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Trends in Mental Health Insurance Benefits and Out-of-Pocket Spending

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Abstract

Background: Insurance benefits can have a large effect on whether one is able to access health care services. Mental health and substance abuse (MHSA) insurance coverage has typically been less generous than that of general health services.
Aims of the Study: This paper examines trends in the generosity of private insurance benefits for mental health (MH) services in the United States from 1987 to 1996. The paper estimates the benefit-induced change in insurance payments for MH services that would have been made by typical health plans between 1987 and 1996 holding constant utilization of individuals at the 1987 level so that the changes in effective benefits could be isolated.
Methods: Trends in mental health benefits were measured using two nationally representative household surveys of the U.S. civilian non-institutionalized population, the 1987 National Medical Expenditure Survey (NMES) and the 1996 Medical Expenditure Panel Survey (MEPS). Data on utilization and expenditures from the NMES/MEPS were used to simulate what the average person would have paid out-of-pocket under typical insurance plans in 1987 and in 1996.
Results: The study finds that limits on MH coverage, such as limits on reimbursed days of care, became more prevalent from 1987 to 1996, but that consumer cost-sharing rates declined. The simulations indicate that private insurance would have paid for a lower proportion of total spending in 1996 (60.1 percent) as compared to 1987 (65.8 percent).
Discussion: Despite the fact that limits on mental health services became more prevalent over the time-period evaluated, out-of-pocket expenditures did not increase as significantly because there was a corresponding increase in coinsurance covered by health plans.
Implications for Health Care Provision and Use: Trends in plan design negatively affected those with high costs who are likely to surpass their limits and positively affected coverage for those with minimal use due to lower cost-sharing. These trends also indicate that persons in the most need, those with high utilization, particularly of inpatient care, experienced a decline in coverage while those with less intensive needs may have experienced a slight increase.
Implications for Health Policies: Out-of-pocket spending in both years of the study was substantial suggesting that improved health care coverage, such as that mandated in parity legislation, could improve access to care for persons needing mental health treatment.
Implication for Further Research: Additional research is needed to understand how trends in out-of-pocket spending and insurance benefits have influenced access to care.

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Background

Insurance benefits can have a large effect on whether one is able to access health care services.[1] Mental health and substance abuse (MHSA) insurance coverage has typically been less generous than for general health services. Unlike general health services, MHSA benefits often limit the number of days of inpatient care and outpatient visits, and often have separate limits on the total dollar amount reimbursed for inpatient and outpatient services. When insurance covers more limited expenditures, more must be paid out-of-pocket by the insured and there is less incentive to use services and more financial risk.

The goal of this paper is to measure the change in value of mental health (MH) insurance coverage over time by simulating the out-of-pocket expenditures required under typical benefit packages offered in 1987 and 1996. This is done by examining trends in the number of insurance policies that set specific types of limits on coverage and then by simulating reimbursed and un-reimbursed expenses submitted to private insurance plans given typical insurance benefits in 1987 and 1996.

This paper used data on MH benefits collected by the Agency for Health Care Research and Quality. Before presenting that data, it is useful to review what other surveys have shown about trends in health insurance benefits. The Department of Labor (DOL) employee benefits surveys of medium and large employers show that almost all employees with health

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insurance had coverage for mental health services in both 1988 and 1997. According to DOL, in 1988, 98% of employees in medium and large private sector firms with insurance had coverage of mental health benefits and, in 1997, 96% had coverage.[2] Long-term trend data are not available for small employers but in 1990 and 1992, 98% of employees of small private establishments had mental health coverage.

Although the number of employees with any mental health coverage remained constant from the late 1980s to mid-1990s, data from the Hay Group suggest that some aspects of mental health benefits became less generous. Hay Group surveys of a sample of approximately 1,000 medium and large employers in the United States.[3] The number of plans with no specific limitations on inpatient care for mental illness fell from 37% in 1990 to 13% in 1996, while the number of plans with visit limits increased from 26% 1988 to 47% in 1996.

