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# National Expenditures for Mental Health Services & Substance Abuse Treatment

## 1986 – 2005



# **National Expenditures for Mental Health Services and Substance Abuse Treatment 1986–2005**

U.S. Department of Health and Human Services  
Substance Abuse and Mental Health Services Administration  
Center for Mental Health Services  
Center for Substance Abuse Treatment

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# Executive Summary

Mental illness and substance use disorders have a significant impact on the productivity, morbidity, and mortality of the U.S. population. Many Americans struggle with a diagnosable mental disorder in a given year, with the main burden of illness concentrated in those who suffer from a serious mental illness – about six percent of adults and 5-9 percent of children. Almost nine percent of the U.S. population aged 12 and older has been classified with past year substance abuse or dependence (SAMHSA, 2009). Many suffer from more than one disorder, including substance use conditions, at a given time (Kessler et al., 2005). Mental and substance use conditions are a leading cause of disability in the U.S. and throughout the world (World Health Organization, 2008).

Although effective treatments are available for mental illness and substance abuse conditions, financial barriers (including limited insurance coverage for mental and substance use conditions and accessibility barriers) often stand in the way of receiving that treatment (SAMHSA, 2009). Given the immense burden of disability associated with these chronic conditions, it is imperative to understand the financing of mental health and substance abuse (MHSA) treatment providers. Historically, financing challenges faced by providers included insurance coverage limitations for MHSA treatment and a heavy reliance on public funding that became even more onerous in the wake of economic recession. These financing challenges are expected to moderate as the provisions of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) and the Patient Protection and Affordable Care Act of 2010 (PPACA) (PL 111-148) become effective, causing MHSA insurance coverage benefits to improve and the ranks of the uninsured to shrink.

The SAMHSA Spending Estimates (SSE) initiative was created to provide policy makers with essential information on expenditures for mental health (MH) and substance abuse (SA) treatment services. To strengthen their ties to other all-health accounts, the SSE was designed to mirror the National Health Expenditure Accounts (NHEA) produced annually by the Centers for Medicare and Medicaid Services (CMS). Therefore, the SSE relies heavily upon the definitions and concepts used in the NHEA.

The estimates presented in this report are a baseline from which the impacts of the MHPAEA and the PPACA can be measured in the future. The six policy questions for which this report presents a 1986 through 2005 baseline are:

- How much was spent in the U.S. for mental health (MH) and substance abuse (SA) treatment?
- Who paid for MH and SA services and how much did they spend?
- How much was spent by provider type?
- How much was spent by type of setting on MH and SA services?
- How has spending changed over time?
- How did MHSA expenditures compare with those for all health care spending?

MHSA spending estimates in this report focus on expenditures for treatment and not disease burden; they include only spending for the direct treatment of MHSA disorders and exclude other substantial comorbid health costs that can result from MHSA conditions (such as trauma and liver cirrhosis). Other costs of client care (such as job training and subsidized housing) are also excluded, as are indirect costs, such as lost wages and productivity.

## GENERAL FINDINGS:

### *Total MHS Treatment Spending*

- MH and SA treatment spending from all public and private sources totaled \$135 billion in 2005.
- MH and SA treatment spending declined as a share of all health spending, from 9.3 percent in 1986 to 7.3 percent in 2005.
- MH and SA treatment spending lagged behind growth in all-health spending between 1986 and 2005 (7.9 percent average annual all-health spending growth rate vs. 6.9 percent for MH spending and 4.8 percent for SA spending).

### *MH Spending*

- MH spending accounted for 6.1 percent of all-health spending in 2005.
- MH treatment spending depended more on public payers than spending for all-health care in 2005; public payers accounted for 58 percent of MH spending but just 46 percent of all-health spending.
- Medicaid was the largest public payer for MH treatment in 2005, accounting for 28 percent of all MH spending; other State and local government sources made up 18 percent, Medicare 8 percent, and other federal spending 5 percent of all MH spending. Private insurance was the largest private payer for MH treatment, with a 27-percent share of all MH spending. Out-of-pocket spending accounted for 12 percent and other private sources for 3 percent.
- Prescription drugs and hospital treatment each accounted for 27 percent of MH spending in 2005; in 1986 only 7 percent of MH spending went to prescription drugs.
- MH drug spending grew by an average of 24 percent a year between 1997 and 2001. After 2001, growth slowed dramatically, to an average rate of 10 percent a year between 2001 and 2005.
- The share of MH spending dedicated to specialty psychiatric and chemical dependency hospitals fell sharply between 1986 and 2005, from 26 percent in 1986 to 12 percent in 2005.
- Specialty MH centers received 13 percent of MH treatment spending in 2005.

### *SA Treatment Spending*

- SA spending accounted for only 1.2 percent of all-health spending in 2005.
- Public payers were responsible for nearly 80 percent of SA treatment spending in 2005.
- State and local payers (excluding the state share of Medicaid) accounted for the largest share of SA treatment spending in 2005 (36 percent). Medicaid (21 percent of SA spending), other federal (16 percent) and Medicare (7 percent) were the remaining public payers.
- Private insurance paid for 12 percent of SA treatment spending in 2005, down from 27 percent in 1986. Between 1986 and 2005, the share of SA spending increased for Medicaid (from 12 percent to 21 percent), for other state and local governments (from 31 percent to 36 percent), and for other Federal government (from 10 percent to 16 percent), while Medicare spending changed little (from 8 percent to 7 percent).
- The SA share of all-health spending was 0.4 percent for private insurance, 1.5 percent for Medicaid, and 7.3 percent for other State and local in 2005.
- Specialty MH and SA centers received the largest portion (52 percent) of SA treatment spending in 2005.

- Spending on SA prescription drugs increased significantly in recent years, from \$6 million in 1986 to \$141 million in 2005; however, prescription drugs made up less than one percent of SA treatment spending in 2005.
- The share of SA treatment spending in inpatient settings shrank dramatically, from 56 percent in 1986 to 17 percent in 2005. At the same time, the share of SA treatment spending in outpatient settings expanded from 23 percent to 48 percent.



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# Introduction

The SAMHSA Spending Estimates (SSE) initiative was created to provide policy makers with benchmark information on expenditures for treatment of mental health (MH) and substance abuse (SA) conditions. To strengthen their ties to other all-health accounts, the SSE was designed to mirror the National Health Expenditure Accounts (NHEA) produced annually by the Centers for Medicare and Medicaid Services (CMS). Therefore, the SSE relies heavily upon the definitions and concepts used in the NHEA.

## THIS REPORT AND ITS ORGANIZATION

This report presents the latest estimates of expenditures on mental health and substance abuse (MHSA) treatment services. It improves upon and replaces the prior reports and related journal articles of MHSA estimates produced by the Substance Abuse and Mental Health Administration (SAMHSA) since the inception of this project in 1996 (McKusick et al., 1998; Mark et al., 1998; Coffey et al., 2000; Mark et al., 2000; Mark et al., 2005a; Mark et al., 2005b; Mark et al., 2007).

Spending for MHSA combined is presented first, followed by spending for mental and substance use disorders separately because the expenditure patterns for these disorders differ in some important ways. The organization of the report is as follows:

- Overview of mental health and substance abuse spending
- Mental health spending by payer
- Mental health spending by provider, setting, and specialty type
- Substance abuse spending by payer
- Substance abuse spending by provider, setting, and specialty type
- Appendix A – Tables
- Appendix B – Definitions
- Appendix C – Methods
- Appendix D – Abbreviations
- Appendix E – Authors and Technical Expert Panel Members

## RATIONALE FOR THE ESTIMATES

SAMHSA, an agency of the U.S. Department of Health and Human Services, strives to reduce the impact of substance abuse and mental illness on America's communities. SAMHSA's research and practice has shown that "prevention works, treatment is effective, and people recover from mental and substance use disorders."<sup>1</sup> SAMHSA's initiatives focus on:

- Promotion of emotional health and prevention and reduction of mental illness and substance abuse through the early recognition and treatment of behavioral health conditions and through the integration of behavioral health services into primary care settings
- Assistance for special populations affected by mental and substance use conditions—victims of personal trauma, military families and veterans, and homeless persons

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<sup>1</sup> <http://www.samhsa.gov/About/strategy.aspx>; accessed September 2, 2010.

- Expansion of the behavioral health service infrastructure capacity through health care reform, the adoption of health information technology, data system integration, and the improved measurement of quality and outcomes
- Increased public understanding of behavioral health conditions and of prevention and treatment services so as to achieve the full potential of prevention and to enable people to recognize and seek treatment for these conditions with the same urgency as for other conditions

To support and guide policy initiatives, SAMHSA tracks national trends, establishes measurement and reporting systems, and develops and promotes standards to improve delivery of services to people with mental and substance use disorders. As one piece of that effort, the estimates in this report track national spending on treatment for mental and substance use disorders. This information aids SAMHSA, as well as policy makers, providers, consumers and researchers by increasing their understanding of what the nation spends on MH services and SA treatment, which payers fund that treatment, who delivers treatment, and how expenditures have changed over time.

## **PURPOSE AND SCOPE OF ESTIMATES**

The SSE provides ongoing information about national spending on health care services related to the diagnosis and treatment of mental and substance use disorders. They also provide a view of MHSA treatment spending over time and compared with spending on all health care. Estimates for 1986 through 2005 are described in this report and replace prior sets of MHSA treatment spending estimates, as they include revised data for years from earlier reports to take advantage of better data sources and improved methods. These estimates serve as a baseline from which the future impacts of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) and the Patient Protection and Affordable Care Act of 2010 (PPACA) (PL 111-148) can be addressed.

These estimates focus on expenditures for MHSA treatment, but do not include the number of individuals treated nor a per client treatment cost. The burden of MHSA illnesses is not incorporated into the estimates. Burden-of-illness studies include costs not directly related to treatment, such as the impact of mental illness on productivity, societal costs linked to drug-related crimes, or housing and other subsidies to assist clients with MHSA disorders. The scope of the report does not include the physical consequences of MHSA disorders or the related costs. Physical consequences of MHSA problems can include cirrhosis of the liver, trauma, and HIV and other infectious diseases. In addition, expenditures for mental retardation services or for the diagnosis and treatment of disorders that are usually or historically covered by general medical insurance, such as dementias and tobacco addiction, are not included here. Services through self-help groups such as Alcoholics Anonymous are also not included in these estimates because these programs are free to clients. These estimates do not include MHSA services paid for by Federal, State or local corrections and justice departments or agencies unless these funds are subcontracted to community providers. Finally, the SSE does not include spending to prevent substance use disorders or mental illnesses.

## **LIMITATIONS**

The estimates in this report were prepared using standard estimation techniques and the best available survey information. They represent the only MHSA estimates comparable to total health care spending in the U.S. As in any effort of this type, multiple data sources were used to piece together and cross-check information that ultimately formed the basis for the estimates. Each data source has its own strengths and weaknesses.

## DEFINITIONS

As in the NHEA, the physical location of services provided (referred to as an “establishment” by the Bureau of the Census) determines the provider category for health care spending. In other words, the MHSAs expenditures are categorized not by the spending for a specific service, but rather by spending in a particular establishment. For example, home health care may be provided by freestanding home health agencies, but also may be provided by home health agencies that are part of a hospital. In the former case, home health care spending would be classified as home health care; in the latter case, it would be classified as part of hospital care.

The following is a list of abbreviated definitions of payer, provider, and setting categories used in the SSE. They borrow extensively from those used in the NHEA.<sup>2</sup> More comprehensive descriptions can be found in Appendix B.

## PAYERS

**Private health insurance:** benefits paid by private health insurers, including behavioral health plans, to providers of service or for prescription drugs, and for the administrative costs and profits of health plans.

**Out-of-pocket payments:** direct spending by consumers for health care goods and services including coinsurance, deductibles, and any amounts not covered by public or private insurance.

**Other private:** spending from philanthropic and other non-patient revenue sources.

**Medicare:** the Federal government program that provides health insurance coverage to eligible aged and disabled persons.

**Medicaid:** a program jointly funded by the Federal and State governments that provides health care coverage to certain classes of people with limited income and resources. Medicaid includes funding by both Federal and State governments.

**Other Federal:** programs provided through Federal payers, including the Department of Veterans Affairs, Department of Defense, block grants administered by SAMHSA, and the Indian Health Service, among others.

**Other State and local:** programs funded primarily through State and local mental health and substance abuse agencies.

## PROVIDERS

**Hospital care:** all billed services provided to patients by public and private general medical/surgical and psychiatric and substance abuse specialty hospitals.

**General hospitals:** community medical/surgical and specialty hospitals (other than mental health and substance abuse specialty hospitals) providing diagnostic and medical treatment to inpatients, including inpatient psychiatric care in specialized treatment units of general hospitals, detoxification, and other MHSAs treatment services.

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<sup>2</sup> CMS National Health Expenditure Account websites:  
<http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-08.pdf> and  
<http://www.cms.hhs.gov/NationalHealthExpendData/downloads/quickref.pdf>

**General hospital specialty unit:** designated unit of a general medical/surgical hospital (other than a mental health and substance abuse specialty hospital) that provides care for diagnosed mental illness, substance use conditions, or detoxification.

**General hospital non-specialty unit:** medical/surgical units of general hospitals (that is, other than in mental health and substance abuse specialty units) that provide treatment for diagnosed mental illness, substance use conditions, or detoxification.

**Specialty hospitals:** hospitals primarily engaged in providing diagnostic, medical treatment, and monitoring services for inpatients with mental illness or substance use diagnoses.

**Physician services:** independently billed services provided by Doctors of Medicine (M.D.) and Doctors of Osteopathy (D.O.).

**Psychiatrists:** independently-billing private or group practices of health practitioners having the degree of M.D. or D.O. who are primarily engaged in the practice of psychiatry or psychoanalysis.

**Other professional services:** care provided in locations operated by independent health practitioners other than physicians and dentists, such as psychologists, social workers, and counselors. (Spending for services provided in doctors' offices by nurses, nurse practitioners, and physician assistants would be classified with the spending by their supervising physician.)

**Home health care:** medical care provided in the home by private and public freestanding home health agencies (HHAs).

**Nursing home care:** services provided in private and public freestanding nursing home facilities.

**Specialty mental health centers:** organizations providing outpatient and/or residential services, or a combination of services to individuals with mental illness or substance use diagnoses.

**Specialty substance abuse centers:** organizations providing either residential or outpatient services or both to individuals with substance use diagnoses.

**Prescription drugs:** psychotherapeutic medications sold through retail outlets and mail order pharmacies. Excluded are sales through hospitals, exclusive-to-patient HMOs, and nursing home pharmacies. See Appendix B for specific medication classes. Spending on methadone is captured as part of spending for specialty substance abuse centers where methadone is dispensed, rather than with SA prescription drug spending.

**Insurance administration:** spending for the cost of running various government health care insurance programs, as well as the administrative costs and profit of private health insurance.

## SETTINGS

**Inpatient services:** care provided in an acute medical care unit or setting of a general hospital or in a specialty MH or SA hospital.

**Outpatient services:** care provided in settings such as hospital outpatient departments, emergency rooms, or offices and clinics of physicians and other medical professionals; includes partial hospitalization and intensive outpatient services offered by hospital outpatient departments as well as case management and intensive outpatient services offered by health clinics and specialty MH and SA centers.

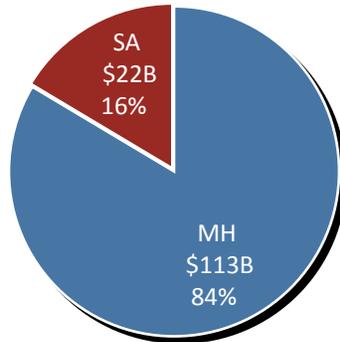
**Residential services:** therapeutic care provided by licensed health professionals in a 24-hour-care setting, including residential care in specialty MH and SA centers and all nursing home care.

# Mental Health and Substance Abuse Spending Overview

## MH and SA Treatment Spending Totaled \$135 Billion in 2005

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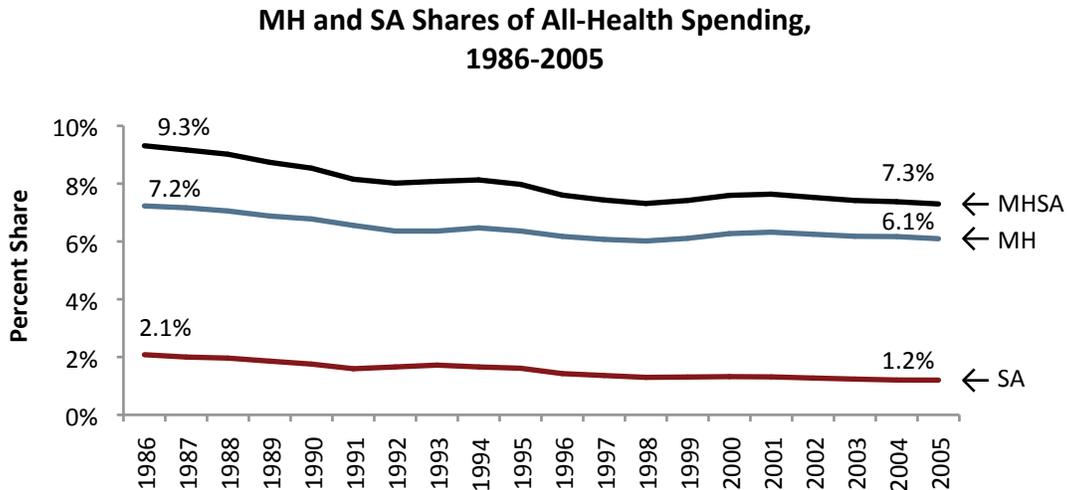
**MH and SA Treatment Spending, 2005**



MHSA Spending = \$135 billion

- MH spending amounted to \$113 billion, or 84 percent of the total MHSA spending of \$135 billion in 2005, while SA spending accounted for the balance—\$22 billion, or 16 percent.
- SA treatment spending may be underestimated because treatment for persons with both MH and SA conditions will more likely be identified as MH treatment.

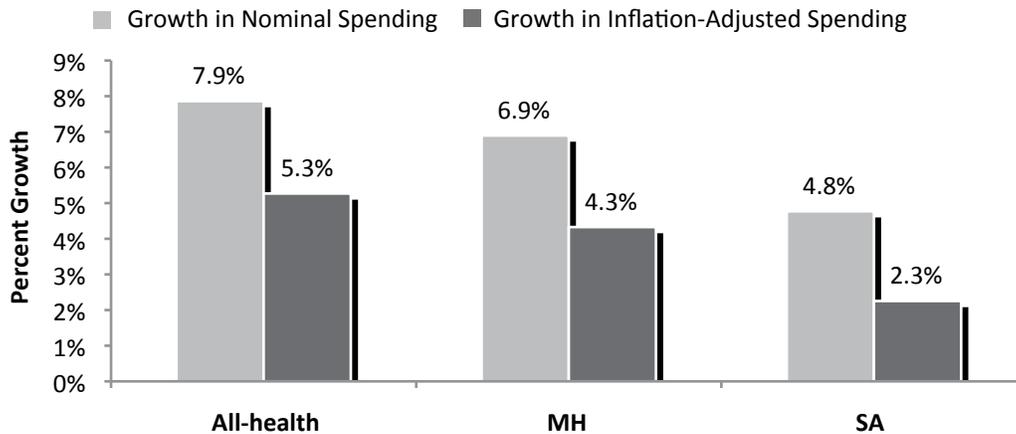
## MH and SA Treatment Spending Declined as a Share of All-Health Spending



- In 2005, MHSA spending accounted for 7.3 percent of the \$1.85 trillion all-health care expenditures.
- The share of all-health spending devoted to MHSA treatment fell between 1986 and 2005—from 9.3 percent to 7.3 percent. This steady decline in the share was caused by slower growth in MHSA spending than in all-health spending.
- In 2005, MH spending was 6.1 percent of all-health spending, down from 7.2 percent in 1986.
- SA spending was 1.2 percent of all-health spending in 2005, a share that was only about half of what it was in 1986 (2.1 percent).

