

# **Trends: The Decline in Receipt of Substance Abuse Treatment by the Privately Insured, 1992-2001**

***Managed care techniques could be responsible for sharp drop-offs in private insurance claims for substance abuse treatment.***

*Tami L. Mark, Ph.D., M.B.A.  
Rosanna M. Coffey, Ph.D.*

*Tami Mark (tami.mark@thomson.com) is an Associate Director, and Rosanna Coffey is a Vice President of the Research and Pharmaceutical Division, of Medstat in Washington, DC*

Substance abuse and dependence are prevalent conditions. According to the National Survey on Drug Use and Health (NSDUH), in 2002 an estimated twenty-two million Americans age twelve and older were classified with substance dependence or abuse (9.4 percent of the total population). Of these, 3.2 million were classified with dependence on or abuse of both alcohol and illicit drugs, 3.9 million were dependent on or abused illicit drugs but not alcohol, and 14.9 million were dependent on or abused alcohol but not illicit drugs.<sup>1</sup>

Private insurance is an important source of financing for substance abuse treatment. In 1997 nearly one-quarter of spending for substance abuse treatment was financed by private insurance.<sup>2</sup> However, the role of private health insurance in substance abuse treatment has been declining. In 1987 private health insurance accounted for 32 percent of total substance abuse spending. Moreover, private health insurance spending on substance abuse treatment fell by an average of 1 percent a year from 1987 to 1997.<sup>3</sup>

The goal of this study is to examine underlying trends in substance abuse services that are financed through private insurance. Although other studies have examined how aggregate private health insurance spending on substance abuse treatment has changed, this study looks at that trend in greater depth. It examines the percentage of the population receiving substance abuse services and particular types of services. It examines trends by inpatient, outpatient, and pharmaceutical services in access, intensity of services, and price per unit of service. Moreover, trends in cost sharing are revealed.

## **Study Data and Methods**

Data for this study come from Medstat's MarketScan<sup>®</sup> database, which compiles claims information from the private health insurance plans of large employers. Covered individuals include employees, their dependents, and early retirees of companies that participate in the database. Medstat collects the claims data and standardizes them. Claims are collected from more than 200 different insurance plans, including Blue Cross Blue Shield (BCBS) plans and third-party administrators (TPAs). Information about the

specific firms included is confidential; however, the distribution of covered lives by industry in 2001 was as follows: oil and gas extraction mining (1 percent), manufacturing– durable goods (36 percent), manufacturing– nondurable goods (17 percent), transportation–communication–utilities (17 percent), retail trade (2 percent), finance– insurance–real estate (7 percent), services (6 percent), and missing (13 percent).

Exhibit 1 shows the demographic characteristics of the MarketScan<sup>®</sup> total population of beneficiaries. The population’s characteristics remained relatively constant from 1992 to 2001. The distribution of employees by plan type shifted markedly from fee-for-service (FFS) to managed care. Encounter records from health maintenance organizations (HMOs) in MarketScan<sup>®</sup> do not contain charges for inpatient and outpatient records; therefore, charges for people in HMOs were imputed based on non-capitated plans using region of the country and primary procedure code. In 1992, there were no capitated claims, and no claims were imputed. In 1997, 21 percent of enrollees were in capitated plans, and in 2001, 23 percent were.

Claims for inpatient or outpatient substance abuse (SA) services were identified based on a primary diagnosis code. SA diagnoses included alcohol psychoses (code number 291), drug psychoses (292), alcohol dependence (303), drug dependence (304), and nondependent abuse of drugs (305). Medications used to treat substance abuse were identified based on National Drug Codes (NDCs) and include disulfiram (Antabuse), naltrexone (ReVia), Methadone, and LAAM. If an employer submitted any pharmaceutical claims, all claims were captured, whether or not pharmaceutical claims were managed by a different vendor from medical claims. Some employers did not submit pharmaceutical claims in 1992, so per capita pharmaceutical usage was adjusted to exclude these employers.

A total of 31,701 people in 1992 and 18,327 people in 2001 were identified with an SA claim. This is from a total of 4,983,808 people in 1992 and 3,746,474 people in 2001 in the MarketScan<sup>®</sup> databases.