Other data on trends in benefits from the 1989 and 1995 Foster Higgins survey of 171 large employers shows a more complex change in benefits.[4] According to the Foster Higgins survey, the percentage of plans with no inpatient limits dropped from 14% in 1989 to 8% in 1995. Plans with maximum dollar amounts and maximum days per year increased (from 24% to 25%, and 47% to 58%, respectively). Plans with maximum dollar amounts and days per lifetime decreased (from 57% to 48%, from 7% to 6%, respectively). Outpatient benefits generally became more generous in that fewer used maximum dollar amounts per year, per visit, and per lifetime. However, outpatient benefits became less generous by increasing the percent having limits on the number of visits per year.

In general, the previously published data on trends in mental health insurance coverage suggests that out-of-pocket costs may have increased over time due to the greater restrictions on benefits. Benefit design, however, is complex and the trends presented do not take into account the interaction between benefits; nor do they address the issue of changes in cost-sharing.

Methods

Data Sources

The paper is based on data from the National Medical Expenditure Survey (NMES) for 1987 and the Medical Expenditure Panel Survey (MEPS) for 1996. Two types of data are derived from NMES/MEPS: i) health plan design information for MH services, and ii) MH inpatient and outpatient treatment utilization and expenditures (pharmaceutical expenditures were excluded). The NMES and MEPS are household surveys designed to produce national estimates representative of the civilian non-institutionalized population of the United States. The NMES Household Component sample size was 17,500 households for the first round household interview. Data were obtained for about 86 percent of the eligible households in the first interview.[5] The 1996 MEPS Round 1 Household Component had 12,000 households with approximately a 78 percent response rate.[6]

Data on health insurance in 1987 came from the NMES Health Insurance Plan Survey (HIPS), a follow-up survey to the Household Survey of the 1987 NMES. The objectives of the HIPS were to verify and supplement health insurance data provided by household respondents. The HIPS sample included employers and sources of health insurance identified by household survey respondents. The overall HIPS response rate was 62 percent. Health insurance booklets or policy descriptions were obtained for 74 percent of the supplemental sources of information on health plans thus the aggregate response rate was 46 percent.[5]

Data on health insurance in 1996 came from the MEPS-Household Component-Health Insurance Plan Abstraction (MEPS-HC-HIPA), a survey that collects data on the private health insurance plans held by MEPS household respondents. Health Insurance Plan Booklets in the MEPS HIPA are collected from households in the MEPS, from their employers, and from their plans. The 1996 MEPS-HC-HIPA contains information on health plan provisions for approximately 54 percent of MEPS household respondents. This yields a response rate of 42 percent when it is multiplied by the round 1 response rate.[6]

Because of the low response rate, no national weights to adjust for NMES and MEPS over-sampling strategies were provided with the MEPS-HC-HIPA. Person-level weights from the overall NMES/MEPS surveys were used which partially corrects for over-sampling and under-reporting.

Both the NMES and MEPS query individuals about their health care utilization and about the health care conditions that led to the visit. Professional coders assigned ICD-9-CM codes to each record based on verbatim text fields of the conditions recorded by interviewers. Mental health diagnoses were identified based on these ICD-9-CM codes. MEPS and NMES also gathered encounter records from providers to determine expenditures and sources of payment.

Simulations

To test the relative generosity of MH insurance benefits in 1987 and 1996, the paper estimates out-of-pocket expenditures and the proportion of expenditures reimbursed by insurance assuming a level of MH service utilization reflected in the 1987 NMES for inpatient and ambulatory care. To simulate MH reimbursed and non-reimbursed insurance expenditures, NMES records from individuals were summed to yield yearly MH expenditures. Each person's yearly MH expenditures were than assigned to non-reimbursed (out-of-pocket) or reimbursed insurance expenditures based on a particular MH benefits design. Utilization was held constant so that the effect of benefit design changes could be isolated. The NMES utilization data yielded 30 persons with one or more inpatient stays with a mental health diagnosis and 587 persons with at least one ambulatory visit with a mental health diagnosis.

