Trends in Medicare Part B Mental Health Utilization and Expenditures: 1987-92

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This article examines the impact of expanding Medicare Part B coverage of mental health services, based on analysis of 6 years of Medicare Part B claims data (1987-92). Inflation-adjusted per capita spending more than doubled (from $9.91 to $21.63) following the elimination of the annual outpatient treatment limit and extension of direct reimbursement to clinical psychologists and social workers. There was a 73-percent increase in the user rate (from 23.25 to 40.20 per 1,000 Medicare beneficiaries), and a 27-percent increase in the average number of services per user (from 8.9 to 11.3). Mental health spending increased from 1 percent to 2 percent of expenditures for Part B professional services. Ongoing monitoring of mental health utilization is desirable to ensure that recent access gains are not eroded with the increasing shift to managed care and implementation of gatekeeper mechanisms.

INTRODUCTION

Public and private health insurance programs traditionally have limited mental health benefits due to concerns about moral hazard[1] and adverse selection as well as uncertainties about clinical diagnosis and treatment. To constrain costs and utilization, benefits may be capped on an annual basis, substantial copayments may be required, access to mental health providers may be curtailed, or a combination of mechanisms may be used.

Studies have shown that mental health services exhibit a greater demand response to increases in insurance coverage (i.e., decreases in price to the consumer) than other medical services (Manning et al., 1986). Based on the premise that generous insurance coverage of mental health services may lead to unnecessary and excessive use, restrictions frequently are placed on mental health benefits (McGuire, 1989). Heavy cost sharing (such as a 50-percent copayment) has been shown to contain the costs of psychotherapy (Sharfstein and Taube, 1982).

The Medicare program, until recently, imposed severe limits on annual coverage for outpatient mental health services and limited access to non-physician providers. Recent expansions of mental health benefits represented an effort to improve the parity of coverage for mental health and physical health services under Medicare, and acknowledged that economic barriers prevented Medicare beneficiaries—both elderly and disabled—from obtaining mental health care. However, the program continues to require substantial copayments for mental health services that are not required for physical health services.

This study presents trends in Medicare Part B utilization of and expenditures for mental health services for the period 1987-92. This period represents a dynamic time for the Medicare program, beginning with

This research was performed under Grant Number 1 RO1 MH 46933-02S2 from the National Institute of Mental Health (NIMH). The authors are with the Center for Health Economics Research. The views and opinions are those of the authors and do not necessarily reflect those of NIMH or the Health Care Financing Administration (HCFA).

[1] Moral hazard occurs when the presence or design of insurance benefits directly affects the quantity of services used.

the increase in the annual cap on outpatient mental health services from $500 to $900 in 1988 and to $2,200 in 1989, and culminating with the elimination of the limit and extension of direct reimbursement to clinical psychologists and social workers in 1990. As such, 1987 represents the baseline year for the time-series. The time-series continues for 2 years following the benefit expansion, to capture lagged effects in demand and supply response.

Several effects were anticipated as a result of the Medicare payment changes. First, the rate of use was expected to increase, as more generous benefits would encourage providers and beneficiaries alike to embark on a course of outpatient mental health treatment. Second, the intensity of use was expected to increase, as current users received more care once the limit was increased and then eliminated. Third, the locus of care was expected to shift from inpatient to outpatient settings, as the outpatient benefit limit was removed. Providers could then make decisions on the most cost-effective setting of care, without regard to the out-of-pocket costs incurred by beneficiaries. Fourth, the specialty mix was expected to change, as non-physician providers were granted direct billing privileges. How much and how quickly the changes would occur was unknown.

This article presents an historical overview of changes in outpatient mental health benefits under Medicare Part B, followed by a discussion of the data and methods used in the analysis. Results of the trend analyses are displayed and their implications are discussed.

MEDICARE PART B OUTPATIENT MENTAL HEALTH REIMBURSEMENT

Overview of Benefit Changes

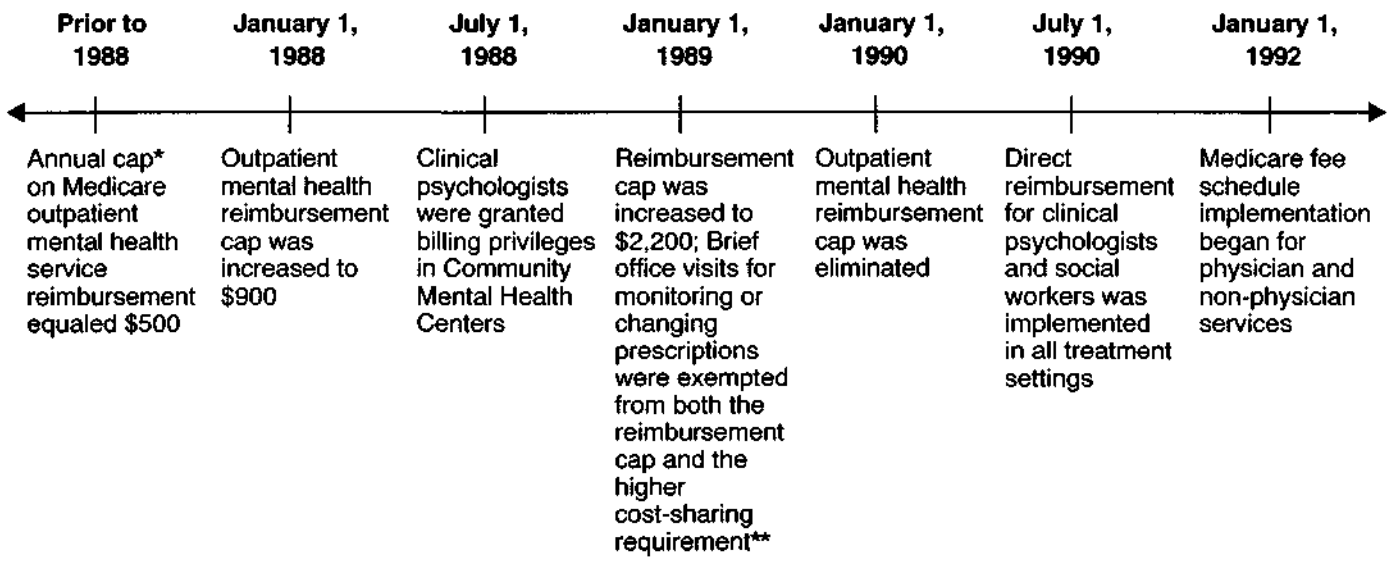
Figure 1 presents a timeline summarizing Medicare Part B changes affecting mental health coverage. Prior to 1990, Medicare had a fixed dollar cap on reimbursement for outpatient mental health services per beneficiary per calendar year. This cap, called the outpatient psychiatric services limitation, was $500 prior to 1988, $900 in 1988, and $2,200 in 1989.[2] Once the limit was reached, outpatient mental health services were no longer reimbursed by Medicare. The Omnibus Budget Reconciliation Act (OBRA) of 1989 eliminated the limit effective January 1, 1990.

Services were applied to the limit only if they were provided in connection with "mental, psychoneurotic, and personality disorders," as defined by the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R). However, there were several instances in which outpatient mental health services were not applied to the limit. Except for psychotherapy, physician treatment services for patients with Alzheimer's disease (*International*

[2] The outpatient psychiatric services limitation (i.e., the benefit cap) was applied to outpatient mental health services provided to an individual who was not an inpatient of a hospital. Essentially, only physician services were subject to the benefit cap. However, if the beneficiary received Comprehensive Outpatient Rehabilitation Facility (CORF) services, the limit applied to services provided by both physicians and non-physicians. Once the limit was reached, no further outpatient mental health services were reimbursed, regardless of provider. That is, despite the fact that it was primarily physician services that were applied toward the limit, non-physician services rendered "incident to" physician services (provided to the patient in connection with the physician's professional services) after the limit was reached also were not covered under Medicare.

Figure 1

Overview of Medicare Part B Mental Health Benefit Changes: 1987-92



* Fixed-dollar cap per calendar year on the total Medicare reimbursement amount for outpatient mental health services.
** Outpatient mental health services are subject to a 50-percent coinsurance rate, compared with 80 percent for general medical services.

SOURCE: Rosenbach, M.L. and Ammering, C.J.: Center for Health Economics Research, Waltham, MA, 1997.

