

By Tami L. Mark, Katharine R. Levit, Rita Vandivort-Warren, Jeffrey A. Buck, and Rosanna M. Coffey

DOI: 10.1377/hlthaff.2010.0765
HEALTH AFFAIRS 30,
NO. 2 (2011): 284–292
©2011 Project HOPE—
The People-to-People Health
Foundation, Inc.

Changes In US Spending On Mental Health And Substance Abuse Treatment, 1986–2005, And Implications For Policy

Tami L. Mark (tami.mark@thomsonreuters.com) is a director in the Healthcare and Science Division of Thomson Reuters, in Washington, D.C.

Katharine R. Levit is a senior researcher at Thomson Reuters.

Rita Vandivort-Warren is a senior public health analyst at the Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, in Rockville, Maryland.

Jeffrey A. Buck is a senior adviser for behavioral health at the Center for Strategic Planning, Centers for Medicare and Medicaid Services, in Baltimore, Maryland.

Rosanna M. Coffey is a vice president in the Healthcare and Science Division of Thomson Reuters.

ABSTRACT The United States invests a sizable amount of money on treatments for mental health and substance abuse: \$135 billion in 2005, or 1.07 percent of the gross domestic product. We provide treatment spending estimates from the period 1986–2005 to build understanding of past trends and consider future possibilities. We find that the growth rate in spending on mental health medications—a major driver of mental health expenditures in prior years—declined dramatically. As a result, mental health and substance abuse spending grew at a slightly slower rate than gross domestic product in 2004 and 2005, and it continued to shrink as a share of all health spending. Of note, we also find that Medicaid's share of total spending on mental health grew from 17 percent in 1986 to 27 percent in 2002 to 28 percent in 2005. The recent recession, the full implementation of federal parity law, and such health reform-related actions as the planned expansion of Medicaid all have the potential to improve access to mental health and substance abuse treatment and to alter spending patterns further. Our spending estimates provide an important context for evaluating the effect of those policies.

Mental illness and substance abuse conditions—sometimes collectively referred to as behavioral health disorders—are extremely prevalent. They significantly affect the productivity, morbidity, and mortality of the US population. To understand the size, nature, and value of the nation's investment in health, it is important to examine spending on treatment of these behavioral health conditions, who is paying for that treatment, and which providers furnish that care.

Calculating spending on behavioral health treatment is particularly important given recent major health policy changes. The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 and the Affordable Care Act of 2010 have tremendous potential to improve access to behavioral health services and

to alter past spending trends. Millions of people who previously experienced limits or caps in their psychiatric and substance abuse health insurance benefits should gain better access to services because of the Parity Act. Millions more uninsured people with mental health conditions and substance use disorders will gain insurance coverage because of the Affordable Care Act.

Recognizing the need for comprehensive, ongoing, and consistent data to inform the field, the Substance Abuse and Mental Health Services Administration (SAMHSA) has routinely developed estimates of spending on behavioral health for more than ten years. We present the most recent mental health and substance abuse treatment spending estimates for the period 1986–2005. We also describe total spending on mental health and substance abuse treatment, as well as spending by payer, provider, and site of service.

Study Data And Methods

The approach used to estimate national behavioral health spending was designed to be consistent with the National Health Expenditure Accounts compiled annually by the Centers for Medicare and Medicaid Services (CMS) and with the framework from which the estimates of spending for all health care are constructed. Two basic methods were used, depending on provider and service type.

The first method relied on SAMHSA's Survey of Mental Health Organizations and National Survey of Substance Abuse Treatment Services to develop estimates for specialty substance abuse and mental health centers and hospitals. The second method carved out spending on behavioral health from the Centers for Medicare and Medicaid Services' (CMS's) National Health Expenditure Accounts using numerous data sets—mainly public-use, nationally representative, provider-based data.

Allocations to behavioral health typically involved first determining the proportion of total service use (for example, inpatient days) associated with a primary behavioral disorder, then adjusting for differences in average charges and cost sharing. The two methods were integrated by summing spending for each provider and payer after accounting for duplication across data sources.

Behavioral disorders were defined using the *International Classification of Diseases*, Ninth Revision, Clinical Modification (ICD-9-CM). The spending estimates capture only the cost of providing behavioral health treatment. Other non-medical and nontreatment costs are excluded, such as the costs of lost productivity and somatic conditions that result from mental illness or substance abuse—for example, physical complications from excessive drinking.

