2 Trends in Behavioral Health Spending and Utilization

SUMMARY

National studies agree that behavioral health spending by insurers has declined relative to overall health spending, but differ on the size of the decline. Private and public insurance spending on behavioral health services in Minnesota has increased faster than inflation in recent years, largely because of the rapidly growing use of prescription drugs to treat depression and other mental health disorders. Private health insurance spending on behavioral health apparently has not quite kept pace with overall health spending. Studies agree that managed care plans tend to spend less on behavioral health than fee-for-service plans, but evidence of managed care's effect on the quality of care is mixed. There is anecdotal evidence from providers and consumers that health plans are inappropriately denying financial responsibility for behavioral health treatment, but there is no adequate way to measure the incidence of such behavior.

Some mental health advocacy groups have asserted that the growth of managed care has led to a decline in behavioral health in comparison with other health care spending. They contend that this decline reflects inappropriate denials of behavioral health coverage, substandard care, and cost shifting to the public sector. As a first step in addressing these concerns, this chapter examines trends in behavioral health spending and utilization. Specifically, we address the following questions:

- **How has behavioral health spending by insurers changed as a percent of all health spending? How has it changed compared with the rate of inflation?**
- **How has the use of behavioral health services changed over time?**
- **How has public funding of behavioral health care changed over the past decade?**
- **To what extent have costs for behavioral health services been shifted from private health insurance plans to publicly funded programs?**
- **What has been the impact of managed care on the cost and quality of behavioral health care?**

To answer these questions, we examined data from state and national sources. We collected state data on behavioral health spending and utilization from health plans in Minnesota, the Minnesota Department of Human Services, and the

Minnesota Department of Health. We examined several national studies of behavioral health spending. National data allow us to track private insurer spending over a longer time period than can be done with Minnesota data. We also examined research on the effects of managed care on behavioral health spending, utilization, and quality of care.

It is important to emphasize that examining trends is only a first step in answering the concerns of mental health advocates that behavioral health services are inappropriately being cut back by managed care organizations. Many factors may affect behavioral health spending and utilization trends, including improvements in mental health drug therapies, a change to a more goal-oriented therapeutic approach, changes in the population's need for and willingness to seek treatment, and changes in the role of private insurance and public agencies. By themselves, spending trends generally do not indicate whether a change in spending is appropriate.

A national study showing a sharp decline in behavioral health spending raised concerns among mental health advocates.

NATIONAL EXPENDITURE TRENDS

The State Advisory Council on Mental Health cited a national report by the HayGroup as evidence that behavioral health care spending has declined significantly during the past decade. This study estimated that the cost of behavioral health benefits offered by medium and large employers declined during a ten-year period from 6.1 percent to 3.2 percent of overall health benefits.[1] In this section, we compare the results of the HayGroup study with a study

1 HayGroup, *Health Care Plan Design and Cost Trends – 1988 through 1998*, Prepared for: National Association of Psychiatric Health Systems and Association of Behavioral Group Practices, (April 1999).

conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA).[2] As a starting point, we can say that:

- **Two national studies found that behavioral health spending declined in proportion to all health care, but the studies differed greatly on the size of the decline.**

However, another major study sponsored by a federal agency found a much smaller decline in spending.

The SAMHSA study found that among private insurers, the percentage of health spending attributable to behavioral health declined from 6.6 percent in 1987 to 5.6 percent in 1997.[3] The HayGroup study examined a similar time period (1988 to 1998), but estimated that the decline was 2.9 percentage points, nearly three times as large as the 1 percentage point decline found by the SAMHSA study.[4]

The two studies also differed on whether mental health and substance abuse spending increased faster than inflation. After adjusting for inflation, the cost of behavioral health benefits declined by 55 percent according to the HayGroup study, but increased by 45 percent, according to the SAMHSA study. These differences are magnified by the fact that the HayGroup study used a medical inflation index that provided a much higher rate of inflation than the general inflation index used by the SAMHSA study. In our view, the general inflation index used by the SAMHSA study is more suitable for tracking trends in behavioral health spending.[5]

Reconciliation of Differences Between Two National Studies

Because of the size of these differences, SAMHSA is sponsoring a study to reconcile the findings of these two studies. Although the results of that study

2 Substance Abuse and Mental Health Services Administration, *National Estimates of Expenditures for Mental Health and Substance Abuse Treatment, 1997* (SAMHSA publication No. SMA-00-3499, Rockville, MD, July 2000).

3 The SAMHSA study estimates for behavioral health spending included spending by all types of providers for treating patients with a primary diagnosis for mental health or substance abuse. Excluded were Alzheimer's disease, dementia, tobacco abuse, and developmental mental delays. Spending estimates were based on surveys of specialty behavioral health facilities (such as psychiatric hospitals) and a national sample of individual encounters with other providers.

4 The HayGroup study is based on an actuarial model that estimates the cost of providing health benefits to a typical group of employees. The model used actual claims data from a sample of plans to estimate costs for different benefit designs (including deductibles, coinsurance payments, types of services covered, and coverage limits) and delivery systems (ranging from an HMO to a fee-for-service system). The study then estimated costs in a broader market by applying the model to a larger sample of plans from medium and large employers over a ten-year period..

5 Medical price indexes that cover the period 1988 through 1998 may greatly overstate the change in the cost of treating mental health conditions. See: Jack E. Triplett, *What is Different About Health? Human Repair and Car Repair in National Accounts and in National Health Accounts*, (Washington D.C., The Brookings Institution, 1999). One reason that medical price indexes overstate inflation is that they do not take into account changes in the way services are provided. For example, a recent study found that the cost of treating depression declined between 1991 and 1995 because drugs or a combination of drugs and therapy were substituted for longer, more expensive therapy. See: Richard G. Frank, Ernst R. Berndt, and Susan H. Busch, "Price Indexes for the Treatment of Depression," in Jack E. Triplett, ed., *Measuring the Prices of Medical Treatments*, (Washington, D.C.: The Brookings Institution Press, 1999). The SAMHSA study used the gross domestic product price index, an index for the U.S. economy. Although this index does not measure behavioral health treatment costs, it is more consistent with changes in behavioral health treatment costs than are medical price indexes.

have not been finalized, the study has identified major areas of differences for investigation.[6] First, the HayGroup study did not include the cost of retail prescription drugs, a large and rapidly growing part of mental health care spending. We estimate that retail prescription drugs explain about one-third of the difference in growth rates between the two studies.[7]

Another potential source for the divergent results is the representativeness of the data used in each study. The HayGroup study was based on a sample of commercial insurance plans that cover medium and large employers, but the SAMHSA used data from all types of plans. It is possible that managed care reduced behavioral health spending in large employer commercial plans to a greater extent than it did under small employer plans.

Comparable treatment of the cost of retail prescription drugs reduces the difference between the two studies.

Finally, both studies made many extrapolations and adjustments that could introduce error in their estimates. For example, the HayGroup study based its model on claim data from a limited number of health plans, raising questions about the representativeness of its results. The SAMHSA study used a complex methodology to combine a variety of different data sources, making some error inevitable.

Reasons for Slower Growth in Behavioral Health Spending

The national studies cited several reasons that behavioral health spending did not keep pace with overall health spending. Both studies identified the rise of managed care as an important reason for the slower growth in behavioral health care spending. The HayGroup study also cited the increased use of coverage limits for behavioral health services. For example, among health plans it surveyed, the percentage imposing day limits on inpatient psychiatric care increased from 38 percent in 1988 to 62 percent in 1998. During the same time period, the percentage of plans imposing outpatient day limits went from 26 to 57 percent.

The SAMHSA study also noted that behavioral health care was marked by larger reductions in hospital-based services and adopted alternatives such as outpatient treatment and prescription drugs faster than all health care. For example, the study found that prescription drug spending for mental health increased faster than prescription drug spending for all health care. It also increased faster than overall health care spending. Prescription drug spending rose primarily because of greater utilization, though higher prices were also a factor.[8]

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6 Communication with project officer for the reconciliation study, November 8, 2000 and January 17, 2001.

7 We estimate that removing retail prescription drug spending from the SAMHSA data changes the decline in behavioral health spending as a percentage of total health care spending to 1.7 percentage points (from 6.1 percent in 1987 to 4.4 percent in 1997).

