLeod, Ramsey, Scott, Wabasha, Washington, Winona, Wright.

Minnesota Department of Health, Office of Rural health and Primary Care: Mental Health Professional Shortage Areas December 2005, 2005.  
<http://www.health.state.mn.us/divs/chs/hpsamental.htm>

<sup>2</sup>Previously there were 203 psychiatric clinical nurse specialists. Minnesota Board of Nursing. The type of practice setting for general nursing licensure is not tracked, so the number of registered nurses practicing in mental health settings is not available.

<sup>3</sup>Previously there were 3,557 licensed psychologists. Minnesota Board of Psychology. These figures do not necessarily reflect full-time practice.

<sup>4</sup>In 2002 there were 490 psychiatrists providing direct patient care. Minnesota Department of Health.  
<http://www.health.state.mn.us/divs/chs/physwkfc05.htm>

Based on survey responses and licensing data from the Minnesota Board of Medical Practice, the Office of Rural Health and Primary Care used data from the Minnesota Board of Medical Practice and estimated approximately 13,330 physicians were practicing at least part time at Minnesota practice sites in early 2005.

American Medical Association: Physician Characteristics and Distribution in the U.S., 2006. In 2004, there were approximately 542 (vs. 739 in 2002) psychiatrists in Minnesota with 94% (an increase from 66% in 2002) providing direct patient care. Compared to the previous report, this is a decrease in the total number of psychiatrists, but an increase in the number providing direct patient care. There were 93 resident physicians training in 2006. The data is voluntary report by the physicians, includes members and non-members, and does not reflect activity nor full-time vs. part-time practice status.

<sup>5</sup>Minnesota Department of Human Services: Governor's Mental Health Initiative: Investments in the Mental Health Service Infrastructure, 2006.  
[http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs\\_id\\_056862.pdf](http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs_id_056862.pdf)

<sup>6</sup>Calculated using an estimated population in Minnesota in 2010 of 5,452,500 and using the standard 15 psychiatrists per 100,000 people. Minnesota Department of Administration.  
<http://www.lmic.state.mn.us/datanetweb/php/DemProjection/PopPrjReport.php>

### System Capacity: Case Management

- In 2005 there were **21,416** Minnesotan adults with severe and persistent mental illness (SPMI) who used case management services (up from 19,694 in 2003) with an average of **20 hours** per client per year.
- An additional **6,269** adults who used case management fell below the SPMI requirements, but live with severe mental illness, were provided with case management services.
- **9,313** children with severe emotional disturbance and 4,576 children with emotional disturbance received case management with an average of **28** hours per child per year.

<sup>1</sup>Minnesota Department of Human Services

Publicly Funded Community Based Programs				
--	--	--	--	--

Adults using public mental health services	2002 County Services	2004 County Services	2004 Non-County Services	2004 Total Clients
Received mental health services	54,360	55,209 <sup>1</sup>	51,150 <sup>2</sup>	106,359 <sup>3</sup>
Received mental health services per capita 10,000	150	279		
Case management	22,393	23,496		
Diagnostic assessment, testing	19,307	24,840 <sup>1</sup>	27,131 <sup>2</sup>	51,971 <sup>3</sup>
Day treatment	3,758	4,177 <sup>1</sup>	724 <sup>2</sup>	4,901 <sup>3</sup>
Day treatment hours/client	77	72		
Medication management	16,957	27,857 <sup>1</sup>	21,078 <sup>2</sup>	48,935 <sup>3</sup>
Community psychiatric inpatient care <sup>4</sup>	6,465	7,390		
Inpatient treatment <sup>5</sup>	8,262	8,958		
Residential treatment <sup>6</sup>	3,185	2840 <sup>1</sup>	1 <sup>2</sup>	2841 <sup>3</sup>
Residential treatment bed days/client	98	75		

Minnesota Department of Human Services, Mental Health Divisions: Mental Health Management Report: Service Utilization Tables for Adults During Calendar Year 2004, 2005. <http://edocs.dhs.state.mn.us/lfsrserver/Legacy/DHS-4594-ENG>

Children using public mental health services <sup>7</sup>	2002 County Services	2004 County Services	2004 Non-County Services	2004 Total Clients
Received mental health services	22,992	22,550 <sup>1</sup>	18,661 <sup>2</sup>	41,211 <sup>3</sup>
Received mental health services per capita 10,000	179	330		
Diagnostic assessment, screening, testing	10,197	10,947 <sup>1</sup>	11,043 <sup>2</sup>	21,990 <sup>3</sup>
Day treatment	1,634	2,339 <sup>1</sup>	233 <sup>2</sup>	2,572 <sup>3</sup>
Day treatment hours/client	13	211		
Family community support services <sup>8</sup>	4,379	6,427 <sup>1</sup>	1,255 <sup>2</sup>	7,682 <sup>3</sup>
Family community support services hours/client	41	74		
Medication management	4,786	5,995 <sup>1</sup>	4,755 <sup>2</sup>	10,750 <sup>3</sup>
Home based family treatment	1,547	1,642		
Home based family treatment average hours	33	39		
Outpatient treatment	8,276	11,962 <sup>1</sup>	11,847 <sup>2</sup>	23,809 <sup>3</sup>
Outpatient treatment average hours	10	9		
Community psychiatric inpatient care <sup>4</sup>	1,564	1,820		
Inpatient treatment <sup>9</sup>	354	389		
Inpatient treatment days/client	9	44		
Residential treatment <sup>10</sup>	1,045	1,257 <sup>1</sup>	20 <sup>2</sup>	1,277 <sup>3</sup>