## Growth of MH and SA Treatment Spending Lagged Behind Growth of All-Health Spending, 1986-2005

**Average Annual Growth in All-Health, MH and SA Spending, 1986-2005**

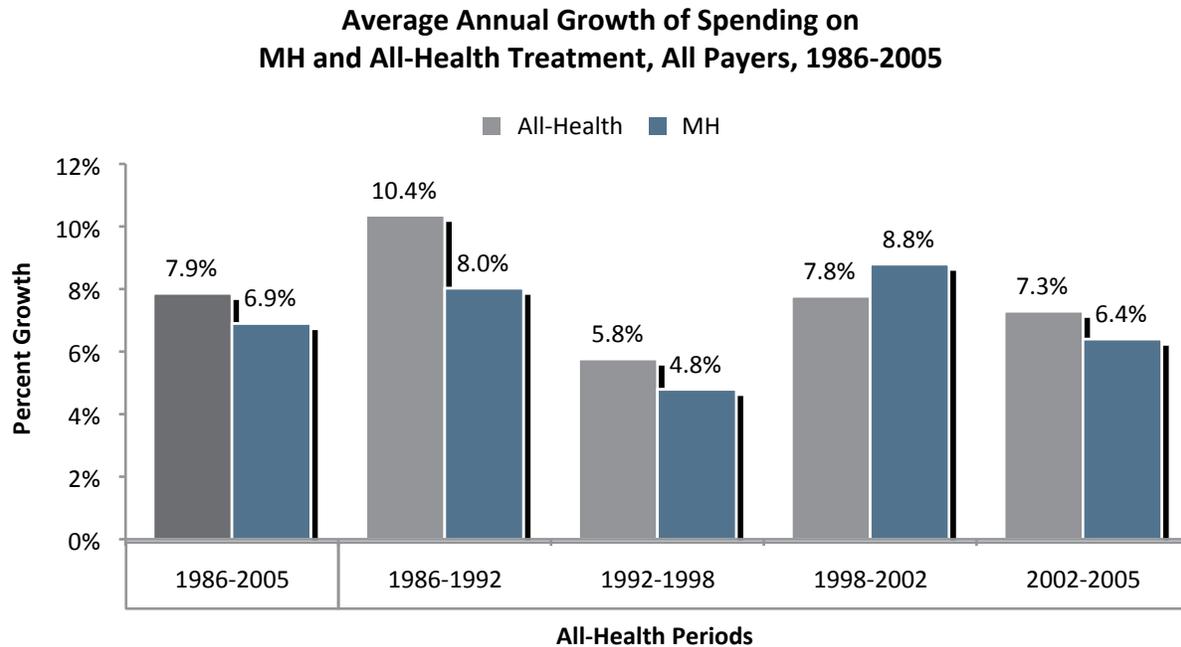


Note: Nominal spending is the current value of spending in the year the money was spent. Inflation-adjusted spending is adjusted to remove the effects of inflation, or the increase in spending that does not relate to the intrinsic value of the product or service that is purchased. Spending was adjusted using the price index for Gross Domestic Product available from National Income and Product Accounts Table 1.1.4 prepared by the U.S. Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov), downloaded on July 10, 2010).

- From 1986 to 2005, all-health spending in nominal dollars averaged increases of 7.9 percent annually, compared to 6.9 percent for MH and 4.8 percent for SA treatment spending.
- When adjusted for economy-wide inflation, spending registered average annual growth of 5.3 percent for all health, 4.3 percent for MH, and 2.3 percent for SA treatment.
- If the dramatic spending growth on prescription drugs was excluded from MH spending (not shown in graphic), the growth in MH spending would have been substantially slower—5.6 percent instead of 6.9 percent in nominal spending or 3.1 percent instead of 4.3 percent in inflation adjusted spending—and closer to the SA spending growth because few prescription drugs are used for treatment of substance use disorders.

# Mental Health: Spending by Payer

## Growth in MH Treatment Spending Lagged Behind Growth in All-Health Spending for Most Periods between 1986 and 2005

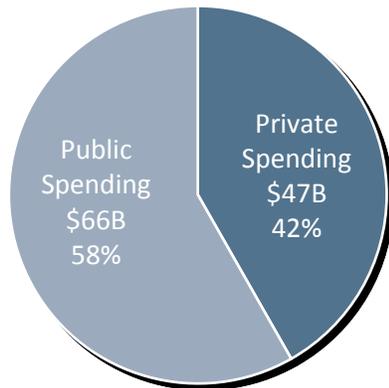


- Changes in MH expenditures can be understood in the context of several distinct periods:
  - 1986-1992, a period of Medicaid and hospital expansion when all-health spending and MH spending grew rapidly (average growth rate of 10.4 percent per year and 8.0 percent per year, respectively).
  - 1992-1998, a period of intensive behavioral health managed care expansion and relatively low MH and all-health spending growth. All-health spending grew by an average of 5.8 percent annually and MH spending grew by an average of 4.8 percent annually.
  - 1998-2002, when MH growth (8.8 percent average growth per year) exceeded all-health growth (7.8 percent average annual growth) by 1 percentage point, in part because of rapid increase in spending for MH prescription drugs, which averaged 21.5 percent growth per year.
  - 2002-2005, a period of slowing growth in MH spending because of moderating prescription drug spending. MH spending grew an average of 6.4 percent annually while all-health spending grew an average of 7.3 percent annually.

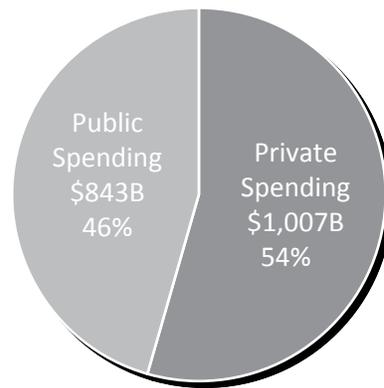
## MH Treatment Depended More on Public Spending than Did All-Health in 2005

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### Public and Private Spending on MH and All-Health Treatment, 2005



MH Spending = \$113 Billion



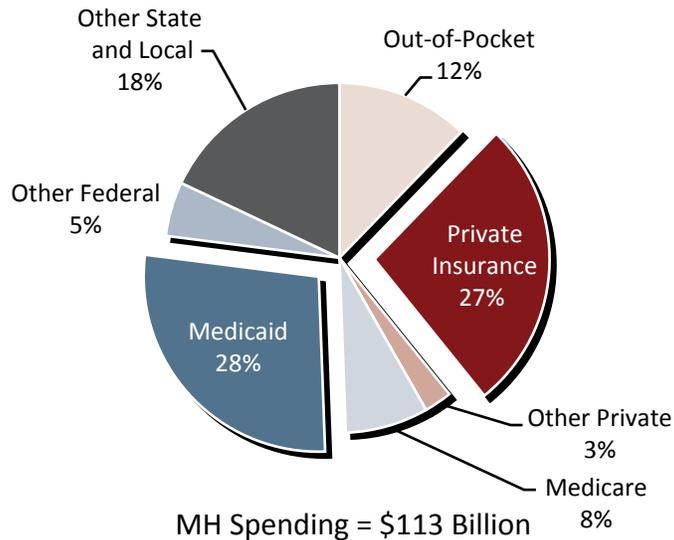
All-Health Spending = \$1,850 Billion

- Public payers—including Medicare, Medicaid, other Federal, and other State and local government sources—accounted for the majority (58 percent, or \$66 billion) of the \$113 billion spent on MH treatment in 2005. This compares to 46 percent of all-health spending coming from public sources.
- Private payers—including private insurance, out-of-pocket spending, and other private sources—accounted for 42 percent of MH spending (\$47 billion of \$113 billion) in 2005, compared to 54 percent for all-health spending.

## Medicaid Was the Largest Public Payer, Private Insurance Was the Largest Private Payer, for MH Treatment in 2005

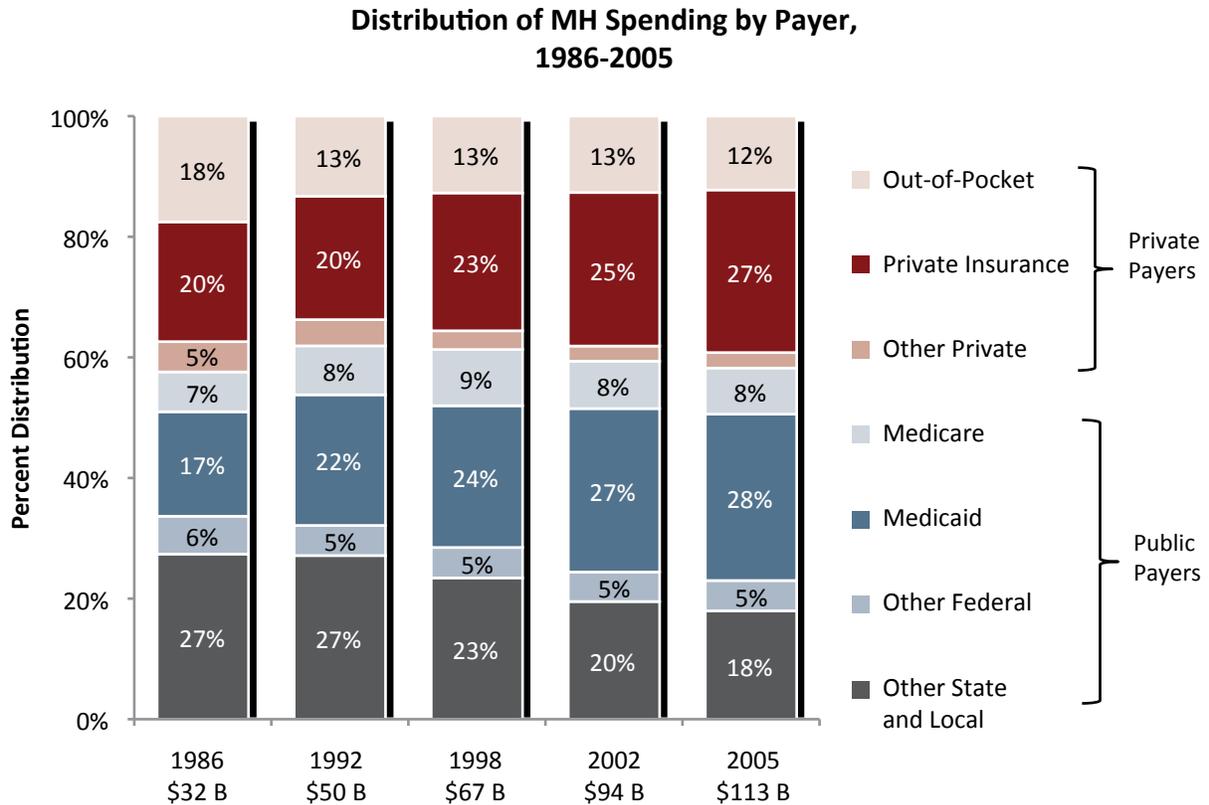
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**Distribution of Spending on MH Treatment by Payer, 2005**



- Private insurance and Medicaid (including the federal and state components) together accounted for the majority of MH treatment spending in 2005. Each was responsible for over one-quarter of MH treatment spending.
- Other State and local government spending (other than state Medicaid) was the third largest payer at 18 percent.
- Out-of-pocket spending was the fourth largest source of payments at 12 percent.
- Other federal spending (other than Medicare and Medicaid), which amounted to 5 percent of all MH spending, included MH block grants from SAMHSA that accounted for 0.3 percent (not shown on the graph) of MH spending.

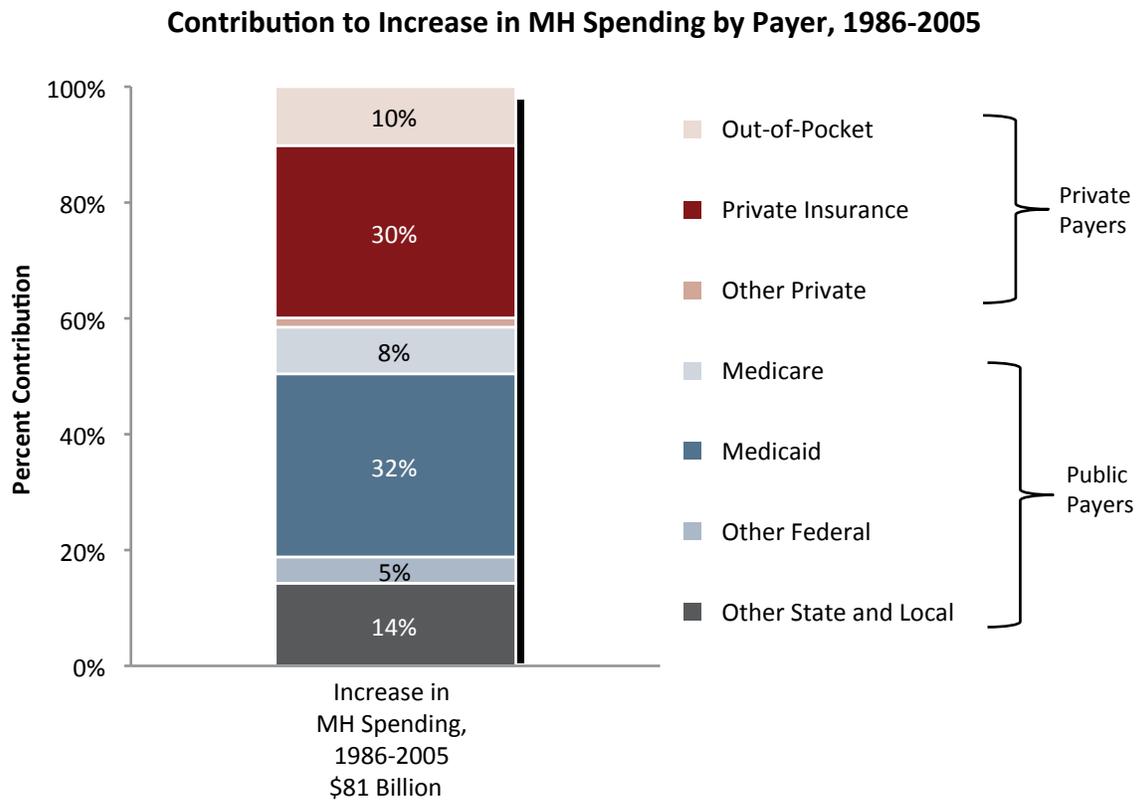
## Shares of Other State and Local MH Spending Shrank, Shares of Medicaid and Private Insurance Grew, between 1986 and 2005



Note: Bar segments less than 5 percent are not labeled.

- Other State and local government spending (other than the state Medicaid) accounted for 27 percent of MH treatment spending in 1986, but just 18 percent in 2005.
- Medicaid made up 17 percent of MH treatment spending in 1986; in 2005, it made up 28 percent of the total.
- The share of MH spending from private insurance also grew over time—from 20 percent in 1986 to 27 percent in 2005.
- The out-of-pocket share of MH treatment spending shrank over time—from 18 percent in 1986 to 12 percent in 2005.

## Medicaid Contributed Most to the MH Spending Increases

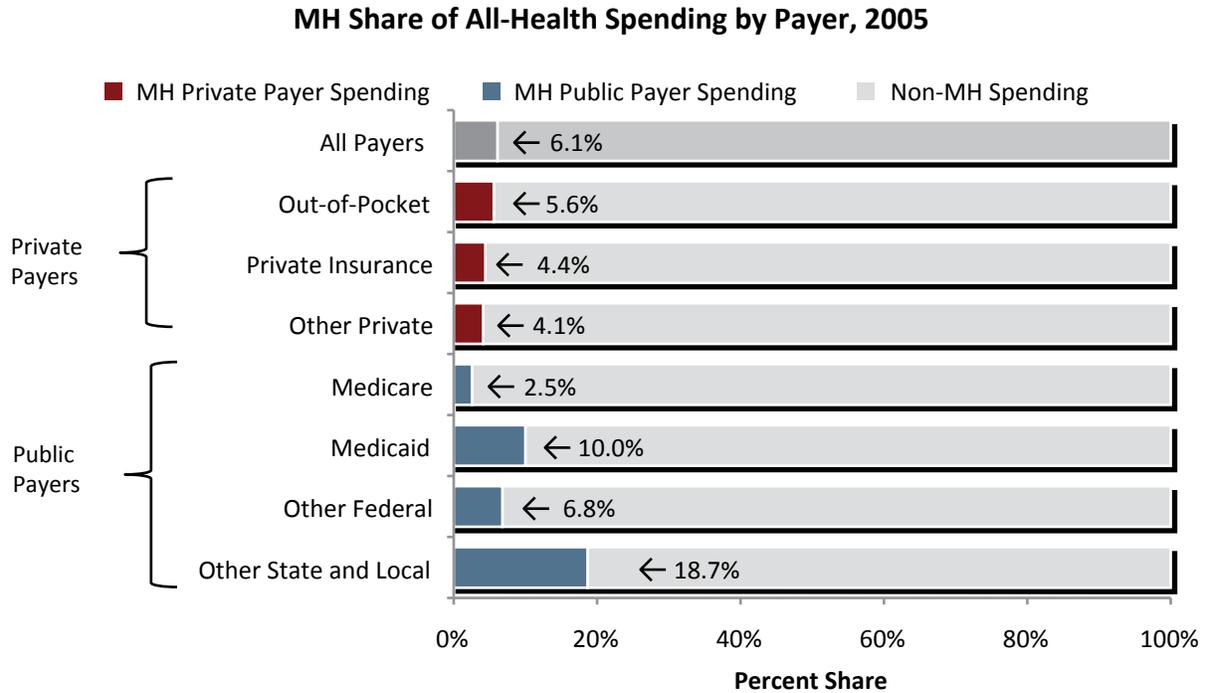


Note: Unlabeled bar segment is 2 percent.

This graph depicts the portion each payer contributed to the \$81 billion increase in MH spending between 1986 and 2005.

- Medicaid accounted for the largest share of the increase (32 percent, \$25.6 billion) between 1986 and 2005. In 1986, Medicaid made up less than one-fifth of total MH spending, but because of rapid Medicaid MH spending growth, it became one of the most important drivers of overall MH spending between 1986 and 2005.
- Private insurance contributed 30 percent (\$24.1 billion) to the increase in MH spending. Like Medicaid, it was an important driver of the increase in MH spending between 1986 and 2005.
- In contrast, other State and local government spending made up only 14 percent (\$11.6 billion) of the growth in MH spending. Although other State and local governments accounted for the largest share of MH spending in 1986, spending growth was slow, resulting in a relatively small contribution to the overall increase in MH spending.

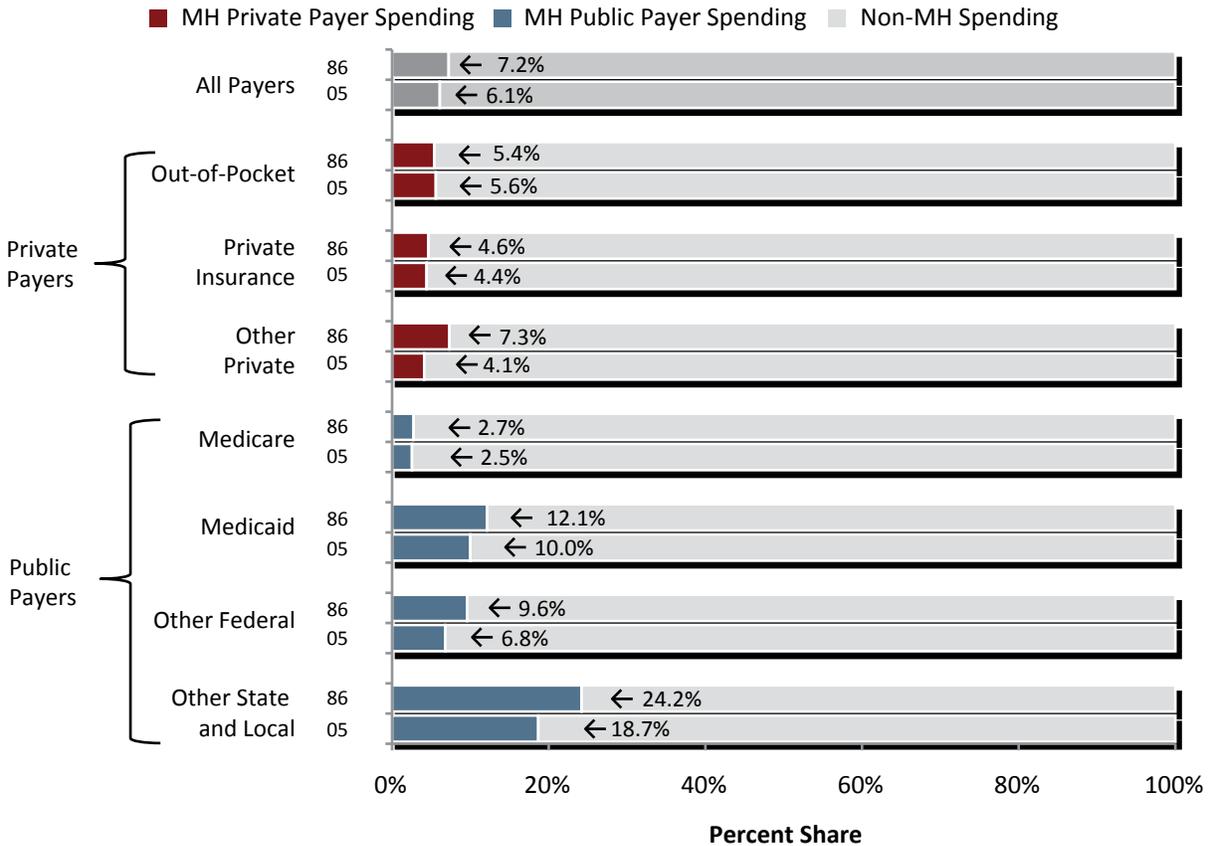
## Across All Payers, MH Spending Was a Small Share of All-Health Spending in 2005



- MH accounted for only 6.1 percent of all-health spending in 2005. However, the MH share varied considerably by payer, with the MH share generally higher for public payers and lower for private payers.
  - o In 2005, MH shares of all-health spending for other State and local (18.7 percent), Medicaid (10.0 percent) and other Federal payers (6.8 percent) were higher than the all-payer average (6.1 percent).
  - o The MH shares for out-of-pocket (5.6 percent), private insurance (4.4 percent), and Medicare (2.5 percent) were lower than for all payers.