8 Substance Abuse and Mental Health Services Administration, *National Estimates of Expenditures for Mental Health and Substance Abuse Treatment, 1997, 36.*

Applying National Trends to Minnesota

National behavioral health spending trends during the past decade may not parallel Minnesota trends for several reasons. First, because Minnesota moved to managed care earlier than the rest of the nation, it may have experienced much of the cost impact of managed care prior to the time period examined by national studies. For example, between 1987 and 1997, the percentage of the national population enrolled in HMOs increased from 12 percent to 27 percent, whereas Minnesota's HMO enrollment reached 27 percent in 1986 and has not increased significantly since then.

Minnesota moved to managed care before most other states, and, as a result, recent national trends in behavioral health spending may not apply to Minnesota.

A second reason that national results may not apply to Minnesota is that the 1995 Minnesota parity law is much stronger than the federal parity law. The federal parity law prohibits annual and lifetime dollar limits, but can easily be circumvented by imposing day or visit limits. In contrast, Minnesota's parity law prohibits plans from imposing mental health limits or copayments that are more restrictive than those for general health care. According to the HayGroup study, health plans provided by a national sample of large and medium employers increased the use of behavioral health limits during the past decade. For example, between 1988 and 1998, the percentage of plans imposing day limits on inpatient psychiatric care increased from 38 to 62 percent. During the same time period, the percentage of plans imposing outpatient day limits went from 26 to 57 percent. Since Minnesota does not allow these limits under most regulated health plans, it is doubtful that the national trend toward more restrictive limits on mental health care occurred to the same extent in Minnesota.

MINNESOTA BEHAVIORAL HEALTH SPENDING IN 1999

In Minnesota, public agencies and private insurers both perform important roles in behavioral health care. In this section, we summarize behavioral health spending by private insurers and human service agencies in 1999. In the following sections, we examine trends over time in private and public spending. We obtained data on spending by private insurers from the Minnesota Department of Health and our survey of five large health insurers that make up over three-fourths of the private insurance market. We obtained data on spending by state and local human service agencies (including federal money that supports state and local administered programs) from the Minnesota Department of Human Services.

Collectively, we estimate that state and local human service agencies and insurance companies spent about $941 million on behavioral health in 1999 (See Table 2.1). These estimates do not include out-of-pocket expenses, nor spending by schools, correctional agencies, and federally administered programs, such as Medicare and programs of the Veterans' Home Administration.

- **Public programs accounted for most behavioral health spending in Minnesota.**

In Minnesota, public programs accounted for two-thirds of behavioral health spending in 1999.

Table 2.1: Estimated Behavioral Health Spending in Minnesota, 1999

	Millions of Dollars	Percent
Private Insurance	$310	33%
Commercial	153	16
Self-insured	157	17
Public Programs	631	67
Public Mental Health Programs	561	60
Public Insurance	216	23
Medical Assistance	115	12
General Assistance Medical Care	10	1
Minnesota Care	4	0
Prescription drugs	87	9
Public Direct or Contracted Service Programs	345	37
State payments	187	20
County payments	122	13
Federal payments	36	4
Public Chemical Dependency Programs	70	7
TOTAL	$941	100%

SOURCES: Office of Legislative Auditor's analysis of data from Department of Human Services, Department of Health, and five health plans.

In 1999, state and local human service agencies spent about $631 million on behavioral health, or roughly two-thirds of the total spending. Private insurers, which cover about two-thirds of Minnesota's population, account for about one third of behavioral health spending. These estimates probably understate the public portion because they do not include spending by Medicare and some other public programs.[9] These figures reflect the fact that public programs still have primary responsibility for treating people who have a serious mental illness.

About $216 million was spent by public insurance programs administered by state and county governments—Medical Assistance, General Assistance Medical Care, and MinnesotaCare. State and county human service agencies spent another $345 million on regional treatment centers, community residential treatment, community support services, and publicly subsidized inpatient and outpatient care provided by community mental health clinics and county hospitals.

In the following section, we examine spending and utilization trends of Minnesota insurers, including private commercial insurance, self-insurance, and prepaid public insurance provided through HMOs. Later we examine trends of publicly funded mental health and chemical dependency programs.

9 According to the national SAMHSA study, Medicare funded about 12 percent of total behavioral health services in 1997.

BEHAVIORAL HEALTH TRENDS FOR MINNESOTA INSURERS

To analyze spending trends by insurers in Minnesota, we used behavioral health spending data that the Minnesota Department of Health has collected annually from health insurers since 1994 as well as data we obtained from five insurers. These data have a number of limitations. First, the health department data included prescription drug spending for mental health in a general prescription drug category for all health care. Also, sometimes insurers did not accurately allocate spending to behavioral health. The data we obtained from five insurers includes prescription drugs and appears to avoid the allocation problems we found in the MDH data. However, although we sought data from 1985 to 1999, we obtained reasonably complete data only for the 1997-99 time period. Another problem with insurer data is that mental health care provided by primary-care physicians may not have been coded as mental health care. Finally, neither set of data has been audited by an independent party. We found:

- **Insurer data indicate that behavioral health spending under private insurance has increased faster than inflation since 1994.**

Private insurance spending on behavioral health care has increased faster than inflation in recent years.

Both the MDH data and our survey of large health insurers indicate that private insurance spending on behavioral health has increased faster than inflation in recent years.[10] According to MDH data, private insurance spending on behavioral health increased from $2.72 per member month in 1994 to $3.20 in 1999, an increase of 18 percent. After adjusting for inflation, the increase would be 8 percent (see Table 2.2).

Our survey of five health insurers indicates that behavioral health spending may have increased faster than shown by the MDH data because the MDH behavioral health category did not include prescription drug spending. In fact, prescription drug spending increased by 47 percent in just two years (1997 to 1999), as shown in Table 2.3.[11] Between 1997 and 1999, behavioral health spending per member month changed by only 1 percent if drug spending were excluded, but increased by 14 percent after including drug spending. While we do not have data on prescription drug spending prior to 1997, the national SAMHSA study and

10 This discussion of private insurance includes commercial insurance and self-insurance. We adjusted trend data for inflation based on the gross domestic product (GDP) price index. As we discussed earlier, we think that this index is better than available medical price indexes. An alternative index used by the Department of Human Services is the Employment Cost Index for Private Industry Workers. Using this index instead of the GDP index would not change our finding that beahvioral health spending has increased faster than inflation, but the estimated increase would be about 5 percentage points less for the 1997-99 period and 8 percentage points less for the 1994-99 period. The department's rationale for using the employer cost index is that employee compensation is about 80 percent of mental health treatment costs. However, we prefer the GDP index because the employer cost index does not reflect the changing nature of behavioral health treatment, particularly treatment of depression. As we previously noted, there has been a significant decline in the cost of treating depression because of the substitution of drugs for more expensive therapy.

11 Prescription drug spending includes insurer spending on mental health drugs regardless of whether they were prescribed by mental health specialists or primary-care physicians. A small percentage of mental health drugs may be used for other purposes.

Table 2.2: Behavioral Health Spending by Private Insurance Plans (Excluding prescription drugs), 1994-99

	1994	1995	1996	1997	1998	1999	Percent Change
Behavioral health spending per member month	$2.97	$3.08	$3.34	$3.27	$3.33	$3.20	7.7%
Behavioral health spending as a percent of all health spending	2.7%	2.8%	2.8%	2.7%	2.5%	2.2%	

NOTE: Spending per member month figures are adjusted for inflation based on the GDP price deflator. They are expressed in 1999 dollars.

SOURCE: Financial data submitted by insurers to the Minnesota Department of Health.

Minnesota Medical Assistance data both suggest that prescription drug spending also increased rapidly prior to 1997.

We also examined trends in behavioral health spending as a percentage of all health care spending. We found:

- **There is evidence that behavioral health spending did not keep pace with all health care spending in recent years, but there is no evidence that Minnesota experienced the sharp decline found by the HayGroup national study.**

Insurer data indicate that behavioral health spending declined slightly as a percentage of all health spending between 1997 and 1999. Our data indicate that with prescription drugs, behavioral health spending declined from 5.5 percent in 1997 to 5.3 percent in 1999. According to MDH data, private insurance spending on behavioral health declined from 2.7 to 2.2 percent of total health care spending. Spending estimates based on MDH data are lower than estimates based on our data because MDH data do not categorize certain types of behavioral health

Behavioral health spending increased because of the rapid growth of spending on prescription drugs.