Classification of Diseases, 9th Revision, Clinical Modification [ICD-9-CM] code 331.0) and related disorders (DSM-III-R codes 290.xx) were not subject to the limitation (Goldman, Cohen, and Davis, 1985). As of January 1, 1989, brief office visits for monitoring or changing drug prescriptions (medical management) using HCFA Common Procedure Coding System (HCPCS) code Q0044 and, later, M0064 were exempt from the service limit. Diagnostic services also were exempt from the service limit unless they were follow-up diagnostic services performed for the evaluation of the treatment. Exempt diagnostic services included: psychiatric testing using actual testing instruments (*Physician's Current Procedural Terminology, 4th Edition* [CPT-4] code 90830 and HCPCS code M0601); evaluations made by a physician for the purpose of preparing a report for the attending physician (CPT-4 code 90825); and initial psychiatric visits (CPT-4 code 90801, 90820).

All Medicare Part B allowed charges are subject to a 20-percent copayment once the annual Part B deductible is met ($75 prior to 1991 and $100 since 1991). Outpatient mental treatment is subject to an additional 37.5-percent reduction prior to the 20-percent copayment. This reduces the amount Medicare will pay to 50 percent of the allowed charge after the deductible is met. This reduction, called the outpatient mental health treatment limitation, is so-called because it only applies to treatment and not diagnostic services.[3]

In determining the amount paid by Medicare for an outpatient mental health service, the allowed charge first is reduced 37.5 percent, and then by another 20 percent, to arrive at the payment amount. Thus, on an allowed charge of $100 (assuming the deductible had been met), Medicare would pay $50 (100 * 0.625 * 0.8) and the patient would pay the remaining $50. In contrast, for a physical health service, with a copayment rate of 20 percent, Medicare would pay $80 and the patient would pay $20.

As can be seen from this example, beneficiary out-of-pocket liability for outpatient mental health services can be quite significant. Conceivably, the amounts reimbursed by Medicare for outpatient mental health services could be as low as $190 prior to 1988, $390 in 1988, and $1,040 in 1989, taking into account both the deductible and copayment requirements.

The level of a beneficiary's financial liability is also a function of whether the physician accepts assignment or whether the beneficiary has supplemental insurance coverage. If a beneficiary receives services from a physician who accepts assignment, the physician can only bill the beneficiary for the copayment amount. However, prior to 1990, once the limit was reached, any further services provided were considered uncovered services and were not restrained by Medicare limits on physician billing amounts.

Beneficiaries who have private, supplemental medigap insurance have limited protection against the higher copayments for outpatient mental health services

[3] The outpatient mental health treatment limitation applies to services provided by psychiatrists, non-psychiatrist physicians, clinical psychologists, clinical social workers, and other allied health professionals, as well as CORF claims processed by the fiscal intermediary. However, this limitation does not apply to services provided to an individual who is an inpatient of a hospital at the time of service. Many of the rules that apply to the services limitation also apply to the treatment limitation. The following are subject to the 37.5-percent reduction: services with a primary diagnosis of a "mental, psychoneurotic, or personality disorder;" therapeutic psychiatric services and follow-up diagnostic services to evaluate treatment; psychotherapy services provided to Alzheimer's patients; partial hospitalization services provided by a physician; and services provided in a Community Mental Health Center (CMHC) by either physicians or non-physicians that are not partial hospitalization services. The following services are exempt from the reduction: medical management services using HCPCS codes Q0044 or M0064; medical management of Alzheimer's patients (including CPT-4 code 90862); and partial hospitalization services not directly provided by a physician.

because medigap policies usually pay only for Medicare-approved services. Prior to 1990, once the limit was reached, any additional outpatient mental health services were not considered covered services by Medicare and thus were not covered under medigap insurance. Even today, with the elimination of the limit, the financial liability can be quite substantial because of the higher copayment requirements for outpatient mental health services. Most medigap plans only cover the 20-percent coinsurance amount and not the 37.5-percent reduction.[4]

Overview of Provider Payment Changes

During the study period, two fundamental changes in mental health provider payment took place: (1) non-physician providers (clinical psychologists and social workers) were granted independent billing authority, and (2) the payment system was restructured to reduce geographic, interspecialty, and procedure-specific payment inequities. Prior to 1988, clinical psychologists could bill Medicare directly for diagnostic services; they could only be reimbursed for therapeutic services if they were employed by a physician and their services were "incident to" those of a physician.[5] The bill for the therapeutic service was submitted by the physician. Gradually, clinical psychologists gained additional billing autonomy, beginning July 1, 1988, for services provided in CMHCs and effective July 1, 1990, in any setting.[6] Payment for clinical psychologist services was the lesser of the actual charge or the fee schedule amount;[7] assignment was required; and payment was subject to the 37.5-percent reduction (except for diagnostic services).

Until July 1990, services provided by clinical social workers were eligible for reimbursement only if they worked under the direct supervision of a physician. As of July 1, 1990, direct payment could be made to clinical social workers for outpatient diagnostic and therapeutic services. Clinical social workers are not reimbursed for services furnished to hospital inpatients or to skilled nursing facility (SNF) inpatients, if the services are required to be furnished by the SNF as a Medicare participation requirement. Payment for clinical social workers was the lesser of the actual charge for the services or 75 percent of the amount paid to a clinical psychologist for the same service. Assignment was mandatory.

On January 1, 1992, Medicare began a 4-year phase-in of the new Medicare fee schedule (MFS) for physician services based on the Resource-Based Relative Value Scale (RBRVS). Prior to 1992, physicians were paid on a reasonable charge basis: the lowest of the physician's actual charge, the physician's customary charge,[8] or the prevailing charge in the physician's

[4] In other words, for an allowed charge of $100, medigap policies pay the 20-percent coinsurance ($20) but not the additional 37.5-percent copayment imposed on mental health services. The patient would be responsible for the additional cost-sharing amount of $30 (that is, 37.5 percent of the remaining $80 charge).

[5] "Incident to" refers to services provided by non-physicians in connection with a physician's professional services, for example, psychoanalysis performed by a clinical psychologist employed by a physician.

[6] However, HCFA initially did not allow clinical psychologists to receive direct Part B reimbursement for services provided in hospitals. Clinical psychologist services furnished to hospital inpatients continued to be bundled until clarification of this law provided direct reimbursement for these services after January 1, 1991.

[7] The fee schedule for clinical psychologists was set at 80 percent of participating psychiatrists' adjusted prevailing charges for therapeutic services; the fee schedule for diagnostic services was set at 90 percent of adjusted prevailing charges for psychologists practicing independently in the same locality.

[8] The customary charge is the physician's median charge for the service calculated from charges in the beginning of July the preceding year through June of the current year.

locality for a similar service. Non-physician providers (NPPs) are paid under fee schedules that are separate from the MFS but that are constrained by varying percentages of the physician fee schedule. Payments to clinical psychologists for diagnostic services are constrained to be less than 90 percent of the MFS; for all other services, the payment initially was constrained to be no higher than 80 percent of participating psychiatrists' fees under the MFS. Medicare payment to clinical social workers initially was set at 75 percent of the clinical psychologists' fee schedule for comparable services.

DATA AND METHODS

Data Sources

Our analyses of Medicare Part B mental health claims were conducted at both the claim and beneficiary levels and covered the period 1987 through 1992. The Part B claims for the years 1987-92 were obtained from HCFA's Part B Medicare Annual Data (BMAD) beneficiary files.[9] These files contain all professional/supplier claims for a 5-percent sample of aged and disabled beneficiaries and for the universe of beneficiaries with end stage renal disease (ESRD). The claims include both inpatient and outpatient services that are paid through a Part B carrier, for example, claims submitted by a physician or limited license practitioner (e.g., psychologist or social worker).

Each beneficiary has a unique identification number which is recorded on each claim. The Medicare Denominator File contains demographic information for all Medicare-entitled beneficiaries for each calendar year. Demographic variables included the beneficiaries' State, county, ZIP Code, date of birth, age, sex, race, original reason for entitlement, current reason for entitlement, number of months of Part B coverage, and number of months of Medicaid coverage.