## MH Share of All-Health Spending Declined for Most Payers between 1986 and 2005

**MH Share of All-Health Spending by Payer, 1986 and 2005**



This graph depicts spending on MH treatment as a share of all-health spending, overall (all payers) and for each payer, in 1986 and in 2005.

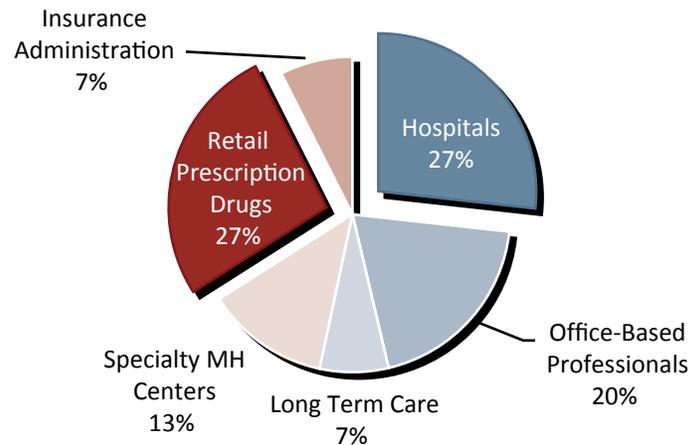
- Between 1986 and 2005, the shares of all-health spending that went for MH treatment dropped for most payers:
  - Other State and local from 24.2 percent to 18.7 percent
  - Medicaid from 12.1 percent to 10.0 percent
  - Other Federal from 9.6 percent to 6.8 percent
  - Private insurance from 4.6 percent to 4.4 percent
  - Medicare from 2.7 percent to 2.5 percent
- The only payer for which the MH share of all-health spending did not decline was out-of-pocket. This share went from 5.4 percent in 1986 to 5.6 percent in 2005.

# **Mental Health: Spending by Provider, Setting, and Specialty Type**

## Prescription Drugs and Hospital Treatment Each Accounted for More than One-Quarter of MH Spending in 2005

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**Distribution of MH Spending by Provider Type, 2005**

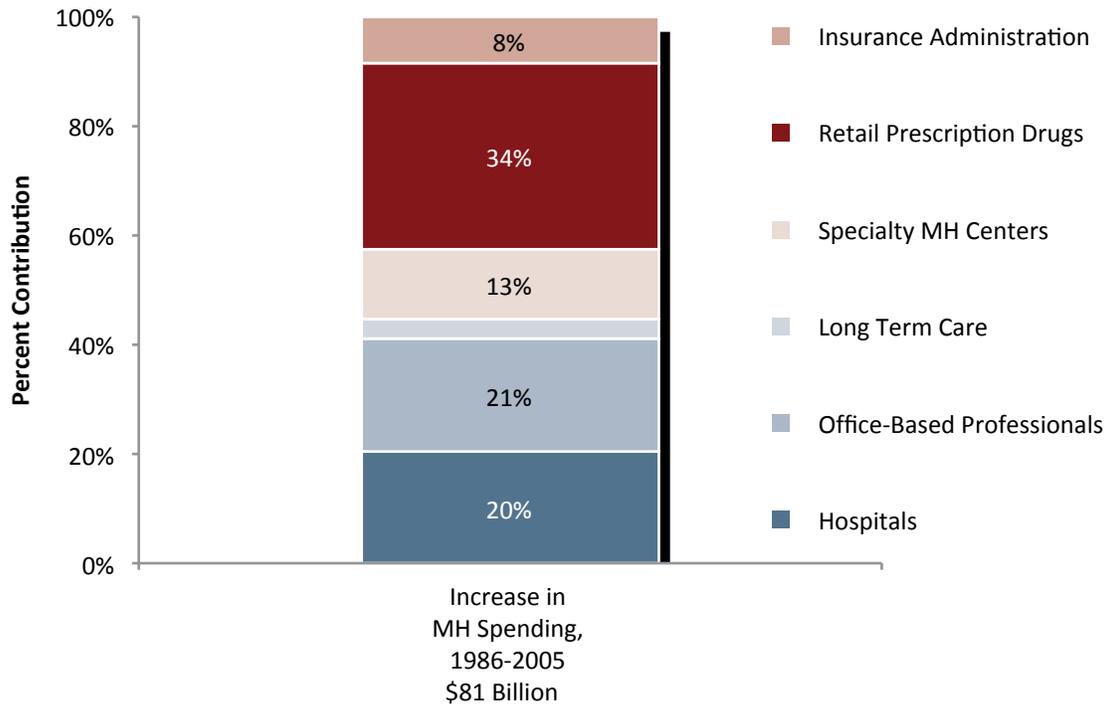


MH Spending = \$113 Billion

- Prescription drugs accounted for 27 percent of MH spending, or \$30 billion, in 2005.
- Another 27 percent (\$30 billion) in MH spending went for care in hospitals, including specialty MHSAs and general hospitals.
- About one-fifth of MH spending (\$22 billion) was for treatment by office-based professionals—psychiatrists, non-psychiatric physicians and other professionals such as psychologists and social workers.
- Spending for care from specialty MH centers amounted to \$14 billion in 2005, or 13 percent of all MH spending. These facilities provide mainly outpatient and residential treatment options.
- Insurance administration and long term care—including nursing homes and home health—each accounted for 7 percent of MH spending.

## Prescription Drugs Responsible for More than One-Third of the Increase in MH Spending between 1986 and 2005

**Contribution to Increase in MH Spending by Provider Type, 1986-2005**



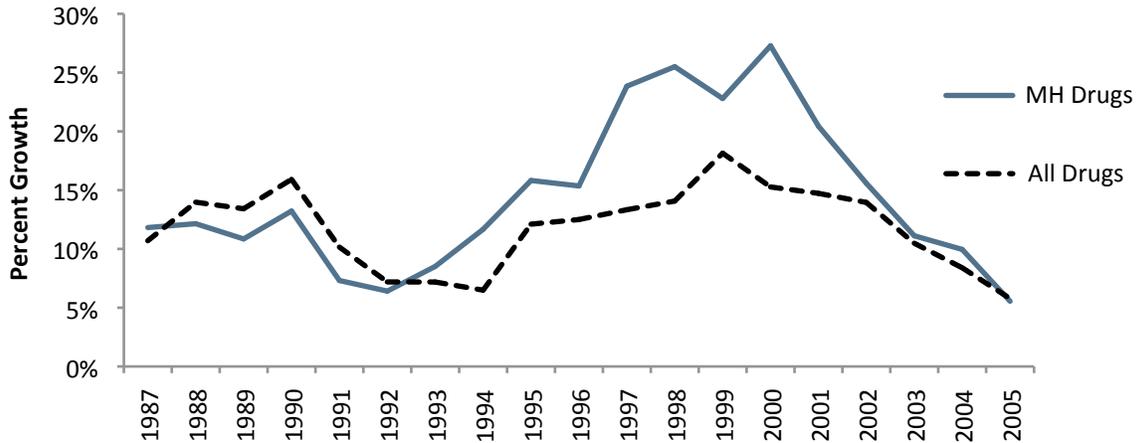
Note: Unlabeled bar segment is 4 percent.

This graph identifies important drivers of MH spending between 1986 and 2005 by showing the percent contribution of each provider type to the \$81 billion increase in MH spending.

- Of the \$81 billion increase in MH spending between 1986 and 2005, \$28 billion (34 percent) came from the growth in spending on prescription medications. This large contribution was the result of growth in spending on medications (averaging 14.3 percent annually) that far exceeded growth in spending for all MH treatment providers (averaging 6.9 percent annually).
- Office-based professionals (including physicians and other professionals) also contributed substantially (21 percent) to the increase in MH treatment spending. Other professionals' stronger-than-average MH spending increase between 1986 and 2005 (averaging 7.8 percent annually), combined with their substantial share of MH spending, made them an important driver of MH spending.
- Spending in hospitals made up 20 percent of the increase in MH spending between 1986 and 2005. However, the importance of hospitals as a spending driver diminished over time as their share of MH spending fell from 42 percent of all MH spending in 1986 to 27 percent in 2005 and their average growth in spending (4.3 percent annually) was slower than that of overall MH spending.

## MH Drug Spending Growth Slowed Dramatically After 2001

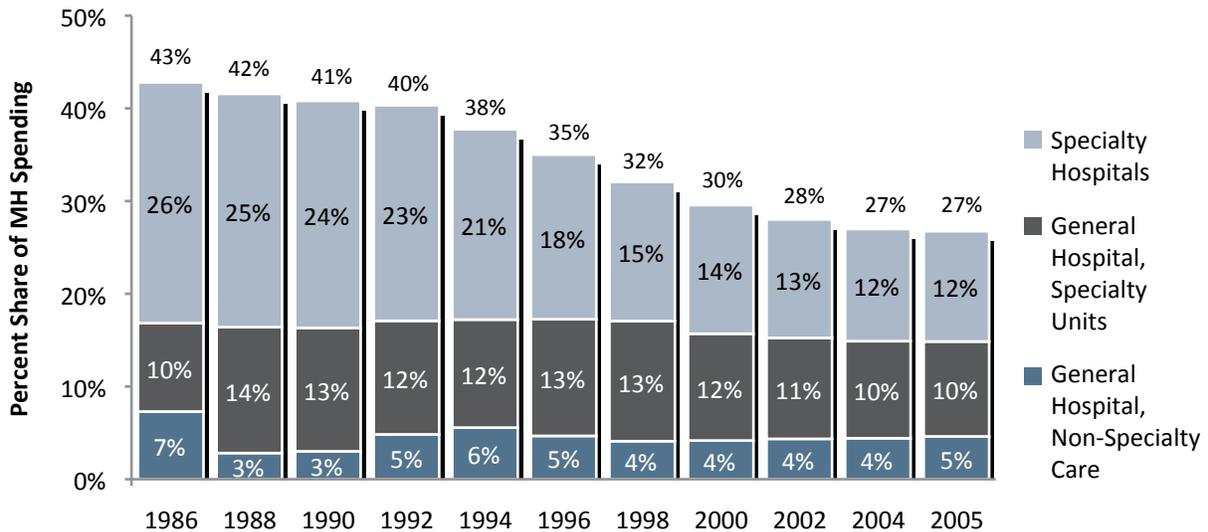
**Growth in Prescription Drug Spending  
for MH and All-Health, 1986-2005**



- From 1993 through 2001, growth in spending on psychotropic drugs exceeded that of all-health prescription drugs. In the last 5 years of that period (1997-2001), average annual growth in spending on drugs for mental health treatment exceeded 20 percent.
- From 2002 to 2005, there was a dramatic decline in this spending growth. Psychotropic drug spending growth fell from 16 percent in 2002 to 6 percent in 2005.
- Over the last three years of this period (2003-2005), spending growth on mental health and all-health prescription drugs was very similar—for the first time since 1993.

## MH Spending on Specialty MH and SA Hospitals Fell Sharply Over Two Decades

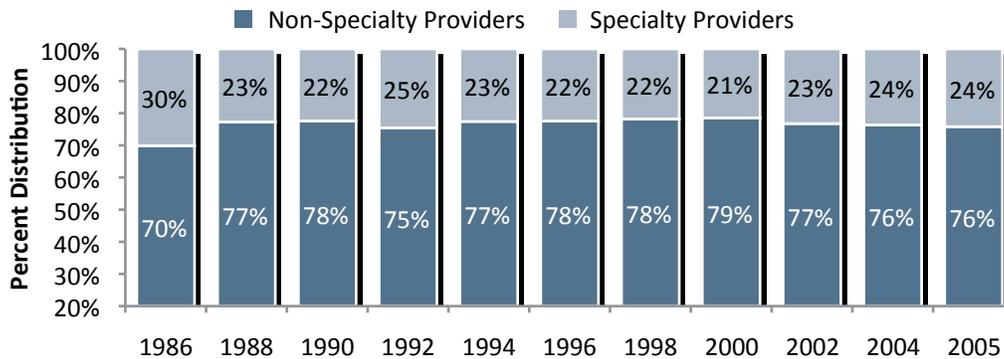
Share of MH Spending for Hospital Care by Hospital Type, 1986-2005



- Between 1986 and 2005, the hospital (inpatient and outpatient) share of MH spending fell from 43 percent to 27 percent.
- This decline was driven by a significant drop in the share of spending on MH treatment in specialty MHA hospitals (from 26 percent to 12 percent of all MH treatment spending). Specialty hospitals are psychiatric and chemical dependency hospitals that provide specialized treatment for mental and substance use disorders.
- The share of spending for MH services in general hospitals, both those with and without specialty units, remained relatively constant (between 15 and 17 percent) from 1986 to 2005.
- The majority of MH spending for general hospital care went to specialty psychiatric units between 1986 and 2005. In 2005, \$12 billion (10 percent of all MH spending) was spent on care in specialty psychiatric units of general hospitals; \$5 billion (5 percent of MH spending) was spent on non-specialty care that took place in scatter beds located in inpatient medical units and in outpatient settings of general hospitals.

## Specialty Providers' Share of MH Spending Remained Flat throughout Most of the Period from 1986 to 2005

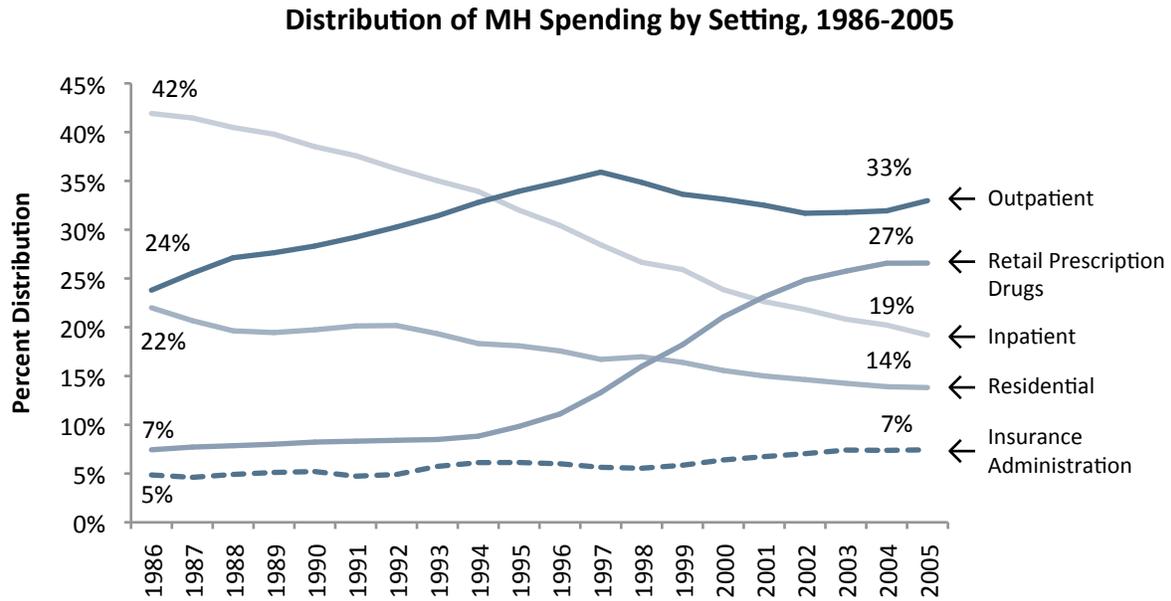
**Distribution of MH Treatment Spending by Specialty and Non-Specialty Providers, 1986-2005\***



\*Spending on prescription drugs and insurance administration is excluded from the total MH spending represented by the distribution shown here.

- The share of MH treatment spending devoted to specialty providers remained relatively flat throughout the 1986-2005 period, with MH specialty providers receiving about three-quarters of all MH spending. Specialty providers include psychiatric units of general hospitals, specialty psychiatric hospitals, psychiatrists, other MH professionals such as psychologists and MH social workers, and specialty MH centers providing mostly outpatient and residential treatment services. All other providers are considered to be non-specialty providers, including non-psychiatric physicians, medical/surgical units and outpatient departments of general hospitals, home health, and nursing homes.
- Most visits to non-psychiatric physicians during which a psychotherapeutic medication is prescribed are not coded with MH diagnoses in the billing records (Kautz et al., 2008). Spending on physician visits without a recorded MH diagnosis code is not captured in these estimates.

## Shares of MH Spending for Inpatient and Residential Settings Fell, Shares for Outpatient and Prescription Drugs Rose between 1986 and 2005

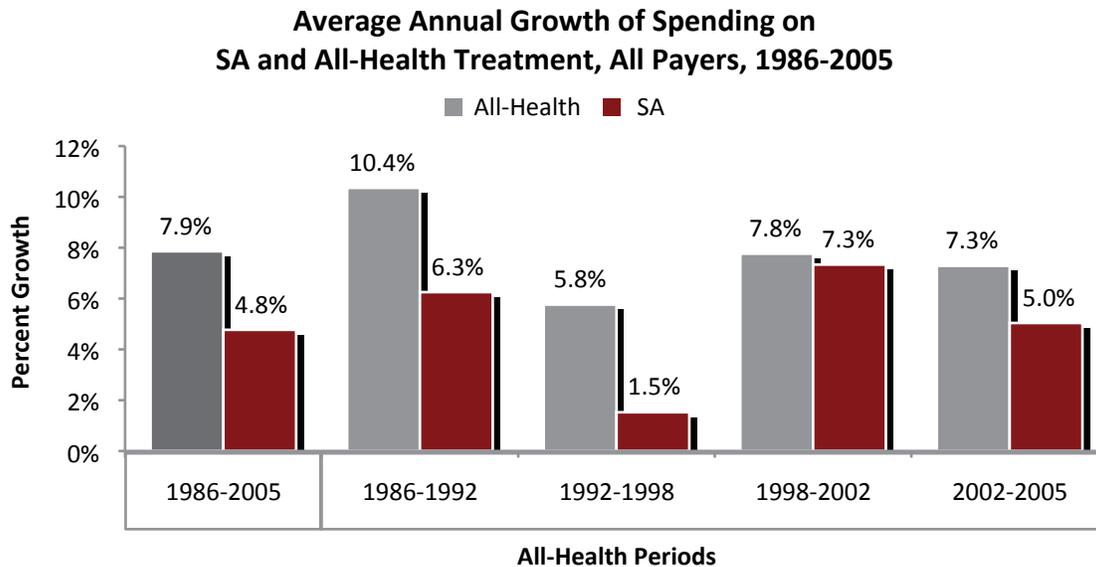


- The share of spending on inpatient MH treatment fell from 42 percent of MH spending in 1986 to 19 percent in 2005.
- Residential treatment fell from 22 percent to 14 percent of MH spending between 1986 and 2005.
- Spending on outpatient treatment rose from 24 percent of all MH treatment spending in 1986 to 33 percent in 2005.
- Spending on prescription drugs made up a rapidly increasing share of MH spending—expanding from 7 percent of MH spending in 1986 to 27 percent in 2005.
- Insurance administration (costs for running public programs and private insurance plans) accounted for 5 percent to 7 percent of all MH spending from 1986 to 2005.