The estimates developed here may differ from those based on other data sources, such as the Medical Expenditure Panel Survey, conducted by the Agency for Healthcare Research and Quality (AHRQ). That survey covers only the noninstitutionalized population, and it also underreports high-cost cases, emergency department visits, and physician office visits.¹⁻³

A key strength of SAMHSA's effort is the use of consistent and comprehensive methods to track trends over almost twenty years. A more detailed description of the methods is available elsewhere.⁴

Study Results

OVERVIEW In 2005 an estimated \$22 billion was spent on substance abuse treatment and \$113 billion, on mental health treatment in the United

States (Exhibit 1). During the study period (1986–2005) both mental health and substance abuse spending grew more slowly than all health spending: 4.8 percent annually for substance abuse, 6.9 percent annually for mental health, and 7.9 percent annually for all health (Exhibits 1 and 2).

The same pattern occurred in the 2002–05 period, in which spending for substance abuse grew the most slowly (5.0 percent), followed by mental health (6.4 percent) and all health (7.3 percent).

As a result of the slower growth, substance abuse spending fell from 2.1 percent of all health spending in 1986 to 1.2 percent in 2005. Mental health spending fell from 7.2 percent in 1986 to 6.1 percent in 2005. As a proportion of the gross domestic product (GDP), substance abuse was a small and declining share (0.21–0.18 percent), and mental health spending increased slightly but remained at less than 1 percent of GDP (0.71–0.89 percent from 1986 to 2005).

MENTAL HEALTH SPENDING TRENDS During the past decade, prescription drug spending has been a key driver of overall mental health spending (Exhibit 3). The period 1998–2002 was one of accelerating prescription drug growth as a number of new, brand-name medications were adopted.

Mental health prescription expenditures averaged annual growth of 21.5 percent from 1998 to 2002—faster than the growth of spending for all prescription drugs of 15.5 percent. Psychiatric drugs contributed almost half of the increase in mental health spending between 1998 and 2002. These drugs were also an important growth component of overall medication spending: They contributed almost one percentage point to the growth rate.

The only period in which total mental health spending outpaced growth for all health spending was during the 1998–2002 period, when mental health spending grew 8.8 percent annually versus 7.8 percent for all health.

During the 2002–05 period there was a large decline in the growth of spending on psychiatric prescription drugs. From 1999 to 2000, spending grew 27.3 percent; however, from 2004 to 2005, growth in psychiatric prescription drug spending was only 5.6 percent. Analyses of prescription drug purchases from retail and mail-order pharmacies supplied by IMS Health's National Prescription Audit indicates that the slowdown continued, with an average growth rate of only 4.4 percent between 2006 and 2009.

The decline in the rate of growth of spending can be explained, in part, by the fact that a variety of psychiatric medications moved off patent and generic drug equivalents became available.⁵ Use

EXHIBIT 1

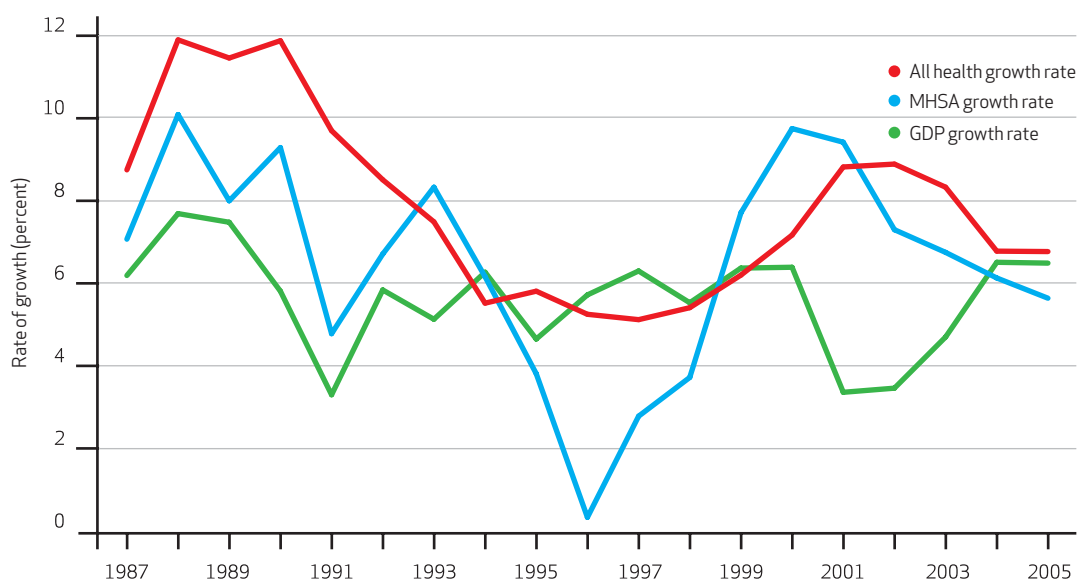
Substance Abuse And Mental Health Treatment And All Health Spending, Share, And Average Annual Growth, Selected Years 1986-2005