File Construction

The first step in constructing the analytic file was to select the Part B mental health claims. Selection criteria were based on mental health service procedure codes, provider specialties, modifier codes, and location of service codes. Both CPT-4 and HCPCS codes were used for the selection of psychiatric services. The CPT-4 codes included services for diagnosis and evaluation, psychotherapy, electroconvulsive therapy (ECT), medical management, biofeedback, and other mental health services. The HCPCS codes included psychiatric services provided by a non-physician, psychological testing procedures, and occupational therapy. The specialties selected were psychiatrists, psychologists, clinical social workers (1990 through 1992), and neuropsychiatrists (1992). The modifier codes selected were those that indicated whether the service was provided by a clinical psychologist or clinical social worker (prior to direct reimbursement). In 1992, the location of service definition was expanded and several types of psychiatric facilities were identified.

Once the claims were selected, a separate file was created for each year of data based on date of service. Demographic information from the Denominator Files was merged onto the claims files based on the unique beneficiary identification number.

Another step involved classifying mental health services by type of procedure. For the purpose of analysis, five categories were created, as shown in Table 1.

[9] Beginning in 1991, these files were known as Physician/Supplier Part B 5-Percent Sample data.

Table 1
Mental Health Service Classifications, by Type of Procedure

Category	Description	CPT-4/HCPCS Codes
Psychotherapy	Psychiatric therapeutic procedures	90841-90857, H5010-H5025
Diagnosis and Evaluation	General and clinical psychiatric diagnostic or evaluative procedures	90801, 90820, 90825, 90830, M0600, or M0601
Medical Management	Brief office visit for the sole purpose of monitoring or changing drug prescriptions	90862, M0064, or Q0044
Electroconvulsive Therapy	Electroconvulsive therapy	90870 or 90871
All Other	Includes narcosynthesis, medical hypnotherapy, interpretation of results, preparation of reports, and biofeedback	90835, 90880-90889, J2680, H5030-H5300, 90899 or 90872, 90900-90915

NOTES: CPT-4 is *Physician's Current Procedural Terminology, 4th Edition.* HCPCS is Health Care Financing Administration Common Procedure Coding System.

SOURCE: Rosenbach, M.L., and Ammering, C.J., Center for Health Economics Research, Waltham, MA, 1997.

Beneficiary aggregate files were created for each of the 6 years of this study. To estimate beneficiary use of mental health services that were subject to the benefit limit, allowed charges for outpatient mental health services were aggregated based on the unique beneficiary identification number.[10] Flags were created to mark the point during the year that beneficiaries reached the Medicare spending limits.

All Medicare expenditure analyses are based on the Medicare-allowed charge (prior to the 37.5-percent reduction). Expenditures for the years 1987 through 1991 were adjusted by the Geographic Practice Cost Index (GPCI) to account for area variations in physicians' cost of practice (Zuckerman, Welch, and Pope, 1990). Beginning in 1992, the GPCI was integrated into the MFS. All expenditures are expressed in constant 1992 dollars, unless otherwise indicated. Expenditures were inflation-adjusted using the overall Consumer Price Index (CPI) (U.S. Bureau of the Census, 1993).

[10] Outpatient mental health services included claims with a mental health procedure code other than the alternate medical management codes (Q0044 and M0064), that were provided in an outpatient setting (either office or outpatient facility).

RESULTS

Annual and Quarterly Expenditure Trends

Between 1987 and 1992, allowed charges for Medicare Part B mental health services increased nearly threefold from $226.8 million in 1987 to $661.3 million in 1992. Adjusting for inflation, the rate of increase was 136 percent (Table 2).[11] Most of the growth occurred after 1990, the direct result of the elimination of the outpatient psychiatric services limitation in 1990. Between 1990 and 1991 alone, Part B spending for mental health services increased 55 percent. Spending between 1991 and 1992 continued to increase by about 15 percent.

Per capita spending for mental health services more than doubled following the benefit expansion, from $9.91 to $21.63. Despite the elimination of the benefit limit and the extension of direct reimbursement to non-physician providers—two measures

[11] Estimates of the inflation-adjusted rate of increase are somewhat sensitive to the choice of inflation adjustors. Using the overall CPI, we showed a 136-percent "real" increase over the 6-year period. Had we chosen the Medical Care component of the CPI, we would have estimated a 99.6-percent increase in real terms. Based on the Medicare Economic Index, the estimated rate of increase would have been 149 percent.

Table 2
Trends in Part B Allowed Charges for Mental Health Services: 1987-92

Measure	Total Allowed Charges		per Beneficiary Spending (Constant 1992 Dollars)
	Current Dollars	Constant 1992 Dollars	
Part B Mental Health Allowed Charges	(Millions of Dollars)		
1987	$226.8	$280.1	$9.91
1988	264.1	313.2	10.91
1989	324.1	366.7	12.57
1990	370.3	397.5	13.42
1991	575.3	592.7	19.71
1992	661.3	661.3	21.63
Percent Change			
1987-89	42.9	30.9	26.8
1990-92	78.6	66.3	61.2
1987-92	191.6	136.1	118.3

SOURCE: Authors' analysis of the 1987-92 Part B Medicare Annual Data (BMAD) Beneficiary Files.

that would be expected to narrow geographic variation in mental health use—substantial interstate variation remained (Table 3). In 1987, Medicare Part B spending per eligible ranged from $2.23 in Idaho to $23.65 in Washington State (more than a tenfold difference). By 1992, per capita spending ranged from $4.91 in Idaho to $40.96 in Massachusetts (more than an eightfold difference). Seven of the top 10 States in 1992 also were ranked in the top 10 in 1987. The range has narrowed little over time, certainly far less than might have been expected with the expansion of mental health benefits.

Quarterly trends show a clear temporal pattern prior to the elimination of the benefit limit (Figure 2). Before 1990, quarterly spending for mental health services tended to decrease from the first-quarter level as Medicare benefits either were exhausted early in the year, or "rationed" following the first quarter. For example, in 1987, when the benefit limit was set at $500, expenditures were highest in the first quarter, trailed off in the second and third quarters, and dropped sharply in the fourth quarter. At the beginning of the next calendar year, the limit was raised to $900; however, a similar pattern was evidenced. Expenditures rose sharply between Q4 and Q5, moderated in the next two quarters, and then fell sharply again in the last quarter of 1988 (Q8). In 1989, the limit was raised to $2,200, and consequently, the decrease in spending did not occur until the third quarter. Beginning in 1990, the limit was abolished and direct reimbursement was extended to psychologists and social workers. What is surprising is that the downward trend in quarterly spending continued into 1990, possibly a function of a "learning curve" among beneficiaries and/or providers about the expansion of mental health benefits. In 1991, spending escalated and was the first year in which fourth-quarter spending (Q20) exceeded first-quarter spending (Q17). Quarterly spending began to level out in 1992. Although fourth-quarter spending continued to turn downward, that sharp downturn has been smoothed by the elimination of the limit.

Decomposing Source of Expenditure Increases

What accounts for the large increase in Medicare Part B mental health spending? To what extent is it a function of new users entering the system, existing users obtaining more services, or price increases? We