**EXHIBIT 1. Demographic and Plan Characteristics of the Study Population, 1992 and 2001**

<b>Characteristic</b>	<b>1992 (%)</b>	<b>2001 (%)</b>
Percent male	47	48
Age distribution		
0–17	20	14
18–34	26	23
35–44	20	18
45–54	18	22
55–64	14	22
65+	2	0
Plan type		
Fee for service	50	23

**SOURCE:** Authors’ calculations from MarketScan<sup>®</sup> data.

## Study Results

The percentage using any SA services declined by 23 percent from 1992 to 2001 (Exhibit 2). This decline was evident in all categories: inpatient, outpatient, and pharmaceutical usage. The intensity of outpatient care dropped 5 percent, and mean spending per visit in real 2001 dollars fell by more than one-third. For inpatient services, length-of-stay fell nearly ten days. In contrast, the number of admissions per person for those with at least one admission (readmission rate) rose 4.2 percent. Mean spending per inpatient stay in real 2001 dollars dropped nearly two-thirds. For pharmaceuticals, psychotropic medication use was very low. However, the number of prescriptions per user, while low, increased from 2.5 per user in 1992 to 4.2 in 2001. In real 2001 dollars, mean spending per prescription and per user increased by 90.5 percent and 271.1 percent, respectively.

**EXHIBIT 2. Trends In Substance Abuse Spending for People with Employment-Based Private Insurance, Decomposed Into Probability of Use, Intensity, and Cost Per Unit of Service, 1992, 1997, and 2001**

Type of Service	1992	1999	2001	Absolute Change 1992-2001	Percent Change 1992-2001
Percent using any service	0.64%	0.50%	0.49%	0.15%	-23.4
Outpatient					
Percent with any use	0.57%	0.46%	0.47%	-0.10%	-17.5
Mean number of visits per user	5.9	6.2	4.1	0.2	-4.7
Mean expenditure per visit	\$81	\$72	\$122	-\$65	-34.8
Inpatient					
Percent with any admission	0.15%	0.09%	0.07%	-0.08%	-53.3
Mean number of admissions per user	1.19	1.26	1.24	0.05	4.2
Mean length of stay (days)	16	8.3	6.5	-9.5	-59.4
Mean expenditure per day	\$7,623	\$2,988	\$2,462	\$5,161	-67.7
Psychotropic drugs					
Percent with any use	0.10%	0.08%	0.09%	-0.01%	-10.0
Mean number of Rx per user	2.5	3.6	4.2	1.7	68.0
Mean expenditure per Rx	\$21	\$45	\$40	\$19	90.5
Mean expenditure per user	\$53	\$164	\$167	\$122	271.1

**SOURCE:** Authors' calculations from MarketScan<sup>®</sup> data.

**NOTE:** All dollar figures are in 2001 constant dollars and were deflated using the gross domestic product (GDP) price deflator.

Overall, SA spending per covered life fell by 73.6 percent in nominal dollars (Exhibit 3). Expressed as a percentage of total health care spending, spending for substance abuse fell to an even greater degree, from making up 1.16 percent of total health care expenditures in 1992 to only 0.2 percent in 2001. The claims data show the proportion of each bill paid by insurance and the proportion covered out of pocket by the insured person (cost sharing). Cost sharing as a percentage of total SA spending increased from 14 percent to 19 percent. The locus of SA treatment shifted dramatically away from inpatient settings. In 1992, 73 percent of spending was in inpatient settings, while in 2001 this figure was only 44 percent.

**EXHIBIT 3. Substance Abuse (SA) Spending for People with Employment-Based Private Insurance, By Type Of Service and Cost Sharing, 1992, 1997, and 2001**

	1992	1999	2001	Absolute Change 1992-2001	Percent Change 1992-2001
SA spending per covered life	\$21.16	\$7.90	\$5.58	-\$15.58	-73.6
SA spending as percent of total health care spending	1.16%	0.41%	0.20%	-0.95%	-82.6
SA cost sharing as percent of total SA spending	14%	17%	19%	5	35.7
Distribution of SA spending by type of service					
Inpatient	73%	53%	44%		
Outpatient	27	46	54		
SA medications	0	2	3		

**SOURCE:** Authors' calculations from MarketScan<sup>®</sup> data.

**NOTE:** All dollar figures are in 2001 constant dollars and were deflated using the gross domestic product (GDP) price deflator.

## Discussion And Policy Implications

This study must be viewed in light of its limitations. The MarketScan<sup>®</sup> database is a convenience sample of large employers (mostly Fortune 200 firms). The trends in the database may not reflect trends among small employers or other populations. Some of the employers in the database changed over the time period. Thus, the study reflects three convenience samples at three points in time. However, the sample is very large—nearly four million covered lives, which is about 2 percent of the population with private employment-based coverage. The trends for four million employees are important in their own right. Moreover, a similar analysis that focused on all behavioral health care spending found that trends among the sample of the same employers and the complete MarketScan<sup>®</sup> population are similar.

A second limitation is that SA treatment may be under-recorded in claims data, and therefore more SA treatment may be provided than actually appears in claims. There are two arguments against this presumption. First, if SA treatment is not billed, providers will not receive payment; thus, there is little incentive to provide treatment without a billing code. Although it is possible that SA treatment is being billed under a different code, such as a mental health code, that practice probably occurred as frequently in 2001 as in 1992. Second, as we discuss below, the prevalence of SA treatment found in the claims is similar to that reported on household surveys.