Minnesota Department of Human Services, Mental Health Divisions: Mental Health Management Report: Service Utilization Tables for Children During Calendar Year 2004, 2005.

[http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs\\_id\\_059799.pdf](http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs_id_059799.pdf)<sup>1</sup>

<sup>1</sup>Number of unduplicated clients who receive mental health services directly from a county or a county contract provider and who are reported to Community Mental Health Reporting System

<sup>2</sup>Number of clients who had Minnesota Health Care Programs paid mental health services only and did not receive any services from a county or county contract provider

<sup>3</sup>Total number of clients using county or non-county services

<sup>4</sup>Includes both fee for service and pre-paid plan hospital patients

<sup>5</sup>Includes Regional Treatment Centers, contract beds, community inpatients

<sup>6</sup>In 2002 included Rule 36 centers, in 2004 included Rule 36 centers and Intensive Residential Treatment Services

<sup>7</sup>Ages 17 and younger

<sup>8</sup>As of July 2004, Family Community Support Services (FCSS), Home Based Mental Health Services (HBMHS), and Therapeutic Support of Foster Care (TSFC) were combined into one service called Children's Therapeutic Services and Supports (CTSS)

<sup>9</sup>Regional treatment center, excludes forensic population

<sup>10</sup>Rule 5

**Community Mental Health Centers**

- Currently there are about 30 community mental health centers (36 in 2003) and 73 (79 in 2003) Rule 29 mental health centers and clinics in Minnesota serving about 130,000 people.

Minnesota Department of Human Services, Division of Licensing: [DHS Facility List by County Report, 2006.](http://www.dhs.state.mn.us/Licensing/ProgramLists/pdf/flmhc.pdf)  
<http://www.dhs.state.mn.us/Licensing/ProgramLists/pdf/flmhc.pdf>

**Hospital Beds**

	1999	2001	2005
Adult inpatient mental health beds	830	852	867
Pediatric inpatient mental health beds	132	126	114
Adult inpatient chemical dependency beds	298	386	111
Pediatric inpatient chemical dependency beds	30	46	27

- Less than 25% of all Minnesota hospitals have inpatient adult mental health or chemical dependency bed capacities. These beds are only 9% of the total hospital beds statewide.<sup>1</sup>
- The majority of beds for both mental health and chemical dependency are located in the Metropolitan area, although mental health beds are dispersed more evenly across the state than chemical dependency beds.<sup>1</sup>
- In Minnesota, mental illness was the second highest major diagnostic category accounting for 10% of all patient days of hospital care in 2003. The average length of stay was 7.7 days with psychoses diagnoses accounting for nearly 79% of total patient days.<sup>2</sup>
- Thirty-two of 136 and hospitals in the state have adult mental health and or chemical dependency beds.<sup>1</sup>
- In all of Minnesota, only the University of Minnesota, Fairview has pediatric chemical dependency-dedicated beds.<sup>1</sup>

**In 2005, Minnesota had 16.8 mental health beds per 100,000 people; far short of the national average of 28.2 beds per 100,000. In contrast, Minnesota had 128% the national average of cardiac intensive care beds in 2003.<sup>3</sup>**

<sup>1</sup>Minnesota Department of Health, Health Economics Program: [Distribution of MN hospital beds by specialty, 2005.](http://www.health.state.mn.us/divs/hpsc/hep/publications/providers/2005-03.pdf)  
<http://www.health.state.mn.us/divs/hpsc/hep/publications/providers/2005-03.pdf>

<sup>2</sup>Minnesota Department of Health, Health Economics Program: [Health Conditions Associated With Minnesotans' Hospital Use, 2006.](http://www.health.state.mn.us/divs/hpsc/hep/publications/utilization/2006-02.pdf) <http://www.health.state.mn.us/divs/hpsc/hep/publications/utilization/2006-02.pdf>

<sup>3</sup>BlueCross BlueShield of Minnesota: [Hospital Expansion in Minnesota: Is Growth Worth the Cost?, 2005](#) in Citizens League Medical Facilities Study Committee: [Developing Informed Decisions: Seeking Market Reforms to Advise Medical Facility Expansion, 2006.](#)