Table 3

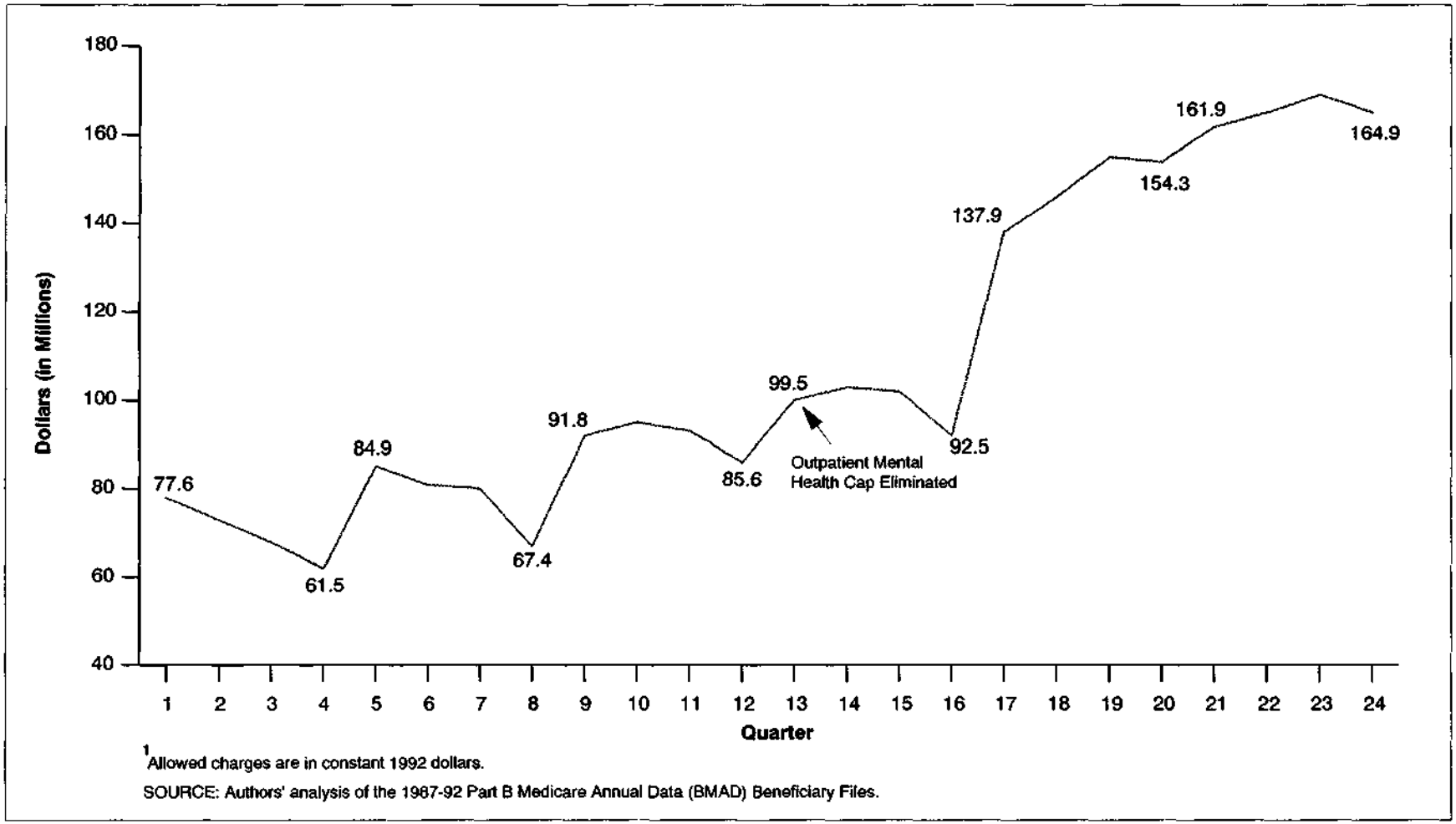
Part B Mental Health Allowed Charges per Beneficiary, by State:[1] Ranked Highest to Lowest Based on 1992 Rate

State	1987 Allowed Charges per Beneficiary	1987 Rank	1992 Allowed Charges per Beneficiary	1992 Rank	Percent Change 1987-92
Total (All States)	$9.91		$21.63		118.3
Massachusetts	10.23	13	40.96	1	300.5
California	17.04	4	39.96	2	134.5
New Hampshire	18.73	2	37.33	3	99.3
New York	15.61	5	33.86	4	116.9
Florida	17.39	3	32.44	5	86.6
District of Columbia	14.49	6	31.72	6	118.9
Maryland	12.36	8	30.51	7	146.9
Illinois	7.00	26	29.88	8	326.9
Vermont	9.08	18	28.36	9	212.2
Virginia	13.53	7	24.81	10	83.4
Washington	23.65	1	24.73	11	4.6
Tennessee	8.06	20	22.05	12	173.4
New Jersey	9.09	17	21.93	13	141.3
Connecticut	8.48	19	21.39	14	152.2
Michigan	10.28	12	20.93	15	103.6
Maine	6.36	30	20.56	16	223.0
Ohio	9.86	14	19.74	17	100.1
Georgia	11.47	9	19.41	18	69.2
Colorado	9.56	15	18.58	19	94.4
Rhode Island	7.01	25	18.46	20	163.5
Alaska	7.82	23	17.68	21	126.0
Utah	6.23	31	16.15	22	159.1
Pennsylvania	4.67	40	16.03	23	243.3
Wisconsin	7.91	21	14.53	24	83.8
Missouri	7.83	22	14.51	25	85.3
North Dakota	6.08	32	14.39	26	136.7
Kansas	5.41	36	13.94	27	157.8
Kentucky	7.32	24	13.13	28	79.3
South Dakota	2.59	50	13.10	29	406.
Hawaii	10.44	11	12.93	30	23.9
Oregon	4.30	46	12.83	31	198.1
Iowa	9.28	16	12.83	32	38.2
Nebraska	5.19	37	12.77	33	145.9
New Mexico	10.75	10	12.42	34	15.5
Arkansas	4.35	45	12.31	35	183.3
Arizona	4.62	42	12.30	36	166.3
Indiana	5.14	38	12.14	37	135.9
North Carolina	5.72	34	12.10	38	111.5
Minnesota	6.83	27	12.10	39	77.2
South Carolina	3.41	48	10.61	40	211.1
West Virginia	5.06	39	10.52	41	107.9
Texas	6.66	28	10.17	42	52.8
Delaware	4.64	41	10.16	43	119.0
Louisiana	4.61	43	9.92	44	115.0
Mississippi	6.62	29	9.27	45	40.
Nevada	5.86	33	9.14	46	56.0
Oklahoma	5.49	35	9.03	47	64.6
Montana	3.05	49	8.71	48	186.0
Alabama	4.44	44	6.48	49	45.9
Wyoming	3.71	47	5.41	50	46.0
Idaho	2.23	51	4.91	51	120.1
Ratio (Highest to Lowest)	10.61	—	8.35	—	—

[1] Allowed charges are in constant 1992 dollars.

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

Figure 2
Total Part B Allowed Charges for Mental Health Services, by Quarter[1]: 1987-92



[1]Allowed charges are in constant 1992 dollars.

SOURCE: Authors' analysis of the 1987-92 Part B Medicare Annual Data (BMAD) Beneficiary Files.

investigated these questions by decomposing Medicare Part B mental health spending per capita based on a multiplicative formula, in which per capita mental health spending ($/E) is the product of the user rate (U/E), the average number of services per user (S/U), and the average charge per service ($/S), as follows:

$$\$/E = U/E * S/U * \$/S,$$

where:

$ = total spending on Part B mental health services;
E = total number of Medicare eligibles;
U = number of mental health users; and
S = total number of mental health services.

Table 4 presents trends in per capita spending in 1987 and 1992, the number of users per 1,000 Medicare eligibles, average number of services per user, and average Medicare-allowed charge per service. As mentioned previously, per capita spending more than doubled between 1987 and 1992. The user rate rose 73 percent, from 23.25 per 1,000 in 1987 to 40.20 per 1,000 in 1992, adjusting for the growth in the number of Medicare eligibles over this time period. (The total number of users grew 87 percent, from 657,000 to just over 1.2 million.) The intensity of care grew 26.7 percent, from an average of 8.9 to 11.3 services per user. Average Medicare-allowed charges per service (adjusting for inflation and geographic variations in practice costs) stayed relatively flat through the period of study, and in fact, turned downward in 1992 with the phase-in of the MFS. Thus, we can see that spending growth was driven first and foremost by the increased rate of new users, and secondarily, by an increase in the intensity of care received by users. It should be comforting to policymakers to know that expenditure increases were not due to increases in the average charge per service.[12]

Table 4 also disaggregates per capita spending patterns and utilization trends for disabled Medicare beneficiaries (under 65 years of age) and elderly Medicare beneficiaries (65 years of age or over). Before the benefit expansions, disabled Medicare beneficiaries spent roughly 10 times more per capita for mental health services than elderly Medicare beneficiaries ($51.18 versus $5.68). Higher per capita spending among the disabled was a function of both a higher user rate as well as more services per user. The average charge per service for disabled Medicare beneficiaries was lower than for the elderly, reflecting variations in the service mix between the two groups.