The distribution of MH benefits such as cost sharing and limits across plans was calculated based on insurance plan data contained in the NMES/MEPS. For the simulations, several "simplified" health plans covering inpatient MH services and outpatient MH services were constructed using the 1987 NMES and 1996 MEPS health plan files. These are "simplified" in

Table 1. Percent of health insurance plans by type of benefit limit and plan coinsurance rate for inpatient mental health services, 1987

Type of Benefit Limit	Plan Coinsurance Rate (Standard Errors) 0 to 59 %	60 to 89%	90 to100 %	Percent of All Plans (Standard Errors)
Plans with Annual Inpatient Day, But Not Dollar Limits				
Annual Day Limits				
0 to 59	0.5% (0.2)*	13.3% (0.9)*	6.4% (0.7)*	20.2% (1.0%)*
60 and over	0.1% (0.1)	6.6% (0.7)*	3.9% (0.6)*	10.5% (1.0%)
Percent of All Plans	0.6% (0.2)*	19.8% (1.1)*	10.3% (0.8)*	30.8% (1.3%)*
Plans with Annual Inpatient Dollar, But Not Day Limits				
Annual Dollar Limits				
$0 to $14,999	0.4% (0.2)*	1.4% (0.2)*	1.3% (0.2)*	3.0% (0.3%)*
$15,000 and over	0.2% (0.1)*	2.4% (0.4)*	0.5% (0.1)*	3.0% (0.4%)*
Percent of All Plans	0.6% (0.2)*	3.7% (0.5)*	1.7% (0.3)*	6.1% (0.5%)*
Plans with Dollar and Day Limits				
Annual Dollar Limits				
$0 to $14,999	0.0% (0.0)*	0.1% (0.1)*	0.4% (0.2)*	0.5% (0.2%)*
$15,000 and over	0.1% (0.0)*	1.7% (0.3)	0.4% (0.2)*	2.1% (0.4%)*
Percent of All Plans	0.1% (0.0)*	1.8% (0.4)	0.8% (0.2)*	2.6% (0.4%)*
Plans with None of These Limits	7.7% (0.9)*	39.6% (1.3)*	13.2% (0.9)	60.4% (1.4%)*
Plans with No Coverage of Inpatient Mental Health				0.2% (0.1%)*
Percent of All Plans	8.9% (0.9)	64.9% (1.4)*	26.0% (1.3)*	100.0%

Source: CSAT/CMHS Spending Estimates Project; weighted National Medical Expenditure Survey, 1987.
***** Change from 1987 to 1996 is statistically significant at $p < 0.05$

the sense that they describe some but not all aspects of coverage limitations. Health plan designs vary widely and only some aspects of these variations are covered in this analysis. The simulated aspects of benefit design were limited to inpatient day maximums, outpatient visit maximums, dollar limits, or neither, combinations of day/visit and dollar maxima, and coinsurance or co-payment amounts. Combinations of these limitations are used to define health plans, and the proportion of plans with these characteristics is used to summarize the financial implications of the changes in coverage that occurred between 1987 and 1996.The simplified plans were constructed using the average coinsurance rate and limits on days, visits, or expenditures in each of the cells defined by limit type, coinsurance and limit amount. One aspect of the plan that is not captured is limits on payments such as usual and customary rates (so called "UCR" limits). Plans may limit payments to providers to pre-specified rates and, if providers do not participate in the network, consumers must pay the difference out-of-pocket. In addition, lifetime limits are not considered because NMES and MEPS do not contain suitable longitudinal data. Furthermore, only individual rather than family deductibles were considered. Deductibles that applied to services for all diagnoses combined were not distinguished from deductibles applicable to only to mental health diagnoses.

In evaluating the 1996 plans, prices in the 1987 file were projected to 1996 using a 5 percent annual increase or inpatient care and a 3 percent annual increase for outpatient care. The projection allowed the change in dollar limits to be captured. For example, a $500 dollar limit in 1987 would reflect a more stringent limit in 1996 dollars. Five and 3 percent was selected based on inpatient and outpatient mental health expenditures trends captured in NMES and MEPS. The average deductibles for 1987 and for 1996 were used.