### Hospital Wait Times, Diversions, and Transfers

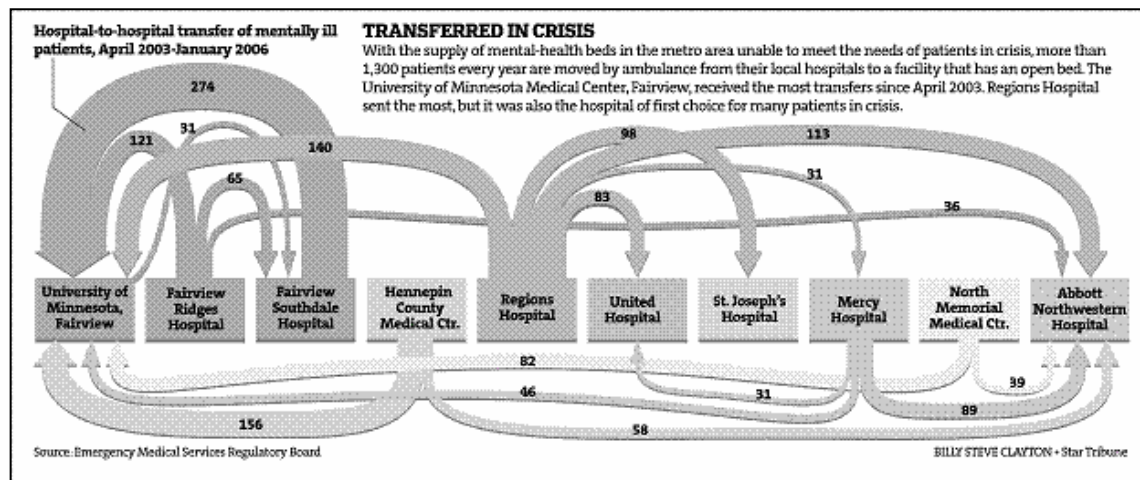
Because of the bed shortage in both acute care and community care across Minnesota, there has been an increasing trend in wait times, hospital diversions, and transfers.

- The number of mentally ill people seeking care in the hospital ER has been on the increase for the last 6 years.<sup>1</sup>
- Hennepin County Medical Center reported that the average wait time is one to five days in the emergency room or acute psychiatric services unit for an adult mental health patient to be admitted to a psychiatric bed at one urban, public hospital. If needed, while waiting for a hospital bed, some acutely mentally ill patients will be “boarded” in emergency room beds. Patients are commonly transferred as far away as Rochester or Fargo for inpatient services due to all 89 psychiatric beds in the hospital being occupied.<sup>2</sup>

The majority of emergency physicians in one study reported that the increase in mentally ill patients in the emergency room is causing longer wait times for *all* patients in the emergency department and also decreases the availability of staff and the number of available emergency department beds.<sup>3</sup>

**Psychiatric patients board in the emergency room twice as long waiting for an inpatient bed than non-psychiatric patients.**<sup>3</sup>

Between April 2003-January 2006 there were nearly 1,500 hospital to hospital transfers for over 1,300 mental health patients. The University of Minnesota Medical center, Fairview received the greatest number of transfers at 819 from area hospitals and Regions Hospital sent the most, transferring 465 times.<sup>1</sup>



- Anoka-Metro Regional Treatment Center has waiting list for admission with an average of 50 people and 25 days.<sup>5</sup>
- Twenty-five percent of those on the wait list are diverted to community-based services.<sup>5</sup>

<sup>1</sup>Howatt, G. No room here. Star Tribune April 23, 2006; A1.

<sup>1</sup>Minnesota Emergency Medical Services Regulatory Board

<sup>2</sup>Acute Psychiatric Services, Hennepin County Medical Center

<sup>3</sup>Mulligan, K. ER Docs Report Large Increase in Psychiatric Patients, *Psychiatric News* 2004, 39: 10.

<sup>4</sup>Mansbach JM, Wharff E, Austin SB, Ginnis K, Woods ER. Which Psychiatric Patients Board on the Medical Service?. *Pediatrics* 2003; 111: e693-e698.

<sup>5</sup>Minnesota Department of Human Services, State Operated Services

### Housing

- A Bridges certificate is a housing subsidy where an individual pays 1/3 of their income for rent and Bridges pays the rest while waiting for a federal Section 8 certificate. The Bridges program has expanded to include Beltrami, Steele and Olmsted counties. Bridges program is now available in 55 counties (formerly 52). From 2004-2005, a total of **484 households** (which includes single individuals) in Minnesota received \$1,604,003 in rental assistance through Bridges (previously 519 and 381 households in 1999 and 2002 respectively). Bridges assisted with an average of **\$384** for households monthly in 2005 (\$476 in 2002). Bridges has also used some funds from the Ending Long-term Homelessness Initiative Fund (ELHIF), so there are 37 additional subsidies for people who meet the Bridges qualifications and the state definition of Long-Term Homelessness (LTH). There are six Bridges programs that also have Bridges-ELHIF. These figures do not include the ELHIF funds.<sup>1</sup>
- Surveys in Stearns, Benton, Sherburne and Wright counties show that **over 90% of Bridges program participants remain in independent housing.**<sup>2</sup>

<sup>1</sup>Minnesota Housing Finance Agency: Housing Assistance in Minnesota: Program Assessment: October 1, 2004—September 30, 2005, 2005.