Spending category	1986	1992	1998	2002	2005
SPENDING, MILLIONS OF NOMINAL DOLLARS					
All health totals	\$439,394	\$793,699	\$1,110,855	\$1,498,289	\$1,850,362
MHSA	40,911	63,638	81,253	112,771	134,961
Mental health	31,764	50,476	66,839	93,637	112,787
Substance abuse	9,147	13,162	14,414	19,134	22,175
SHARE OF ALL HEALTH SPENDING					
MHSA	9.3%	8.0%	7.3%	7.5%	7.3%
Mental health	7.2	6.4	6.0	6.2	6.1
Substance abuse	2.1	1.7	1.3	1.3	1.2
SHARE OF GDP					
MHSA	0.92%	1.00%	0.92%	1.06%	1.07%
Mental health	0.71	0.80	0.76	0.88	0.89
Substance abuse	0.21	0.21	0.16	0.18	0.18
	1986-1992	1992-1998	1998-2002	2002-2005	1986-2005
AVERAGE ANNUAL GROWTH					
All health totals	10.4%	5.8%	7.8%	7.3%	7.9%
MHSA	7.6	4.2	8.5	6.2	6.5
Mental health	8.0	4.8	8.8	6.4	6.9
Substance abuse	6.3	1.5	7.3	5.0	4.8
GDP	6.0	5.6	4.9	5.9	5.6
GDP price deflator	3.3	1.9	1.9	2.8	2.5

SOURCES Authors' analysis of data from the following sources: (1) Substance Abuse and Mental Health Services Administration, Center for Mental Health Services and Center for Substance Abuse Treatment. (2) US Department of Commerce, Bureau of Economic Analysis. National income and product accounts: Table 1.1.5. Gross domestic product and Table 1.1.4. Price indexes for gross domestic product [Internet]. Washington (DC): BEA; [cited 2010 Jul 13]. Available from: http://www.bea.gov/scb/pdf/2010/08%20August/NIPA_table_list.pdf. (3) Centers for Medicare and Medicaid Services. National health expenditure data [Internet]. Baltimore (MD): CMS; 2011 Jan 20 [cited 2010 Dec 27]. http://www.cms.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage **NOTES** Numbers in the table might not add to totals because of rounding. GDP is gross domestic product. MHSA is mental health and substance abuse (combined total).

EXHIBIT 2

Annual Expenditure Growth Rates, All Health, Mental Health And Substance Abuse, And Gross Domestic Product (GDP), 1986-2005



SOURCE Substance Abuse and Mental Health Services Administration, Center for Mental Health Services and Center for Substance Abuse Treatment. **NOTE** MHSA is mental health and substance abuse.

EXHIBIT 3
Substance Abuse And Mental Health Treatment Spending, Millions Of Nominal Dollars, By Provider And Service, Selected Years 1986-2005

Type of provider and site of service	1986	1992	1998	2002	2005
Mental health treatment spending	\$31,764	\$50,476	\$66,839	\$93,637	\$112,787
General hospitals	5,345	8,626	11,400	14,268	16,750
General hospital, specialty units	3,026	6,185	8,657	10,187	11,540
General hospital, nonspecialty units	2,320	2,441	2,743	4,081	5,210
Specialty hospitals	8,251	11,733	10,032	11,966	13,416
All physicians	3,814	6,787	9,947	12,776	16,266
Psychiatrists	2,755	4,543	6,746	8,734	11,403
Nonpsychiatric physicians	1,058	2,244	3,201	4,042	4,864
Other professionals ^a	1,519	3,255	4,207	5,071	5,812
Freestanding nursing homes	4,903	5,759	4,812	5,957	6,855
Freestanding home health	112	304	667	740	1,070
Retail prescription drugs	2,362	4,245	10,683	23,242	29,974
All other personal and public health	3,916	7,290	11,384	13,027	14,259
Specialty mental health centers	3,916	7,290	11,384	13,027	14,259
Specialty substance abuse centers	— ^b	— ^b	— ^b	— ^b	— ^b
Insurance administration	1,542	2,477	3,707	6,590	8,384
Total, all mental health service providers^c	27,860	43,754	52,450	63,805	74,429
Total inpatient	13,314	18,290	17,817	20,436	21,653
Total outpatient	7,559	15,282	23,294	29,668	37,195
Total residential	6,988	10,183	11,339	13,700	15,581
Substance abuse treatment spending	\$9,147	\$13,162	\$14,414	\$19,134	\$22,175
General hospitals	3,254	3,674	2,986	3,841	4,343
General hospital, specialty units	2,505	2,817	2,228	2,785	2,842
General hospital, nonspecialty units	748	857	758	1,057	1,502
Specialty hospitals	1,409	1,337	1,488	1,123	1,214
All physicians	1,091	1,186	1,074	1,312	1,391
Psychiatrists	237	626	340	370	482
Nonpsychiatric physicians	854	560	734	942	909
Other professionals ^a	651	1,285	1,183	1,438	1,760
Freestanding nursing homes	114	153	233	265	273
Freestanding home health	2	5	13	3	4
Retail prescription drugs	6	10	17	32	141
All other personal and public health	2,113	4,963	6,715	9,905	11,572
Specialty mental health centers	325	516	1,418	1,723	1,951
Specialty substance abuse centers	1,788	4,447	5,297	8,182	9,621
Insurance administration	507	550	706	1,216	1,477
Total, all substance abuse service providers^c	\$8,634	\$12,602	\$13,692	\$17,886	\$20,557
Total inpatient	5,103	5,010	2,902	3,247	3,662
Total outpatient	2,073	4,917	7,166	9,586	10,703
Total residential	1,457	2,676	3,623	5,053	6,191