The 1987 NMES reports insurance coverage during each calendar quarter of 1987. In the simulation, the selection of utilization and expenditure data was restricted to those people who reported private insurance coverage in at least one round and who did not report Medicare coverage in any of the survey rounds. Thus, the analysis generally reflects the behavior of persons with private insurance coverage but does not eliminate cases where an individual lost coverage during the period of the survey. The health plan simulations are also restricted to persons with mental health diagnoses.

Results

This section begins by describing changes in private MH

Table 2. Percent of health insurance plans by type of benefit limit and plan coinsurance rate for inpatient mental health services, 1996

Type of Benefit Limit	Plan Coinsurance Rate (Standard Errors) 0 to 59 %	60 to 89%	90 to100 %	Percent of All Plans (Standard Errors)
Plans with Annual Inpatient Day, But Not Dollar Limits				
Annual Day Limits				
0 to 59	1.8% (0.3)*	9.1% (0.7)*	24.6% (1.3)*	35.5% (1.5)*
60 and over	0.0% (0.0)	2.1% (0.4)*	9.1% (1.1)*	11.2% (1.2)
Percent of All Plans	1.8% (0.3)*	11.2% (0.8)*	33.7% (1.3)*	46.7% (1.5)*
Plans with Annual Inpatient Dollar, But Not Day Limits				
Annual Dollar Limits				
$0 to $14,999	1.5% (0.3)*	4.6% (0.6)*	4.4% (0.5)*	10.5% (0.9)*
$15,000 and over	1.2% (0.3)*	1.2% (0.2)*	2.4% (0.3)*	4.8% (0.6)*
Percent of All Plans	2.7% (0.4)*	5.8% (0.6)*	6.8% (0.6)*	15.3% (1.0)*
Plans with Dollar and Day Limits				
Annual Dollar Limits				
$0 to $14,999	0.4% (0.1)*	1.4% (0.3)*	2.9% (0.6)*	4.7% (0.7)*
$15,000 and over	0.8% (0.2)*	1.3% (0.2)	4.1% (0.5)*	6.2% (0.6)*
Percent of All Plans	1.2% (0.2)*	2.7% (0.4)	7.0% (0.8)*	10.8% (0.9)*
Plans with None of These Limits	2.0% (0.3)*	9.4% (0.7)*	14.1% (0.8)	25.4% (1.0)*
Plans with No Coverage of Inpatient Mental Health				1.7% (0.2)*
Percent of All Plans	7.7% (0.7)	29.1% (1.2)*	61.5% (1.4)*	100%

Source: CSAT/CMHS Spending Estimates Project; weighted Medical Expenditure Panel Survey, 1996.
***** Change from 1987 to 1996 is statistically significant at $p < 0.05$

insurance coverage in 1987 and 1996. It then presents the results of simulations of the implications of MH benefits for reimbursed and non-reimbursed MH insurance expenditures.

Private Insurance Coverage of Inpatient Mental Health Services, 1987 and 1996

Trends in insurance benefits based on the NMES and MEPS insurance characteristics files are shown in **Table 1** and **Table 2**. In general, they show that the use of limits on inpatient benefits has *increased*. The percent of plans with day limits but no dollar limits increased (from 30.8% to 46.7%). The percent of plans with dollar limits but no day limits also increased (from 6.1% to 15.3%), as did the number of plans with both day and dollar limits (from 2.6% to 10.8%). The number of plans with neither day nor dollar limits decreased (from 60.4% to 25.4%).

The MEPS and NMES also show a substantial shift toward plans that pay a higher share of the cost of a service (until the maximums are reached). In 1987, 26.0 percent of plans had 90-to-100 percent cost sharing by the plan (the plan paying 90-to-100 percent of costs up to the limit) (**Table 1**). In 1996, 61.5 percent of plans had 90-to-100 percent cost sharing (**Table 2**). In contrast to the increase in use of limits, the cost sharing changes would have the impact of decreasing consumer out-of-pocket costs.