With the expansion of the benefit limit, per capita spending approximately doubled for both groups from 1987 to 1992. The majority of the increase for both groups can be explained by increases in the user rate, that is, the proportion of beneficiaries gaining access to mental health services. The user rate increased 54 percent for the disabled and 76 percent for the elderly during the 6-year period. However, Medicare beneficiaries with disabilities also experienced a 40-percent increase in the intensity of care, with the average number of services increasing from 11 to 15 services per year, on average. The elderly experienced much more modest increases in the intensity of care (from 7.5 to 8.7 services per year).

Interesting patterns emerged within the elderly population (Table 5). The age group with the highest percent increases in user rates were the oldest elderly (80 years of age or over). For example, Medicare beneficiaries 85 years of age or over went from a rate of 12.67 to 34.65 per 1,000 (173.5-percent increase), while those

[12] There are two reasons why expenditure increases were not driven by "price" increases: (1) regulatory limits on Medicare physician fee increases; and (2) limited substitutability of services by mental health providers (e.g., upcoding).

Table 4

Decomposition of Part B Mental Health Allowed Charges, by Type of Medicare Beneficiary:[1] 1987 and 1992

Measure	All Medicare Beneficiaries			Disabled Medicare Beneficiaries			Aged Medicare Beneficiaries		
	1987	1992	Percent Change	1987	1992	Percent Change	1987	1992	Percent Change
per Beneficiary Mental Health Allowed Charges ($/E)	$9.91	$21.63	118.3	$51.18	$111.19	117.3	$5.68	$11.47	101.8
Number of Users per 1,000 Eligibles (U/E)	23.25	40.20	72.9	107.66	165.75	54.0	14.40	25.36	76.1
Average Number of Services per User (S/U)	8.93	11.32	26.8	10.96	15.29	39.5	7.52	8.66	15.2
Average Allowed Charge per Service ($/S)	$47.71	$47.54	-0.4	$43.38	$43.87	1.1	$52.47	$52.25	-0.4

[1] Allowed charges are in constant 1992 dollars.

NOTES: Numbers may not total due to rounding. The decomposition is based on a multiplicative formula as follows: per beneficiary mental health spending ($/E) = number of users per Medicare eligible (U/E) times average number of services per user (S/U) times average allowed charge per service ($/S).

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files and the Medicare Denominator Files.

Table 5
Part B Mental Health Allowed Charges and Utilization, by Age[1]: 1987 and 1992

Measure and Age	1987	1992	Percent Change 1987-92
Number of Users per 1,000 Medicare Beneficiaries	23.25	40.20	72.9
Less Than 45 Years	154.37	230.72	49.5
45-64 Years	52.87	86.03	62.7
65-69 Years	15.51	24.35	57.0
70-74 Years	15.86	24.83	56.6
75-79 Years	15.82	27.85	76.0
80-84 Years	14.86	30.89	107.9
85 Years or Over	12.67	34.65	173.5
Average Allowed Charges per User	$426	$538	26.3
Less Than 45 Years	542	745	37.5
45-64 Years	385	553	43.6
65-69 Years	386	485	25.6
70-74 Years	404	461	14.1
75-79 Years	400	446	11.5
80-84 Years	438	445	1.6
85 Years or Over	369	413	11.9
Average Allowed Charges per Beneficiary	$9.91	$21.63	118.3
Less Than 45 Years	83.60	171.78	105.5
45-64 Years	20.36	81.87	302.2
65-69 Years	5.98	11.82	97.6
70-74 Years	6.40	11.45	78.8
75-79 Years	6.32	12.43	96.6
80-84 Years	6.52	13.74	110.8
85 Years or Over	4.67	14.29	205.9

[1] Allowed charges are in constant 1992 dollars.

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

80-84 years of age went from 14.86 to 30.89 per 1,000 (107.9-percent increase). In contrast, Medicare beneficiaries 65-69 years of age had a 57-percent increase in their mental health user rate (from 15.51 to 24.35 per 1,000). Thus, following the benefit expansion, the rate of use was higher among the oldest elderly than the youngest elderly.

Table 5 also shows average allowed charges per user by age. Among the elderly who used mental health services, the youngest elderly had a slightly higher level of spending on average in 1992 than the other elderly populations and exhibited the highest rate of spending growth from 1987 to 1992. This is likely a function of differences in the mix of services, with the youngest elderly receiving more psychotherapy services and the oldest elderly receiving more medical management services. Nevertheless, average allowed charges per beneficiary were highest among the oldest elderly, due to the influx of new users following the benefit expansion.

The increased utilization by the oldest elderly can be explained by three factors. First, they are making greater use of medical management services, especially in nursing homes (Ammering and Rosenbach, 1996). Second, there appears to be a greater willingness by psychiatrists to visit nursing homes, as reflected by the increasing proportion of psychiatrists' services provided in nursing homes. Third, there has been increasing attention to this population by clinical psychologists and social workers, as reflected by the disproportionate share of their caseloads attributable to the oldest elderly.[13]

[13] An analysis of the caseloads of psychotherapists found that 21 percent of psychologists' patient load and 20 percent of social workers' patient load were 80 years of age or over, compared with 13 percent of psychiatrists' patient load.

Mental Health Procedure Trends

With the elimination of the outpatient benefit limit, we would expect certain services to grow more rapidly than others. Demand for psychotherapy in particular was likely restrained by the benefit limit, due in part to an unwillingness by providers to start treatment with such limited coverage or by Medicare beneficiaries to assume the full out-of-pocket expense when the limit was exhausted. Also, the exclusion of certain medical management procedures from the additional copayment requirement might be expected to stimulate use of such services.

Following the benefit expansions, psychotherapy services continued to account for the majority of mental health expenditures, users, and services (Table 6). Expenditures more than doubled between 1987 and 1992 (from $226 million to $490 million): The psychotherapy user rate increased 51 percent (from 197 to 297 per 10,000), while the average number of services per user grew by 27 percent (from 8.7 to 11.1 per year). Psychotherapy services accounted for more than two-thirds (69 percent) of the expenditure increase across all mental health services combined. Of the $21.63 per capita allowed charge in 1992, $16.03 was for psychotherapy services, $2.75 for diagnosis and evaluation, $2.41 for medical management, and the remainder for ECT and other services.

While the benefit expansions clearly increased utilization of psychotherapy, there was a noticeable shift in the mental health service mix from 1987 to 1992. Diagnosis/evaluation and medical management services gained larger shares of expenditures relative to psychotherapy. For example, diagnosis/evaluation grew from 8.7 to 12.7 percent of expenditures, while medical management grew from 5.3 to 11.2 percent of the total. One in three mental health service users had medical management services in 1992, versus one in six in 1987.

Interestingly, the growth in medical management utilization was not in the new codes which were exempt from the additional cost-sharing requirements (Q0044 and M0044), but rather in the traditional medical management code (CPT-4 90862). By 1992, the exempt code accounted for only 11 percent of total allowed charges for medical management services. Apparently, there was considerable confusion surrounding implementation of the new codes. Providers initially were not aware of the changes, and carriers were not clear on what copayments were to be applied to which codes. Physicians also had little incentive to use the alternate codes. The actual Medicare payment to the provider (net of the patient's copayment) was relatively more generous for the 90862 procedure code, despite the higher level of cost-sharing.[14]

Location of Service and Provider Specialty Trends

With the elimination of the limit on outpatient mental health spending per year, we would expect to see a shift in the location of mental health services financed under Medicare Part B, and indeed, the trend is quite profound (Table 7). Part B expenditures in the inpatient setting grew by only 9 percent from 1987 to 1992, while office-based expenditures more than tripled, outpatient hospital treatment grew nearly tenfold, and nursing home expenditures increased sevenfold. For the first time in 1991, Medicare Part B expenditures for outpatient mental health services exceeded

[14] For example, the average amount Medicare paid the physician on a 90862 claim in 1992 was $18.64. The physician was required to collect the 50-percent coinsurance ($18.64) from the patient. On an M0064 claim, Medicare paid $16.94, with the additional 20-percent coinsurance ($4.24) to be paid by the patient.