SOURCE Authors' analyses of data from the Substance Abuse and Mental Health Services Administration, Center for Mental Health Services and Center for Substance Abuse Treatment. **NOTE** Numbers in the table might not add to totals because of rounding. ^aIncludes psychologists and counselors/social workers. ^bFacilities do not treat people primarily for mental illness. Therefore, there are no mental health expenditures in these facilities. ^cExcludes spending on prescription drugs and insurance administration.

of generic medications was encouraged by a number of insurance benefit design changes that were implemented during the same period.⁶ Additionally, an analysis of MarketScan data indicated that in terms of numbers of patients using the medications, there was a continued expansion of use, but at a slower pace: The percentage using any psychiatric drug grew from 13.7 percent of the privately insured population in 1998

and 19.5 percent in 2004 to only 20 percent in 2009.

The growth in prescription drug use through the 1990s is in contrast to the dramatic reduction in psychiatric hospitalizations. Spending on specialty psychiatric hospital care fell from 23 percent of all mental health spending in 1992 to 15 percent in 1998. Furthermore, care shifted from psychiatric hospitals to general hospital

psychiatric units.

From 2002 to 2005, mental health spending in specialty hospitals continued to grow modestly at 3.9 percent, while general hospital mental health expenditures grew more robustly at 5.5 percent annually. By 2005 a greater proportion of mental health spending was for treatment in general hospitals (15 percent) than for treatment in specialty hospitals (12 percent)—a reversal from 1992.

Exhibit 4 presents estimates of spending by the major payers. The implementation of the Mental Health Parity and Addiction Equity Act of 2008 focused attention on private insurance spending. In both 2002 and 2005, just 4.4 percent of all health spending by private insurance went toward treatment of mental health conditions.

Medicaid is the largest payer of mental health treatment services. In 2005, 10 percent of total Medicaid spending was for mental health. The share of mental health spending funded by Medicaid has been increasing, from 17 percent in 1986 to 27 percent in 2002 to 28 percent in 2005. In contrast, spending from non-Medicaid state and local government sources continued to decline from 20 percent of all mental health spending in 2002 to 18 percent in 2005.

SUBSTANCE ABUSE SPENDING TRENDS In 2008, 22.2 million people age twelve or older (8.9 percent of that population) were identified as having substance abuse or dependence problems. During the same year, only about 4 million received treatment, 2.2 million of those from self-help groups.⁷

Despite the prevalence of the condition, substance abuse spending was a small and declining share of all health spending by most payers. In 2005 only 1.5 percent of Medicaid spending, 0.4 percent of Medicare spending, and 0.4 percent of private insurance spending went to treatment for substance abuse. The largest share of spending was 7.3 percent for the category “other (non-Medicaid) state and local governments.”

Spending on substance abuse services during the past three decades can be characterized by a period of boom and bust. The 1980s was a time of expanding insurance benefits and broadened access to substance abuse treatment providers.^{8–10} However, by the mid- to late-1980s, employers were increasingly alarmed by spiraling health care costs. Substance abuse treatment, in particular, was perceived as an example of inflated spending—a perception enhanced by the growing private treatment industry.¹¹

The result was managed care restrictions on reimbursement for substance abuse treatment in hospitals. Restrictions included limitations on the commonly used treatment paradigm of a

twenty-eight-day inpatient rehabilitation stay. From 1992 to 1998, inpatient substance abuse spending fell 8.7 percent annually. About 70 percent of that drop came from inpatient hospital services.