[http://www.mhfa.state.mn.us/about/Assessment\\_2005.pdf](http://www.mhfa.state.mn.us/about/Assessment_2005.pdf)

<sup>2</sup>Hope Community Support Program records relayed verbally to Linda Vukelich, January 12, 2007

- Some Minnesota counties also have Adult Mental Health Initiatives that use their mental health budget for housing subsidies. The total for Minnesota is more than \$1.3 million annually

Minnesota Department of Human Services, Mental Health Division

### Employment

- A reported **51% of unemployed adults** are afflicted with mental health problems.<sup>1</sup>
- Nationally, 33-50% of people with severe mental illness (SMI) manage to work.<sup>2</sup>
- Of those with schizophrenia, 12% work full-time.<sup>2</sup>
- In FY2005 the Extended Employment—Severely Mentally Ill program (EE-SMI) provided supported employment services to persons with serious and persistent mental illness who secure employment through 22 (previously 23) Coordinated Employability Projects.<sup>3</sup>
- In FY2005 through EE-SMI, **569** Minnesotans with mental illness worked a total of 201,900 hours and earned an average of \$8.22/hour. Nine-hundred and two (902) persons received employment support services needed for them to obtain or continue their employment with an average of 4.41 hours per month.<sup>3</sup>
- The average length of employment retention was 55.7 weeks which is about equal to length of employment of people without disabilities in entry level positions.<sup>3</sup>

<sup>1</sup>Wilder Research Center: Homelessness 2003: Key facts from the survey of Minnesotans without permanent housing, 2004.  
<http://www.wilder.org/download.0.html?report=536>

<sup>2</sup>Mechanic D. Policy Challenges in Improving Mental Health Services: Some Lessons From the Past. Psychiatr Serv 2003; 54: 1227-1232.

<sup>3</sup>Minnesota Department of Employment and Economic Development: Extended Employment-SMI Outcome Measures for SFY2005, 2005.



### Partnership Story—Children’s Mental Health

Stakeholders in the children’s mental health crisis service system in the metro area were brought together in 2003 to respond to a regional behavioral healthcare capacity crisis for children needing acute inpatient care. From those initial gatherings, the East Metro Children’s Crisis Service (EMCCS) Partnership formed and began to plan and implement enhanced and expanded mobile crisis services in Ramsey, Dakota and Washington counties. The West Metro Children’s Crisis (WMCCS) Subcommittee met and worked together, but was unable to move towards a common goal until October 2004 when they began to function parallel to EMCCS. In August of 2005, EMCCS and WMCCS joined forces to form the Metro Children’s Crisis Service (MetrCCS) collaboration.

The goal of MetrCCS is to develop common 24/7 mobile mental health crisis services across the seven county metro area. MetrCCS provides children experiencing a mental health crisis with the appropriate level of care at the appropriate time in order to improve crisis care and outcomes for children and families, and reduce pressure on inpatient beds and emergency rooms.

- MetrCCS is comprised of payers, providers, and regulators: county mental health agencies, both private and public health plans, hospitals, mental health provider organizations, and state mental

health authorities. Prior to MetrCCS bringing these stakeholders together, service levels varied from county to county and did not provide the level of service necessary to meet the goals of the stakeholders.

While much has been accomplished, there is still much to do improve outcomes for families and reduce pressure on inpatient beds. MetrCCS members continue to meet bi-weekly to work on the following issues:

- Creating a single point of access phone line for residents of the metro area to call when they or a family member are experiencing a mental health crisis
- Improving evaluation and measurement to determine if MetrCCS is meeting their stated goals
- Improving relationships and referrals between the Hospital E.D.’s and Inpatient units and the Mobile Crisis Teams
- Implementing changes to the service delivery design that take advantage of economies of scale. This may include mobile crisis teams sharing culturally competent staff, crossing boundaries when appropriate, sharing off-peak hour staffing, and further integration with the Adult Mental Health Crisis system

**In the last two and a half years, over a 1,000 people have been served by MetrCCS; the majority have not been hospitalized.<sup>1</sup>**

<sup>1</sup>Minnesota Department of Human Services: [Governor’s Mental Health Initiative: Investments in the Mental Health Service Infrastructure, 2006.](http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs_id_056862.pdf)

[http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs\\_id\\_056862.pdf](http://www.dhs.state.mn.us/main/groups/disabilities/documents/pub/dhs_id_056862.pdf)

### Comparing Health Costs

#### Health care spending in Minnesota, in billions

2000	2001	2002	2003
\$19.3	\$21.2	\$23.3	\$24.8

- Spending increased per Minnesotan from \$3,928 in 2000 to \$4,895 in 2003.
- In 2000 health care spending accounted for 10.5% of the state's economy and increased to **11.8%** in 2003.