Table 2.3: Behavioral Health Spending by Five Insurers Under Private Insurance Plans, 1997-99

	1997	1999	Percent Change
Spending per member month			
Behavioral health, excluding drugs	$4.83	$4.78	-1%
Mental health drugs	2.16	3.17	47
Total behavioral health	$6.99	$7.96	14%
Spending as a percent of total health spending			
Behavioral health, excluding drugs	3.8%	3.2%	
Mental health drugs	1.7	2.1	
Total behavioral health	5.5%	5.3%	

NOTES: Spending per member month figures are adjusted for inflation based on the GDP price deflator. They are expressed in 1999 dollars. Sum of subcategories may not add to total shown because of rounding.

SOURCE: Office of Legislative Auditor's survey of five health insurers.

spending as behavioral health, including prescription drugs for mental health. The absence of prescription drugs also explains why MDH data show a larger decline.

It is not clear whether behavioral health spending kept pace with all health care prior to 1997, but there is no evidence of a significant decline. According to MDH data, behavioral health spending as a percent of overall health spending remained between 2.7 and 2.8 percent between 1994 and 1997. However, the data are not precise enough to determine whether there was a decline prior to 1997.

Self-insured versus Commercial Plans

Although self-insured plans are not subject to state requirements governing behavioral health care, self-insured plans spent about the same amount as state-regulated plans on behavioral health.

In 1998, about 48 percent of Minnesota residents covered by private insurance were enrolled in self-insured plans. As we discussed in Chapter 1, these self-insured plans are not regulated by the state and are not subject to Minnesota's parity law. We found:

- **Data from major health insurers indicate that self-insured plans spent about the same amount on behavioral health as did commercial plans.**

Data from the five insurers that we surveyed indicate that in 1999 behavioral health spending was 5.3 percent of all health care spending for both self-insured plans and commercial plans. Self-insured plans spent about $8.05 per member month, compared with $7.93 for commercial plans.

Minnesota's parity law prohibits state-licensed health plans that cover mental health from placing more restrictions on mental health services than on medical services. One way to measure limits imposed on mental health coverage is to examine the percentage of service expenditures paid for by members through deductibles, co-payments, coinsurance, and amounts exceeding plan coverage. We compared the percentage of behavioral health expenditures paid by members under regulated plans with self-insured plans. We found:

- **Members of self-insured plans made more out-of-pocket payments for behavioral health services than did members of regulated commercial plans.**

In 1998, MDH data indicate that members of self-insured plans paid for about 20 percent of the cost of behavioral health services compared with 10 percent for members of commercial plans.

Prepaid Public Insurance Programs

Beginning in the late 1980s, Minnesota's public insurance programs gradually increased the use of prepaid plans operated by HMOs. In this section, we examine trends for three of these public programs—Medical Assistance, General Assistance Medical Care, and MinnesotaCare. Each of these programs provides health insurance for low-income individuals or families and is funded in whole or part by the state. Currently, most people who are covered by one of these insurance programs are enrolled in a prepaid plan. As of the end of 2000, Medical Assistance offered prepaid plans in 63 counties, including all of the counties in the

Twin Cities area. However, people with disabilities remain in fee-for-service plans. Since disabled enrollees use more mental health services than average, most mental health services continue to be delivered on a fee-for-service basis.

Public insurance programs have expanded their reliance on HMOs.

As with private insurance, we examined data reported to MDH and data provided to us by five insurers. We found:

- **Between 1995 and 1999, prepaid Medical Assistance plans appear to have increased behavioral health spending somewhat faster than inflation and about the same pace as general health care spending.**

Insurer data suggest that increases in prescription drug spending by public insurance programs more than offset reductions in other behavioral health spending between 1995 and 1999. After adjusting for inflation, HMOs' spending on behavioral health for public insurance programs fell from $7.68 per member month in 1995 to $6.25 in 1999, according to MDH data (shown in Table 2.4). However, data reported to us by three insurers suggest that prescription drug spending increased enough between 1997 and 1999 to offset this.[12] As Table 2.5 shows, spending on mental health drugs increased by $2.21 per member month, well above the decline of $1.43.

Table 2.4: Behavioral Health Spending by Prepaid Public Insurance Plans, 1995-99 (Excluding prescription drugs)

	1995	1996	1997	1998	1999	Percent Change
Behavioral health spending per member month	$7.68	$8.64	$6.11	$5.86	$6.25	-18.6%
Behavioral health spending as a percent of all health spending	3.9%	4.6%	3.6%	3.3%	3.2%	

NOTE: Spending per member month figures are adjusted for inflation based on the GDP price deflator. They are expressed in 1999 dollars.

SOURCE: Financial data submitted by insurers to the Minnesota Department of Health.

Another factor that may affect these trends is the changing composition of prepaid plans during this time period. In 1995, only the seven counties in the Twin Cities metropolitan area and Itasca County participated in the Prepaid Medical Assistance Program. By 1999, 55 counties were participating. As a result, the trend may reflect differences between Medical Assistance recipients in the Twin Cities area and recipients from counties that started after 1995.

Insurer data also suggest that prescription drug spending offsets the decline in other behavioral health spending *as a percentage of total health care spending*.

12 Four of the five plans that we surveyed had prepaid Medical Assistance plans, including one which could not break down prescription drug costs for Medical Assistance members. The three plans who reported data on drug spending make up 41 percent of the prepaid insurance market for Medical Assistance, MinnesotaCare, and General Assistance Medical Care.

Table 2.5: Behavioral Health Spending by Five Insurers Under Prepaid Public Plans, 1997-99

	1997	1999	Percent Change
Spending per member month			
Behavioral health, excluding drugs	$ 7.07	$ 7.82	11%
Mental health drugs	3.56	5.77	62
Total behavioral health	$10.63	$13.59	28%
Spending as a percent of total health care spending			
Behavioral health, excluding drugs	4.8%	4.5%	
Mental health drugs	2.4	3.3	
Total behavioral health	7.2%	7.8%	

NOTE: Data are based on Prepaid plans for Medical Assistance, General Assistance Medical Care, and Minnesota Care. Spending per member month figures are expressed in 1999 dollars, based on the gross domestic product price index.

SOURCE: Office of Legislative Auditor's survey of five health insurers.

MDH data indicate that between 1995 and 1999, behavioral health spending by prepaid plans fell from 3.9 percent of overall health spending to 3.2 percent. Spending data from three insurers indicate that in just two years (1997-99), spending on mental health drugs went from 2.4 to 3.3 percent of overall spending. If prescription drug spending kept pace with overall health care prior to 1997, this would more than offset the decline in non-drug spending.

Trends in Behavioral Health Utilization

To examine trends in behavioral health utilization, we examined data collected by the Minnesota Department of Health from Health Maintenance Organizations (HMOs). The Department of Health collects data for private commercial plans and public insurance plans, but not self-insured plans. In 1998, the commercial HMO plans in these MDH data covered 890,000 people, about 27 percent of the private insurance market. Public HMO plans covered an additional 420,000 people, about 38 percent of public insurance enrollees.

There are two main reasons to examine these utilization data in addition to spending data. First, these data allow us to examine trends in more detail. Second, it partially addresses the concern that the spending data we reported above are not audited. As part of state licensing requirements, MDH requires all HMOs to collect utilization data for state-regulated plans based on the procedures specified by the National Committee for Quality Assurance (NCQA), a national accrediting organization for HMOs. NCQA requires HMOs to collect certain data on plans for which it seeks accreditation, including utilization data for mental health and chemical dependency services. In 1998, NCQA audited the procedures used by the three accredited HMOs in Minnesota—Medica, Health Partners, and Blue Plus. NCQA does not audit the data submitted to the health department, but the NCQA audit provides some assurance that the data collection procedures have been reviewed.