By 2002, substance abuse treatment spending started to grow again: 5 percent annually from 2002 through 2005. This was above the 2.8 percent growth in inflation but below the 5.9 percent growth in the GDP.

Although psychiatry has been transformed by the introduction of drug therapies, medication has played a small part in substance abuse treatment. It accounted for only 1 percent of substance abuse treatment spending in 2005. However, this situation may be changing.

Three new substance abuse medications—acamprosate and extended-release naltrexone for alcohol dependence and buprenorphine for opiate addictions—were introduced in 2002–06 (acamprosate in 2005, extended-release naltrexone in 2006, and buprenorphine in 2002). As a result, spending on substance abuse medications has grown rapidly, from \$10 million in 1992 to \$141 million in 2005. More recent data from IMS Health indicate that substance abuse medication spending was \$780 million in 2009—a large increase but still far below spending on psychiatric medications.

Our estimates reveal that substance abuse treatment is much more dependent on public financing than all health and mental health services. The largest payer of substance abuse treatment was other (non-Medicaid) state and local governments (36 percent), followed by Medicaid (21 percent), and other federal (16 percent). Reliance on public funding has increased over time, in large part because of the dramatic decline in funding from private insurance, which fell between 1986 and 1998 from 27 percent to 12 percent, where it remained in 2005.

SPENDING BY SPECIALTY SECTOR Although some spending for behavioral health treatment occurs in the general health sector, most treatment spending goes to providers that are specially trained and organized to treat behavioral health conditions. These providers include psychiatrists, other professionals (clinical social workers and psychologists), psychiatric and chemical dependency hospitals, specialty psychiatric units in general hospitals, and specialty mental health and substance abuse centers.

The share of mental health spending for specialty providers changed little over the study period—70 percent in 1986 and 76 percent in 2005. For substance abuse, 80 percent of spending went to specialty providers in 1986. By 1992 this share rose to 87 percent, and remained relatively stable (86–88 percent) through 2005.

EXHIBIT 4
Mental Health And Substance Abuse Treatment And All Health Spending, Millions Of Nominal Dollars, By Payer, Selected Years 1986-2005

Type of payer	1986	1992	1998	2002	2005
Mental health treatment spending	\$31,764	\$50,476	\$66,839	\$93,637	\$112,787
Private, total	13,471	19,227	25,865	38,051	47,108
Out-of-pocket	5,569	6,706	8,515	11,857	13,802
Private insurance	6,308	10,327	15,273	23,836	30,417
Other private	1,594	2,194	2,077	2,358	2,890
Public, total	18,293	31,249	40,974	55,586	65,678
Medicare	2,099	4,095	6,232	7,353	8,630
Medicaid ^a	5,503	10,938	15,711	25,381	31,115
Other federal ^b	1,993	2,519	3,369	4,582	5,673
Other state and local ^b	8,698	13,697	15,662	18,270	20,261
All federal ^c	7,172	13,562	18,821	26,860	32,078
All state ^c	11,122	17,687	22,153	28,725	33,601
Substance abuse treatment spending	\$9,147	\$13,162	\$14,414	\$19,134	\$22,175
Private, total	3,642	3,680	3,274	4,046	4,615
Out-of-pocket	943	1,227	1,023	1,266	1,407
Private insurance	2,444	1,931	1,768	2,239	2,613
Other private	255	522	483	542	595
Public, total	5,504	9,483	11,140	15,088	17,560
Medicare	737	860	940	1,211	1,487
Medicaid ^a	1,052	2,100	2,810	3,845	4,624
Other federal ^b	912	2,732	2,209	3,149	3,497
Other state and local ^b	2,803	3,790	5,181	6,883	7,952
All federal ^c	2,236	4,939	4,805	6,611	7,626
All state ^c	3,268	4,543	6,335	8,477	9,934
All health spending	\$439,394	\$793,699	\$1,110,855	\$1,498,289	\$1,850,362
Private, total	260,862	454,330	616,117	821,767	1,007,380
Out-of-pocket	103,248	143,336	175,229	211,163	246,971
Private insurance	135,865	274,649	384,664	551,118	689,997
Other private	21,749	36,344	56,224	59,486	70,412
Public, total	178,533	339,369	494,738	676,522	842,982
Medicare	76,395	135,996	209,212	264,833	339,357
Medicaid ^a	45,383	108,187	168,840	248,255	311,488
Other federal ^b	20,809	33,478	41,156	65,528	83,593
Other state and local ^b	35,945	61,708	75,530	97,906	108,545
All federal ^c	122,607	237,431	349,790	477,201	600,764
All state ^c	55,926	101,937	144,948	199,321	242,218