Effect of Changes in Private Insurance Inpatient Benefits on Reimbursed and Non-Reimbursed Expenditure Distributions.

This section examines the effect of changes in inpatient benefits on simulated reimbursed and un-reimbursed expenditures. Inpatient services are defined as facility and professional expenses charged for care of hospital inpatients. The average percent of total MH inpatient expenditures paid by health insurers in 1987 and the 1996 are shown in **Table 3**.

As shown in the bottom of **Table 3**, the proportion of inpatient expenditures reimbursed by insurance dropped between 1987 and 1996 from 73.7 to 66.3 percent. Thus, assuming utilization remained constant, individuals would have paid more out-of-pocket or through other payers for services in 1996 than in 1987 due to a reduction in the generosity of insurance benefits.

The overall change in private insurance coverage is the average of the reduction of benefits across plan types weighted by the proportion of persons with each plan type. For example, persons with annual inpatient day limits but no

Table 3. Average percent paid by health insurance plans by type of benefit limit for inpatient mental health services, 1987 and 1996

Type of Benefit Limit	Average Percent Paid in 1987	Average Percent Paid in 1996
Plans with Annual Inpatient Day, But Not Dollar, Limits	68.6%	69.8%
Plans with Annual Inpatient Dollar, But Not Day, Limits	53.9%	39.7%
Plans with Dollar Limits and Day Limits:	69.7%	54.0%
No Annual Day or Dollar Limits	78.6%	85.7%
No Coverage of Inpatient Mental Health	0.0%	0.0%
Average Percent Paid Over All Plans	73.7%	66.3%

Source: CSAT/CMHS Spending Estimates Project; 1987 National Medical Expenditure Survey and 1996 Medical Expenditure Panel Survey.
Note:
- For 1987, the deductible was assumed at $189.
- For 1996, the deductible was assumed at $166; utilization was taken from NMES 1987; and expenditures per person were taken from NMES 1987 and projected at a 5 percent annual increase for inpatient care and a 3 percent annual increase for outpatient care.

Table 4. Percent of health insurance plans by type of benefit limit and plan coinsurance rate for outpatient mental health services, NMES weighted, 1987

Type of Benefit Limit	Plan Coinsurance Rate (Standard Errors) 0 to 59 %	60 to 89%	90 to100 %	Percent of All Plans (Standard Errors)
Plans with Annual Visit Limits But Not Dollar Limits				
Annual Visit Limits				
0 to 59	13.2% (0.8)*	10.1% (0.8)*	2.1% (0.3)*	25.4% (1.2)*
60 and over	0.4% (0.1)	0.2% (0.1)	0.0% (0.0)	0.6% (0.2)
Percent of All Plans	13.6% (0.8)*	10.3% (0.8)*	2.1% (0.3)*	26.0% (1.1)*
Plans with Annual Outpatient Dollar, But Not Visit Limits				
Annual Dollar Limits				
$0 to $14,999	7.7% (0.6)*	3.8% (0.4)*	1.4% (0.3)*	12.9% (0.8)*
$15,000 and over	1.3% (0.3)	1.3% (0.2)	0.5% (0.2)	3.2% (0.4)
Percent of All Plans	9.0% (0.6)*	5.1% (0.5)*	2.0% (0.3)*	16.1% (0.8)*
Plans with Dollar and Visit Limits				
Annual Dollar Limits				
$0 to $14,999	0.7% (0.2)*	0.5% (0.2)*	0.0% (0.0)*	1.2% (0.3)*
$15,000 and over	0.7% (0.2)	0.3% (0.1)*	0.0% (0.0)	1.0% (0.2)*
Percent of All Plans	1.4% (0.3)*	0.8% (0.3)*	0.0% (0.0)*	2.3% (0.4)*
Plans with None of These Limits	32.4% (1.3)*	17.3% (1.0)	4.2% (0.5)	53.9% (1.2)*
Plans with No Coverage of Outpatient Mental Health				1.7% (0.3)
Percent of All Plans	56.5% (1.4)*	33.5% (1.3)*	8.3% (0.7)*	100%