Minnesota Department of Health, Health Economics Program: [Section 1: Minnesota Health Care Spending and Cost Drivers Powerpoint](http://www.health.state.mn.us/divs/hpsc/hep/chartbook/section1.ppt)  
<http://www.health.state.mn.us/divs/hpsc/hep/chartbook/section1.ppt>

U.S. Department of Health & Human Services, Centers for Medicare & Medicaid Services

**The earlier mental illness is identified and treated, the better the prognosis. 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: \$17.20<sup>1</sup>
- Average daily cost for supported housing: \$12.80<sup>2</sup>
- Average daily cost for incarceration: \$76.80<sup>3</sup>
- Average daily cost for state hospitalization: \$983<sup>4</sup>
- Average daily cost<sup>5</sup> for hospitalization: \$1,913<sup>6</sup>

<sup>1</sup>In 2004 the cost was \$7.45. Amount was calculated using the average daily doses of brand name atypicals for schizophrenia at Minnesota Regional Treatment Centers.

Minnesota Department of Administration, Minnesota Multistate Contract Alliance for Pharmacy.

<sup>2</sup>In 2002, the per diem cost for supported housing was \$15.87. In 2005, 484 households averaged \$384 per month. See [Housing page 26](#).

<sup>3</sup>In the 2004 report, the cost was \$80.52. Total includes the average cost per inmate per diem for health care of \$12.37.

Minnesota Department of Corrections: [Performance Report Fiscal Year 2004, 2005](http://www.doc.state.mn.us/publications/legislativereports/pdf/FY%2004%20Annual%20Performance%20Report.pdf).

<http://www.doc.state.mn.us/publications/legislativereports/pdf/FY%2004%20Annual%20Performance%20Report.pdf>

Minnesota Department of Corrections: [Minnesota Department of Corrections Powerpoint, 2005](http://www.doc.state.mn.us/publications/legislativereports/default.htm).

<http://www.doc.state.mn.us/publications/legislativereports/default.htm>

<sup>4</sup>The average cost per day in 2006 for inpatient mental health care through State Operated Services was **\$983 versus \$505** in 2004. The average length of stay for S.O.S. adult mental health programs (excluding the forensic population) for FY 2006 was **58 days**.

Minnesota Department of Human Services: [Bulletin Corrected Cost of Care Rates as of July 1, 2006, 2006](http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=DHS_id_059754).

[http://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=DHS\\_id\\_059754](http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=DHS_id_059754)

<sup>5</sup>Note that here and in the previous report, "cost" actually means "charge." The hospital revenue per day or per discharge is actually known as "cost" because that is what an insurer or the government would pay.

<sup>6</sup>The average charge per day for private sector provided mental health hospitalizations was \$1,913 in 2005 (\$1,563.59 in 2002). The average length of stay remained unchanged at 7.8 days and the average hospitalization cost was \$14,921 (\$12,196 in 2002).

In 2005, the total charge for 32,167 mental health and chemical dependency hospitalizations was **\$479,963,807** (30,207 discharges totaling \$368,404,570 in 2002). These figures do not include federal, VA or state owned facilities. Data from the Minnesota Hospital Association based on UB-92 claims. Psychiatry is defined using CMS orgs 424-432. The state-wide collection of claims is incomplete. Charges exclude professionals' fees.

**Uncompensated Care Nationwide**

- In 2004, uncompensated care was estimated to be \$40.7 billion for the 44 million uninsured Americans.

Hadley J, Holahan J. Kaiser Commission on Medicaid and the Uninsured. The Cost of Care for the Uninsured: What Do We Spend, Who Pays, and What Would Full Coverage Add to Medical Spending?, 2004. <http://www.kff.org/uninsured/upload/The-Cost-of-Care-for-the-Uninsured-What-Do-We-Spend-Who-Pays-and-What-Would-Full-Coverage-Add-to-Medical-Spending.pdf>

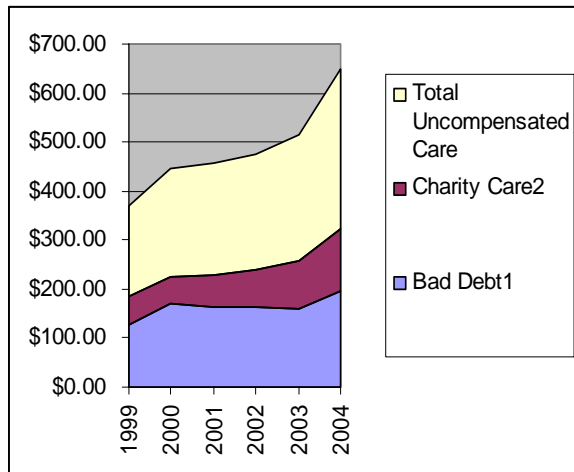
- Two of the **top 10 conditions** for hospitalization of the *uninsured* are for alcohol abuse disorders and mental health conditions. Approximately 20% of hospital stays for alcohol-related mental disorders and 8% of stays for depression are *not* insured.