SOURCES Authors' analysis of data from the following sources. (1) Substance Abuse and Mental Health Services Administration, Center for Mental Health Services and Center for Substance Abuse Treatment. (2) Centers for Medicare and Medicaid Services. National health expenditure data [Internet]. Baltimore (MD): CMS; 2011 Jan 20 [cited 2010 Dec 27]. Available from: http://www.cms.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage. **NOTES** Numbers in the table might not add to totals because of rounding. ^aSpending for the Children's Health Insurance Program (CHIP) is distributed across "Medicaid," "other federal," and "other state and local" categories, depending on whether the program was run through Medicaid or as a separate state program. ^bThe "other federal" category consists of federal block grants (\$1,265 million for substance abuse and \$386 million for mental health in 2005) and spending by the Department of Veterans Affairs and the Department of Defense, among others. ^cIncludes this payer's share of Medicaid.

Discussion

As these spending estimates demonstrate, not only are behavioral health disorders serious and prevalent, but spending on behavioral health treatment also constitutes a large, although declining, share of the overall health care economy. However, behavioral health spending must be evaluated not only in dollar terms but also in the context of the need for and access to treatment.

From the 1980s through the mid-2000s, the prevalence of psychiatric disorders remained constant, while rates of psychiatric treatment grew tremendously.¹²⁻¹⁵ For example, the percentage of severely mentally ill people receiving treatment grew from 24 percent in the period 1990-92 to 41 percent in the period 2001-03, and the percentage with any disorder receiving treatment increased from 12 percent to 20 percent.¹³

Thus, underlying the growth in treatment spending are improvements in access to needed treatment. In particular, a large portion of the increase in psychiatric treatment rates stems from more people using psychiatric medications, which was stimulated in turn by the introduction of more effective psychiatric drugs with fewer side effects.¹²

Amid the declining cost of psychiatric medications because of the broader use of generics, the cost of increased access has also been declining. The declining cost of psychiatric drugs may also suggest that third-party payers revisit cost controls on psychiatric medications, such as step therapy and prior authorization, which have been shown in some studies to limit medication use and increase medical care use and costs.^{16,17}

RECESSION AND POLICY CHANGES Although the estimates presented here end at 2005, they are still relevant in the context of recent economic and policy changes—in particular, the recession, the Parity Act, and the Affordable Care Act.

The Parity Act interim final regulations went into effect April 2010, affecting all new health plans after July 2010. The law allows employers to request an exemption from the parity requirements for the next year if they can demonstrate that the parity law resulted in a 2 percent increase in total costs for medical, surgical, mental health, and substance use disorder treatment in the first year after implementation (1 percent in subsequent years).

We find that spending on behavioral health treatment constituted 4.8 percent of private health insurance benefits in 2005 and grew by 7 percent from 2004 to 2005. If one simulates a growth rate increase in behavioral spending of four times that amount, or 28 percent, behavioral health still would have raised total private insurance expenditures by only 1 percent. Thus, the estimates indicate that it is unlikely that most employers will be able to seek a cost exemption from the Parity Act.

The recession has led many states to cut Medicaid reimbursement and services, at the same time as it has caused a surge in Medicaid enrollment.¹⁸ Our estimate that behavioral health spending accounts for 11.5 percent of overall Medicaid spending, paired with insurance practices that are more likely to limit behavioral health than medical or surgical services, suggests that behavioral health may offer a tempting target for state spending cuts. Moreover, many services needed by people with mental illnesses, such as supportive employment and case management, are considered optional benefits under

Medicaid.

Although Medicaid programs are reducing reimbursement and services in response to the recession, they are restricted from cutting enrollment since the enactment of the Affordable Care Act on March 23, 2010. In contrast, states can cut back on health care services funded solely through general funds. Because substance abuse financing is more dependent on state general funds than on Medicaid, addiction services may be particularly vulnerable to recession-driven cutbacks.

Although not implemented until 2014, the Medicaid expansions under the Affordable Care Act may be of particular benefit to those with addictions and mental illnesses. Because mental illness and substance abuse are more prevalent among people with limited resources, and because the conditions often lead to diminished income, employment opportunities, and insurance coverage, the most vulnerable and severely ill—who are often adults who are childless or who have nondependent children—typically have the least access to needed services.¹⁹

Few states offer Medicaid coverage to these “childless” adults, and that is likely to remain the case until 2014, when the Affordable Care Act is fully phased in. As a result, childless adults with addictions will continue to be excluded for a while from Medicaid coverage. What’s more, many people with addictions lost Medicaid coverage after 1996, when Congress acted to remove substance dependence as a qualifying disability for Supplemental Security Income. Until that time, qualification for Supplemental Security Income had generally opened the door for Medicaid eligibility for people with addictions.