Source: CSAT/CMHS Spending Estimates Project; National Medical Expenditure Survey, 1987.
***** Change from 1987 to 1996 is statistically significant at $p < 0.05$

Table 5. Percent of health insurance plans by type of benefit limit and plan coinsurance rate for outpatient mental health services, 1996

Type of Benefit Limit	Plan Coinsurance Rate (Standard Errors) 0 to 59 %	60 to 89%	90 to100 %	Percent of All Plans (Standard Errors)
Plans with Annual Visit, But Not Dollar Limits				
Annual Visit Limits				
0 to 59	8.5% (0.8)*	23.3% (1.1)*	5.9% (0.6)*	37.7% (1.3)*
60 and over	0.1% (0.1)	0.3% (0.1)	0.2% (0.1)	0.6% (0.2)
Percent of All Plans	8.6% (0.8)*	23.6% (1.2)*	6.1% (0.6)*	38.3% (1.3)*
Plans with Annual Outpatient Dollar, But Not Visit Limits				
Annual Dollar Limits				
$0 to $14,999	11.7% (0.8)*	8.6% (0.7)*	6.2% (0.9)*	26.5% (1.3)*
$15,000 and over	0.8% (0.2)	0.9% (0.2)	0.5% (0.2)	2.2% (0.3)
Percent of All Plans	12.5% (0.8)*	9.5% (0.7)*	6.7% (0.9)*	28.7% (1.3)*
Plans with Dollar and Visit Limits				
Annual Dollar Limits				
$0 to $14999	2.0% (0.3)*	2.0% (0.4)*	0.4% (0.1)*	4.4% (0.5)*
$15,000 and over	1.0% (0.2)	0.9% (0.2)*	0.2% (0.1)	2.1% (0.3)*
Percent of All Plans	3.0% (0.4)*	2.9% (0.5)*	0.6% (0.2)*	6.5% (0.5)*
Plans with None of These Limits	5.0% (0.5)*	16.2% (0.9)	4.0% (0.5)	25.3% (1.0)*
Plans with No Coverage of Outpatient Mental Health				1.3% (0.2)
Percent of All Plans	29.1% (1.5)*	52.2% (1.4)*	17.4% (1.2)*	100.0%

Source: CSAT/CMHS Spending Estimates Project; Medical Expenditure Panel Survey, 1996.
Note: Copayment were converted to coinsurance rates by assuming an average mental health visit cost of $77.54 for office visits, OP and ER combined.
* Change from 1987 to 1996 is statistically significant at $p < 0.05$

inpatient dollars limits would have experienced an increase in inpatient insurance payment generosity, on average, from 68.6 percent of expenditures to 69.8 percent of expenditures from 1987 to 1996. In contrast, persons with annual inpatient dollar maximums would have experienced a decrease in insurance payment generosity with insurers covering 53.9 percent of expenditures in 1987 but only 39.7 percent in 1996. Persons with both day and dollar limits on inpatient stays would have experienced a decline in benefits paid by insurers from 69.7 to 54.0 percent. Finally, persons with no day or dollar limits experienced a small increase in insurance payments from 78.6 to 85.7 percent of their inpatient bills.

The effect on generosity within benefit limit type is due to two factors. One factor is the trend in consumer cost sharing, which was declining over time. The other reason is the strength of the limits. Annual day limits and annual dollar limits became more stringent over time. This is, in part, because many dollar limits remained constant between 1987 and 1996, thus in inflation adjusted terms, declined. Also, over the time period, plans with day limits, dollar limits, and both limits, became more prevalent.

Summarizing all these trends, one can say that the decline in generosity of insurance benefits overall is driven in large part by the greater impact of dollar limits which did not keep up with inflation and thus grew more stringent with the greater prevalence of dollar and day limits. Countering these trends is the increase in insurance cost-sharing percentages (the proportion reimbursed by insurers).