# Substance Abuse: Spending by Payer

## Growth in SA Treatment Spending Lagged Behind Growth in All-Health Spending for All Periods between 1986 and 2005

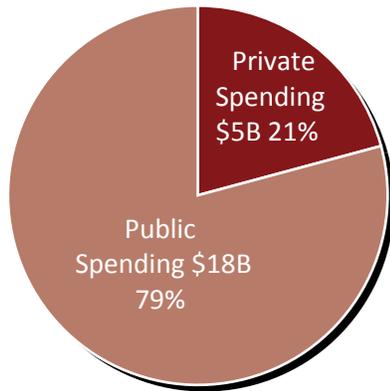


- Across all periods, nominal SA spending growth (4.8 percent annually, on average) was slower than all-health growth (7.9 percent annually, on average).
- Changes in SA expenditures can be understood in the context of several distinct periods:
  - 1986-1992, the end of a period of insurance benefit expansions. Spending on SA treatment grew by an average of 6.3 percent a year.
  - 1992-1998, a period of significant managed care restrictions on reimbursement for SA treatment in hospitals. While all-health spending grew at an average annual rate of 5.8 percent during this period, SA spending grew by an annual average of just 1.5 percent.
  - 1998-2002, when faster growth in SA treatment spending was spurred by double digit growth in spending on specialty SA centers providing outpatient and residential treatment. All-health and SA spending grew rapidly during this period (7.8 percent and 7.3 percent annually on average, respectively).
  - 2002-2005, a period of slowing growth in SA spending (5.0 percent on average annually) because of moderating spending on specialty centers.

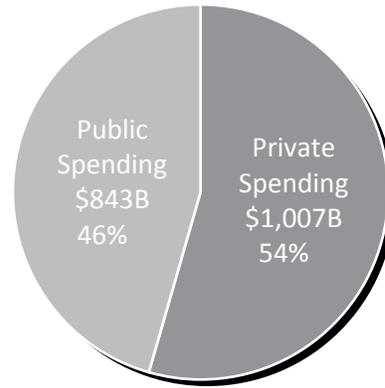
## Public Payers Accounted for Eight Out of Every Ten Dollars Spent on SA Treatment in 2005

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### Public and Private Spending on SA and All-Health Treatment, 2005



SA Spending = \$22 Billion



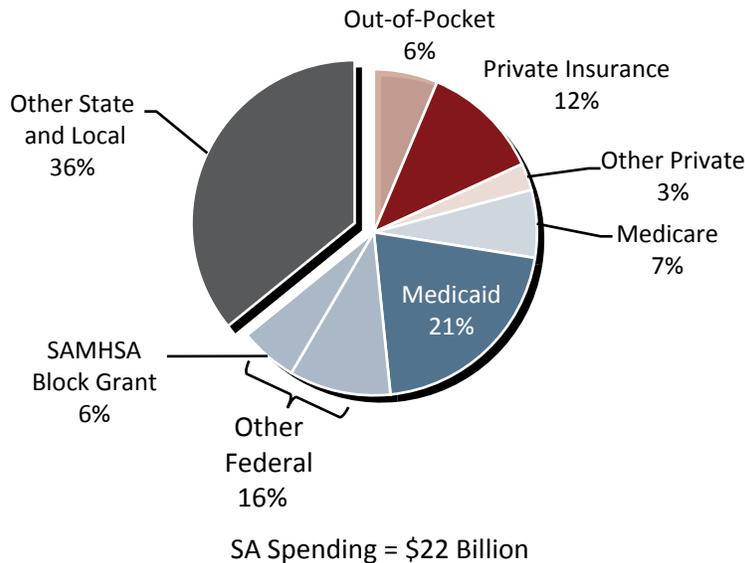
All-Health Spending = \$1,850 Billion

- In 2005, public payers accounted for the vast majority (79 percent) of spending on SA treatment. In contrast, public payers accounted for less than half (46 percent) of all-health spending in 2005.
- Private payers, composed of private insurance, out-of-pocket and other private spending, accounted for only \$5 billion (21 percent) of spending on SA treatment, but 54 percent of all-health spending in 2005.

## Other State and Local Payers Accounted for the Largest Share of Spending on SA Treatment in 2005

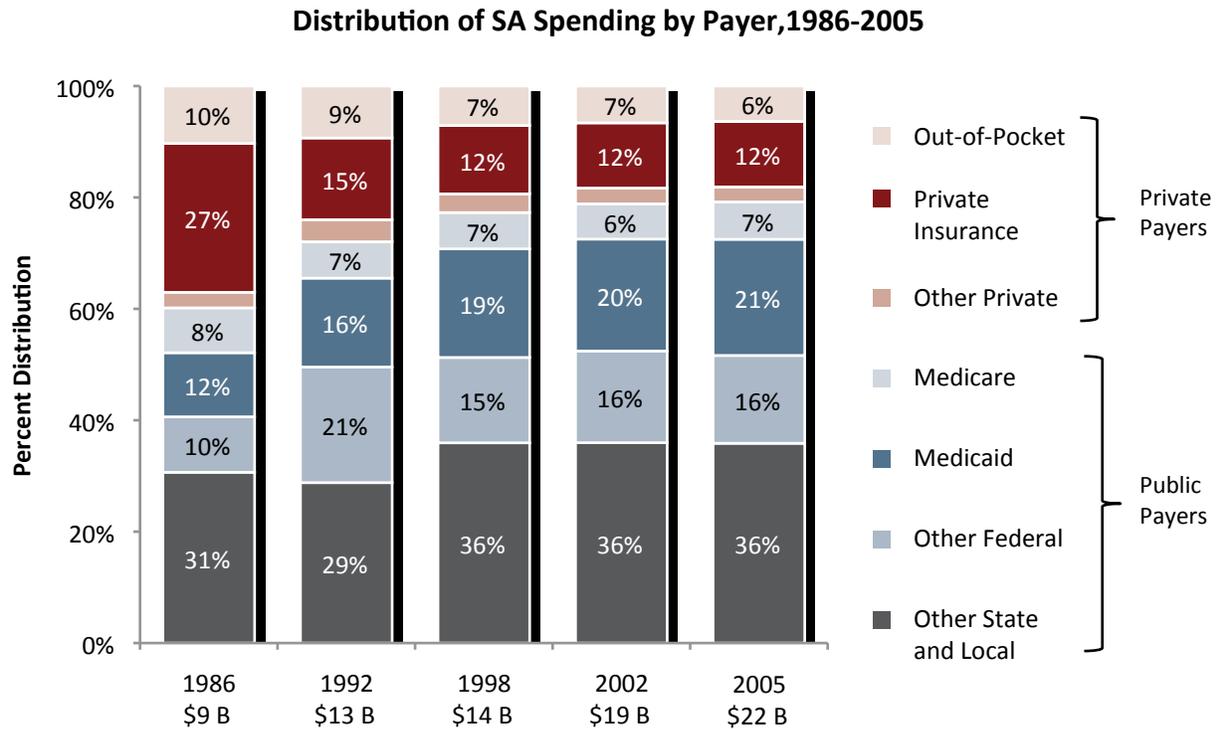
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**Distribution of Spending on SA Treatment by Payer, 2005**



- Other State and local government spending (other than the state Medicaid) was responsible for 36 percent of SA treatment spending in 2005.
- One out of every five dollars spent on SA treatment was paid for by Medicaid in 2005.
- Other Federal government payers accounted for the next largest portion of SA spending (16 percent) in 2005. Other Federal payers include the Department of Veterans Affairs, Indian Health Service, and SAMHSA, among others.
- In 2005, about 36 percent of other Federal government spending came from the SAMHSA Substance Abuse Block Grant. The Block Grant made up about 6 percent of all SA spending and about 9 percent of all public SA spending.
- Just over one out of every ten dollars spent on SA treatment in 2005 came from private insurance.
- One of the smallest shares of SA spending (6 percent) came from direct spending by patients and their families for insurance cost-sharing or for treatment not covered by another third party.

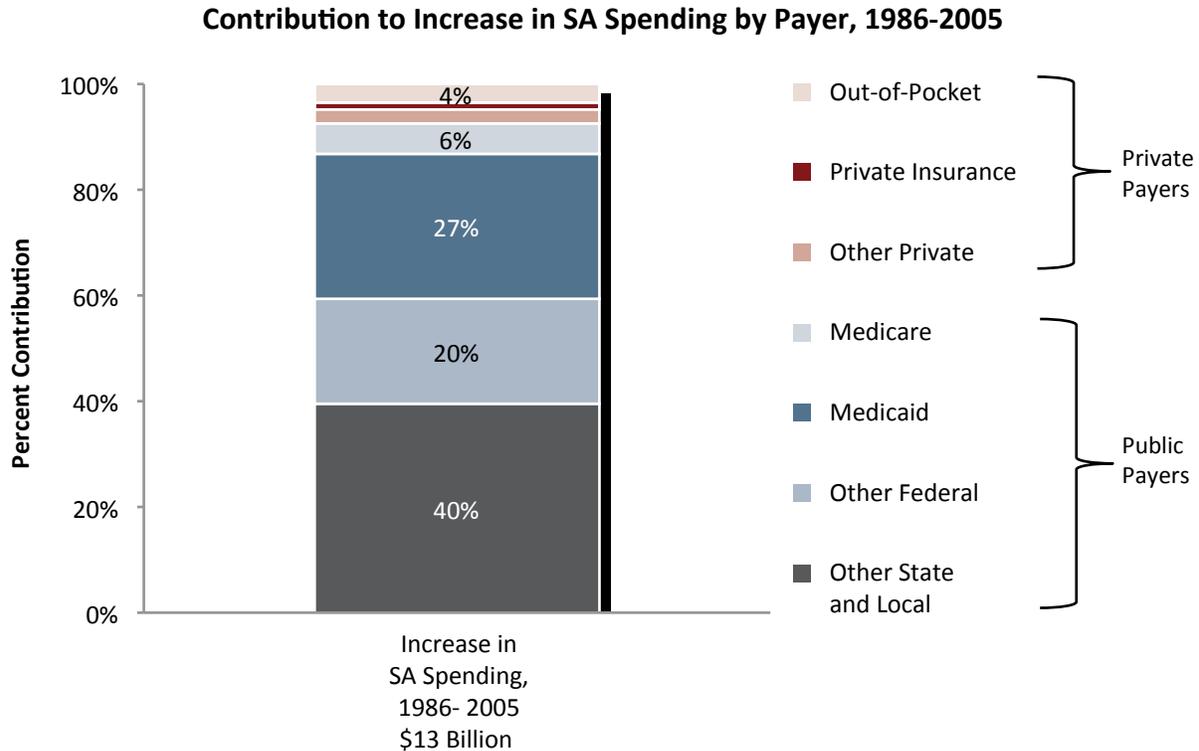
## Share of SA Spending from Private Insurance Shrank, Shares of Medicaid and Other Government Spending Grew, between 1986 and 2005



Note: Bar segments less than 5 percent are not labeled.

- Private insurance funding of SA treatment accounted for about one of every four dollars in 1986, but just over one out of every ten dollars in 2005.
- In contrast, the share of other State and local government spending increased from 31 percent in 1986 to 36 percent in 2005. The share of other Federal spending grew from 10 percent to 16 percent during the same period. Between 1986 and 1992, the share of other Federal spending doubled, due to expansions in the SAMHSA Substance Abuse Block Grant and other Federal funding.
- The proportion of spending funded by Medicaid rose from 12 to 21 percent between 1986 and 2005.

## Other State and Local Payers and Medicaid Contributed Most to Increases in SA Spending

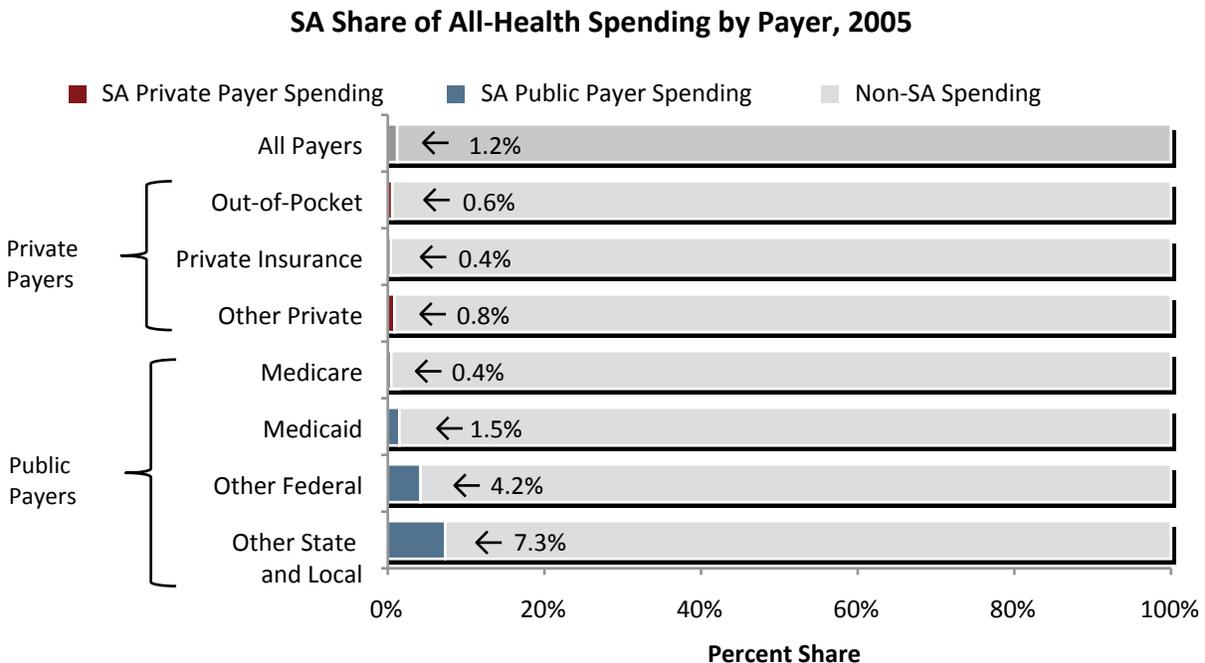


Note: Bar segments less than 4 percent are not labeled.

This graph depicts the portion each payer contributed to the \$13 billion increase in SA spending between 1986 and 2005.

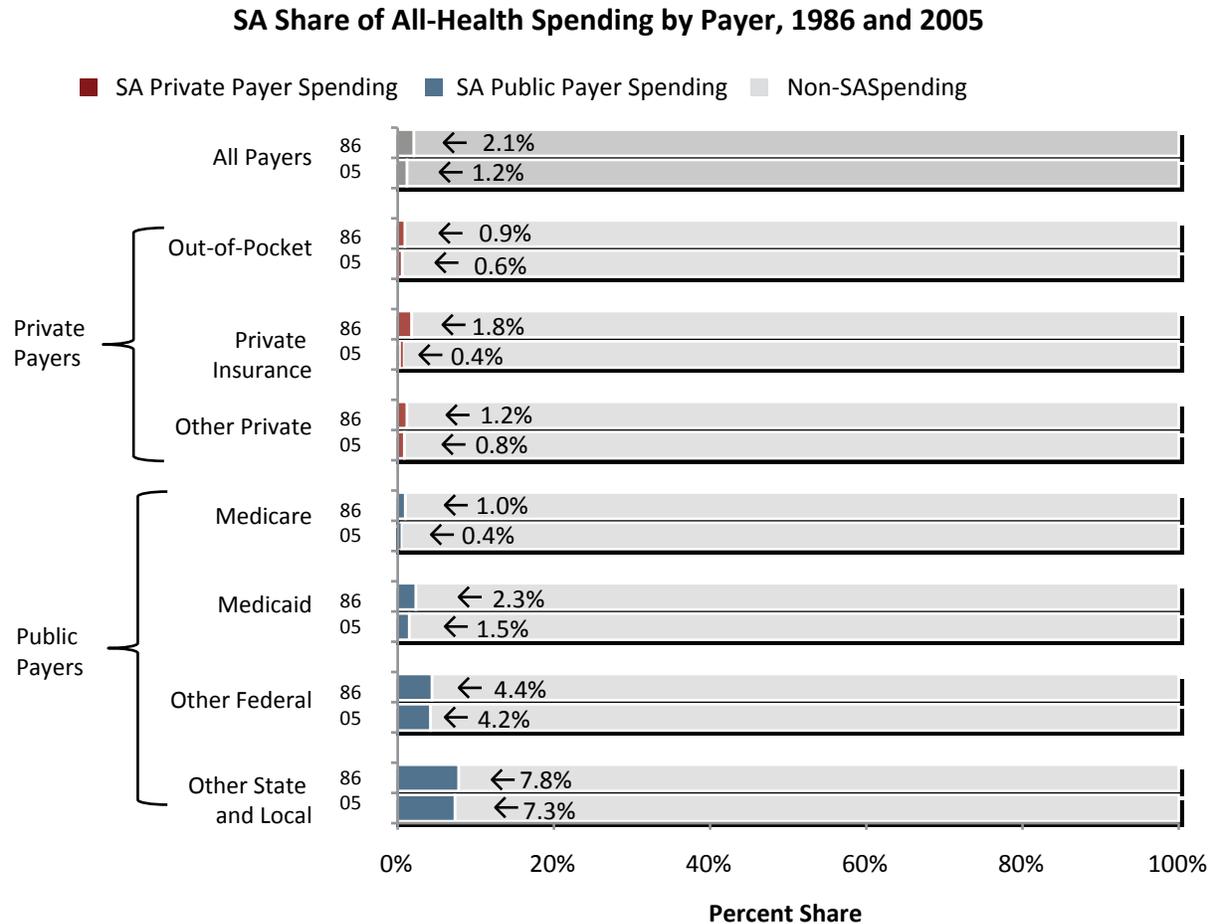
- Other State and local government spending was responsible for 40 percent (\$5.1 billion) of the growth in SA treatment spending; this payer accounted for the largest share of SA spending in 1986 and grew at a rate similar to overall SA spending.
- Medicaid contributed 27 percent (\$3.6 billion) to the increase in SA treatment spending. Medicaid made up only 12 percent of SA spending in 1986, but grew rapidly between 1986 and 2005 to become an important driver of the increase in total SA spending.
- Private insurance spending on SA treatment contributed only 1 percent (\$0.2 billion) to the increase in SA spending. Although private insurance paid for more than one-quarter of SA spending in 1986, it grew very little between 1986 and 2005.
- Between 1986 and 2005, 20 percent of the increase in SA treatment spending was attributable to other Federal government payers (other than Medicaid and Medicare). SAMHSA SA block grants (a subset of other Federal spending) accounted for 8 percent of the SA spending increase.

## SA Spending Accounted for Only 1.2 Percent of All-Health Spending in 2005, Even Smaller Shares for Most Private Payers



- Across payers, just 1.2 percent of all-health spending went to SA treatment in 2005.
- In 2005, the shares of all-health spending dedicated to SA treatment by other Federal and other State and local governments were much higher (4.2 percent and 7.3 percent, respectively) than the all-payer share (1.2 percent), an indication of the importance of these funding sources for SA treatment.
- For out-of-pocket, private insurance, and Medicare, the shares of all-health spending that went to SA treatment were notably lower than the all-payer share (0.6 percent, 0.4 percent, and 0.4 percent, respectively), an indication that these funding sources are less involved in treatment funding for SA than for all-health.
- SA spending amounted to a 1.5 percent share of Medicaid all-health spending.