Merrill CT, Elixhauser A. Hospitalization in the United States, 2002. Rockville, MD: Agency for Healthcare Research and Quality, 2005. HCUP Fact Book No. 6. AHRQ Publication No. 05-0056. ISBN 1-58763-217-9.

**Minnesota Uncompensated Hospital Care**

**Uncompensated Minnesota Hospital Care (not limited to mental health care), in millions**

	1999	2000	2001	2002	2003	2004
Bad Debt <sup>1</sup>	\$128.4	\$169.6	\$162.6	\$162.6	\$160.2	<b>\$195.8</b>
Charity Care <sup>2</sup>	\$56.6	\$53.5	\$66.7	\$75.1	\$98.0	<b>\$128.5</b>
Total Uncomp Care	\$185	\$223.1	\$229.3	\$237.7	\$258.2	<b>\$324.3</b>



<sup>1</sup>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.

<sup>2</sup>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  
 Minnesota Department of Health, Health Care Cost Information System: 2002 Health Care Cost Information System (HCCIS) Data  
 Minnesota Department of Health, Health Care Cost Information System: 2003 Health Care Cost Information System (HCCIS) Data  
 Minnesota Department of Health, Health Care Cost Information System: 2004 Health Care Cost Information System (HCCIS) Data

<http://www.health.state.mn.us/divs/hpsc/dap/hccis/stndrdrpts.htm#mentalhealth>

**If MinnesotaCare covered Minnesota’s uninsured, it would cost approximately \$663 million, saving hospitals and clinics an estimated \$250 million yearly in uncompensated care.**

Minnesota Department of Health, Health Economics Program: How much would it cost to cover the uninsured in Minnesota? Preliminary Estimates, 2006. <http://www.health.state.mn.us/divs/hpsc/hep/publications/coverage/uninsurecost.pdf>

- In 2005, the average charge per day for a mental health hospitalization in a private sector community hospital was \$1,913 for a total of \$14,921 per hospitalization. Only \$995 per day and a total of \$7,759 per hospitalization was actually paid to hospitals. This translates into a **loss of \$7,162** per hospitalization.<sup>1</sup>
- The average statewide uncollectible percentage is 52% per hospitalization.<sup>2</sup>

<sup>1</sup>Minnesota Hospital Association

<sup>2</sup>Minnesota Department of Health, Health Care Cost Information System

### Hospital and Emergency Room Trends

- Nationally, hospitalizations for all *mental disorders* combined account for approximately 4% of all hospital stays in short-term community hospitals and ranked as the 8<sup>th</sup> most common reason for hospitalization by body system.
- In 1997 affective disorders were ranked 13<sup>th</sup> as the most frequent reason for admission to the hospital through the ED, but in 2002, it moved up to the 10<sup>th</sup> most common reason.

Merrill CT, Elixhauser A. Hospitalization in the United States, 2002.  
Rockville, MD: Agency for Healthcare Research and Quality, 2005. HCUP  
Fact Book No. 6. AHRQ Publication No. 05-0056. ISBN 1-58763-217-9.

### Employer/Employee Costs

The scope of the problem:

**Depression that goes untreated is estimated to cost U.S. companies \$44 billion per year.<sup>1</sup>**



- The majority of losses are from **decreased productivity** while at work versus absenteeism. There was an average **loss of 5.6 hours** of productive work in depressed employees in comparison to 1.5 hours in those without depression.<sup>1,2</sup>
- Nationally, there are an estimated **217 million lost days** of work per year related to lost productivity due to mental illness and substance abuse disorders.<sup>3</sup>
- Bipolar disorder was found to cost U.S. companies *twice* as much as major depression even though depression is six times more prevalent. There was an average of 65.5 lost workdays for each employee with bipolar disorder accounting for over half of the cost of losses versus 27.2 lost days per employee with major depression.<sup>4</sup>
- Job performance *may continue* to be decreased even when depression symptoms have improved as compared to subjects without depression.<sup>4</sup>

**Return-on-investment successes:**

- Research has found that an employee health plan that included depression treatment increased productivity greater than 6%, decreased absenteeism 28%, and **saved \$2,601** per affected employee. Employees who received treatment for depression had an average of **\$882 less** in medical costs per year.<sup>5</sup>
- Abbott Laboratories developed a comprehensive Depression Disease Management program in May 2002 to assist their 42,000 employees. The program included depression education, screening and referral services, and case management. From previous studies, the average outpatient savings was \$590 annually for employees in the Employee Assistant Program as compared to non-EAP employees. This translated to a calculated savings of \$61,950 and a **1.7:1 return on investment** in the first ten months since the program's inception.<sup>6</sup>

<sup>1</sup>Rosack J. Depression Most Costly Illness for Employers. *Psychiatr News* 2003; 38: 19.  
<http://pn.psychiatryonline.org/cgi/content/full/38/14/19>

<sup>2</sup>Wang PS, Simon G, Kessler RC. The economic burden of depression and the cost-effectiveness of treatment. *Int J Methods Psychiatr Res*, 2003; 12: 22-33.