In both 1992 and 2001, the percentage of the study population that received SA treatment was small, particularly relative to SA prevalence rates. The rate of treatment receipt found in this study is similar to that reported on population surveys. According to the NSDUH, about 0.6 percent of the population in 2002 reported receiving formal treatment for substance abuse (excluding self-help groups). In the study population, the rate was similar, equaling about 0.6 percent in 1992 and 0.5 percent in 2001. This suggests not

that SA treatment is being underreported in claims data but rather that paid SA treatment is infrequent among this population.

Why is formal SA treatment so rare? According to the Office of National Drug Control Policy, one important reason is the “denial gap.”<sup>4</sup> For example, according to the NSDUH, of the people who needed treatment (because they were classified with substance abuse or dependence) but did not receive specialty treatment in 2002, only 5.8 percent reported that they felt they needed treatment for their alcohol or drug problem. Yet even among those who felt they needed treatment, barriers stand in the way of receiving care. For example, of the 1.2 million people in 2002 who felt that they needed SA treatment but did not receive it, 37.5 percent reported that they made an effort but were unable to get treatment, and a key reason was the cost of care.<sup>5</sup>

This study finds that use of formal SA treatment among the privately insured population declined dramatically from 1992 to 2001. Inpatient SA admissions dropped dramatically: more than 50 percent. This shift away from inpatient care also has occurred for mental health treatment, and it may not be unexpected. Moreover, a case can be made for cost-effective treatment in outpatient settings. However, it does not appear that the decline in inpatient use was offset by increases in outpatient use, because the percentage of enrollees using outpatient care declined by 18 percent. Moreover, on average, users of outpatient treatment only received four visits, a decline of 5 percent from 1992 to 2001.

The large decline in the use of SA treatment is unlikely to be caused by a change in the number of plans offering insurance benefits covering substance abuse. According to the U.S. Bureau of Labor Statistics, in 1991, 96 and 97 percent of employees in medium and large establishments with medical benefits had drug abuse and alcohol abuse treatment coverage, respectively. In 1997 the percentages had risen to 97 percent and 98 percent.

The change in use of SA services may be attributable to the growth in managed care, which can have a dramatic effect on SA treatment spending. For example, Donald Shepard and colleagues studied the effect of the Massachusetts Medicaid program’s risk-sharing contract with a private, for-profit specialty managed behavioral health care carve-out.<sup>6</sup> They found that per episode spending decreased by 76 percent and that there was a 99 percent reduction in the use of hospital-based settings after the carve-out was put into place. Similarly, in a study of the impact of mental health and substance abuse parity legislation in Vermont, researchers found that access to SA treatment declined sharply after the parity legislation was implemented and more managed care techniques were used.<sup>7</sup> These studies suggest that future research may need to focus less on SA benefits and more on how these benefits are managed.

It is possible that the demand for SA services has declined over the time period studied. However, if demand has declined, there is little reason to believe that it could be attributable to declining need. According to the 2001 National Household Survey on Drug Abuse (NHSDA), the estimated number of illicit drug users (based on drug use in the past month) in the United States (15.9 million) was considerably higher than the estimate from 1992 (12.0 million), a low point in the tracking of illicit drug use.<sup>8</sup> Two nationally representative surveys recently found that between 1991–1992 and 2001–2002,

the percentage of the population determined to have alcohol abuse increased, while alcohol dependence declined.<sup>9</sup> Other data indicate that chronic drinkers (who consumed sixty or more drinks in a month) made up 4.6 percent of the population in 1991 and 5.6 percent in 2001.<sup>10</sup>

The results presented in this paper raise the question of what can be done to reverse the trend of low and dwindling use of SA treatment among privately insured people. Employers have several ways to improve use of services. In 1993 about 62 percent of medium and large employers offered employee assistance programs (EAPs), according to the Bureau of Labor Statistics. EAPs can provide outreach and educational materials to employees with SA disorders. The employers in the MarketScan<sup>®</sup> database are large, self-insured employers who have influence on plan design, for example, by encouraging managed care plans to provide greater access to substance abuse services through twenty-four-hour referral services, a wide network of providers, and utilization review that emphasizes continuity of care.