## SA Share of All-Health Spending Fell for Each Payer between 1986 and 2005



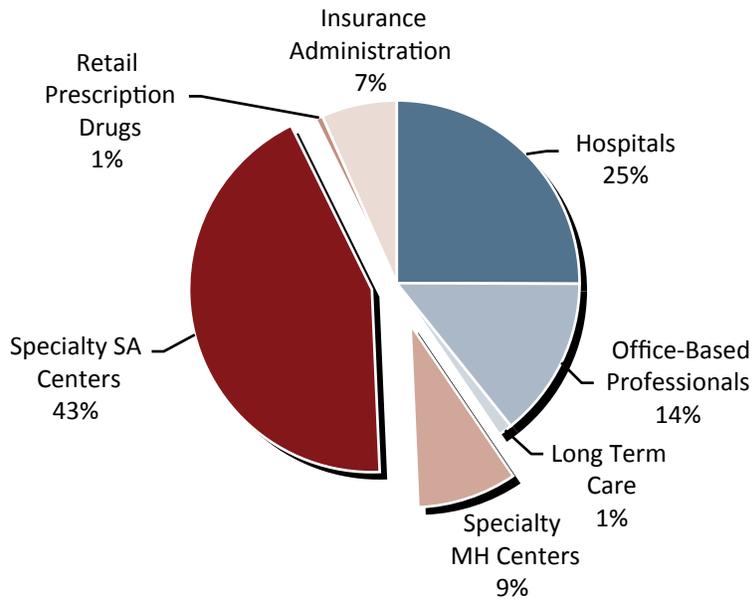
This graph depicts spending on SA treatment as a share of all-health spending, overall (all payers) and for each payer, in 1986 and in 2005.

- Overall, the SA share of all-health spending fell from 2.1 percent to 1.2 percent.
- For each payer, SA treatment accounted for smaller shares of all-health spending in 2005 than it did in 1986.
  - The SA share of all-health private insurance spending declined from 1.8 percent in 1986 to 0.4 percent in 2005.
  - The SA share of all-health Medicaid spending dropped from 2.3 percent in 1986 to 1.5 percent in 2005.
  - SA treatment accounted for 4.4 percent of other Federal spending in 1986 and 4.2 percent in 2005.
  - The SA share of other State and local government spending fell from 7.8 percent in 1986 to 7.3 percent in 2005.

# **Substance Abuse: Spending by Provider, Setting, and Specialty Type**

## Specialty MH and SA Centers Accounted for the Largest Portion of SA Spending in 2005

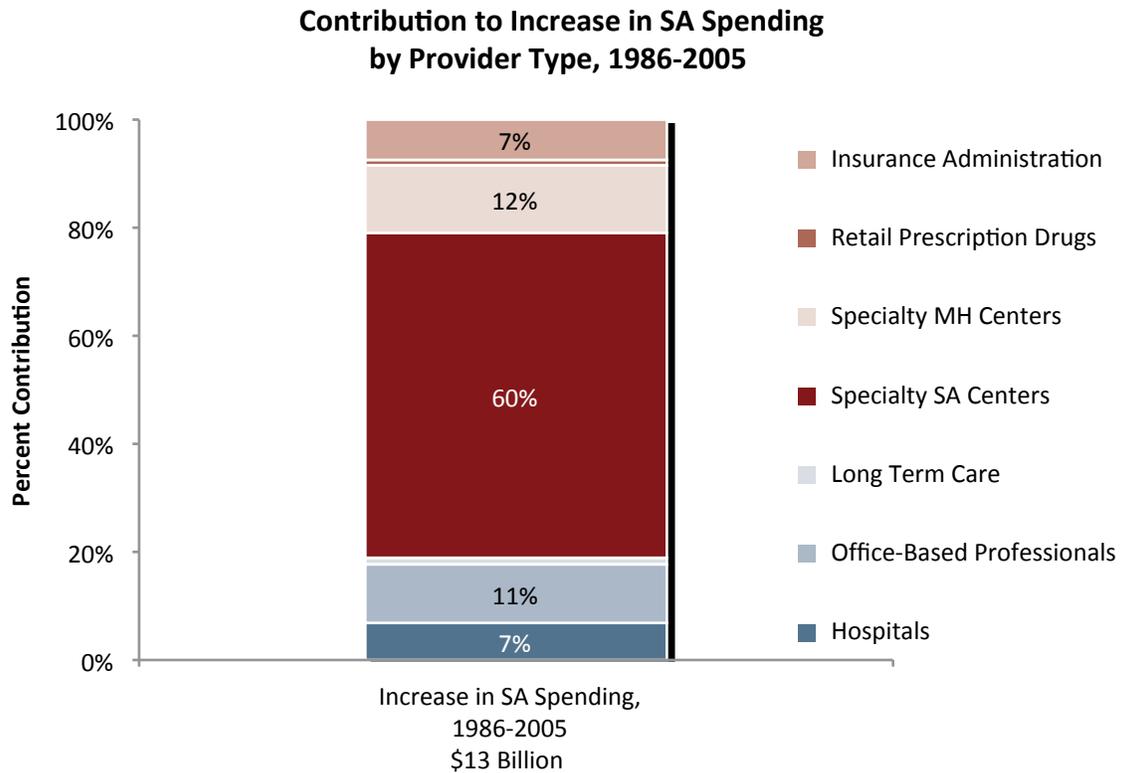
**Distribution of SA Spending by Provider Type, 2005**



SA Spending = \$22 Billion

- Specialty SA and MH centers—organizations providing residential or outpatient services to individuals with SA and MH diagnoses—accounted for more than half (52 percent) of all SA spending in 2005. Specialty SA centers were responsible for 43 percent of SA treatment spending in 2005 and specialty MH centers for 9 percent.
- One-quarter of SA treatment spending went toward hospital care, including inpatient (13 percent of SA treatment spending), outpatient care (10 percent), and residential services (2 percent) in general and specialty hospitals.
- Office-based professionals received 14 percent of all SA treatment spending.
  - Psychiatrists and other non-psychiatric physicians accounted for 6 percent of all SA treatment spending. SA treatment depends more on care from non-psychiatric physicians (4 percent of SA spending) than it does from psychiatrists (2 percent of SA spending) (not shown separately; see Table A.6).
  - Spending on other professionals such as psychologists, social workers, and counselors amounted to 8 percent of SA spending (not shown separately; see Table A.6).
- Retail prescription drugs and long term care were each responsible for less than 1 percent of SA spending.

## Specialty MH and SA Centers Accounted for Almost Three-Quarters of the Increase in SA Spending from 1986 to 2005

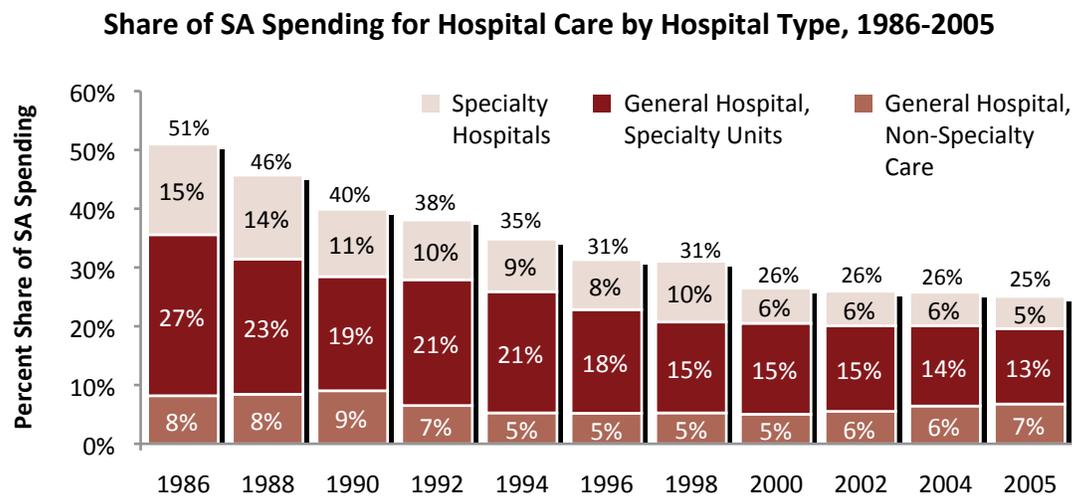


Note: Bar segments less than 5 percent are not labeled.

This graph identifies important drivers of SA spending between 1986 and 2005 by showing the percent contribution of each provider type to the \$13 billion increase in SA spending.

- Between 1986 and 2005, spending on specialty SA centers increased by \$7.8 billion (60 percent of total SA expenditures increase) and spending on specialty MH centers increased by \$1.6 billion (12 percent of total SA expenditures increase). Spending on these key providers increased faster than overall SA spending, making them the most important drivers of overall SA growth.
- Office-based professionals (physicians and other SA professionals) accounted for 11 percent (\$1.4 billion) of the increase in SA spending. Spending for other professionals grew more rapidly than did SA spending on physician services, and was alone responsible for \$1.1 billion, or 8 percent, of the SA spending increase.
- Spending on care in hospitals accounted for 7 percent (\$0.9 billion) of the increase in SA spending. Although hospitals were an important provider of SA treatment in 1986, spending on SA treatment in hospitals grew very little between 1986 and 2005.

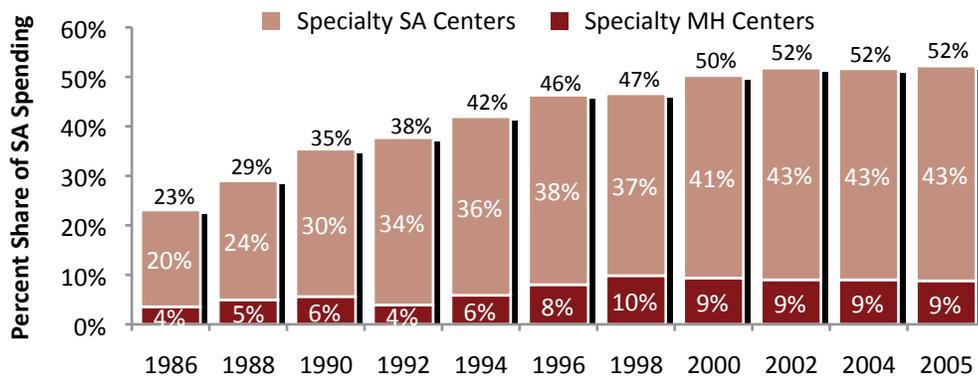
## Hospital Share of SA Spending Declined between 1986 and 2005



- Between 1986 and 2005, the hospital share of SA spending decreased from 51 percent to 25 percent. This decline was primarily due to large reductions in the share of spending for SA treatment in specialty hospitals and specialty units in general hospitals. This trend is likely related to the movement of SA rehabilitation to non-hospital settings and the resulting use of specialty inpatient treatment primarily for detoxification.
  - The share of spending in specialty hospitals fell from 15 percent of SA spending in 1986 to 5 percent in 2005.
  - The share of spending in specialty units of general hospitals fell from 27 percent in 1986 to 13 percent in 2005.
- The share of spending on non-specialty SA care in medical/surgical beds in general hospitals remained close to 7 percent throughout the 1986-2005 period.

## Specialty SA and MH Center Spending Shares Expanded Between 1986 and 2005

**Share of SA Spending for Center-Based Providers,  
1986-2005**

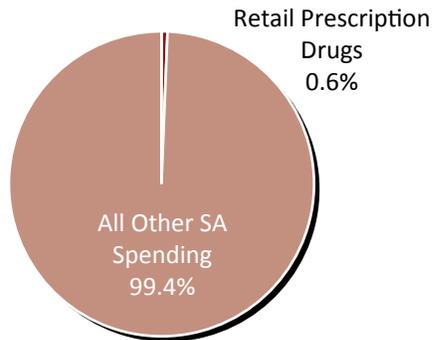


- Overall, the share of SA treatment spending for specialty center services (both outpatient and residential) surged from 23 percent in 1986 to 52 percent in 2002, where it remained stable through 2005.
- Between 1986 and 2005, the specialty SA centers' share of SA spending more than doubled from 20 percent to 43 percent.
- Similarly, the share of SA spending on treatment services in specialty MH organizations more than doubled from 4 to 9 percent.

## Prescription Drugs Accounted for Less than One Percent of SA Treatment Spending in 2005

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Share of SA Spending for Prescription Drugs, 2005

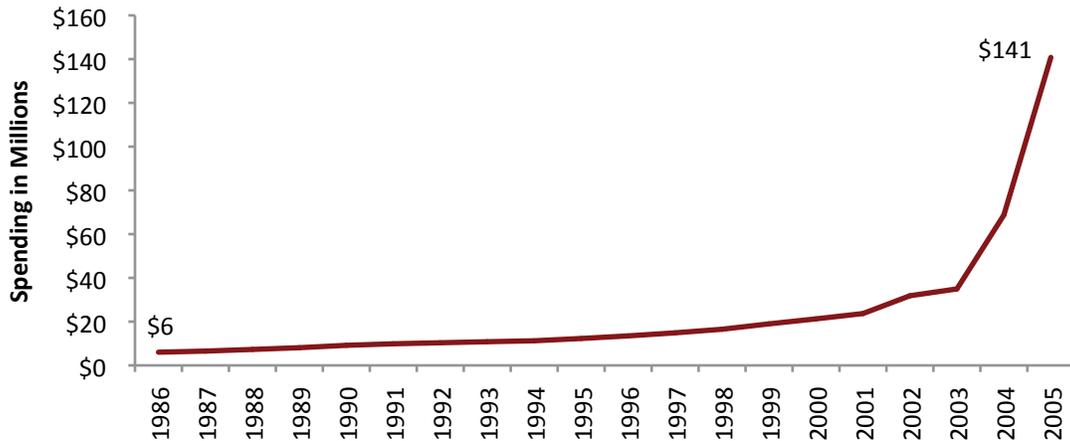


SA Spending = \$22 Billion

- Spending on prescription drugs for SA treatment amounted to \$141 million in 2005, just 0.6 percent of all SA treatment spending.
- About one-third of SA drug spending went for the purchase of prescription drugs to treat alcohol abuse and addiction (see Table A.1).
- The remaining two-thirds of spending on SA prescription medications were for treatment of opioid abuse and addiction (see Table A.1).

## SA Treatment Spending on Prescription Drugs Increased Significantly in Recent Years

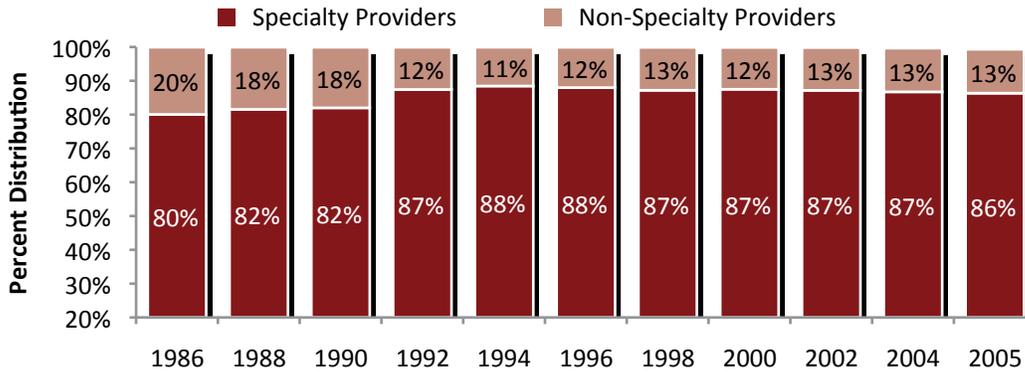
SA Spending on Prescription Drugs, 1986-2005



- In 1986, just \$6 million was spent on drugs for SA treatment, but by 2005, spending reached \$141 million.
- In 2002, all spending on SA prescription medications (\$32 million) was for treatment of alcohol addiction. By 2005, a large part of spending on SA prescription medications went to treatment of drug addiction.
  - Spending for buprenorphine, used to treat opioid addiction, rose from almost no spending in 2002 to about \$95 million in 2005 (not shown).
  - Between 2002 and 2005, prescription drug spending to treat alcohol addiction grew by 50 percent to \$46 million (not shown).
- Spending on methadone is captured as part of spending for specialty substance abuse centers where methadone is dispensed, rather than with SA prescription drug spending.

## Specialty Providers Received Over Four-Fifths of SA Spending in 2005

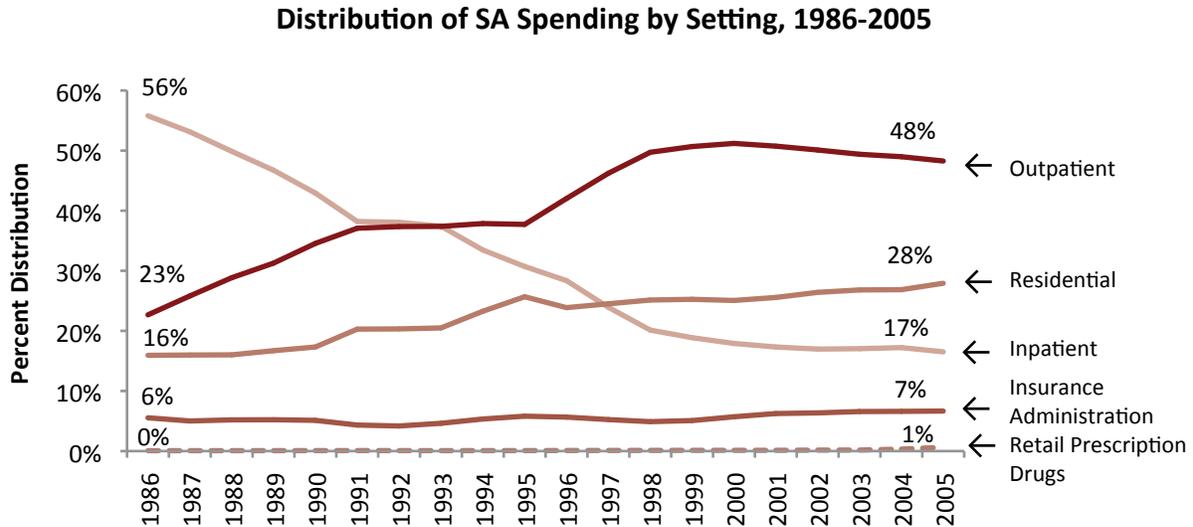
**Distribution of SA Treatment Spending by Specialty and Non-Specialty Providers, 1986-2005\***



\*Spending on prescription drugs and insurance administration is excluded from the total SA spending represented by the distribution shown here.

- In 1986, 80 percent of SA provider spending was dedicated to specialty providers. By 1992, this share rose to 87 percent, where it remained relatively stable (86 to 88 percent) through 2005.
- In contrast, 76 percent of MH spending was dedicated to specialty providers in 2005 (see page 22).

## Share of SA Treatment Dollars Spent in Inpatient Settings Shrank Dramatically between 1986 and 2005



- As shares of spending for outpatient and residential treatment grew between 1986 and 2005, the share of spending on inpatient SA treatment dropped from 56 percent to 17 percent.
- In 2005, nearly half (48 percent) of SA spending was dedicated to treatment in the outpatient setting. In 1986, only 23 percent of SA spending went for outpatient SA treatment.
- Residential treatment accounted for the next largest portion of SA spending (28 percent) in 2005, increasing substantially from a low of 16 percent in 1986.
- Prescription drugs and insurance administration each accounted for a small share of SA spending in 2005 (1 percent and 7 percent, respectively); the share of spending for both remained relatively stable over the twenty year period.