Analyses of the 2008 National Survey on Drug Use and Health indicate that 4.9 million uninsured people were classified as having serious psychological distress in the past year and that 5.5 million were classified as having substance dependence or abuse disorders in the past year. Thus, millions of people with mental illness and substance use disorders could benefit from improved access to insurance coverage.

CONCLUSION In summary, the past two decades have been characterized by important shifts in technology and in the use and financing of behavioral health treatment. The recent recession as well as the full implementation of federal parity law and health reform have the potential to alter behavioral health care dramatically in the future. The spending estimates in this article provide an important context for evaluating the effect of those policies. ■

A version of this article was presented at the Substance Abuse and Mental Health Services Administration (SAMHSA) Block Grant Conference, Washington, D.C., June 24, 2010. This report was prepared by Thomson Reuters (Healthcare) for SAMHSA, US Department of Health and Human Services (contract HHS-270-2006-000 23C). It is the result of substantial contributions by numerous people and organizations. Ellen Bouchery of the

Lewin Group produced the specialty facility estimates. Edward King of Actuarial Research Corporation produced the estimates for other providers, as well as the final total estimates. David McKusick of Actuarial Research Corporation developed the methods used to estimate the nonspecialty organizations. Tami Mark, Elizabeth Stranges, Rosanna Coffey, Katharine Levit, Cheryl Kassed, and Katheryn Ryan of Thomson Reuters

provided coordination, monitored the results, and drafted the report. Rita Vandivort-Warren of SAMHSA and Jeffrey Buck of the Centers for Medicare and Medicaid Services guided the work and provided many helpful comments and suggestions. Experts in mental health and substance abuse treatment spending provided insights on the policy relevance of the results.

NOTES

- 1 Sing M, Banthin JS, Selden TM, Cowan CA, Keehan SP. Reconciling medical expenditure estimates from the MEPS and NHEA, 2002. *Health Care Financ Rev.* 2006;28(1):25–40.
- 2 Zuvekas SH, Olin GL. Accuracy of Medicare expenditures in the Medical Expenditure Panel Survey. *Inquiry.* 2009;46(1):92–108.
- 3 Zuvekas SH, Olin GL. Validating household reports of health care use in the Medical Expenditure Panel Survey. *Health Serv Res.* 2009;44(5 Pt 1):1679–700.
- 4 Substance Abuse and Mental Health Services Administration. National expenditures for mental health services and substance abuse treatment, 1986–2005. Rockville (MD): SAMHSA, Center for Mental Health Services and Center for Substance Abuse Treatment; 2010. (HHS Publication No. SMA 10-4616).
- 5 Catlin A, Cowan C, Hartman M, Heffler S, National Health Expenditure Accounts Team. National health spending in 2006: a year of change for prescription drugs. *Health Aff (Millwood).* 2008;27(1):14–29. Erratum: *Health Aff (Millwood).* 2008;27(2):593.
- 6 Motheral B, Kolling B, Parker A. 2003 drug trend report [Internet]. St. Louis (MO): Express Scripts; 2004 Jun [cited 2010 Dec 27]. Available from: <http://www.express-scripts.com/research/studies/drugtrendreport/2003/>
- 7 Substance Abuse and Mental Health Services Administration. Results from the 2008 National Survey on Drug Use and Health: national findings. Rockville (MD): SAMHSA, Office of Applied Studies; 2009. (NSDUH Series H-36, HHS Publication No. SMA 09-4434).
- 8 Jensen GA, Morrisey MA. Employer-sponsored insurance coverage for alcohol and drug abuse treatment, 1988. *Inquiry.* 1991;28(4):393–402.
- 9 Rouse BA, editor. Substance abuse and mental health statistics sourcebook. Washington (DC): US Government Printing Office; 1995. (DHHS Publication No. SMA 95-3064).
- 10 Schmidt L, Weisner C. Developments in alcoholism treatment. *Recent Dev Alcohol.* 1993;11:369–96.
- 11 Huber JH, Pope GC, Dayhoff DA. National and state spending on specialty alcoholism treatment: 1979 and 1989. *Am J Public Health.* 1994;84:1662–5.
- 12 Zuvekas SH. Trends in mental health services use and spending, 1987–1996. *Health Aff (Millwood).* 2001;20(2):214–24.
- 13 Kessler RC, Demler O, Frank RG, Olfson M, Pincus HA, Walters EE, et al. Prevalence and treatment of mental disorders, 1990 to 2003. *N Engl J Med.* 2005;352(24):2515–23.
- 14 Glied SA, Frank RG. Better but not best: recent trends in the well-being of the mentally ill. *Health Aff (Millwood).* 2009;28(3):637–48.
- 15 Thorpe KE, Ogden LL, Galactionova K. Chronic conditions account for rise in Medicare spending from 1987 to 2006. *Health Aff (Millwood).* 2010;29(4):718–24.
- 16 Lu CY, Soumerai SB, Ross-Degnan D, Zhang F, Adams AS. Unintended impacts of a Medicaid prior authorization policy on access to medications for bipolar illness. *Med Care.* 2010;48(1):4–9.
- 17 Mark TL, Gibson TM, McGuigan K, Chu BC. The effects of antidepressant step therapy protocols on pharmaceutical and medical utilization and expenditures. *Am J Psychiatry.* 2010;167(10):1202–9.
- 18 Sack K. Recession drove many to Medicaid last year. *New York Times.* 2010 Sep 30: Sect. A:16.
- 19 McAlpine DD, Mechanic D. Utilization of specialty mental health care among persons with severe mental illness: the roles of demographics, need, insurance, and risk. *Health Serv Res* 2000;35(1 Pt 2):277–92.