We examined mental health and chemical dependency utilization rates for private commercial plans and the three public programs administered by the state (Medical Assistance, General Assistance Medical Care, and MinnesotaCare).[13] We found:

- **Among commercial and public HMO plans, outpatient mental health usage declined slightly in recent years, but inpatient usage increased.**

Table 2.6 shows that the percentage of HMO members under commercial plans who received outpatient mental health service increased from 6.5 percent in 1996 to 7.0 percent in 1997 and then declined to 6.3 percent in 1999. Inpatient days of care increased from 24 days per 1,000 members in 1996 to 29 days in 1999. This increase reflects higher admission rates because average length of stay declined slightly during this time period.

About 6 to 7 percent of commercial HMO members used mental health services in 1999.

Table 2.6: Mental Health Utilization Trends, Minnesota HMOs, 1996-99

	1996	1997	1998	1999
Percent of Members Receiving Outpatient Mental Health Services				
Commercial	6.5%	7.0%	6.7%	6.3%
Public Programs (Prepaid only)	10.2	10.2	9.8	N/A
Medical Assistance	9.0	8.9	8.8	N/A
Minnesota Care	10.3	9.8	9.1	N/A
General Assistance Medical Care	22.9	25.2	25.1	N/A
Inpatient Admissions per 1,000 Members				
Commercial	3.0	3.2	3.3	3.8
Public Programs (Prepaid only)	7.7	8.4	8.8	N/A
Medical Assistance	6.3	6.4	7.5	N/A
Minnesota Care	3.7	7.2	6.1	N/A
General Assistance Medical Care	30.7	33.3	35.1	N/A
Inpatient Days of Care per 1,000 Members				
Commercial	24	25	27	29
Public Programs (Prepaid only)	55	64	64	N/A
Medical Assistance	44	49	57	N/A
Minnesota Care	23	48	40	N/A
General Assistance Medical Care	234	262	247	N/A
Number of Members				
Commercial	983,275	919,436	854,565	931,995
Public Programs (Prepaid only)	190,892	207,427	210,143	N/A
Medical Assistance	151,661	152,540	151,536	N/A
Minnesota Care	25,275	40,491	46,345	N/A
General Assistance Medical Care	13,956	14,396	12,262	N/A

SOURCE: Office of Legislative Auditor's analysis of data from the Health Plan Employer Data and Information Set (HEDIS) collected for the Minnesota Department of Health.

13 NCQA's definition of inpatient utilization for chemical dependency includes hospital stays that are designed to stabilize the patient and do not necessarily include treatment. This differs from DHS chemical dependency databases (Consolidated fund database and the Drug and Alcohol Abuse Normative Evaluation System (DAANES) database), which only include placements involving a treatment program.

Although prepaid public insurance programs had higher utilization rates than commercial plans, the trends were similar. For public programs, the percentage of HMO members who used outpatient mental health services declined from 10.2 to 9.8 percent between 1996 and 1998. During the same time period, inpatient days of care increased from 55 to 64 days per 1,000 members.[14]

Among HMO plans, the percentage of Medical Assistance members using mental health services ranged from 6 to 11 percent.

Mental health utilization rates varied considerably among health plans. For example, among the five prepaid Medical Assistance plans that covered at least 16,000 members, the percentage of members who used mental health services in 1998 ranged from 6 percent to 11 percent.

Table 2.7 summarizes chemical dependency utilization rates for HMOs by type of market. We found that chemical dependency trends were generally similar to mental health trends. Specifically:

- **Outpatient chemical dependency utilization rates declined slightly in recent years, but inpatient rates increased for commercial HMO plans. There was no clear trend for inpatient usage among public insurance plans.**

Table 2.7: Chemical Dependency Utilization Trends, Minnesota HMOs, 1996-99

	1996	1997	1998	1999
Percent of Members Receiving Outpatient Chemical Dependency Services				
Commercial	0.60%	0.60%	0.51%	0.56%
Public programs (prepaid only)	1.29	1.45	1.14	N/A
Medical Assistance	1.01	1.06	0.86	N/A
Minnesota Care	0.32	0.88	0.75	N/A
General Assistance Medical Care	6.15	7.13	6.08	N/A
Inpatient Admissions per 1,000 Members				
Commercial	1.7	1.7	1.7	2.1
Public programs (prepaid only)	3.6	3.7	3.6	N/A
Medical Assistance	2.5	2.1	2.2	N/A
Minnesota Care	1.5	1.7	1.9	N/A
General Assistance Medical Care	19.1	25.9	27.4	N/A
Inpatient Days of Care per 1,000 Members				
Commercial	10	9	11	15
Public programs (prepaid only)	24	30	25	N/A
Medical Assistance	18	18	15	N/A
Minnesota Care	6	11	11	N/A
General Assistance Medical Care	115	205	201	N/A
Number of Members				
Commercial	983,275	919,436	854,565	931,995
Public programs (prepaid only)	190,892	207,427	210,143	N/A
Medical Assistance	151,661	152,540	151,536	N/A
Minnesota Care	25,275	40,491	46,345	N/A
General Assistance Medical Care	13,956	14,396	12,262	N/A

SOURCE: Office of Legislative Auditor's analysis of data from the Health Plan Employer Data and Information Set (HEDIS) collected for the Minnesota Department of Health.

14 HMO utilization data was not collected for state administered public programs in 1999.

Among commercial HMO plans, the percentage of members receiving outpatient chemical dependency services declined slightly, going from .60 percent to .56 percent between 1996 and 1999. Among public HMO plans, outpatient rates declined from 1.29 percent in 1996 to 1.15 percent in 1998.

Commercial inpatient rates increased noticeably in 1999 after changing slowly between 1996 and 1998. Public program inpatient rates also changed slowly between 1996 and 1998, but we can not tell what happened in 1999 because utilization data were not collected in that year for public programs.

In summary, we found that utilization data is generally consistent with spending data. Specifically:

- **Utilization data supports the finding that there is no large decline in behavioral health spending in recent years.**

We found that outpatient utilization rates fell slightly but inpatient rates either increased moderately or held steady. During the same time period, spending per member month increased faster than inflation, though perhaps not as fast as general health care.[15]

PUBLIC SPENDING TRENDS

Many people in the mental health community told us that they consider Minnesota's mental health system to be under-funded. Under Minnesota's complex mental health system, it is necessary to examine public and private funding to address this concern. In this section we look at broad trends in public spending for mental health and chemical dependency. Then we look at funding for community mental health clinics to illustrate how managed care and medical assistance reimbursement policies affect the state's mental health system.

Mental Health

Public programs have long played an important role in delivering mental health services. To examine how public funding of mental health services has changed over time, we examined Department of Human Services data on mental health spending by state and local human service agencies over the past decade. We found that:

- **During the past decade, mental health spending by state and local human service agencies grew considerably faster than inflation and about as fast as overall health spending.**

Table 2.8 shows that between 1989 and 1999, public mental health spending went from $298 million to $475 million, an increase of 59 percent. During the same time period, Minnesota's population increased by 10 percent. Public insurance

15 One difference between spending and utilization trends is that spending for public insurance programs declined by more than 25 percent between 1996 and 1997, but utilization rates increased slightly. It is not clear what explains this difference.

Table 2.8: Public Mental Health Spending by Payment Source, 1989-99 (In millions of dollars, after adjusting for inflation)

	1989	1999	Percent Change
Public Insurance Programs			
Medical Assistance	$77.2	$114.5	48%
General Assistance Medical Care	13.9	10.4	-25
Minnesota Care	0.0	3.8	-
Subtotal	$91.2	128.7	41%
Public Non-insurance programs			
State payments	110.4	187.5	70
County payments	69.5	122.2	76
Federal payments	27.1	36.3	34
Subtotal	$207.0	$346.1	67%
TOTAL	$298.1	$474.8	59%

NOTE: Figures exclude prescription drug spending. Figures are in constant state fiscal year 1999 dollars (adjusted for inflation with the gross domestic product price deflator). Years are state fiscal years.

SOURCE: Office of Legislative Auditor's analysis of data obtained from the Minnesota Department of Human Services.

programs as well as other public programs substantially increased their mental health spending during this time period. Estimates of the public insurance increase are conservative because the data for public insurance programs do not include prescription drug spending, a large and rapidly growing component of Medical Assistance expenditures. DHS does not have data on prescription drug spending for the entire decade, but its data indicate that prescription drug spending nearly doubled between 1995 and 1999 (see Table 2.9).[16]

Public programs nearly doubled their spending on mental health drugs between 1995 and 1999.