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# Appendix A: Tables

**Table A.1. Spending by Provider and Setting: Levels and Percent Distribution for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), Alcohol Abuse (AA), Drug Abuse (DA), and All-Health, 2005**

Type of Provider and Site of Service (Note 1)	MHSA		MH		SA		AA		DA		All-Health	
	Millions	Percent	Millions	Percent	Millions	Percent	Millions	Percent	Millions	Percent	Millions	Percent
<b>TOTAL†</b>	<b>\$134,961</b>	<b>100%</b>	<b>\$112,787</b>	<b>100%</b>	<b>\$22,175</b>	<b>100%</b>	<b>\$10,277</b>	<b>100%</b>	<b>\$11,898</b>	<b>100%</b>	<b>\$1,850,362</b>	<b>100%</b>
Total All Service Providers and Products†	125,101	93	104,403	93	20,698	93	9,579	93	11,119	93	1,711,708	93
Total All Service Providers†	94,986	70	74,429	66	20,557	93	9,533	93	11,024	93	1,454,256	79
Total Inpatient	25,316	19	21,653	19	3,662	17	1,794	17	1,868	16	-	-
Total Outpatient	47,898	35	37,195	33	10,703	48	5,037	49	5,666	48	-	-
Total Residential	21,772	16	15,581	14	6,191	28	2,701	26	3,490	29	-	-
All Hospitals	35,723	26	30,166	27	5,557	25	2,989	29	2,569	22	607,497	33
Inpatient	23,063	17	20,182	18	2,880	13	1,416	14	1,464	12	-	-
Outpatient	9,588	7	7,406	7	2,182	10	1,315	13	867	7	-	-
Residential (Note 2)	3,073	2	2,578	2	495	2	257	3	238	2	-	-
General Hospitals	21,094	16	16,750	15	4,343	20	2,429	24	1,914	16	-	-
Inpatient	10,739	8	8,844	8	1,895	9	962	9	932	8	-	-
Outpatient	8,590	6	6,550	6	2,040	9	1,250	12	790	7	-	-
Residential (Note 2)	1,764	1	1,356	1	409	2	217	2	192	2	-	-
General Hospitals, Specialty Units (Note 3)	14,382	11	11,540	10	2,842	13	1,347	13	1,495	13	-	-
Inpatient	9,590	7	8,235	7	1,356	6	616	6	739	6	-	-
Outpatient	3,827	3	2,722	2	1,106	5	529	5	577	5	-	-
Residential (Note 2)	964	1	584	1	381	2	202	2	179	2	-	-
General Hospitals, Non-Specialty Units (Note 3)	6,712	5	5,210	5	1,502	7	1,082	11	419	4	-	-
Inpatient	1,149	1	610	1	539	2	346	3	193	2	-	-
Outpatient	4,763	4	3,828	3	935	4	721	7	213	2	-	-
Residential (Note 2)	800	1	772	1	28	0	15	0	13	0	-	-
Specialty Hospitals	14,630	11	13,416	12	1,214	5	559	5	655	6	-	-
Inpatient	12,324	9	11,338	10	986	4	454	4	532	4	-	-
Outpatient	997	1	855	1	142	1	65	1	77	1	-	-
Residential (Note 2)	1,309	1	1,222	1	86	0	40	0	46	0	-	-
All Physicians	17,657	13	16,266	14	1,391	6	706	7	685	6	422,240	23
Inpatient	1,655	1	1,332	1	323	1	168	2	155	1	-	-
Outpatient	16,003	12	14,935	13	1,068	5	537	5	530	4	-	-
Psychiatrists	11,885	9	11,403	10	482	2	159	2	323	3	-	-
Inpatient	970	1	867	1	103	0	42	0	61	1	-	-
Outpatient	10,915	8	10,536	9	379	2	117	1	262	2	-	-
Non-Psychiatric Physicians	5,772	4	4,864	4	909	4	546	5	363	3	-	-
Inpatient	685	1	464	0	220	1	126	1	94	1	-	-
Outpatient	5,088	4	4,399	4	688	3	420	4	269	2	-	-

**Table A.1. Spending by Provider and Setting: Levels and Percent Distribution for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), Alcohol Abuse (AA), Drug Abuse (DA), and All-Health, 2005–Continued**

Type of Provider and Site of Service (Note 1)	MHSA		MH		SA		AA		DA		All-Health	
	Millions	Percent	Millions	Percent								
<b>Other Professionals (Note 4)</b>	7,572	6	5,812	5	1,760	8	1,019	10	741	6	56,014	3
Inpatient	313	0	139	0	174	1	107	1	67	1	-	-
Outpatient	6,895	5	5,602	5	1,293	6	720	7	573	5	-	-
Residential	365	0	71	0	293	1	191	2	102	1	-	-
<b>Free-Standing Nursing Homes</b>	7,128	5	6,855	6	273	1	257	2	16	0	120,595	7
Residential	7,128	5	6,855	6	273	1	257	2	16	0	-	-
<b>Free-Standing Home Health</b>	1,074	1	1,070	1	4	0	2	0	1	0	48,085	3
Outpatient	1,074	1	1,070	1	4	0	2	0	1	0	-	-
<b>Other Personal and Public Health</b>	25,831	19	14,259	13	11,572	52	4,561	44	7,011	59	113,433	3
Inpatient	285	0	-	-	285	1	103	1	182	2	-	-
Outpatient	14,339	11	8,183	7	6,157	28	2,461	24	3,695	31	-	-
Residential	11,207	8	6,077	5	5,130	23	1,996	19	3,134	26	-	-
<b>Specialty Mental Health Centers (Note 5)</b>	16,211	12	14,259	13	1,951	9	986	10	966	8	-	-
Inpatient	-	-	-	-	-	-	-	-	-	-	-	-
Outpatient	9,129	7	8,183	7	946	4	511	5	435	4	-	-
Residential	7,082	5	6,077	5	1,005	5	475	5	531	4	-	-
<b>Specialty Substance Abuse Centers (Note 6)</b>	9,621	7	-	-	9,621	43	3,575	35	6,046	51	-	-
Inpatient	285	0	-	-	285	1	103	1	182	2	-	-
Outpatient	5,211	4	-	-	5,211	23	1,950	19	3,260	27	-	-
Residential	4,125	3	-	-	4,125	19	1,522	15	2,603	22	-	-
<b>Retail Prescription Drugs</b>	30,115	22	29,974	27	141	1	47	0	94	1	199,698	11
<b>Insurance Administration</b>	9,861	7	8,384	7	1,477	7	698	7	779	7	138,655	7

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

† For all-health, includes spending not shown separately for dentists, other non-durable products and durable medical products.

Notes:

1. Not all service providers will have all three sites of service. Retail prescription drugs and insurance administration are not attributable to a site of service.
2. Includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.
3. All spending for psychiatric services in Department of Veterans Affairs hospitals is included in general hospital specialty unit providers.
4. Includes psychologists and counselors/social workers.
5. Includes residential treatment centers for children.
6. Includes other facilities for treating substance abuse.

**Table A.2. Spending by Payer: Levels and Percent Distribution for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), Alcohol Abuse (AA), Drug Abuse (DA), and All-Health, 2005**

Type of Payer	MHSA		MH		SA		AA		DA		All-Health	
	Millions (\$)	Percent	Millions (\$)	Percent	Millions (\$)	Percent	Millions (\$)	Percent	Millions (\$)	Percent	Millions (\$)	Percent
<b>Total</b>	<b>\$134,961</b>	<b>100%</b>	<b>\$112,787</b>	<b>100%</b>	<b>\$22,175</b>	<b>100%</b>	<b>\$10,277</b>	<b>100%</b>	<b>\$11,898</b>	<b>100%</b>	<b>\$1,850,362</b>	<b>100%</b>
Private -- Total	51,723	38	47,108	42	4,615	21	2,446	24	2,169	18	1,007,380	54
Out-of-Pocket	15,209	11	13,802	12	1,407	6	524	5	883	7	246,971	13
Private Insurance	33,030	24	30,417	27	2,613	12	1,542	15	1,071	9	689,997	37
Other Private	3,485	3	2,890	3	595	3	380	4	215	2	70,412	4
Public -- Total	83,238	62	65,678	58	17,560	79	7,831	76	9,729	82	842,983	46
Medicare	10,117	7	8,630	8	1,487	7	899	9	588	5	339,357	18
Medicaid (Note 1)	35,739	26	31,115	28	4,624	21	1,857	18	2,767	23	311,488	17
Other Federal (Note 2)	9,170	7	5,673	5	3,497	16	1,668	16	1,829	15	83,593	5
Other State and Local (Note 2)	28,213	21	20,261	18	7,952	36	3,407	33	4,545	38	108,545	6
All Federal (Note 3)	39,704	29	32,078	28	7,626	34	3,629	35	3,997	34	600,764	32
All State (Note 4)	43,535	32	33,601	30	9,934	45	4,202	41	5,732	48	242,218	13

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. The State Children's Health Insurance Program (SCHIP) all-health spending was \$7.6 billion in 2005. MHSA SCHIP spending was estimated at \$0.8 billion or about 1 percent of total MHSA. In this table, SCHIP is distributed across Medicaid, Other Federal, and Other State and Local categories, depending on whether the SCHIP was run through Medicaid or as a separate state SCHIP program.
2. SAMHSA block grants to "State and Local" agencies are part of "Other Federal" government spending. In 2005, block grants amounted to \$386 million for MH and \$1,265 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.

**Table A.3. Spending by Specialty and Non-Specialty Providers: Levels, Percent of Total Expenditures, and Percent within Sector for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), Alcohol Abuse (AA), and Drug Abuse (DA), 2005**

Type of Provider and Site of Service	MHSA			MH			SA			AA			DA		
	Millions (\$)	Percent of total expenditures	Percent within sectors	Millions (\$)	Percent of total expenditures	Percent within sectors	Millions (\$)	Percent of total expenditures	Percent within sectors	Millions (\$)	Percent of total expenditures	Percent within sectors	Millions (\$)	Percent of total expenditures	Percent within sectors
<b>Total</b>	<b>\$134,961</b>	<b>100%</b>	<b>-</b>	<b>\$112,787</b>	<b>100%</b>	<b>-</b>	<b>\$22,175</b>	<b>100%</b>	<b>-</b>	<b>\$10,277</b>	<b>100%</b>	<b>-</b>	<b>\$11,898</b>	<b>100%</b>	<b>-</b>
Specialty Sector Providers	74,300	55	100	56,430	50	100	17,870	81	100	7,645	74	100	10,225	86	100
General Hospitals, Specialty Units (Note 1)	14,382	11	19	11,540	10	20	2,842	13	16	1,347	13	18	1,495	13	15
Specialty Hospitals	14,630	11	20	13,416	12	24	1,214	5	7	559	5	7	655	6	6
Psychiatrists	11,885	9	16	11,403	10	20	482	2	3	159	2	2	323	3	3
Other Professionals (Note 2)	7,572	6	10	5,812	5	10	1,760	8	10	1,019	10	13	741	6	7
Specialty Mental Health Centers (Note 3)	16,211	12	22	14,259	13	25	1,951	9	11	986	10	13	966	8	9
Specialty Substance Abuse Centers (Note 4)	9,621	7	13	-	-	-	9,621	43	54	3,575	35	47	6,046	51	59
General Sector Providers	20,685	15	100	17,998	16	100	2,687	12	100	1,888	18	100	799	7	100
General Hospitals, Non-Specialty Units (Note 5)	6,712	5	32	5,210	5	29	1,502	7	56	1,082	11	57	419	4	52
Non-Psychiatric Physicians	5,772	4	28	4,864	4	27	909	4	34	546	5	29	363	3	45
Free-Standing Nursing Homes	7,128	5	34	6,855	6	38	273	1	10	257	2	14	16	0	2
Free-Standing Home Health	1,074	1	5	1,070	1	6	4	0	0	2	0	0	1	0	0
Retail Prescription Drugs	30,115	22	-	29,974	27	-	141	1	-	47	0	-	94	1	-
Insurance Administration	9,861	7	-	8,384	7	-	1,477	7	-	698	7	-	779	7	-

Source: SAMHSA Spending Estimates Project, 2010.

Notes:

1. Includes specialty units of general hospitals and all MH and SA expenditures at VA hospitals.
2. Includes psychologists and counselors/social workers.
3. Includes residential treatment centers for children.
4. Includes other facilities for treating substance abuse.
5. Includes general hospital non-specialty units but excludes non-specialty units of VA hospitals

**Table A.4. Mental Health and Substance Abuse Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
<b>TOTAL</b>	<b>\$40,911</b>	<b>\$63,638</b>	<b>\$81,253</b>	<b>\$112,771</b>	<b>\$134,961</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>9.3%</b>	<b>8.0%</b>	<b>7.3%</b>	<b>7.5%</b>	<b>7.3%</b>
Total All Service Providers and Products	38,862	60,611	76,841	104,965	125,101	95	95	95	93	93	9.3	8.1	7.3	7.5	7.3
Total All Service Providers	36,494	56,356	66,142	81,691	94,986	89	89	81	72	70	9.9	8.5	7.2	6.9	6.5
Total Inpatient	18,417	23,299	20,719	23,683	25,316	45	37	25	21	19	-	-	-	-	-
Total Outpatient	9,632	20,198	30,461	39,254	47,898	24	32	37	35	35	-	-	-	-	-
Total Residential	8,445	12,859	14,962	18,754	21,772	21	20	18	17	16	-	-	-	-	-
All Hospitals	18,259	25,370	25,907	31,198	35,723	45	40	32	28	26	10.3	8.5	6.9	6.4	5.9
Inpatient	15,606	20,574	18,363	21,320	23,063	38	32	23	19	17	-	-	-	-	-
Outpatient	1,493	3,333	5,322	7,274	9,588	4	5	7	6	7	-	-	-	-	-
Residential (Note 2)	1,161	1,463	2,222	2,603	3,073	3	2	3	2	2	-	-	-	-	-
General Hospitals	8,599	12,300	14,387	18,109	21,094	21	19	18	16	16	-	-	-	-	-
Inpatient	6,499	9,064	8,187	9,955	10,739	16	14	10	9	8	-	-	-	-	-
Outpatient	1,096	2,370	4,728	6,493	8,590	3	4	6	6	6	-	-	-	-	-
Residential (Note 2)	1,004	867	1,472	1,661	1,764	2	1	2	1	1	-	-	-	-	-
General Hospitals, Specialty Units (Note 3)	5,531	9,002	10,885	12,972	14,382	14	14	13	12	11	-	-	-	-	-
Inpatient	4,320	7,203	7,765	8,798	9,590	11	11	10	8	7	-	-	-	-	-
Outpatient	851	1,565	2,779	3,448	3,827	2	2	3	3	3	-	-	-	-	-
Residential (Note 2)	360	234	341	726	964	1	0	0	1	1	-	-	-	-	-
General Hospitals, Non-Specialty Units (Note 3)	3,068	3,298	3,501	5,138	6,712	7	5	4	5	5	-	-	-	-	-
Inpatient	2,179	1,861	421	1,157	1,149	5	3	1	1	1	-	-	-	-	-
Outpatient	245	804	1,950	3,045	4,763	1	1	2	3	4	-	-	-	-	-
Residential (Note 2)	644	632	1,131	935	800	2	1	1	1	1	-	-	-	-	-
Specialty Hospitals	9,660	13,070	11,521	13,088	14,630	24	21	14	12	11	-	-	-	-	-
Inpatient	9,107	11,510	10,176	11,365	12,324	22	18	13	10	9	-	-	-	-	-
Outpatient	396	964	594	781	997	1	2	1	1	1	-	-	-	-	-
Residential (Note 2)	157	596	750	942	1,309	0	1	1	1	1	-	-	-	-	-
All Physicians	4,905	7,973	11,020	14,089	17,657	12	13	14	12	13	4.9	4.2	4.3	4.2	4.2
Inpatient	2,098	1,873	1,817	1,826	1,655	5	3	2	2	1	-	-	-	-	-
Outpatient	2,807	6,100	9,204	12,262	16,003	7	10	11	11	12	-	-	-	-	-
Psychiatrists	2,993	5,169	7,086	9,104	11,885	7	8	9	8	9	-	-	-	-	-
Inpatient	1,051	1,086	1,094	1,111	970	3	2	1	1	1	-	-	-	-	-
Outpatient	1,941	4,083	5,992	7,993	10,915	5	6	7	7	8	-	-	-	-	-
Non-Psychiatric Physicians	1,912	2,804	3,935	4,984	5,772	5	4	5	4	4	-	-	-	-	-
Inpatient	1,047	787	723	715	685	3	1	1	1	1	-	-	-	-	-
Outpatient	865	2,017	3,212	4,270	5,088	2	3	4	4	4	-	-	-	-	-

**Table A.4. Mental Health and Substance Abuse Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years—Continued**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
Other Professionals (Note 4)	2,169	4,540	5,390	6,509	7,572	5	7	7	6	6	22.3	20.5	15.1	14.3	13.5
Inpatient	33	74	119	206	313	0	0	0	0	0	-	-	-	-	-
Outpatient	2,131	4,454	5,248	6,188	6,895	5	7	6	5	5	-	-	-	-	-
Residential	5	11	23	115	365	0	0	0		0	-	-	-	-	-
Free-Standing Nursing Homes	5,017	5,912	5,045	6,221	7,128	12	9	6	6	5	14.8	9.5	5.6	5.9	5.9
Residential	5,017	5,912	5,045	6,221	7,128	12	9	6	6	5	-	-	-	-	-
Free-Standing Home Health	114	309	681	743	1,074	0	0	1	1	1	1.8	1.7	2.0	2.2	2.2
Outpatient	114	309	681	743	1,074	0	0	1		1	-	-	-	-	-
Other Personal and Public Health	6,029	12,253	18,098	22,932	25,831	15	19	22	20	19	33.1	32.2	26.7	23.3	22.8
Inpatient	680	779	420	332	285	2	1	1	0	0	-	-	-	-	-
Outpatient	3,087	6,002	10,006	12,786	14,339	8	9	12	11	11	-	-	-	-	-
Residential	2,262	5,472	7,672	9,814	11,207	6	9	9	9	8	-	-	-	-	-
Specialty Mental Health Centers (Note 5)	4,241	7,806	12,802	14,750	16,211	10	12	16	13	12	-	-	-	-	-
Inpatient	385	405	362	155	-	1	1	0	0	-	-	-	-	-	-
Outpatient	2,391	3,905	7,102	8,260	9,129	6	6	9	7	7	-	-	-	-	-
Residential	1,465	3,496	5,338	6,335	7,082	4	5	7	6	5	-	-	-	-	-
Specialty Substance Abuse Centers (Note 6)	1,788	4,447	5,297	8,182	9,621	4	7	7	7	7	-	-	-	-	-
Inpatient	295	374	59	176	285	1	1	0	0	0	-	-	-	-	-
Outpatient	696	2,097	2,904	4,526	5,211	2	3	4	4	4	-	-	-	-	-
Residential	797	1,976	2,334	3,480	4,125	2	3	3	3	3	-	-	-	-	-
Retail Prescription Drugs	2,368	4,255	10,699	23,274	30,115	6	7	13	21	22	9.7	8.9	12.1	14.8	15.1
Insurance Administration	2,049	3,027	4,412	7,806	9,861	5	5	5	7	7	9.0	7.0	7.0	7.4	7.1
ADDENDUM															
Specialty providers (Note 7)	26,383	44,034	52,980	64,605	74,300	64	69	65	57	55	-	-	-	-	-
Non-specialty providers (Note 8)	10,111	12,322	13,161	17,086	20,685	25	19	16	15	15	-	-	-	-	-

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. Not all service providers will have all three sites of service. Retail prescription drugs and insurance administration are not attributable to a site of service.
2. Includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.
3. All spending for psychiatric services in Department of Veterans Affairs hospitals is included in general hospital specialty unit providers.
4. Includes psychologists and counselors/social workers.
5. Includes residential treatment centers for children.
6. Includes other facilities for treating substance abuse.
7. Includes specialty units of general hospitals, specialty hospitals, psychiatrists, other professionals, specialty mental health centers, and specialty substance abuse centers.
8. Includes non-specialty units in general hospitals, non-psychiatric physicians, home health, and nursing homes.