<sup>3</sup>Hertz RP, Baker CL. The impact of mental disorders on work *Pfizer Outcomes Research 2002*. Publication No P 0002981 in: The Center for Prevention and Health Services, National Business group on health: An Employer's Guide to Behavioral Health Services A Roadmap and Recommendations for Evaluating, Designing, and Implementing Behavioral Health Services, 2005.  
[http://www.businessgrouphealth.org/pdfs/fullreport\\_behavioralhealthservices.pdf](http://www.businessgrouphealth.org/pdfs/fullreport_behavioralhealthservices.pdf)

<sup>4</sup>National Institutes of Health, National Institute of Mental Health: Press Release: Bipolar Disorder Exacts Twice Depression's Toll in Workplace Productivity Lags Even After Mood Lifts, 2006.  
<http://www.nimh.nih.gov/press/workplacebipolar.cfm>

<sup>5</sup>Daly, R. House Committee Examines Key MH Concerns. *Psychiatr News* 2006; 41: 4.  
<http://pn.psychiatryonline.org/cgi/content/full/41/15/4>

<sup>6</sup>Dainas D., Beien L. Targeting Depression: An Employer's Approach, 2003.  
<http://www.managedhealthcareexecutive.com/mhe/article/articleDetail.jsp?id=134243>

**Return on Investment: The case for collaborative care**

- Untreated mental health illness in patients with a general medical condition is associated with worsened medical illness and 2-3 higher costs of care.<sup>1,2</sup> For example, when there is a depression and diabetes comorbidity, there is a worse prognosis for *both* depression and diabetes.<sup>3</sup>
- One study showed that when collaborative care was implemented for depressed diabetic patients, patients had an average of 115 more depression-free days over the next 2 years. Total outpatient costs were only \$25 higher during this period. The incremental **net benefit was \$1,129**.<sup>4</sup>
- The same study found that when there was improvement of depression symptoms in patients with diabetes and comorbid depression, there was a *reduction the total cost of medical care*.<sup>4</sup>

<sup>1</sup>Thomas MR, Waxmonsky JA, Gabow PA, Flanders-McGinnis G, Socherman R, Rost KL. Prevalence of psychiatric disorders and costs of care among adult enrollees in a Medicaid HMO. *Psychiatr Serv* 2005; 56 (11): 1394-1401.

<sup>2</sup>Kathol RG, McAlpine D, Kishi Y, et al. General Medical and Pharmacy claims expenditures in users of behavioral health services. *Journal of General Internal Medicine*. February 2005; 20 (2): 160-7.

<sup>3</sup>Ciechanowski PS, Katon WH, Russo JE, Hirsch IB. The relationship of depressive symptoms to symptom reporting, self-care and glucose control in diabetes. *Gen Hosp Psychiatry* 2003; 25(4): 246-52.

<sup>4</sup>Katon WJ, et al. Cost-Effectiveness and Net Benefit of Enhanced Treatment of Depression for Older Adults With Diabetes and Depression. *Diabetes Care* 2006; 29(2): 265-70.

<b>Support and Assistance Provided by:</b>
--

Sherry Auterblad  
Nurse Manager  
Acute Psychiatric Services  
Hennepin County Medical Center  
701 Park Avenue South  
Minneapolis MN 55415  
Ph: 612-873-2206

Halle Getachew  
Metropolitan Area Agency on Aging  
2365 N McKnight Rd, Suite 3  
North Saint Paul, MN 55109  
Ph: 651-641-8612  
Fax: 651-641-8618  
Email: halle@tcaging.org

Lynn Glancey  
Financial Analyst  
Minnesota Department of Human Services  
State Operated Services Support Division  
444 Lafayette Road North  
St. Paul, MN 55155  
Ph: 651-431-3690  
Email: Lynn.Glancey@state.mn.us

Mary Hedges  
Emergency Medical Services Regulatory  
Board  
2829 University Ave SE Suite 310  
Minneapolis, MN 55414  
Ph: 651-201-2806

George Hoffman  
Minnesota Department of Human Services  
State Operated Services Support Division  
444 Lafayette Road North  
St. Paul, MN 55155  
Ph: 651-431-2940  
Email:  
DHS.ReportsAndForecasts@state.mn.us

David Jacobson  
Minnesota Board of Nursing  
2829 University Ave SE Suite 200,  
Minneapolis, MN 55414  
Ph: 612-617-2291

Karen Jacobson  
Emergency Medical Services Regulatory  
Board  
2829 University Ave SE Suite 310  
Minneapolis, MN 55414  
Ph: 651-2010-2805  
Email: Karen.Jacobson@state.mn.us