Table 2.9: Spending Trends for Mental Health Drugs Under Medical Assistance, GAMC, and Minnesota Care, 1995-99

	(Millions of Dollars) 1995	1999	Percent Change
Mental health drugs			
Anti-psychotics	$15.2	$37.8	150%
Anti-depressants	16.4	23.4	42
Anti-anxiety	2.6	4.6	77
TOTAL	$34.2	$65.9	93%

NOTE: Figures are based on spending for members enrolled in a fee for service plan. They exclude spending for members enrolled in prepaid plans.

SOURCE: Minnesota Department of Human Services, Mental Health Division.

16 Between 1995 and 1999, spending by Medical Assistance and GAMC for anti-psychotics, anti-depressants, and anti-anxiety drugs increased from $34 million to $66 million. These figures only include fee-for-service payments. They do not include HMO payments on behalf of MA and GAMC members enrolled in prepaid plans.

Public insurance program spending on mental health increased by 41 percent, not counting prescription drugs. General Assistance Medical Care (GAMC) spending was the exception, almost doubling between 1989 and 1992, but then falling to only 75 percent of its 1989 level in 1999. This decline does not necessarily reflect service cutbacks, but was primarily due to the fact that the state moved many GAMC recipients to smaller facilities in order to make them eligible for Medical Assistance. Under federal law, people living in facilities with more than 16 beds for mental illness are not eligible for Medical Assistance.

Among non-insurance programs, county, state, and federal programs all increased their spending, particularly county and state programs. As Table 2.10 shows, community support services accounted for most of the increase, building a community infrastructure that was widely regarded as inadequate.

Community support/day treatment was the fastest growing category of public mental health spending between 1989 and 1999.

Table 2.10: Public Mental Health Spending by Type of Service, 1989-99 (In millions of dollars, after adjusting for inflation)

	1989	1999	Percent Change
Public Insurance Programs			
Community support/ day treatment	$ 3.0	$ 30.4	923%
Regional treatment centers	16.4	16.3	-1
Community residential treatment	0.0	0.0	
Outpatient services	25.6	28.3	11
Acute care hospital	46.1	53.0	15
Other	0.0	0.7	
Subtotal	$ 91.2	$128.7	41
Public Non-Insurance Programs			
Community support/ day treatment	$ 32.8	116.3	254
Regional treatment centers	73.3	106.9	46
Community residential treatment	61.4	70.4	15
Outpatient services	22.8	22.2	-2
Acute care hospital	3.6	7.0	95
Other	13.1	23.2	77
Subtotal	$207.0	$346.1	67
TOTAL	$298.1	$474.8	59%

NOTE: Public insurance figures exclude spending on prescription drugs. Spending figures are in constant state fiscal year 1999 dollars (adjusted for inflation with the gross domestic product price deflator). Years are state fiscal years.

SOURCE: Office of Legislative Auditor's analysis of Department of Human Service's data.

Regional treatment centers increased spending by 41 percent during the first five years and then leveled off. Even though the state reduced the number of beds for mentally ill during the 1990s, spending increased for two reasons. First, after a 1989 federal audit found that Minnesota's Regional Treatment Center's staff ratios were too low, the federal government required Minnesota to hire more staff. Second, as the state moved people with developmental disabilities out of regional treatment centers into the community, there were fewer patients over which to spread the centers' fixed overhead costs.

Chemical Dependency

As is the case for mental health services, public programs play a large role in providing chemical dependency treatment in Minnesota. In 1988, the state consolidated public funding of chemical dependency services under one fund in order to standardize eligibility, assessment, and placement for chemical dependency treatment. In 1999, DHS chemical dependency placement data indicate that private sources (including insurance, self-pay, and other private parties) funded at least one-third of chemical dependency treatment placements in Minnesota.[17] Public insurance programs, state and federal block grants, and counties funded up to two thirds of chemical dependency placements. The DHS data also indicate that:

- **Between 1989 and 1999, public funding of chemical dependency services increased somewhat faster than inflation, but well under the rate of increase for overall health care.**

Table 2.11 shows that after adjusting for inflation, chemical dependency spending went from $62.4 million in 1989 to $70.2 million in 1999. This 13 percent spending increase is well below Minnesota's 65 percent increase in overall health care spending. One reason that spending increased was that the number of placements appeared to increase during this decade.[18]

During the last decade, the public decreased spending on inpatient chemical dependency treatment, but increased spending on other types of treatment.

Table 2.11: Public Chemical Dependency Treatment Spending, 1989-99

	(Millions of Dollars) 1989	1999	Percent Change
Inpatient	$34.3	$26.0	-24%
Outpatient	9.2	14.4	56
Extended Care	8.8	14.3	62
Halfway House	9.2	14.2	54
Methadone	0.8	1.4	65
TOTAL	$62.4	$70.2	13%

NOTE: Spending figures are in constant 1999 dollars (adjusted for inflation with the gross domestic product price deflator). Years are calendar years.

SOURCE: Consolidated Treatment Fund, Department of Human Services.

17 The consolidated fund has a complete count of publicly funded chemical dependency placements. The DAANES system counts publicly and privately funded placements, but depends on providers to report placements. To the extent that the DAANES system undercounts placements, the private share of placements would be higher than one-third.

18 The number of placements recorded by the chemical dependency data increased by 28 percent. However, treatment programs that involve a combination of inpatient, outpatient, extended care, and halfway house placements often are counted as multiple placements. To the extent that multiple placements increased over time, the data would overstate the increase in placements.

After adjusting for inflation, the average cost of publicly funded chemical dependency placements appears to have declined by about 11 percent.[19] Public programs reduced the average cost of a chemical dependency placement because they increased the use of outpatient treatment, which costs about one-third as much as inpatient treatment. After the state changed its placement criteria in 1989 to promote greater use of outpatient treatment, outpatient service's share of primary treatment placements increased from 45 percent in 1989 to 57 percent in 1991. By 1999, outpatient service's share of primary placements reached 62 percent. Another reason for the lower average cost is that public programs reduced the average length of stay for inpatient treatment.

Community Mental Health Clinics

We also examined trends in funding for community mental health clinics, which are contracted by counties to provide subsidized care for people without insurance on a sliding fee basis. Typically, these clinics serve insured and self-pay patients as well as subsidized patients. Many of the clinics are in smaller communities and are the only mental health care provider in the area. We obtained data on funding of community clinics from an annual survey conducted by the Minnesota Association of Community Mental Health Programs. We found:

- **Community mental health clinics reported declining revenues between 1995 and 1998 from public and private insurance programs, but increasing revenues from counties.**

Medical Assistance reimbursement increased by only 3 percent since 1992 for psychologists and social workers.

Data from a group of 20 mental health clinics shows that their total budget remained about $65 million between 1995 and 1998. Approximately $38 million was for services normally funded by insurance—outpatient treatment, day treatment, and psychiatric services. The share of these services funded by public and private insurance declined from about 55 percent to 43 percent between 1995 and 1998. Meanwhile, the share funded by counties increased from 23 to 38 percent.

Association members attribute much of the decline in public and private insurance revenue to inadequate reimbursement by public and private insurance programs for mental health services. For example, between fiscal years 1992 and 2001, Medical Assistance increased its reimbursement for certain mental health services (psychologists and social workers) by only 3 percent. During the same time period, increases were 6 percent for day treatment services and 18.4 percent for physicians (including psychiatrists). In contrast, Medical Assistance increased reimbursement rates by 38 percent for inpatient services, 64 percent for nursing facilities, and 74 percent for facilities serving people with developmental disabilities (ICF-MR facilities). Clinics claim that as a result, Medical Assistance reimbursement falls well short of meeting their costs for many services. This, in turn, stretches available county and foundation dollars and limits the amount of services that can be provided.

19 The estimated decline in average cost is based on the average cost of all placements funded by the consolidated treatment fund. It does not include placements financed by prepaid public insurance programs. The decline in the consolidated fund may underestimate the decline in all public programs because prepaid plans more often place patients in outpatient programs.

COST SHIFTING

In requesting this study, representatives from the State Advisory Council on Mental Health argued that insurance companies are inappropriately denying coverage for behavioral health services and forcing people to seek services from public programs. We heard similar allegations from behavioral health providers and county officials. Although we think these concerns deserve serious consideration, we were unable to obtain data or design a methodology that would allow us to verify the claims of cost shifting.