**Table A.5. Mental Health Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
<b>TOTAL</b>	<b>\$31,764</b>	<b>\$50,476</b>	<b>\$66,839</b>	<b>\$93,637</b>	<b>\$112,787</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>7.2%</b>	<b>6.4%</b>	<b>6.0%</b>	<b>6.2%</b>	<b>6.1%</b>
Total All Service Providers and Products	30,222	47,999	63,132	87,047	104,403	95	95	94	93	93	7.3	6.4	6.0	6.3	6.1
Total All Service Providers	27,860	43,754	52,450	63,805	74,429	88	87	78	68	66	7.6	6.6	5.7	5.4	5.1
Total Inpatient	13,314	18,290	17,817	20,436	21,653	42	36	27	22	19	-	-	-	-	-
Total Outpatient	7,559	15,282	23,294	29,668	37,195	24	30	35	32	33	-	-	-	-	-
Total Residential	6,988	10,183	11,339	13,700	15,581	22	20	17	15	14	-	-	-	-	-
All Hospitals	13,596	20,359	21,432	26,234	30,166	43	40	32	28	27	7.7	6.8	5.7	5.4	5.0
Inpatient	11,816	16,751	15,989	18,722	20,182	37	33	24	20	18	-	-	-	-	-
Outpatient	1,094	2,458	3,783	5,363	7,406	3	5	6	6	7	-	-	-	-	-
Residential (Note 2)	686	1,149	1,661	2,149	2,578	2	2	2	2	2	-	-	-	-	-
General Hospitals	5,345	8,626	11,400	14,268	16,750	17	17	17	15	15	-	-	-	-	-
Inpatient	3,986	6,345	6,735	8,277	8,844	13	13	10	9	8	-	-	-	-	-
Outpatient	756	1,596	3,395	4,708	6,550	2	3	5	5	6	-	-	-	-	-
Residential (Note 2)	604	685	1,270	1,283	1,356	2	1	2	1	1	-	-	-	-	-
General Hospitals, Specialty Units (Note 3)	3,026	6,185	8,657	10,187	11,540	10	12	13	11	10	-	-	-	-	-
Inpatient	2,394	5,066	6,508	7,502	8,235	8	10	10	8	7	-	-	-	-	-
Outpatient	626	1,051	1,952	2,302	2,722	2	2	3	2	2	-	-	-	-	-
Residential (Note 2)	6	68	197	384	584	0	0	0	0	1	-	-	-	-	-
General Hospitals, Non-Specialty Units (Note 3)	2,320	2,441	2,743	4,081	5,210	7	5	4	4	5	-	-	-	-	-
Inpatient	1,591	1,279	228	776	610	5	3	0	1	1	-	-	-	-	-
Outpatient	130	545	1,443	2,406	3,828	0	1	2	3	3	-	-	-	-	-
Residential (Note 2)	598	617	1,072	899	772	2	1	2	1	1	-	-	-	-	-
Specialty Hospitals	8,251	11,733	10,032	11,966	13,416	26	23	15	13	12	-	-	-	-	-
Inpatient	7,830	10,406	9,254	10,445	11,338	25	21	14	11	10	-	-	-	-	-
Outpatient	338	863	387	655	855	1	2	1	1	1	-	-	-	-	-
Residential (Note 2)	83	464	392	866	1,222	0	1	1	1	1	-	-	-	-	-
All Physicians	3,814	6,787	9,947	12,776	16,266	12	13	15	14	14	3.8	3.6	3.9	3.8	3.9
Inpatient	1,188	1,132	1,465	1,485	1,332	4	2	2	2	1	-	-	-	-	-
Outpatient	2,625	5,655	8,481	11,291	14,935	8	11	13	12	13	-	-	-	-	-
Psychiatrists	2,755	4,543	6,746	8,734	11,403	9	9	10	9	10	-	-	-	-	-
Inpatient	873	701	978	1,020	867	3	1	1	1	1	-	-	-	-	-
Outpatient	1,883	3,843	5,768	7,714	10,536	6	8	9	8	9	-	-	-	-	-
Non-Psychiatric Physicians	1,058	2,244	3,201	4,042	4,864	3	4	5	4	4	-	-	-	-	-
Inpatient	316	431	487	465	464	1	1	1	0	0	-	-	-	-	-
Outpatient	742	1,813	2,714	3,577	4,399	2	4	4	4	4	-	-	-	-	-

**Table A.5. Mental Health Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years—Continued**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
Other Professionals (Note 4)	1,519	3,255	4,207	5,071	5,812	5	6	6	5	5	15.6	14.7	11.8	11.1	10.4
Inpatient	6	17	47	94	139	0	0	0	0	0	-	-	-	-	-
Outpatient	1,512	3,236	4,149	4,936	5,602	5	6	6	5	5	-	-	-	-	-
Residential	1	2	11	41	71	0	0	0	0	0	-	-	-	-	-
Free-Standing Nursing Homes	4,903	5,759	4,812	5,957	6,855	15	11	7	6	6	14.4	9.3	5.4	5.6	5.7
Residential	4,903	5,759	4,812	5,957	6,855	15	11	7	6	6	-	-	-	-	-
Free-Standing Home Health	112	304	667	740	1,070	0	1	1	1	1	1.8	1.7	2.0	2.2	2.2
Outpatient	112	304	667	740	1,070	0	1	1	1	1	-	-	-	-	-
Other Personal and Public Health	3,916	7,290	11,384	13,027	14,259	12	14	17	14	13	21.5	19.2	16.8	13.2	12.6
Inpatient	304	389	315	135	-	1	1	0	0	-	-	-	-	-	-
Outpatient	2,215	3,628	6,213	7,339	8,183	7	7	9	8	7	-	-	-	-	-
Residential	1,398	3,272	4,855	5,553	6,077	4	6	7	6	5	-	-	-	-	-
Specialty Mental Health Centers (Note 5)	3,916	7,290	11,384	13,027	14,259	12	14	17	14	13	-	-	-	-	-
Inpatient	304	389	315	135	-	1	1	0	0	-	-	-	-	-	-
Outpatient	2,215	3,628	6,213	7,339	8,183	7	7	9	8	7	-	-	-	-	-
Residential	1,398	3,272	4,855	5,553	6,077	4	6	7	6	5	-	-	-	-	-
Specialty Substance Abuse Centers (Note 6)	-	-	-	-	-	0	0	0	0	0	-	-	-	-	-
Inpatient	-	-	-	-	-	0	0	0	0	0	-	-	-	-	-
Outpatient	-	-	-	-	-	0	0	0	0	0	-	-	-	-	-
Residential	-	-	-	-	-	0	0	0	0	0	-	-	-	-	-
Retail Prescription Drugs	2,362	4,245	10,683	23,242	29,974	7	8	16	25	27	9.7	8.9	12.1	14.7	15.0
Insurance Administration	1,542	2,477	3,707	6,590	8,384	5	5	6	7	7	6.7	5.7	5.9	6.2	6.0
ADDENDUM															
Specialty providers (Note 7)	19,467	33,006	41,026	48,985	56,430	61	65	61	52	50	-	-	-	-	-
Non-specialty providers (Note 8)	8,393	10,747	11,424	14,820	17,998	26	21	17	16	16	-	-	-	-	-

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. Not all service providers will have all three sites of service. Retail prescription drugs and insurance administration are not attributable to a site of service.
2. Includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.
3. All spending for psychiatric services in Department of Veterans Affairs hospitals is included in general hospital specialty unit providers.
4. Includes psychologists and counselors/social workers.
5. Includes Residential Treatment Centers for Children.
6. Includes other facilities for treating substance abuse.
7. Includes specialty units of general hospitals, specialty hospitals, psychiatrists, other professionals, specialty mental health centers and specialty substance abuse centers.
8. Includes non-specialty units in general hospitals, non-psychiatric physicians, home health, and nursing homes.

**Table A.6. Substance Abuse Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
<b>TOTAL</b>	<b>\$9,147</b>	<b>\$13,162</b>	<b>\$14,414</b>	<b>\$19,134</b>	<b>\$22,175</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>2.1%</b>	<b>1.7%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.2%</b>
Total All Service Providers and Products	8,640	12,612	13,708	17,918	20,698	94	96	95	94	93	2.1	1.7	1.3	1.3	1.2
Total All Service Providers	8,634	12,602	13,692	17,886	20,557	94	96	95	93	93	2.3	1.9	1.5	1.5	1.4
Total Inpatient	5,103	5,010	2,902	3,247	3,662	56	38	20	17	17	-	-	-	-	-
Total Outpatient	2,073	4,917	7,166	9,586	10,703	23	37	50	50	48	-	-	-	-	-
Total Residential	1,457	2,676	3,623	5,053	6,191	16	20	25	26	28	-	-	-	-	-
All Hospitals	4,663	5,011	4,475	4,964	5,557	51	38	31	26	25	2.6	1.7	1.2	1.0	0.9
Inpatient	3,790	3,823	2,374	2,598	2,880	41	29	16	14	13	-	-	-	-	-
Outpatient	398	875	1,540	1,912	2,182	4	7	11	10	10	-	-	-	-	-
Residential (Note 2)	475	314	561	454	495	5	2	4	2	2	-	-	-	-	-
General Hospitals	3,254	3,674	2,986	3,841	4,343	36	28	21	20	20	-	-	-	-	-
Inpatient	2,513	2,719	1,452	1,678	1,895	27	21	10	9	9	-	-	-	-	-
Outpatient	340	774	1,333	1,785	2,040	4	6	9	9	9	-	-	-	-	-
Residential (Note 2)	400	182	202	378	409	4	1	1	2	2	-	-	-	-	-
General Hospitals, Specialty Units (Note 3)	2,505	2,817	2,228	2,785	2,842	27	21	15	15	13	-	-	-	-	-
Inpatient	1,926	2,137	1,258	1,296	1,356	21	16	9	7	6	-	-	-	-	-
Outpatient	225	514	827	1,146	1,106	2	4	6	6	5	-	-	-	-	-
Residential (Note 2)	354	166	144	342	381	4	1	1	2	2	-	-	-	-	-
General Hospitals, Non-Specialty Units (Note 3)	748	857	758	1,057	1,502	8	7	5	6	7	-	-	-	-	-
Inpatient	587	582	194	382	539	6	4	1	2	2	-	-	-	-	-
Outpatient	115	259	506	639	935	1	2	4	3	4	-	-	-	-	-
Residential (Note 2)	46	16	58	36	28	1	0	0	0	0	-	-	-	-	-
Specialty Hospitals	1,409	1,337	1,488	1,123	1,214	15	10	10	6	5	-	-	-	-	-
Inpatient	1,277	1,104	923	920	986	14	8	6	5	4	-	-	-	-	-
Outpatient	58	101	207	127	142	1	1	1	1	1	-	-	-	-	-
Residential (Note 2)	74	132	359	76	86	1	1	2	0	0	-	-	-	-	-
All Physicians	1,091	1,186	1,074	1,312	1,391	12	9	7	7	6	1.1	0.6	0.4	0.4	0.3
Inpatient	910	741	351	341	323	10	6	2	2	1	-	-	-	-	-
Outpatient	181	445	722	971	1,068	2	3	5	5	5	-	-	-	-	-
Psychiatrists	237	626	340	370	482	3	5	2	2	2	-	-	-	-	-
Inpatient	179	385	116	91	103	2	3	1	0	0	-	-	-	-	-
Outpatient	59	241	224	278	379	1	2	2	1	2	-	-	-	-	-
Non-Psychiatric Physicians	854	560	734	942	909	9	4	5	5	4	-	-	-	-	-
Inpatient	731	356	236	250	220	8	3	2	1	1	-	-	-	-	-
Outpatient	123	204	498	693	688	1	2	3	4	3	-	-	-	-	-

**Table A.6. Substance Abuse Spending by Provider and Setting: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years—Continued**

Type of Provider and Site of Service (Note 1)	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
Other Professionals (Note 4)	651	1,285	1,183	1,438	1,760	7	10	8	8	8	6.7	5.8	3.3	3.2	3.1
Inpatient	27	57	72	112	174	0	0	0	1	1	-	-	-	-	-
Outpatient	620	1,218	1,099	1,252	1,293	7	9	8	7	6	-	-	-	-	-
Residential	4	10	13	74	293	0	0	0	0	1	-	-	-	-	-
Free-Standing Nursing Homes	114	153	233	265	273	1	1	2	1	1	0.3	0.2	0.3	0.3	0.2
Residential	114	153	233	265	273	1	1	2	1	1	-	-	-	-	-
Free-Standing Home Health	2	5	13	3	4	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Outpatient	2	5	13	3	4	0	0	0	0	0	-	-	-	-	-
Other Personal and Public Health	2,113	4,963	6,715	9,905	11,572	23	38	47	52	52	11.6	13.1	9.9	10.1	10.2
Inpatient	376	389	105	196	285	4	3	1	1	1	-	-	-	-	-
Outpatient	873	2,373	3,793	5,447	6,157	10	18	26	28	28	-	-	-	-	-
Residential	864	2,200	2,817	4,261	5,130	9	17	20	22	23	-	-	-	-	-
Specialty Mental Health Centers (Note 5)	325	516	1,418	1,723	1,951	4	4	10	9	9	-	-	-	-	-
Inpatient	82	15	47	20		1	0	0	0	0	-	-	-	-	-
Outpatient	176	277	889	921	946	2	2	6	5	4	-	-	-	-	-
Residential	67	224	483	781	1,005	1	2	3	4	5	-	-	-	-	-
Specialty Substance Abuse Centers (Note 6)	1,788	4,447	5,297	8,182	9,621	20	34	37	43	43	-	-	-	-	-
Inpatient	295	374	59	176	285	3	3	0	1	1	-	-	-	-	-
Outpatient	696	2,097	2,904	4,526	5,211	8	16	20	24	23	-	-	-	-	-
Residential	797	1,976	2,334	3,480	4,125	9	15	16	18	19	-	-	-	-	-
Retail Prescription Drugs	6	10	17	32	141	0	0	0	0	1	0.0	0.0	0.0	0.0	0.1
Insurance Administration	507	550	706	1,216	1,477	6	4	5	6	7	2.2	1.3	1.1	1.1	1.1
ADDENDUM															
Specialty providers (Note 7)	6,916	11,027	11,954	15,620	17,870	76	84	83	82	81	-	-	-	-	-
Non-specialty providers (Note 8)	1,718	1,575	1,738	2,266	2,687	19	12	12	12	12	-	-	-	-	-

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. Not all service providers will have all three sites of service. Retail prescription drugs and insurance administration are not attributable to a site of service.
2. Includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.
3. All spending for psychiatric services in Department of Veterans Affairs hospitals is included in general hospital specialty unit providers.
4. Includes psychologists and counselors/social workers.
5. Includes Residential Treatment Centers for Children.
6. Includes other facilities for treating substance abuse.
7. Includes specialty units of general hospitals, specialty hospitals, psychiatrists, other professionals, specialty mental health centers and specialty substance abuse centers.
8. Includes non-specialty units in general hospitals, non-psychiatric physicians, home health, and nursing homes.

**Table A.7. Average Annual Growth by Provider and Setting for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), and All-Health Spending, Selected Periods**

Type of Provider and Site of Service (Note 1)	Average Annual Growth															
	MHSA				MH				SA				All-Health			
	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005
<b>TOTAL</b>	<b>7.6%</b>	<b>4.2%</b>	<b>8.5%</b>	<b>6.2%</b>	<b>8.0%</b>	<b>4.8%</b>	<b>8.8%</b>	<b>6.4%</b>	<b>6.3%</b>	<b>1.5%</b>	<b>7.3%</b>	<b>5.0%</b>	<b>10.4%</b>	<b>5.8%</b>	<b>7.8%</b>	<b>7.3%</b>
Total All Service Providers and Products	7.7	4.0	8.1	6.0	8.0	4.7	8.4	6.2	6.5	1.4	6.9	4.9	10.3	5.7	7.4	7.1
Total All Service Providers	7.5	2.7	5.4	5.2	7.8	3.1	5.0	5.3	6.5	1.4	6.9	4.7	10.4	5.4	6.7	7.1
Total Inpatient	4.0	(1.9)	3.4	2.2	5.4	(0.4)	3.5	1.9	(0.3)	(8.7)	2.8	4.1	-	-	-	-
Total Outpatient	13.1	7.1	6.5	6.9	12.4	7.3	6.2	7.8	15.5	6.5	7.5	3.7	-	-	-	-
Total Residential	7.3	2.6	5.8	5.1	6.5	1.8	4.8	4.4	10.7	5.2	8.7	7.0	-	-	-	-
All Hospitals	5.6	0.4	4.8	4.6	7.0	0.9	5.2	4.8	1.2	(1.9)	2.6	3.8	9.2	3.9	6.7	7.5
Inpatient	4.7	(1.9)	3.8	2.7	6.0	(0.8)	4.0	2.5	0.1	(7.6)	2.3	3.5	-	-	-	-
Outpatient	14.3	8.1	8.1	9.6	14.4	7.4	9.1	11.4	14.0	9.9	5.6	4.5	-	-	-	-
Residential (Note 2)	3.9	7.2	4.0	5.7	9.0	6.3	6.7	6.3	(6.7)	10.2	(5.2)	2.9	-	-	-	-
General Hospitals	6.1	2.6	5.9	5.2	8.3	4.8	5.8	5.5	2.0	(3.4)	6.5	4.2	-	-	-	-
Inpatient	5.7	(1.7)	5.0	2.6	8.1	1.0	5.3	2.2	1.3	(9.9)	3.7	4.1	-	-	-	-
Outpatient	13.7	12.2	8.3	9.8	13.3	13.4	8.5	11.6	14.7	9.5	7.6	4.6	-	-	-	-
Residential (Note 2)	(2.4)	9.2	3.1	2.0	2.1	10.8	0.3	1.9	(12.3)	1.8	17.0	2.6	-	-	-	-
General Hospitals, Specialty Units (Note 3)	8.5	3.2	4.5	3.5	12.7	5.8	4.2	4.2	2.0	(3.8)	5.7	0.7	-	-	-	-
Inpatient	8.9	1.3	3.2	2.9	13.3	4.3	3.6	3.2	1.7	(8.5)	0.8	1.5	-	-	-	-
Outpatient	10.7	10.0	5.5	3.5	9.0	10.9	4.2	5.7	14.8	8.2	8.5	(1.2)	-	-	-	-
Residential (Note 2)	(6.9)	6.5	20.8	9.9	50.9	19.3	18.1	15.0	(11.9)	(2.4)	24.2	3.6	-	-	-	-
General Hospitals, Non-Specialty Units (Note 3)	1.2	1.0	10.1	9.3	0.9	2.0	10.4	8.5	2.3	(2.0)	8.6	12.4	-	-	-	-
Inpatient	(2.6)	(21.9)	28.7	(0.3)	(3.6)	(25.0)	35.9	(7.7)	(0.1)	(16.8)	18.5	12.2	-	-	-	-
Outpatient	21.9	15.9	11.8	16.1	26.9	17.6	13.6	16.7	14.5	11.8	6.0	13.5	-	-	-	-
Residential (Note 2)	(0.3)	10.2	(4.6)	(5.1)	0.5	9.7	(4.3)	(4.9)	(16.3)	24.4	(11.3)	(8.1)	-	-	-	-
Specialty Hospitals	5.2	(2.1)	3.2	3.8	6.0	(2.6)	4.5	3.9	(0.9)	1.8	(6.8)	2.6	-	-	-	-
Inpatient	4.0	(2.0)	2.8	2.7	4.9	(1.9)	3.1	2.8	(2.4)	(2.9)	(0.1)	2.3	-	-	-	-
Outpatient	16.0	(7.7)	7.1	8.5	16.9	(12.5)	14.0	9.3	9.7	12.7	(11.6)	3.9	-	-	-	-
Residential (Note 2)	24.9	3.9	5.8	11.6	33.4	(2.8)	22.0	12.2	10.0	18.1	(32.3)	4.4	-	-	-	-
All Physicians	8.4	5.5	6.3	7.8	10.1	6.6	6.5	8.4	1.4	(1.6)	5.1	2.0	11.3	5.1	7.1	7.7
Inpatient	(1.9)	(0.5)	0.1	(3.2)	(0.8)	4.4	0.3	(3.6)	(3.4)	(11.7)	(0.8)	(1.8)	-	-	-	-
Outpatient	13.8	7.1	7.4	9.3	13.6	7.0	7.4	9.8	16.1	8.4	7.7	3.2	-	-	-	-
Psychiatrists	9.5	5.4	6.5	9.3	8.7	6.8	6.7	9.3	17.5	(9.7)	2.1	9.3	-	-	-	-
Inpatient	0.5	0.1	0.4	(4.4)	(3.6)	5.7	1.1	(5.3)	13.7	(18.1)	(5.8)	4.1	-	-	-	-
Outpatient	13.2	6.6	7.5	10.9	12.6	7.0	7.5	10.9	26.5	(1.2)	5.6	10.9	-	-	-	-
Non-Psychiatric Physicians	6.6	5.8	6.1	5.0	13.3	6.1	6.0	6.4	(6.8)	4.6	6.5	(1.2)	-	-	-	-
Inpatient	(4.6)	(1.4)	(0.3)	(1.4)	5.3	2.1	(1.1)	(0.1)	(11.3)	(6.6)	1.5	(4.1)	-	-	-	-
Outpatient	15.1	8.1	7.4	6.0	16.0	7.0	7.1	7.1	8.9	16.0	8.6	(0.2)	-	-	-	-

**Table A.7. Average Annual Growth by Provider and Setting for Mental Health and Substance Abuse (MHSA), Mental Health (MH), Substance Abuse (SA), and All-Health Spending, Selected Periods—Continued**