Table 6

Part B Mental Health Allowed Charges and Utilization, by Type of Procedure[1]: 1987 and 1992

Measure	1987		1992		Percent Change 1987-92
	Number	Percent	Number	Percent	
Allowed Charges (in Millions of Dollars)	$280.1	100.0	$661.3	100.0	136.1
Diagnosis/Evaluation	24.4	8.7	84.1	12.7	245.3
Psychotherapy	226.4	80.9	490.1	74.1	116.4
Medical Management	14.8	5.3	73.7	11.2	396.7
Electroconvulsive Therapy	8.4	3.0	9.4	1.4	11.6
All Other	6.0	2.1	3.9	0.6	-35.1
Number of Users[2]	657,340	100.0	1,229,240	100.0	87.0
Diagnosis/Evaluation	158,640	24.1	456,420	37.1	187.7
Psychotherapy	557,540	84.8	909,260	74.0	63.1
Medical Management	96,620	14.7	380,680	31.0	294.0
Electroconvulsive Therapy	12,020	1.8	15,560	1.3	29.5
Number of Services[2]	5,870,320	100.0	13,909,600	100.0	136.9
Diagnosis/Evaluation	294,260	5.0	1,174,540	8.4	299.2
Psychotherapy	4,853,860	82.7	10,087,000	72.5	107.8
Medical Management	464,580	7.9	2,062,380	14.8	343.9
Electroconvulsive Therapy	107,280	1.8	127,760	0.9	19.1
Number of Users per 10,000 Medicare Beneficiaries[2]	232.51	—	402.00	—	72.9
Diagnosis/Evaluation	56.11	—	149.27	—	166.0
Psychotherapy	197.21	—	297.36	—	50.8
Medical Management	34.18	—	124.50	—	264.3
Electroconvulsive Therapy	4.25	—	5.09	—	19.7
Average Number of Services Per User[2]	8.93	—	11.32	—	26.8
Diagnosis/Evaluation	1.85	—	2.57	—	38.9
Psychotherapy	8.71	—	11.09	—	27.3
Medical Management	4.81	—	5.42	—	12.7
Electroconvulsive Therapy	8.93	—	8.21	—	-8.1
Average Allowed Charges per Capita[2]	$9.91	100.0	$21.63	100.0	118.3
Diagnosis/Evaluation	0.86	8.7	2.75	12.7	219.2
Psychotherapy	8.01	80.8	16.03	74.1	100.1
Medical Management	0.53	5.3	2.41	11.1	359.2
Electroconvulsive Therapy	0.30	3.0	0.31	1.4	3.3

[1] Allowed charges are in constant 1992 dollars.
[2] Total includes other mental health services not elsewhere classified.

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

expenditures for inpatient mental health services (professional component).

Nursing home expenditure growth is of particular interest. Previous studies have shown significant levels of unmet need for mental health services among elderly in nursing homes(Smyer, Shea, and Streit, 1994; Burns et al., 1993). Expenditure growth in nursing homes was quite steady throughout the period, increasing from $9.5 million in 1987 to $68.0 million in 1992. The nearly $60 million growth was spread among increased use of psychotherapy services ($31.6 million), followed by diagnosis/evaluation services ($17.4 million), and medical management services ($9.4 million). By 1992, diagnosis/evaluation and medical management services accounted for nearly 45 percent of total spending in nursing homes (compared with only 18 percent in office-based settings, for example).

Table 7 also shows trends in Medicare Part B mental health spending by provider specialty. As of 1987, nearly 89 percent of allowed charges for mental health services belonged to psychiatrists (either for services personally performed or provided "incident to" by a non-physician employee). Psychiatrists' share steadily declined over

Table 7
Trends in Part B Mental Health Allowed Charges, by Location of Service and Provider Specialty:[1] 1987 and 1992

Characteristic	1987		1992		Percent Change 1987-92
	Allowed Charges	Percent of Total	Allowed Charges	Percent of Total	
	(Millions of Dollars)		(Millions of Dollars)		
Total	$280.1	100.0	$661.3	100.0	136.1
Location of Service					
Office	$93.6	33.4	$311.0	47.0	232.4
Outpatient Hospital	8.7	3.1	83.8	12.7	865.5
Inpatient Hospital	165.8	59.2	180.8	27.3	9.0
Nursing Home	9.5	3.4	68.0	10.3	618.1
Other Location	2.6	0.9	17.7	2.7	582.5
Provider Specialty					
Psychiatrist	$248.6	88.8	$469.7	71.0	88.9
Clinical Psychologist	5.1	1.8	101.6	15.4	1910.2
Clinical Social Worker	0.0	0.0	29.7	4.5	NA
Other Physician Specialty	7.7	2.7	16.7	2.5	117.4
Other Provider[2]	18.7	6.7	43.6	6.6	132.8

[1] Allowed charges are in constant 1992 dollars.
[2] Includes multispecialty group practices, clinics, and unspecified provider types.

NOTES: Sums may not add to the total due to rounding. NA is not applicable.

SOURCE: Authors' analysis of the 1987 and 1992 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

the 6-year time-series, reaching a low of 71 percent in 1992. Clinical psychologists accounted for 15 percent of the total in 1992, and social workers 4.5 percent. Within the Medicare population, the specialty mental health sector was the dominant provider of mental health services. Other physician specialties—mainly primary care providers such as general/family physicians, internists, and pediatricians—accounted for less than 3 percent of spending.

Psychotherapy services continually accounted for the majority of allowed charges incurred by psychiatrists. However, psychotherapy services as a percent of the total actually decreased over time (from 83 to 76 percent); medical management more than doubled its share from 5 to 13 percent. Mental health services provided by clinical psychologists experienced unique trends. In 1987, 95 percent was for diagnosis and evaluation services (for which direct billing was permitted) and only 5 percent for psychotherapy services. By 1992, one-third was for diagnosis and evaluation and two-thirds for psychotherapy. Unlike psychiatrists and clinical psychologists, clinical social workers bill almost exclusively for psychotherapy (97.5 percent) and the remainder for diagnosis and evaluation (2.5 percent).

Additional analysis was performed on the distribution of psychotherapy users by the type of primary therapist.[15] In 1987, 86 percent saw a psychiatrist, 4 percent saw a physician of another specialty, and 10 percent primarily used another type of provider (e.g., clinic or multispecialty practice). Psychologists and social workers were not identified as primary therapists due to limitations on direct billing. The erosion in psychiatrists' market share began in 1990 and accelerated in 1991 with the extension of direct reimbursement. The percentage choosing psychiatrists as the primary therapist declined to 76 percent in 1992, while psychologists' share increased to 10 percent, and social

[15] Primary therapist was defined as the provider type accounting for the majority (over 50 percent) of expenditures for psychotherapy services.

workers' share reached almost 6 percent. Other physicians or other non-mental health providers accounted for the remaining 8 percent.

Annual Spending Per Beneficiary

Next, we examined what happened at the beneficiary level (rather than the aggregate program level) to ascertain how much beneficiaries spent in a given year, and how this changed as the benefits changed. How many users reached the cap in 1987, and how did the distribution change as the benefit expanded? Our principal technique is to examine changes in the cumulative frequency distribution for Medicare Part B mental health spending per beneficiary.

Table 8 shows the number of users, percent of users, and cumulative frequency distribution for Medicare Part B outpatient mental health spending. This includes all services which should be counted towards the limit, and excludes services provided in inpatient settings, non-therapeutic (i.e., diagnostic) services, and medical management services billed using the special exempt code. In 1987, there were 466,000 users of outpatient mental health services under Medicare Part B. The majority (55 percent) used no more than $100 in outpatient mental health services. Interestingly, slightly more than 1 percent appear to have exceeded the $500 limit.

In 1988, the limit was expanded to $900. In that one year alone, we see a marked distribution shift in the percent of Medicare beneficiaries receiving $501-$900 in services. Whereas only 0.9 percent of beneficiaries in 1987 reached this limit, 6.8 percent did so in 1988, and another 0.7 percent exceeded this level.

During 1989, the limit was raised to $2,200, and consequently, we see another shift in the distribution, as 3.5 percent of Medicare beneficiaries reached the threshold of $901-$2,200. When the limit was eliminated in 1990 and direct reimbursement was granted to social workers and psychologists, the upward shift to more than $2,200 was very modest (only 0.7 percent).