Acting completely independent of our study, the Minnesota Attorney General's Office filed a lawsuit in October 2000 against Blue Cross Blue Shield of Minnesota alleging that the company has established a "pattern and practice" of denying payment for behavior health services, resulting in those services being provided by publicly-funded programs. Although not a substitute for systematic research, it is possible that the lawsuit will bring to light information about cost shifting that we were not able to obtain.

Many provider and consumer representatives say that health plan companies delay and deny coverage of behavioral health services.

In addition, we learned that Hennepin County officials believe the county may be paying for some behavioral services that should be provided to clients covered by Medical Assistance managed care plans. These officials contend that restrictive managed care policies and practices result in people seeking services from more accessible county-operated clinics. They plan to study the problem more thoroughly in the near future.

Provider Concerns

Although we were unable to verify their claims, we think the concerns expressed to us by behavioral health service providers deserve consideration. We talked, for example, to a group of directors of community mental health centers from around the state.[20] They serve private clients, as well as clients on Medical Assistance and other public insurance plans. They told us that, in their opinion:

- Insurance reimbursement rates are low and do not cover the cost of services.

20 This group consisted of 16 members of the Minnesota Association of Community Mental Health Programs. The boards of directors of many community mental health programs are appointed by county boards and a few are county-operated. Association members provide a substantial part of the non-hospital based public mental health care in Minnesota.

- Very limited prior approval is granted by health plan companies for certain services; therefore, clinics have to spend too much administrative time seeking approval.

- They are required to deal with many different plans, different protocols, and people who give them conflicting advice.

- The advent of effective drugs means they are seeing a harder-to-treat group of patients.

- Court-ordered treatment is often not reimbursed because insurance plans say it is not medically necessary.

- The insurance companies are more accommodating for physical health services where the use of para-professionals is allowed, but they impose strict credential requirements for mental health services.

We also asked members of the Minnesota Council of Child Caring Agencies, which represents operators of residential and community programs, to describe the problems they have experienced with insurance companies. They told us that, in their opinion:

- Many providers cannot survive without charity or foundation support because reimbursement rates are not high enough.

- Insurance companies are too restrictive on the use of non-licensed people. Many providers cannot succeed financially if they are required to hire only licensed staff.

- Medical Assistance worked better under fee-for-service rather than managed care plans. Specifically, Medical Assistance is supposed to pay for family-community support services, but it is difficult to collect from Medical Assistance managed care plans.

The Department of Human Services collects less than 40 percent of the amount it bills insurance companies for county-authorized chemical dependency services.

Department of Human Services Collections

We also talked with officials at the Minnesota Department of Human Services (DHS) about the cost-shifting issue. DHS pays for chemical dependency services authorized by county courts or social service agencies, and for placement of people with mental illness in state regional treatment centers.[21] The department then seeks reimbursement from insurance companies where there is an indication that a client has coverage. We asked DHS financial management staff about their experience collecting reimbursements from insurance companies for residential and outpatient chemical dependency services and for services to people in regional treatment centers.

We found that over a period of 11 years the department has billed insurance companies about $23.6 million for chemical dependency treatment, but insurance

21 The state pays for chemical dependency services through a consolidated fund that is financed by state and federal block grants and other sources.

companies have denied about $14.7 million (62 percent of the amount billed). Financial management staff said that about half the private insurance companies ask for medical records, arguing that the services are not medically necessary even though they were authorized by the county corrections or social service system.

While there are legitimate reasons why the amount recovered could be less than the amount billed, DHS staff told us they believe a significant amount is inappropriately denied by insurers. They also said that judges and social workers inappropriately tell people they do not have to pay for services in some cases, and this results in a lack of cooperation in providing insurance company information.

There are legitimate reasons for denial of some claims, but DHS believes that some claims are inappropriately denied.

We also examined data on the amount billed versus the amount collected for placements in regional treatment centers between fiscal years 1996 and 1999. According to DHS records, about $9.5 million of $23.3 million billed was collected from insurance companies during this period. Again, the department does not know what part of the total represents a true obligation of the insurance companies. DHS staff believes that recoveries could be improved. In order to improve recoveries, the department is switching to a system of having staff in the individual regional treatment centers do the billing under the supervision of central DHS financial management staff. In the past, one person in the department's central office was responsible for all collections.

Cost Shifting in Perspective

Cost shifting is a complex issue. Both insurance companies and governments—at the federal, state, and local level—have an incentive to shift the financial burden of providing health services to another payer. Long before most private health insurance plans covered any aspect of behavioral health, state and local governments were direct providers of mental health services. For example, one of the most visible state institutions historically has been the "state hospital" for persons with mental illness. Indeed, when the Medical Assistance program was established, its coverage was not extended to adult residential treatment in state hospitals because the federal government did not want responsibility for a service that state governments had been funding for decades. Interestingly, Minnesota and other states have subsequently moved many people with mental illness out of state institutions. While deinstitutionalization was carried out primarily to improve treatment, a secondary reason was to shift the financial burden back to the federal government through the Medical Assistance program and to counties and private insurance carriers.

It is also worth noting that, even when Medical Assistance pays for services, its reimbursement rates for a wide range of services are regarded by providers and DHS itself as inadequate to cover the cost of the services. As a result, part of the cost of the services is shifted to private payers, counties, or the state. Providers and consumer representatives have complained for years that low Medical Assistance rates depress the rates that private insurers are willing to pay. They also dispute the medical necessity and level of care criteria used by Medical Assistance managed care companies and accuse the companies of burdensome paperwork requirements that makes it too time-consuming and difficult to obtain reimbursement.

There is little doubt that the current system is marked by fragmentation, conflict, and dissatisfaction among consumers and providers. It is a system in which both governments and insurance companies look for ways to diminish their financial liabilities and shift the cost to another payer. The concern that was brought to us, however, focused only on possible cost shifting from the private insurance companies to the public programs. And, as stated before, we were unable to obtain the data or design a methodology that would allow us to measure the extent to which this kind of cost shifting may be occurring.

EFFECTS OF MANAGED CARE ON BEHAVIORAL HEALTH CARE

As we discussed in Chapter 1, during the 1990s managed care emerged as the dominant form of health care in the nation in response to rapidly rising health care costs. Managed care was designed to control health care costs without jeopardizing the effectiveness of health care. In this section we examine evidence on the effects of managed care on the cost and quality of behavioral health care.

Managed care has reduced behavioral health costs more than other health care costs, according to national studies.

To examine the effects of managed care on behavioral health, we looked at both state and national sources. Although national trends may not be the same as Minnesota trends, national studies contain the best available information on the impact of managed care on mental health services. When Minnesota was changing to managed care during the 1970s and 1980s, the impact on mental health was not monitored. In preparing this study, we could only obtain data on mental health spending by Minnesota's private insurers back to the mid-1990s, well after the time managed care had become established in Minnesota.

- **National studies generally agree that managed care reduces costs for behavioral health and general health care, but there is some evidence that managed care affects behavioral health care more than general health care.**

Numerous studies have examined the effect of managed care on general health care costs. According to one review of the literature, managed care typically reduces general health care costs by between 20 and 30 percent.[22]

Various case studies as well as a major health care experiment have found that managed care also substantially reduces behavioral health care costs.[23] The RAND health insurance experiment in Seattle probably provides the best

22 David Mechanic, *Mental Health and Social Policy: the Emergence of Managed Care*, 135.

23 David Mechanic and Donna D. McAlpine, Mission Unfulfilled: Potholes on the Road to Mental Health Parity, *Health Affairs* 18, no. 5 (1999) 10-12; William Goldman, Joyce McCulloch, and RolandSturm, "Costs and Use of Mental Health Services Before and After Managed Care," *Health Affairs* 17, no. 2 (1998): 40-52; Roland Sturm, William Goldman, and Joyce McCulloch, "Mental Health and Substance abuse Parity: A Case Study of Ohio's State Employee Program," *The Journal of Mental Health Policy and Economics* 1, 129-134 (1998); and Ching-to Albert Ma and Thomas G. McGuire, "Costs and Incentives in a Behavioral Health Carve-out," *Health Affairs* 17, no. 2 (1998) 53-69.

evidence that managed care can have a large effect on behavioral health care costs.[24] This study randomly assigned people to various plans, including a prepaid HMO style of managed care and a fee-for-service plan (termed free care because there were no deductibles, copayments, or limits). Overall mental health expenditures under managed care were less than one-third of the spending under fee-for-service plans.