Efforts to better monitor access and to provide feedback on access may also be beneficial. For example, the Washington Circle (a multidisciplinary group of provider, researcher, managed care, and public policy representatives) recently examined three performance measures for SA services. These measures were (1) “identification”: the percentage of adult enrollees with SA diagnoses; (2) “initiation”: the percentage of adults with an inpatient SA admission or with an index outpatient visit for SA abuse or dependence and any additional SA services within fourteen days of identification; and (3) “engagement”: the percentage of adults diagnosed with SA disorders that received two additional SA services within thirty days of the initiation of care. These measures might be used by third-party payers to track whether employees and their dependents are receiving appropriate SA services.<sup>11</sup>

With private health insurance premiums again rising at a double-digit rate, employers may be reluctant to pursue strategies that move more beneficiaries into treatment. Employers may need to be informed about the effectiveness and cost-effectiveness of SA treatment. One important message may be that a relatively small amount of treatment can have a sizable impact. For example, a recent randomized trial found major reduction in cannabis use following just six brief cognitive-behavioral interventions.<sup>12</sup> Similarly, a large, randomized trial has shown that receipt of two ten-to-fifteen-minute physician-delivered alcoholism counseling sessions cut excess drinking among problem drinkers from about 48 percent at baseline to 18 percent at twelve months in an experimental group, compared with 33 percent in the control group.<sup>13</sup> Overall, SA treatment has been shown to be very effective. A review of seven large, multi-site studies found that during the year after alcoholism treatment, one in four clients remained continuously abstinent on average, and the remaining clients reduced their overall alcohol consumption by 87 percent on average.<sup>14</sup>

However, beyond messages about effectiveness, additional work needs to be done to show employers the return on investment from SA treatment. Treatment has the potential to reduce workers’ compensation claims, accidents, and absenteeism. The size of these savings needs to be demonstrated more convincingly. Collection and dissemination of

this information among substance users and their employers needs to be encouraged, to reverse the negative trends in access to timely, effective treatment.

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## Notes

<sup>1</sup>Substance Abuse and Mental Health Services Administration, *Results from the 2002 National Survey on Drug Use and Health: National Findings*, NHSDA Series H-22, Pub. no. SMA 03-3836 (Rockville, Md.: SAMHSA, Office of Applied Studies, 2003).

<sup>2</sup>T.L. Mark et al., "Mental Health and Substance Abuse Treatment Expenditures, 1987–1997," *Health Affairs* 19, no. 4 (2000): 107–120.

<sup>3</sup> Ibid

<sup>4</sup>Office of National Drug Control Policy, *The President's National Drug Control Strategy*, March 2004, [www.whitehousedrugpolicy.gov/publications/policy/ndcs04/healing\\_amer.html](http://www.whitehousedrugpolicy.gov/publications/policy/ndcs04/healing_amer.html) (September 1, 2004).

<sup>5</sup>SAMHSA, *Results from the 2002 National Survey on Drug Use and Health*.

<sup>6</sup>D.S. Shepard et al., "Managed Care and the Quality of Substance Abuse Treatment," *Journal of Mental Health Policy and Economics* 5, no. 4 (2002): 163-174

<sup>7</sup>M. Rosenbach and T. Lake, *Mental Health and Substance Abuse Parity in Vermont: What Did We Learn?* Issue Brief no. 1 (Washington: Mathematica Policy Research, September 2001)

<sup>8</sup>SAMHSA, *Overview of Findings from the 2002 National Survey on Drug Use and Health*, NSDUH Series H-21, Pub. No. SMA 03-3774 (Rockville, Md.: SAMHSA, Office of Applied Studies, 2003).

<sup>9</sup>B.F. Grant et al., "The Twelve-Month Prevalence and Trends in DSM-IV Alcohol Abuse and Dependence: United States, 1991-1992 and 2001-2002," *Drug and Alcohol Dependence* 74, no. 3 (2004): 223-234.

<sup>10</sup>U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, 1984-1995 (Series 1, no. 1, 2<sup>nd</sup> ed.); 1996-1997 (Series 1, no. 2a; Series 1, no. 3); 1998 (Series 1, no. 4); 1999 (Series 1, no. 5); and 2000-2001, available on the CDC Web site, [www.cdc.gov/brfss/ti-docs.htm](http://www.cdc.gov/brfss/ti-docs.htm) (September 1, 2004)

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<sup>11</sup>F. McCorry et al., "Developing Performance Measures for Alcohol and Other Drug Services in Managed Care Plans: The Washington Circle Group," *Joint Commission Journal on Quality Improvement* 26, no. 11 (2000): 633-643.

<sup>12</sup>J. Copeland et al., "A Randomized Controlled Trial of Brief Cognitive-Behavioral Interventions for Cannabis Use Disorder," *Journal of Substance Abuse Treatment* 21, no. 2 (2001): 55-64.

<sup>13</sup>M.F. Fleming et al., "Brief Physician Advice for Problem Alcohol Drinkers: A Randomized Controlled Trial in Community-Based Primary Care Practices," *Journal of the American Medical Association* 227, no. 13 (1997): 1039-1045.

<sup>14</sup>W.R. Miller, S.T. Walters, and M.E. Bennett, "How Effective Is Alcoholism Treatment in the United States?" *Journal of Studies on Alcohol* 62, no. 2 (2001): 211-220.