In 1991 and 1992, however, the distribution shifted upwards, as evidenced first by the decline in Medicare beneficiaries receiving $100 or less in outpatient mental health services. Whereas in 1990 one-half of all beneficiaries were in this range, in 1991 only 37.5 percent spent $100 or less and the rate dropped to 33.8 percent in 1992. At the extreme, 2 percent spent more than $2,200 in 1991, and 2.5 percent in 1992 (versus 0.7 percent in 1990). Thus, it would appear that there was a lagged response to the elimination of the benefit limit, and the trend beyond 1992 bears further scrutiny. In any event, this analysis reveals that only a small number of Medicare beneficiaries took advantage of the benefit expansion, either because they did not need such a high level of care or because the cost-sharing requirements made the care unaffordable.

Table 9 shows the cumulative distribution of the number of months in which Medicare beneficiaries used services. Given the benefit limit in the late 1980s, one might hypothesize that Medicare beneficiaries would receive services for only a few months before the limit was exhausted and the remaining services (if any) would be uncovered, and thus not included in the claims database. In fact, what we see is that the frequency distribution does not change substantially between the late 1980s (when a limit was in place) and the early 1990s (after the limit was abolished). About one-half of the Medicare beneficiaries had services for 10 months or less, while the other half received services for 11 or 12 months of the year, regardless of whether the limit was in place or not. In

Table 8
Cumulative Frequency Distribution of Part B Outpatient Mental Health Allowed Charges per Beneficiary:[1] 1987-92

Allowed Charges	1987	1988	1989	1990	1991	1992
Number of Users	466,240	491,400	563,460	624,220	751,880	831,240
$1-100	257,520	269,520	300,440	321,780	282,140	281,220
$101-200	94,780	99,420	112,940	127,120	158,540	182,540
$201-300	46,220	45,400	52,140	58,600	88,280	101,380
$301-400	50,480	23,440	28,220	33,520	52,160	59,320
$401-500	11,300	16,960	18,040	20,520	35,300	40,840
$501-900	4,280	33,540	30,820	37,200	68,820	82,100
$901-2,200	1,460	2,760	19,560	21,040	51,620	63,160
Over $2,200	200	360	1,300	4,440	15,020	20,680
Percent of Users						
$1-100	55.2	54.8	53.3	51.5	37.5	33.8
$101-200	20.3	20.2	20.0	20.4	21.1	22.0
$201-300	9.9	9.2	9.3	9.4	11.7	12.2
$301-400	10.8	4.8	5.0	5.4	6.9	7.1
$401-500	2.4	3.5	3.2	3.3	4.7	4.9
$501-900	0.9	6.8	5.5	6.0	9.2	9.9
$901-2,200	0.3	0.6	3.5	3.4	6.9	7.6
Over $2,200	0.0	0.1	0.2	0.7	2.0	2.5
Cumulative Frequency Distribution						
$1-100	55.2	54.8	53.3	51.5	37.5	33.8
$101-200	75.6	75.1	73.4	71.9	58.6	55.8
$201-300	85.5	84.3	82.6	81.3	70.4	68.0
$301-400	96.3	89.1	87.6	86.7	77.3	75.1
$401-500	98.7	92.5	90.8	90.0	82.0	80.0
$501-900	99.6	99.4	96.3	95.9	91.1	89.9
$901-2,200	100.0	99.9	99.8	99.3	98.0	97.5
Over $2,200	100.0	100.0	100.0	100.0	100.0	100.0

[1] Allowed charges are in constant 1992 dollars.

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

other words, it would appear that mental health providers typically rationed services throughout the year even when there was a limit on covered services.

The previous analysis focused on outpatient mental health spending that would have been applied to the outpatient psychiatric services limitation. Now we broaden our focus to show how the distribution changes depending on how we define mental health spending. Three operational definitions are used to classify mental health claims:

(1) Outpatient mental health services that would be applied to the limit (as previously defined);
(2) Services included in (1) plus other mental health procedures not classified in (1), such as inpatient services, diagnostic services, and medication management using the special codes; and
(3) Services included in (2) plus visits to mental health specialists coded as evaluation and management services (e.g., office visits, hospital visits, consultations).

Table 10 shows the frequency distribution of users by level of spending. The first point to note is that a substantial number (more than 40 percent) of Medicare mental health users did not receive services that would have been applied to the limit (definition 1). Additionally, 15-20 percent did not receive any services reported with a mental health procedure code (definition 2). Instead, they received general evaluation and management services from a mental health provider without a mental health procedure code.

Table 9

Cumulative Frequency Distribution of the Number of Months in Which Part B Outpatient Mental Health Services Were Used: 1987 and 1992

Number of Months	1987	1992
	Percent	
1	2.9	3.0
2	6.1	6.1
3	9.7	10.1
4	14.0	14.1
5	17.9	18.0
6	22.5	22.6
7	28.2	27.8
8	33.6	33.2
9	41.4	40.3
10	52.5	50.7
11	67.0	64.2
12	100.0	100.0

SOURCE: Authors' analysis of the 1987 and 1992 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

Another point to note is that the benefit limit prior to 1990 might have restricted use of certain outpatient therapeutic services (e.g., psychotherapy); in fact, however, Part B mental health spending was often quite a bit higher than the limit would allow, due to use of mental health services excluded from the limit. For example, in 1987, using the restrictive definition of outpatient mental health services (definition 1), 99.3 percent were below the $500 limit and 0.7 percent had exceeded the cap. But, when we added exempt mental health procedures (definition 2), 14 percent exceeded the cap; adding evaluation and management services (definition 3) resulted in 19 percent with Part B mental health spending exceeding the limit.

As the benefit limit was raised, the impact of broadening the definition lessened over time. For example, in 1988, only 0.4 percent exceeded the limit using definition 1, 9 percent using definition 2, and 12 percent using definition 3. By 1989, when the limit reached $2,200, few Medicare beneficiaries exceeded the limitation regardless of definition. Thus, while it is clear that Medicare beneficiaries are receiving more mental health services now that the limit has been eliminated, it is also clear that our notion of the level of mental health services received when the benefit limit was in effect is highly dependent on how we define mental health services.

Of particular interest is how the benefit changes may have affected disabled and elderly Medicare beneficiaries. Disabled Medicare beneficiaries (under 65 years of age) have benefited more from the elimination of the limit than the elderly in terms of the intensity of care. In 1992, the disabled were more likely to exceed the original $500 limit (25 percent) than the elderly (16 percent). This group also was more likely to respond to interim changes in the limit, with 9 percent moving into the $501-$900 range in 1988, and 5 percent rising to the $901-$2,200 threshold in 1989. By 1992, 3.6 percent of the disabled, but only 1.6 percent of the elderly, spent more than $2,200 on outpatient mental health services. Thus, relatively few Medicare beneficiaries were very high users of outpatient mental health services following elimination of the benefit limit, and people with disabilities disproportionately were high users.

DISCUSSION

This article has presented an overview of Medicare Part B spending trends over a 6-year time period (1987-92), marked by substantial changes in payment policies for mental health services. The study has addressed four major anticipated consequences of the benefit changes, namely the impact on the number of users, intensity of care, specialty mix of providers, and locus of care. There can be no question that access to mental health care has improved as a result of the elimination of the benefit cap and the extension of direct reimbursement to non-physician providers. We found that aggregate spending growth was

Table 10

Distribution of Part B Mental Health Users, by Level of Allowed Charges and Type of Use:[1] 1987-92

Allowed Charges	1987			1988			1989		
	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]
$0	41.50	19.20	0.00	42.20	19.50	0.00	41.10	18.30	0.00
$1-100	32.30	28.30	38.10	31.70	28.80	37.50	31.40	29.50	35.90
$101-200	11.90	16.70	19.40	11.70	16.80	20.00	11.80	16.80	20.50
$201-300	5.80	8.70	9.70	5.30	8.10	9.60	5.40	8.40	9.90
$301-400	6.30	8.20	9.20	2.80	5.20	5.80	2.90	5.20	5.90
$401-500	1.40	4.70	4.50	2.00	3.70	4.30	1.90	3.60	4.20
$501-900	0.50	5.70	7.70	3.90	8.90	10.80	3.20	7.70	9.70
$901-2,200	0.20	5.90	8.20	0.30	6.30	8.60	2.00	7.80	10.40
Over $2,200	0.00	2.60	3.10	0.00	2.60	3.30	0.10	2.70	3.60
Total Number of Users	797,500	797,500	797,500	850,060	850,060	850,060	957,040	957,040	957,040