There is some evidence that managed care has a greater impact on behavioral health than general health care. The HayGroup study found that managed care reduced behavioral health spending by a substantially larger amount than it reduced general health care spending. Another study found that utilization review of hospital stays denied a substantially higher percentage of requested days of care for behavioral health than general health.[25]

There are sharply conflicting opinions about the impact of managed care.

While managed care reduces the cost of behavioral health care, there is not agreement whether the reductions are appropriate. Some mental health advocates have argued that the decline represents inappropriate service cutbacks, inadequate reimbursement of behavioral health care services, and cost shifting from insured plans to public payers of last resort. Managed care proponents counter that managed care reduces costs by challenging ineffective practices and improves the quality of care by increasing compliance with professional standards. A number of studies have examined managed care and quality of care, but the results are inconclusive. In fact,

- **The impact of managed care on the quality of mental health services is largely unknown.**

Existing evidence does not definitively answer questions about managed care's impact on quality for several reasons. First, studies have used only a few indicators of quality, reflecting the relatively primitive status of quality measurement for mental health.[26] Another reason that managed care's impact on quality is not well understood is that managed care arrangements vary widely around the nation and have changed over time, making generalizations from a few studies questionable. Few existing studies attempted to identify the specific features of managed care organizations that were successful or ineffective. Studies of organizations suggest that there are many factors that can influence the effectiveness of managed care. Among these are the degree to which the organization shares a mission to improve health care practices as opposed to merely cutting costs, staff characteristics, and external pressures from employers and state agencies that purchase health insurance.

Nonetheless, national studies illustrate some of managed care's potential benefits and drawbacks for behavioral health. On the positive side, some long-term case studies of private insurance plans found that a higher percentage of members used

24 Richard G. Frank and Thomas G. McGuire, "Economics and Mental Health," and David Mechanic, *Mental Health and Social Policy: the Emergence of Managed Care.*

25 Thomas M.Wickizer and Daniel Lessler, "Effects of Utilization Management on Patterns of Hospital Care among Privately Insured Adult Patients," *Medical Care* 36, no.11 (1998): 1545-54.

26 David Mechanic, *Mental Health and Social Policy: the Emergence of Managed Care*, 18.

mental health services after the plans implemented managed care.[27] Also, the RAND health care experiments found that a higher percentage of managed care enrollees used mental health services than did enrollees under fee-for-service plans.[28]

Some studies found that managed care reduced costs without any apparent decline in quality. For example, in the RAND health experiment, researchers found that the HMO plan had lower costs than the fee-for service plans, but there was no differences in three mental health outcome measures.[29]

Another example of managed care reducing costs without any apparent reduction in quality of care is the impact of CD treatment provided under Minnesota's Prepaid Medical Assistance Program. A DHS study found that prepaid plans (HMOs) placed 25 percent of sample CD patients in inpatient settings, compared with 41 percent of a matched sample under a fee for service plan.[30] The study found no significant differences in patient satisfaction or post-treatment abstinence rates.

Evidence of managed care's effect on health care quality is mixed.

Other studies raise concerns about managed care. One study found that managed care reduced the length of stay at hospitals, which increased the odds of readmission.[31] After Utah established a managed care plan for its Medicaid program, an evaluation found that the care received by serious schizophrenia cases changed in a variety of ways that raised questions about "the vigor of care provided to a highly vulnerable group of patients."[32] An analysis of the RAND Medical Outcomes study found that primary care physicians in HMOs were less likely to recognize depressed patients than were physicians under fee-for-service systems.[33] Also, depressed HMO patients who were identified were less likely to receive "medication continuity" and had poorer outcomes.[34]

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27 William Goldman, Joyce McCulloch, and RolandSturm, "Costs and Use of Mental Health Services Before and After Managed Care," 40-52.

28 David Mechanic, *Mental Health and Social Policy: the Emergence of Managed Care*, 136.

29 David Mechanic, Mark Schlesinger, and Donna D. McAlpine, "Management of Mental Health and substance abuse Services: State of the Art and Early Results," The Milbank Quarterly 73, no. 1 (1995) 29-30.

30 Patricia A. Harrison and Stephen E. Asche, *Fee-for service versus Prepaid Public Health Plans: An examination of chemical dependency treatment provided through two public funding systems in Minnesota*, (St. Paul, Minnesota Department of Human Services, 1999).

31 Thomas M.Wickizer and Daniel Lessler, "Do Treatment Restrictions Imposed by Utilization Management Increase the Likelihood of Readmission for Psychiatric Patients?" *Medical Care* 36, no.6 (1998): 844-50.

32 Michael K. Popin, Nicole Lurie, Willard Manning, Jeffrey Harman, Allan Callies, Donald Gray, and Jon Christianson, "Changes in the Process of Care for Medicaid Patients With Schizophrenia in Utah's Prepaid Mental Health Plan," *Psychiatric Services* 49, no. 4 (April 1998) 518-523.

33 Kenneth B. Wells, Ron D. Hays, M. Audrey Burnam, William Rogers, Sheldon Greenfield, John E. Ware, "Detection of Depressive Disorder for Patients Receiving Prepaid or Fee-for-Service Care: Results from the Medical Outcomes Study," *Journal of the American Medical Association* 262, no. 23 (1989): 518-523.

34 W.H.Rogers et al., "Outcomes for Adult Patients with Depression Under Prepaid or Fee-for-Service Financing," *Archives of General Psychiatry* 50, no. 7 (1993): 517-25.

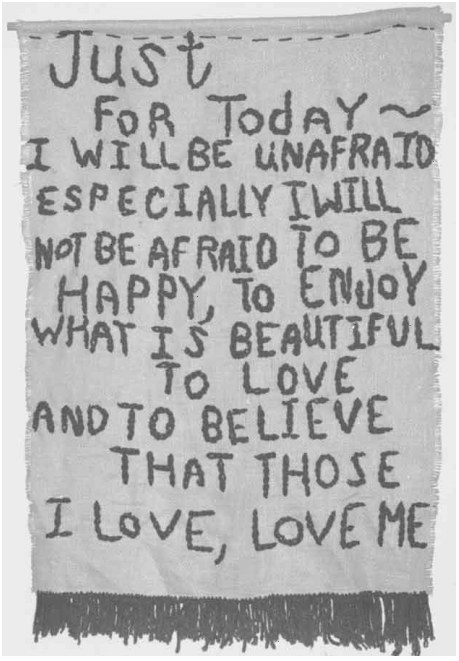
QUALITY OF CARE IN MINNESOTA

There is even less information on the effect of managed care on quality of mental health care in Minnesota as there is nationally. Nevertheless, the Minnesota Department of Health recently began collecting data on two mental health effectiveness indicators. In addition, the Department of Human Services recently completed an outcome study for chemical dependency treatment programs. We discuss the results of these efforts below.

Mental Health Care

A national HMO accrediting organization has established two indicators of mental health care quality.

The Department of Health requires HMOs to annually report various effectiveness indicators developed by the National Committee for Quality Assurance (NCQA), including two mental health care indicators. These indicators measure (1) whether HMO enrollees who were hospitalized for mental illness receive appropriate follow-up care and (2) whether HMOs appropriately manage antidepressant medication. The health department first required Minnesota HMOs to report these measures for 1999 encounters. As a result, it is too early to measure trends with these data. We can compare Minnesota HMOs with the national average for commercial HMOs, though data are not collected for other types of health plans.



According to NCQA, regular follow-up therapy is important for patients who have been hospitalized for mental illness. To ensure that the patient makes an appropriate transition to home and work, patients should have an outpatient visit with a mental health practitioner within 30 days of discharge. In fact, officials from Medica's behavioral health plan (United Behavioral Health) told us that 30 days is too long and that 7 days is a more appropriate standard. NCQA uses both the 7 and 30-day standards to assess follow-up care performance.