Private Insurance Coverage of Outpatient Mental Health Services, 1987 and 1996

In this section, an analysis similar to that carried out for inpatient treatment is presented for outpatient care. Outpatient costs refer to professional service expenses provided in the practitioner's office and facility and professional costs charged for outpatient hospital services.

Table 4 and **Table 5** show the distribution of outpatient insurance plan designs from NMES and MEPS. The NMES/MEPS indicated that 26.0 percent of plans in 1987 had only visit limits and 38.3 percent had visit limits in 1997. In 1987, 16.1 percent of plans had annual dollar limits but not visit limits as compared to 28.7 percent in 1997. Plans with dollar and visit limits increased from 2.3 percent in 1987 to 6.5 percent in 1996. Plans without limits decreased from 53.9 percent in 1987 to 25.3 percent in 1996. Coinsurance rates declined. In 1987, 8.3 percent of plans had rates of 90 to 100 percent while in 1996, 17.4 of plans had rates of 90 to 100%.

Table 6. Average percent paid by health insurance plans by type of benefit limit and cost-sharing design for outpatient mental health services, 1987 and 1996

Type of Benefit Limit	in 1987	in 1996
Plans with Annual Outpatient Visit, But Not Dollar, Limits	36.7%	49.0%
Plans with Annual Outpatient Dollar, But Not Visit, Limits	36.0%	36.3%
Plans with Dollar and Visit Limits	29.6%	35.6%
Plans with None of These Limits	63.0%	65.3%
Plans with No Coverage of Outpatient Mental Health	0.0%	0.0%
Average Percent Paid over all Plans	49.9%	47.6%

Source: CSAT/CMHS Spending Estimates Project; 1987 weighted National Medical Expenditure Survey and 1996 weighted Medical Expenditure Panel Survey.
Note:

- For 1987, deductible was assumed at $188.
- For 1996, deductible was assumed at $147; utilization was taken from NMES 1987; and expenditures per person were taken from NMES 1987 and projected at a 5 percent annual increase for inpatient care and a 3 percent annual increase for outpatient care.

Effect of Changes in Private Insurance Outpatient Benefits on Reimbursed and Non-Reimbursed Expenditure Distributions

Table 6 shows how the plan designs would affect the share of outpatient costs reimbursed by insurance. Overall, plans declined from reimbursing 49.9 percent of outpatient expenditures in 1987 to 47.6 percent in 1996. Plans with visit limits, outpatient dollar limits, both visit and dollar limits, and no dollar limits all became more generous due primarily to the fact that enough plans raised their coinsurance (the proportion paid by the plan up to the annual amount) and implemented co-payments. This is offset by the increase in the use of visit and dollar limits and the failure of plans to update the maximum of expenditures that they would cover.

Effect of Changes in Inpatient and Outpatient Benefits on Reimbursed and Non-Reimbursed Expenditure Distributions

The overall percentage of MH expenditures reimbursed by insurance can be calculated by taking the weighted average of outpatient and inpatient reimbursed shares where the weights are the percentage of total private insurance payments accounted for by inpatient and outpatient expenditures. NMES reports that in 1987 the inpatient share was 67 percent of total private insurance and the outpatient share was 33 percent. Thus, the weighted average for the insurers' share of inpatient and outpatient expenditures was 60.1 percent in 1987 and 65.8 percent in 1996.

Effect of Changes Benefits on High Cost Patients

The benefit trends presented above suggest that benefits may have eroded more for persons with high mental health use than low-users. To examine this perception in more detail, the impact of benefits in 1987 and 1996 were simulated for high-costs persons. High cost persons were defined as those who used 50 days of inpatient care at $500 per day in 1987 and at $775 per day in 1996 (a 5% growth in costs per day per year). High cost users were also assumed to use 100 outpatient visits at $100 per day in 1987 and at $130 per day in 1996 (a 3% increase in costs per day per year).