Cindy Kern, Pharm D  
Pharmacy Director  
St. Peter Regional Treatment Center  
100 Freeman Drive  
St. Peter, MN 56082-1599  
Ph: 507-931-7234  
Email: Cindy.Kern@state.mn.us

Rachel Komm  
MN Department of Human Services  
State Operated Services Support Division  
PO Box 64979  
St. Paul, MN 55164-0979  
Ph: 651-431-3705 (voice)  
Email: rachel.komm@state.mn.us

Rod Kornrumpf  
Regional Administrator - Southern Region  
William Regional Treatment Center  
3301 7th Avenue North  
Anoka, Minnesota 55303  
Ph: 763-712-4000  
Fax: 763-712-4013  
Email: rod.kornrumpf@state.mn.us

Vicky Kunerth  
Director  
Performance Measurement Quality  
Improvement  
Minnesota Department of Human Services  
444 Lafayette Road North  
St. Paul, MN 55155  
Ph: 651-431-2618  
Fax: 651-431-7422  
Email: Vicki.Kunerth@state.mn.us

Kim Lieberman  
Minnesota Housing  
400 Sibley Street, Suite 300  
St. Paul, MN 55101  
Ph: 651-296-9841  
TTY: 651-297-2361  
Toll free: 1-800-675-3701  
Fax: 651-296-9545  
Email: kim.lieberman@state.mn.us

Anne McGearry  
Director of Quality Reporting  
Minnesota Community Measurement  
Ph: 651-209-0390

Roger Meyer, MetrCCS Coordinator  
1692 Dayton Avenue  
St. Paul, MN 55104  
Ph: 651-645-3688  
fax: 651-645-4117  
Email: meyer@cpinternet.com

Minnesota Board of Medical Practice  
University Park Plaza  
2829 University Avenue, S.E., Suite 500  
Minneapolis, MN 55414-3246  
Ph: 612-617-2130

Minnesota Board of Psychology  
2829 University Avenue SE, Suite 320  
St. Paul, MN 55414-3237  
Ph: 612-617-2230

Minnesota Psychological Association  
1000 Westgate Drive, Suite 252  
St. Paul MN 55114  
Ph: 651-203-7249

NAMI-MN  
970 Raymond Avenue, #105  
St. Paul MN 55114  
Ph: 651-645-2948

Barbara Nickels  
People Incorporated  
317 York Avenue  
St. Paul MN 55101  
Ph: 651-288-3504

Kris Poppie  
Eli Lilly and Company  
9629 Teakwood Lane N.  
Maple Grove MN 55369  
Ph: 763-494-8714  
Email:  
POPPIE\_KRISTINE\_M@LILLY.COM

Alan Q. Radke, M.D., M.P.H.  
Chief Medical Officer  
Minnesota Department of Human Services  
State Operated Services  
444 Lafayette Road North  
St. Paul, MN. 55155-0979  
Ph: 651-431-3684  
Email: Alan.Radke@state.mn.us

Dan Reidenberg  
Suicide Awareness Voices of Education  
7317 Cahill Road  
Edina MN 55439  
Ph: 952-946-7998

Jon Roesler, MS  
Epidemiologist Supervisor  
Center for Health Promotion  
Minnesota Department of Health  
85 East Seventh Place, Suite 400  
PO Box 64882  
St. Paul, MN 55164-0882  
Ph: 651-201-5487  
Fax: 651-201-5800  
Email: jon.roesler@health.state.mn.us

Joe Schindler  
Senior Director Data and Finance Policy  
Minnesota Hospital Association  
Ph: 651-659-1415  
Fax: 651-645-0002  
Email: JSchindler@mnhospitals.org

David J. Schultz  
Mental Health Program Consultant  
Mental Health Division  
MN Department of Human Services  
P.O. Box 64981  
St. Paul, MN 55164-0981  
Ph: 651-431-2244  
Fax: 651-431-7418  
Email: dave.j.schultz@state.mn.us

Sara Turnbow  
Minnesota Department of Administration  
Materials Management Division  
50 Sherburne Avenue, Room 112  
St. Paul, MN 55155  
Ph: 651.296.2600  
Email: Sara.Turnbow@state.mn.us

Linda Vukelich  
Minnesota Psychiatry Society  
4707 Highway 61, #232  
St. Paul MN 55110  
Ph: 651-407-1873  
Email: l.vukelich@comcast.net

Wilder Research  
1295 Bandana Boulevard N, Suite 210  
St. Paul MN 55108  
Ph: 651-647-4600

John Zakelj  
Minnesota Department of Human Services  
444 Lafayette Rd.  
St. Paul, MN 55155  
Ph: 651-431-2231  
Email: John.Zakelj@state.mn.us

**Minnesota Psychiatric Society**

4707 Highway 61, #232

St. Paul, MN 55110

Phone 651-47-1873

Fax 651-407-1754

[www.mnpsychsoc.org](http://www.mnpsychsoc.org)

© 2006 Minnesota Psychiatric Society