Table 2.12 compares follow-up rates after hospitalization for mental illness in Minnesota with the nation for 1999. We found:

- **Minnesota HMOs provided appropriate follow-up care after hospitalization for mental illness slightly more often than the national average, but there is considerable room for improvement.**

Table 2.12: Percentage of Commercial HMO Patients Hospitalized for Mental Illness Receiving Follow-up Care, 1999

		Percentage Receiving Follow-Up Care	
	(*N*)	Within 7 Days	Within 30 Days
National Average		48%	70%
Minnesota HMOs	1,966	49	74
Medica	795	67	79
Health Partners	570	40	79
Blue Plus	538	32	64
Other	63	41	62

NOTE: The above figures represent the following: Among patients who were hospitalized for mental illness, the percentage who were seen on an outpatient basis by a mental health practioner within the specified time after discharge.

SOURCES: The figures for Minnesota came from the Minnesota Department of Health. The national figures came from the National Committee for Quality Assurance.

In Minnesota, 49 percent of commercial HMO patients hospitalized for mental illness received follow-up care within 7 days of discharge.

In Minnesota, 49 percent of commercial HMO patients received follow-up care within 7 days of discharge, and 75 percent received follow-up care within 30 days. Comparable national follow-up rates for commercial HMO plans were 48 percent for 7 days and 70 percent for 30 days.[35] Follow-up rates varied considerably among Minnesota's health plans, particularly for the 7-day follow-up rate. Among Minnesota's three major health plans, 7-day follow-up rates ranged from 67 percent to 32 percent.

Effective follow-up depends both on the HMO as well as the patient, so a 100 percent follow-up rate may not be realistic. But the range of follow-up rates achieved by individual health plans gives some indication of what is possible. Nationally, 10 percent of health plans had follow-up rates that met or exceeded 67 percent for the 7-day measure and 86 percent for the 30-day measure.

Three other mental health effectiveness indicators used by NCQA assess antidepressant medication management. Effective medication treatment depends on patients remaining on medication for extended time periods.[36] NCQA uses two indicators to track whether patients remained on antidepressant medication for the first 12 weeks (the acute phase) and the first six months (the continuation phase) of treatment. It is also important to monitor the patient in order to identify side effects, assess the drug's effectiveness, and make appropriate adjustments in dosage. NCQA's third indicator tracks whether patients receive optimal practitioner contacts, defined as at least three outpatient visits within the first 12 weeks.

35 National Committee for Quality Assurance, *The State of Managed Care Quality, 2000*, (Washington D.C., National Committee for Quality Assurance, 2000).

36 Kenneth B. Wells, Roland Sturm, Cathy D. Sherbourne, and Lisa S. Meredith, *Caring for Depression* (Cambridge, MA: Harvard University Press, 1996): 18-23.

Table 2.13 compares the performance of Minnesota HMOs with commercial HMO plans in the nation. We found:

- **The two large commercial HMO plans in Minnesota that reported data appear to have managed antidepressant medication about as well or better than the national average. Again, there is considerable room for improvement.**

Table 2.13: Anti-Depressant Medication Management, 1999

		Percentage of Patients who Remained on Antidepressant Medication for the First		Percentage of Patients who Received at Least 3 Visits During the First 12 Weeks
	(*N*)	12 Weeks	6 Months	
National average (commercial HMOs)		59%	42%	21%
Minnesota HMOs				
Commercial				
Medica		68	50	30
Health Partners		57		
Medical Assistance	970	46	32	26
Minnesota Care	628	56	38	18
General Assistance Medical Care	198	51	38	29
Medicare	483	48	33	22

NOTE: According to the National Committee for Quality Assurance, it is important to meet the three standards shown above to ensure effective antidepressant medication treatment. The three measures are based on patients with new episodes of depression who were treated with antidepressant medication.

SOURCES: Figures for Minnesota public programs came from the Minnesota Department of Health. The figures for Minnesota commercial programs came from the health plans. The national figures came from the National Committee for Quality Assurance.

HMO members in public insurance programs continued their antidepressant medication less often than members of commercial HMO plans.

Among commercial plans, Medica's performance was consistently above the national average and Health Partners was close to the national average.[37] But many patients treated with antidepressant medication did not continue their treatment for the first 12 weeks and half or more did not maintain treatment for six months.

Patients were less likely to continue their antidepressant management under prepaid public insurance programs than under commercial plans. For example, 50 percent of patients insured by public programs continued their medication for at least 12 weeks, compared with 57 and 68 percent under the two commercial plans.

According to mental health practitioners we interviewed, low performance can reflect two problems. First, people with depression are not getting the medication treatment they need to be effective. Second, antidepressant medication may be

37 MDH did not collect data on antidepressant medication management for commercial plans in 1999. As a result, only the three plans accredited by NCQA collected these data for commercial plans.

prescribed for mild, short-term cases of depression that may not require antidepressant medication. It is not clear to what extent each of these factors explains the medication management performance. As with the follow-up measure, the medication management measures reflect patient motivation as well as HMO performance.

Only recently have state agencies begun to systematically analyze the quality of mental health care.

State agencies in Minnesota have only begun to systematically examine the quality of mental health care in the state. The Department of Human Service's performance measurement and quality improvement program for Medical Assistance contains the components typically used by other states, such as collecting encounter data from HMOs, conducting consumer satisfaction surveys, and developing a consumer complaint process. However, only recently has DHS made the encounter data suitable for detailed analysis. The consumer satisfaction surveys do not specifically address mental health issues. And as we show in Chapter 5, consumer complaint data do not provide much useful information to help assess the quality of mental health care. Currently DHS is nearing the end of the first phase of a major three-part study on mental health in Minnesota. Under the first phase, which DHS expects to finish in early 2001, the department is assessing the extent to which mental health needs are being met in Minnesota. Later phases will examine the quality of mental health care and mental health outcomes.

Chemical Dependency Treatment

Critics of managed care have questioned spending cutbacks in chemical dependency services, particularly the substitution of outpatient treatment for inpatient treatment and reductions in inpatient length of stay.[38] During the past decade, Minnesota's public programs increased the use of outpatient treatment and reduced the average length of stay for inpatient treatment. As we explained earlier in this chapter, a change in placement criteria by the state explains much of the increase in outpatient usage. The DHS study we discussed above suggests that another factor might be the increased use of pre-paid plans under Medical Assistance. The study found that pre-paid plans placed a higher percentage of chemical dependency patients in outpatient settings than fee-for-service plans, but achieved similar outcomes. In addition,

- **A recent DHS study suggests that Minnesota could further increase its use of outpatient placements for chemical dependency treatment without reducing effectiveness.**

This DHS study compared chemical dependency outcomes among a sample of nearly 5,000 adult patients from over 200 inpatient and outpatient treatment

38 E.A.Renz, R.Chung, Y.O.Fillman, D.Mee-Lee, and M.Sayama, "The Effect of Managed Care on the Treatment Outcomes of Substance Abuse Disorders,"*General Hospital Psychiatry*, 17 (1995), 287-92.

programs.[39] It found that inpatient programs had superior results than outpatient programs among patients who were seriously impaired in at least four out of five problem areas or who reported recent suicidal behavior. But patients that did not meet these criteria did not have significantly higher posttreatment abstinence rates under inpatient programs than patients with the same problem severity level had under outpatient programs.

Most inpatient placements in Minnesota (61 percent) did not meet the conditions that, based on the DHS study, would justify inpatient treatment. These results suggest that many adults treated on an inpatient basis could be treated on an outpatient basis (at about one-third the cost) without reducing their chances of achieving abstinence. The study also noted that 16 percent of patients who were treated in an outpatient setting met the conditions that would justify inpatient treatment.

39 Patricia A. Harrison and Stephen E. Asche, *The Challenges and Benefits of Chemical Dependency Treatment: Results from Minnesota's Treatment Outcomes Monitoring System, 1993-1999*, (St. Paul: Minnesota Department of Human Services, 2000). Results were based on a sample of 4,953 adults who received publicly funded chemical dependency treatment from an inpatient or outpatient program between 1993 and 1999. Participants were obtained from 41 inpatient treatment programs and 167 outpatient programs. The study also examined smaller samples of extended care patients, halfwayhouse residents, and adolescent patients. Each program sought volunteer participants until the target of 30 participants was reached. Post-treatment follow-up interviews were successfully completed for 63 percent of the sampled adults.