The simulations showed that total insurance share for high-users would have declined from reimbursing 62.5% of costs in 1987 to reimbursing 51% of costs in 1996. Interestingly, the difference in reimbursement between high-users and average users in 1987 is not that large: 65.8% average users and 62.5% for high users. However, in 1996 the gap was much larger: 60.1% for average users and 51.0% for high users. This reflects the much greater use of day and dollar limits in 1996 as well as the failure of dollar limits to keep up with inflation.

Conclusions

This paper presents several contributions to knowledge about trends in insurance coverage and out-of-pocket spending for MH services. First, it examines new data from 1996 MEPS and combines it with data from the 1987 NMES to present trends in MH insurance coverage. Second, it summarizes the implications of the complex trends in insurance coverage by simulating the effect of changes in insurance plan design on the proportion of MH expenditures reimbursed by insurance, assuming utilization remained constant.

The paper shows that the change in insurance coverage between 1987 and 1996 is complex with a trend toward more prevalent and severe visit, day, and dollar limits, but with less cost sharing required of the insured up to the point at which

the plan limits are reached. The trends are similar to those found in other surveys to the extent that they can be compared given slightly different time periods and definitions of benefit limits. However, other surveys did not take into account as complete a picture of the benefit package (e.g., ignoring cost-sharing) and did not have one measure of benefit generosity (i.e., the percent of insurance reimbursement).

Overall, the insurance benefit changes would have resulted in lower insurance coverage of expenses for inpatient and outpatient services between 1987 and 1996. The decline was more dramatic for inpatient services. Combined, the proportion of MH expenditures reimbursed by insurance would be 9% lower in terms of the percentage of payments reimbursed by insurance 1996 as compared to 1987.

The changes in plan design had a larger affect on catastrophic mental health users. Simulations showed that they had an 18.4% decline in reimbursement by insurance between 1987 and 1996 for outpatient and inpatient care combined. Persons with catastrophic use tend to pay more out-of-pocket to begin with because they are more likely to surpass their limits on treatment such as limits on the number of reimbursed inpatient days. For example, in 1987, average users were reimbursed, on average, for 65.8% of expenses while high-costs users were reimbursed 62.5%. However, between 1987 and 1996 plan limits became more prevalent and severe which meant that persons with high-use faced greater exposure to large out-of-pocket payments. In contrast, persons with low use, who did not meet their limits, may actually have paid less out-of-pocket due to improved cost-sharing provisions.

Analyses by Zuvekas and colleagues[7,8] have shown that mental health coverage in 1995 left persons at risk of high out-of-pocket costs in the event of a serious mental illness. Moreover, they show that parity coverage would substantially reduce out-of-pocket costs. For example, they simulate that a catastrophic treatment pattern would have resulted in $26 655 in out-of-pocket costs without parity and $1 795 with parity. Their analysis was based on the NMES data that was re-weighted to reflect the population and benefit distributions in 1995. Analyses presented here are consistent with Zuvekas et al. in that they find that parity is even more relevant in 1996 as it was in 1987. Both studies find that mental health users are at high risk for large out-of-pocket payments, particularly if they are very ill. This study suggests that the risk has grown.

Readers should note that this paper only considers mental health expenditures based on self-reported mental health service use that was coded by professionals into ICD-9-CM codes. Further, the paper does not focus on prescription drug coverage, which is a growing part of mental health care treatment. Finally, the paper does not address all of the causes for the benefit changes. Two trends that might be explored in future analyses are the effect of changing plan type (e.g., HMO, FFS) on benefit design and the effect of changes in firm size on benefit design. Despite these limitations, this paper offers new insights into trends in mental health benefits.

This study was done prior to the implementation of The 1996 Domenici-Wellstone Mental Health Parity Act (MHPA) which eliminated lifetime and annual financial caps that were separate for mental health and physical health. New parity legislation is currently being debated in the US Congress and President Bush recently stated his support for the principal of mental health parity.[10] Although this study does not directly address parity, it does find that mental health treatment users are at risk for large out-of-pocket payments and that this risk did not improve over the late 1980s and early 1990s.

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