Allowed Charges	1990			1991			1992		
	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]	Outpatient Mental Health Services Only	Plus Other Mental Health Services	Plus Evaluation and Management Services[2]
$0	42.00	17.40	0.00	42.20	16.20	0.00	42.50	15.10	0.00
$1-100	29.90	29.30	33.40	21.70	22.20	25.60	19.40	22.00	23.80
$101-200	11.80	17.60	21.60	12.20	17.20	21.20	12.60	17.20	21.10
$201-300	5.40	8.60	10.40	6.80	9.80	11.40	7.00	10.20	11.70
$301-400	3.10	5.40	6.10	4.00	6.40	7.20	4.10	6.70	7.40
$401-500	1.90	3.50	4.50	2.70	4.60	5.10	2.80	4.80	5.50
$501-900	3.50	8.30	10.10	5.30	10.20	12.00	5.70	10.50	12.40
$901-2,200	2.00	7.40	10.20	4.00	9.70	12.20	4.40	10.00	12.70
Over $2,200	0.40	2.60	3.80	1.20	3.70	5.30	1.40	3.60	5.30
Total Number of Users	1,075,900	1,075,900	1,075,900	1,301,780	1,301,780	1,301,780	1,446,540	1,446,540	1,446,540

[1] Allowed charges are in constant 1992 dollars.
[2] Provided by mental health specialists.

SOURCE: Authors' analysis of the 1987-92 Medicare Part B Medicare Annual Data (BMAD) Beneficiary Files.

driven, first and foremost, by the expansion of access to more Medicare beneficiaries, and secondarily, by an increase in the intensity of care received by users.

As was expected, the elimination of the outpatient limit brought about an abrupt increase in services in the outpatient setting. Extension of direct billing privileges to non-physician providers brought about the anticipated shift in market shares away from psychiatrists to clinical psychologists and social workers. Although psychotherapy continued to be the dominant mental health procedure paid for by Medicare Part B, our analysis revealed that the benefit expansions achieved two additional goals in expanding Medicare reimbursement of mental health services. First, diagnostic/evaluation services became more accessible, especially to elderly Medicare beneficiaries, a population which traditionally has underutilized mental health services (Blixen and Lion, 1991; Goldstrom et al., 1987). Second, medical management became more widely used within the Medicare population. These two trends are underscored both in relation to the number of users and the intensity of care among users.

The elimination of the benefit limit on outpatient mental health services and extension of direct reimbursement to non-physician providers represented two important steps to improving mental health coverage and to achieving parity between physical and mental health services covered under the Medicare program. However, Congress did not eliminate the higher level of mental health cost-sharing to bring about complete parity. It is not clear whether the relatively low level of "high users" is a function of the level of need within the population (i.e., few had severe mental illness requiring more than $2,200 per year, for example) or whether the higher mental health cost-sharing requirements made the care unaffordable, and thus, unattainable under Medicare. Other factors accounting for low levels of use within elderly populations are organizational, professional, and structural barriers (Feinson and Popper, 1995).

One of the strongest arguments in favor of complete parity between mental and physical health services is the potential to recognize substantial cost savings from expanded mental health benefits. An important area for further research, therefore, is to investigate empirically whether the Medicare program recognized any cost savings, both within the elderly and disabled populations, by eliminating the outpatient mental health benefit limit. Savings could occur both from substitution of outpatient for inpatient treatment, and from cost offsets between mental and physical health utilization. With more beneficiaries receiving mental health care, and with a greater intensity of care among users, there is a potential for cost savings related to medical care utilization (Holder and Blose, 1987; Borus et al., 1985; Mumford et al., 1984). Extending the offset studies to the elderly and disabled populations would be useful for future health care reform efforts to establish an appropriate benefit package for mental health services.

Other extensions of the current study, many of which could be addressed through Medicare claims data analysis, include measurement of outcomes of different types or mixes of care. The effectiveness of medical management with and without psychotherapy could be studied, as well as outcomes according to the location of treatment (e.g., inpatient, outpatient, or combined), or outcomes according to the type of primary therapist.

Further investigation of the underlying causes of geographic variation in Medicare spending and utilization also could be

performed. To what extent is the variation a function of underlying differences in patient characteristics (e.g., diagnostic profile, severity), supply-based factors (e.g., mental health provider availability, Medicare payment generosity), or carrier variations in mental health payment policies? Anecdotal evidence suggests that some carriers were more resistant than others in credentialing non-physician providers, they varied in how they applied the benefit limit and in how they applied the copayment to mental health services.

Other research questions merit further consideration although they cannot be answered by claims data alone. For example, future research should document the impact of the 50-percent copayment on beneficiary access to and utilization of mental health services. Do providers collect the copayment from beneficiaries or opt to waive the fee if beneficiaries cannot afford the care? What portion is paid by medigap insurers? What is the level of unmet need for mental health services that remains within the Medicare population? Are there additional financial or non-financial barriers to care that have not been addressed by the recent payment changes? Another important area of inquiry is the level of satisfaction among Medicare beneficiaries with their mental health care, in terms of quality, convenience, availability of after-hours care, costs of care, and the like. Most studies ask about satisfaction with health care generally, without specific attention to mental health treatment (Rosenbach, 1995). Future studies should assess satisfaction with mental health care apart from physical health care (Research Triangle Institute, 1995).

The previous studies rely on the Medicare beneficiary as the unit of analysis, to examine how the demand for mental health services has been affected by changes in benefit design and provider reimbursement. A provider-level study also would be desirable to determine whether utilization increases have come about as a result of existing Medicare providers opening their practices to more beneficiaries or if new providers have been attracted to the program.[16]

It would be desirable to continue the time-series begun in this study to determine what happens through the mid-1990s, especially with the introduction of the MFS. As mental health fees are compressed, does this affect providers' willingness to treat Medicare patients? On the other hand, with the trend towards managed care in the commercial sector, fee-for-service Medicare may actually be a more generous payer, and the lack of utilization review, prior authorization, and other gatekeeper mechanisms may make Medicare patients more attractive.

Several caveats should be noted. First, from the available data, we cannot discern how much of the utilization increase represents cost-shifting versus new use. Some Medicare beneficiaries may have been receiving care that was not paid for by Medicare either because the providers were ineligible for reimbursement or because beneficiaries had exceeded the benefit limit. They may have paid for the care out-of-pocket or other public funds may have paid for the care. In some cases, the care may have been uncompensated.

[16] Koenig, George, and Schneider (1994) herald a "geriatric mental health crisis" looming ahead due to low Medicare reimbursement rates, high levels of morbidity in "baby-boom" cohorts, and insufficient providers to meet the impending need. Supply-side analysis of the impact of mental health benefit changes would further elucidate the responsiveness of mental health providers to changes in benefit design and reimbursement practices.

Second, the shift in market shares of psychiatrists, relative to psychologists and social workers, may to some extent reflect an "accounting shift." Some of the services may have been attributed to psychiatrists, clinics, or group practices as an artifact of their billing authority and shifted to non-physician providers once they obtained independent billing privileges.

A third limitation is the absence of prescription drug information to define more broadly mental health service use within the Medicare population. Where psychotropic drugs are prescribed during a general medical visit to a primary care provider, using an evaluation and management procedure code rather than a mental health procedure code, the service will not be coded as a mental health visit for the purpose of this analysis. Thus, the analysis is "biased" to capture services provided by the specialty mental health sector and often will not capture mental health services provided by the general medical sector. Although this will cause us to underestimate the total amount of mental health spending and utilization under Medicare Part B, it does not preclude us from estimating trends in the level of use most directly affected by the benefit expansion.

In conclusion, there can be no doubt that Medicare beneficiaries are using more mental health services today compared with a decade ago. With the increasing shift to managed care among Medicare beneficiaries, however, access to behavioral health care may be curtailed and gains in access may be eroded through various gatekeeper mechanisms (Iglehart, 1996). On the other hand, the tendency of managed care plans to have lower copayments than fee-for-service Medicare may serve to improve mental health care access even further. Ongoing monitoring and analysis of Medicare Part B mental health spending and utilization trends is desirable to ensure that recent access gains are not eroded.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the programming efforts of Ann Larsen and William Scott, the research assistance of Adam Falk, and the administrative support of Barbara Mann.

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