ABOUT THE AUTHORS: TAMI L. MARK, KATHARINE R. LEVIT, RITA VANDIVORT-WARREN, JEFFREY A. BUCK & ROSANNA M. COFFEY



Tami L. Mark is a director in the Healthcare and Science Division of Thomson Reuters, in Washington, D.C.

Tami Mark and coauthors report in this issue on trends in spending on mental health and substance abuse treatment in the United States from 1986 to 2005. Among other factors, the research highlights a dramatic decline in psychiatric drug spending growth, driven in part by the availability of generic forms of psychotropic medication. Other findings, such as Medicaid's growing role in financing mental health and substance abuse, have implications in light of the Affordable Care Act and potential policy changes.

The research represents a collaboration between the Substance Abuse and Mental Health Services Administration (SAMHSA), US Department of Health and Human Services, and the Healthcare and Science Division at Thomson Reuters. In 1997 SAMHSA contracted with Thomson Reuters to develop national mental health and substance abuse spending estimates. The current paper is an extension of that original work.

Mark is a director in the Healthcare and Science Division. She has been conducting behavioral health services research for more than twenty years. She has published more than seventy peer-reviewed journal articles as well as numerous government reports. Her research interests include trends in mental health and substance abuse services use and spending, the adoption and use of addiction and psychiatric

medications, comparative effectiveness, and insurance benefit design. Mark received a doctorate in health economics from the Johns Hopkins University.



Katharine R. Levit is a senior researcher with Thomson Reuters.

Katharine Levit is a senior researcher with Thomson Reuters. She has been preparing, analyzing, and reporting on health care spending estimates for more than thirty years, most recently for SAMHSA on mental health and substance abuse spending and previously on nationwide all-health spending for the Office of the Actuary, Centers for Medicare and Medicaid Services.



Rita Vandivort-Warren is a senior public health analyst at the Center for Substance Abuse Treatment, SAMHSA.

Rita Vandivort-Warren is a senior public health analyst and government project officer in the Division of Services Improvement, Center for Substance Abuse Treatment, at SAMHSA. She has a master's degree in social work from the University of Missouri-Columbia.



Jeffrey A. Buck is senior adviser for behavioral health at the Center for Strategic Planning, Centers for Medicare and Medicaid Services.

Jeffrey Buck is a clinical psychologist and senior adviser for behavioral health in the Center for Strategic Planning, Centers for Medicare and Medicaid Services. Previously, he was chief of the Survey, Analysis, and Financing Branch at SAMHSA. Buck contributed to the work of the President's New Freedom Commission on Mental Health. He was a section editor of the *Surgeon General's Report on Mental Health*. His publications have addressed behavioral health issues in the financing and use of services, insurance coverage and parity, Medicaid, and administrative data systems. Buck has a doctorate in clinical psychology from Kent State University.



Rosanna M. Coffey is a vice president in the Healthcare and Science Division of Thomson Reuters.

Rosanna Coffey is a health services researcher and vice president in the Healthcare and Science Division at Thomson Reuters. She has been leading the SAMHSA spending estimates project for more than ten years. She earned a doctorate in economics from Southern Methodist University.