Type of Provider and Site of Service (Note 1)	Average Annual Growth															
	MHSA				MH				SA				All-Health			
	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005
Other Professionals (Note 4)	13.1	2.9	4.8	5.2	13.5	4.4	4.8	4.7	12.0	(1.4)	5.0	7.0	14.7	8.3	6.3	7.1
Inpatient	14.7	8.2	14.6	15.0	19.5	18.1	18.7	14.0	13.5	4.0	11.7	15.8	-	-	-	-
Outpatient	13.1	2.8	4.2	3.7	13.5	4.2	4.4	4.3	11.9	(1.7)	3.3	1.1	-	-	-	-
Residential	13.5	12.9	49.2	47.0	13.5	36.7	40.2	20.2	13.5	4.6	55.7	58.5	-	-	-	-
Free-Standing Nursing Homes	2.8	(2.6)	5.4	4.6	2.7	(3.0)	5.5	4.8	4.9	7.3	3.3	1.0	10.6	6.3	4.2	4.5
Residential	2.8	(2.6)	5.4	4.6	2.7	(3.0)	5.5	4.8	4.9	7.3	3.3	1.0	-	-	-	-
Free-Standing Home Health	18.0	14.1	2.2	13.1	18.0	14.0	2.6	13.1	18.8	16.9	(31.5)	7.4	19.0	10.6	0.7	12.0
Outpatient	18.0	14.1	2.2	13.1	18.0	14.0	2.6	13.1	18.8	16.9	(31.5)	7.4	-	-	-	-
Other Personal and Public Health	12.5	6.7	6.1	4.0	10.9	7.7	3.4	3.1	15.3	5.2	10.2	5.3	13.0	10.2	9.8	4.8
Inpatient	2.3	(9.8)	(5.8)	(4.9)	4.2	(3.5)	(19.1)	(100.0)	0.6	(19.6)	16.9	13.2	-	-	-	-
Outpatient	11.7	8.9	6.3	3.9	8.6	9.4	4.2	3.7	18.1	8.1	9.5	4.2	-	-	-	-
Residential	15.9	5.8	6.4	4.5	15.2	6.8	3.4	3.0	16.9	4.2	10.9	6.4	-	-	-	-
Specialty Mental Health Centers (Note 5)	10.7	8.6	3.6	3.2	10.9	7.7	3.4	3.1	8.0	18.4	5.0	4.2	-	-	-	-
Inpatient	0.8	(1.9)	(19.1)	(100.0)	4.2	(3.5)	(19.1)	(100.0)	(24.3)	20.3	(19.1)	(100.0)	-	-	-	-
Outpatient	8.5	10.5	3.8	3.4	8.6	9.4	4.2	3.7	7.8	21.5	0.9	0.9	-	-	-	-
Residential	15.6	7.3	4.4	3.8	15.2	6.8	3.4	3.0	22.3	13.7	12.8	8.8	-	-	-	-
Specialty Substance Abuse Centers (Note 6)	16.4	3.0	11.5	5.5	-	-	-	-	16.4	3.0	11.5	5.5	-	-	-	-
Inpatient	4.0	(26.6)	31.7	17.3	-	-	-	-	4.0	(26.6)	31.7	17.3	-	-	-	-
Outpatient	20.2	5.6	11.7	4.8	-	-	-	-	20.2	5.6	11.7	4.8	-	-	-	-
Residential	16.3	2.8	10.5	5.8	-	-	-	-	16.3	2.8	10.5	5.8	-	-	-	-
Retail Prescription Drugs	10.3	16.6	21.4	9.0	10.3	16.6	21.5	8.8	9.4	8.1	17.8	64.1	11.9	10.9	15.5	8.2
Insurance Administration	6.7	6.5	15.3	8.1	8.2	6.9	15.5	8.4	1.4	4.3	14.6	6.7	11.3	6.5	13.7	9.4
ADDENDUM																
Specialty providers (Note 7)	8.9	3.1	5.1	4.8	9.2	3.7	4.5	4.8	8.1	1.4	6.9	4.6	-	-	-	-
Non-specialty providers (note 8)	3.4	1.1	6.7	6.6	4.2	1.0	6.7	6.7	(1.4)	1.7	6.9	5.8	-	-	-	-

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. Not all service providers will have all three sites of service. Retail prescription drugs and insurance administration are not attributable to a site of service.
2. Includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.
3. All spending for psychiatric services in Department of Veterans Affairs hospitals is included in general hospital specialty unit providers.
4. Includes psychologists and counselors/social workers.
5. Includes Residential Treatment Centers for Children.
6. Includes other facilities for treating substance abuse.
7. Includes specialty units of general hospitals, specialty hospitals, psychiatrists, other professionals, specialty mental health centers and specialty substance abuse centers.
8. Includes non-specialty units in general hospitals, non-psychiatric physicians, home health, and nursing homes.

**Table A.8. Mental Health and Substance Abuse (MHSA), Mental Health (MH) and Substance Abuse (SA) Spending by Payer: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years**

Type of Payer	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
<b>Total MHSA</b>	<b>\$40,911</b>	<b>\$63,638</b>	<b>\$81,253</b>	<b>\$112,771</b>	<b>\$134,961</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>9.3%</b>	<b>8.0%</b>	<b>7.3%</b>	<b>7.5%</b>	<b>7.3%</b>
Private -- Total	17,113	22,907	29,139	42,097	51,723	42	36	36	37	38	6.6	5.0	4.7	5.1	5.1
Out-of-Pocket	6,512	7,934	9,537	13,123	15,209	16	12	12	12	11	6.3	5.5	5.4	6.2	6.2
Private Insurance	8,753	12,258	17,042	26,075	33,030	21	19	21	23	24	6.4	4.5	4.4	4.7	4.8
Other Private	1,849	2,716	2,559	2,899	3,485	5	4	3	3	3	8.5	7.5	4.6	4.9	4.9
Public -- Total	23,797	40,731	52,115	70,673	83,238	58	64	64	63	62	13.3	12.0	10.5	10.4	9.9
Medicare	2,836	4,954	7,172	8,564	10,117	7	8	9	8	7	3.7	3.6	3.4	3.2	3.0
Medicaid (Note 1)	6,555	13,038	18,520	29,226	35,739	16	20	23	26	26	14.4	12.1	11.0	11.8	11.5
Other Federal (Note 2)	2,905	5,251	5,578	7,731	9,170	7	8	7	7	7	14.0	15.7	13.6	11.8	11.0
Other State and Local (Note 2)	11,501	17,488	20,844	25,152	28,213	28	27	26	22	21	32.0	28.3	27.6	25.7	26.0
All Federal (Note 3)	9,408	18,501	23,626	33,471	39,704	23	29	29	30	29	7.7	7.8	6.8	7.0	6.6
All State (Note 4)	14,390	22,230	28,489	37,202	43,535	35	35	35	33	32	25.7	21.8	19.7	18.7	18.0
<b>Total MH</b>	<b>31,764</b>	<b>50,476</b>	<b>66,839</b>	<b>93,637</b>	<b>112,787</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>7.2%</b>	<b>6.4%</b>	<b>6.0%</b>	<b>6.2%</b>	<b>6.1%</b>
Private -- Total	13,471	19,227	25,865	38,051	47,108	42	38	39	41	42	5.2	4.2	4.2	4.6	4.7
Out-of-Pocket	5,569	6,706	8,515	11,857	13,802	18	13	13	13	12	5.4	4.7	4.9	5.6	5.6
Private Insurance	6,308	10,327	15,273	23,836	30,417	20	20	23	25	27	4.6	3.8	4.0	4.3	4.4
Other Private	1,594	2,194	2,077	2,358	2,890	5	4	3	3	3	7.3	6.0	3.7	4.0	4.1
Public -- Total	18,293	31,249	40,974	55,586	65,678	58	62	61	59	58	10.2	9.2	8.3	8.2	7.8
Medicare	2,099	4,095	6,232	7,353	8,630	7	8	9	8	8	2.7	3.0	3.0	2.8	2.5
Medicaid (Note 1)	5,503	10,938	15,711	25,381	31,115	17	22	24	27	28	12.1	10.1	9.3	10.2	10.0
Other Federal (Note 2)	1,993	2,519	3,369	4,582	5,673	6	5	5	5	5	9.6	7.5	8.2	7.0	6.8
Other State and Local (Note 2)	8,698	13,697	15,662	18,270	20,261	27	27	23	20	18	24.2	22.2	20.7	18.7	18.7
All Federal (Note 3)	7,172	13,562	18,821	26,860	32,078	23	27	28	29	28	5.8	5.7	5.4	5.6	5.3
All State (Note 4)	11,122	17,687	22,153	28,725	33,601	35	35	33	31	30	19.9	17.4	15.3	14.4	13.9

**Table A.8. Mental Health and Substance Abuse (MHSA), Mental Health (MH) and Substance Abuse (SA) Spending by Payer: Levels, Percent Distribution, and Share of All-Health Spending, Selected Years–Continued**

Type of Payer	Spending in Millions					Percent Distribution					Share of All-Health Spending				
	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005	1986	1992	1998	2002	2005
<b>Total SA</b>	<b>9,147</b>	<b>13,162</b>	<b>14,414</b>	<b>19,134</b>	<b>22,175</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>2.1%</b>	<b>1.7%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.2%</b>
Private -- Total	3,642	3,680	3,274	4,046	4,615	40	28	23	21	21	1.4	0.8	0.5	0.5	0.5
Out-of-Pocket	943	1,227	1,023	1,266	1,407	10	9	7	7	6	0.9	0.9	0.6	0.6	0.6
Private Insurance	2,444	1,931	1,768	2,239	2,613	27	15	12	12	12	1.8	0.7	0.5	0.4	0.4
Other Private	255	522	483	542	595	3	4	3	3	3	1.2	1.4	0.9	0.9	0.8
Public -- Total	5,504	9,483	11,140	15,088	17,560	60	72	77	79	79	3.1	2.8	2.3	2.2	2.1
Medicare	737	860	940	1,211	1,487	8	7	7	6	7	1.0	0.6	0.4	0.5	0.4
Medicaid (Note 1)	1,052	2,100	2,810	3,845	4,624	12	16	19	20	21	2.3	1.9	1.7	1.5	1.5
Other Federal (Note 2)	912	2,732	2,209	3,149	3,497	10	21	15	16	16	4.4	8.2	5.4	4.8	4.2
Other State and Local (Note 2)	2,803	3,790	5,181	6,883	7,952	31	29	36	36	36	7.8	6.1	6.9	7.0	7.3
All Federal (Note 3)	2,236	4,939	4,805	6,611	7,626	24	38	33	35	34	1.8	2.1	1.4	1.4	1.3
All State (Note 4)	3,268	4,543	6,335	8,477	9,934	36	35	44	44	45	5.8	4.5	4.4	4.3	4.1
<b>Total All-Health</b>	<b>439,394</b>	<b>793,699</b>	<b>1,110,855</b>	<b>1,498,289</b>	<b>1,850,362</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	-	-	-	-	-
Private -- Total	260,862	454,330	616,117	821,767	1,007,380	59	57	55	55	54	-	-	-	-	-
Out-of-Pocket	103,248	143,336	175,229	211,163	246,971	23	18	16	14	13	-	-	-	-	-
Private Insurance	135,865	274,649	384,664	551,118	689,997	31	35	35	37	37	-	-	-	-	-
Other Private	21,749	36,344	56,224	59,486	70,412	5	5	5	4	4	-	-	-	-	-
Public -- Total	178,533	339,369	494,738	676,522	842,982	41	43	45	45	46	-	-	-	-	-
Medicare	76,395	135,996	209,212	264,833	339,357	17	17	19	18	18	-	-	-	-	-
Medicaid (Note 1)	45,383	108,187	168,840	248,255	311,488	10	14	15	17	17	-	-	-	-	-
Other Federal (Note 2)	20,809	33,478	41,156	65,528	83,593	5	4	4	4	5	-	-	-	-	-
Other State and Local (Note 2)	35,945	61,708	75,530	97,906	108,545	8	8	7	7	6	-	-	-	-	-
All Federal (Note 3)	122,607	237,431	349,790	477,201	600,764	28	30	31	32	32	-	-	-	-	-
All State (Note 4)	55,926	101,937	144,948	199,321	242,218	13	13	13	13	13	-	-	-	-	-

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. The State Children's Health Insurance Program (SCHIP) all-health spending was \$7.6 billion in 2005. MHSA SCHIP spending was estimated at \$0.8 billion or about 1 percent of total.
2. SAMHSA block grants to "State and Local" agencies are part of "Other Federal" government spending. In 2005, block grants amounted to \$386 million for MH and \$1,265 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.

**Table A.9. Average Annual Growth by Payer for Mental Health and Substance Abuse (MHSA), Mental Health (MH) and Substance Abuse (SA), Selected Periods**

Type of Provider and Site of Service (Note 1)	Average Annual Growth															
	MHSA				MH				SA				All-Health			
	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005	1986-1992	1992-1998	1998-2002	2002-2005
<b>Total</b>	<b>7.6%</b>	<b>4.2%</b>	<b>8.5%</b>	<b>6.2%</b>	<b>8.0%</b>	<b>4.8%</b>	<b>8.8%</b>	<b>6.4%</b>	<b>6.3%</b>	<b>1.5%</b>	<b>7.3%</b>	<b>5.0%</b>	<b>10.4%</b>	<b>5.8%</b>	<b>7.8%</b>	<b>7.3%</b>
Private -- Total	5.0	4.1	9.6	7.1	6.1	5.1	10.1	7.4	0.2	(1.9)	5.4	4.5	9.7	5.2	7.5	7.0
Out-of-Pocket	3.3	3.1	8.3	5.0	3.1	4.1	8.6	5.2	4.5	(3.0)	5.5	3.6	5.6	3.4	4.8	5.4
Private Insurance	5.8	5.6	11.2	8.2	8.6	6.7	11.8	8.5	(3.9)	(1.5)	6.1	5.3	12.4	5.8	9.4	7.8
Other Private	6.6	(1.0)	3.2	6.3	5.5	(0.9)	3.2	7.0	12.7	(1.3)	2.9	3.2	8.9	7.5	1.4	5.8
Public -- Total	9.4	4.2	7.9	5.6	9.3	4.6	7.9	5.7	9.5	2.7	7.9	5.2	11.3	6.5	8.1	7.6
Medicare	9.7	6.4	4.5	5.7	11.8	7.2	4.2	5.5	2.6	1.5	6.5	7.1	10.1	7.4	6.1	8.6
Medicaid (Note 1)	12.1	6.0	12.1	6.9	12.1	6.2	12.7	7.0	12.2	5.0	8.2	6.3	15.6	7.7	10.1	7.9
Other Federal (Note 2)	10.4	1.0	8.5	5.9	4.0	5.0	8.0	7.4	20.1	(3.5)	9.3	3.6	8.2	3.5	12.3	8.5
Other State and Local (Note 2)	7.2	3.0	4.8	3.9	7.9	2.3	3.9	3.5	5.2	5.3	7.4	4.9	9.4	3.4	6.7	3.5
All Federal (Note 3)	11.9	4.2	9.1	5.9	11.2	5.6	9.3	6.1	14.1	(0.5)	8.3	4.9	11.6	6.7	8.1	8.0
All State (Note 4)	7.5	4.2	6.9	5.4	8.0	3.8	6.7	5.4	5.6	5.7	7.6	5.4	10.5	6.0	8.3	6.7

Source: SAMHSA Spending Estimates Project, 2010; CMS Office of the Actuary, National Health Statistics Group.

Notes:

1. The State Children's Health Insurance Program (SCHIP) all-health spending was \$7.6 billion in 2005. MHSA SCHIP spending was estimated at \$0.8 billion or about 1 percent of total
2. SAMHSA block grants to "State and Local" agencies are part of "Other Federal" government spending. In 2005, block grants amounted to \$386 million for MH and \$1,265 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.

# Appendix B: Definitions

This appendix presents the structure, describes the classification system used as a basis for that structure, and defines many of the concepts used in the SAMHSA Spending Estimates (SSE). It draws heavily on the definitions used for the National Health Expenditure Accounts (NHEA) that are posted on the Centers for Medicare and Medicaid Services (CMS) NHEA website.<sup>3</sup>

## SAMHSA Spending Estimates Structure

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The SSE measures aggregate spending on the treatment of mental health problems and conditions and substance use disorders. Historical estimates are constructed in four dimensions:

- Diagnosis:
  - Mental illness/disorders
  - Substance use disorders<sup>4</sup>
- Provider and products:
  - Hospital care: general and specialty hospitals<sup>5</sup>
  - Physician services: psychiatrists and other physicians<sup>6</sup>
  - Other professional services: psychologists, clinical social workers and other
  - Nursing home care
  - Home health care
  - Center-based providers
    - Specialty mental health centers
    - Specialty substance abuse centers
  - Prescription drugs
  - Insurance administration
- Setting:
  - Inpatient
  - Outpatient
  - Residential
- Payer:
  - Private insurance
  - Out-of-pocket
  - Other private: foundation and other charity
  - Medicare

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<sup>3</sup> <http://www.cms.hhs.gov/NationalHealthExpendData/>

<sup>4</sup> Estimates are also prepared separately for drug abuse and alcohol abuse.

<sup>5</sup> Hospital care is estimated separately for “specialty” psychiatric and chemical dependency hospitals, and within general hospitals, separately for “specialty unit” and non-specialty care.

<sup>6</sup> Physician services are estimated separately for psychiatric physicians and for non-psychiatric physicians.

- o Medicaid, both State and Federal; includes SCHIP
- o Other Federal: DoD, DVA, IHS, and SAMHSA MH and SA Block Grants
- o Other State and local: State and local general revenue

Expenditures in the SSE measure the amounts spent to provide services to specific individuals who have MH- and SA-related diagnoses; to pay for prescription medications with indications for treatments related to those diagnoses; and to cover the costs of insurers to administer various public and private insurance programs, and of philanthropic organizations to administer their programs. Unlike for CMS' NHEA, there is currently no measure of MHSAs government public health activity, research, or investment in structures or equipment that are used in providing treatment.

## Classification System

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The classification system for private establishments (that is, generally single locations of production or services) is laid out in the North American Industrial Classification System (NAICS) by the Federal government. Sector 62 defines establishments in the Health Care and Social Assistance area. For public entities, classification of government operations parallels the NAICS system, such as the operation of public mental health and substance abuse/chemical dependency clinics. The NAICS groups private sector establishments according to similar production processes. Each establishment is assigned a code that identifies the main nature of its operation within the broader industrial classification scheme. For the health care and social assistance industry, the NAICS is also structured to capture the continuum of medical and social care. The NAICS structure for health care and social assistance ranges from medical care facilities providing acute care (offices and clinics of physicians and hospitals) to non-acute medical care facilities (nursing homes and continuing care facilities) and to social assistance facilities providing little or no medical care (some residential facilities and establishments providing only social services).

In the NHEA, only those facilities providing medical care are included in the estimates; establishments providing social assistance are excluded. The MHSAs estimates, however, take a somewhat broader approach by counting spending at certain facilities (e.g., some "residential" facilities staffed by social workers and/or counselors) that may not be included in the NHEA (Table B.1) because they provide few services from medical personnel. Residential facilities provide some care that may fall outside of traditional "medical care" facility definitions used in the NAICS. These facilities provide therapeutic services, including assessments, counseling, medication management, group and individual counseling services, and a structured, therapeutic environment that is removed from people, places, or situations that contribute to the patient's dysfunction.

**Table B.1: North American Industry Classification System for Health Care Services Crosswalk to the MHSA Expenditure Accounts and the National Health Expenditure Accounts**

NAICS Code	NAICS Industry Title	MHSA Expenditure Account Category	NHEA Category
621111	Offices of Physicians (except Mental Health Specialists)	Non-Psychiatric Physician Services	Physician and Clinical Services (NAICS 6211)
621112	Offices of Physicians, Mental Health Specialists	Psychiatrists	
6213	Offices of Other Health Practitioners	Other Professional Services	Other Professional Services
6214	Outpatient Care Centers	Physician Services, except Outpatient MH and SA Centers	Physician and Clinical Services
62142	Outpatient Mental Health and Substance Abuse Centers	Specialty Mental Health Centers—part; Specialty Substance Abuse Centers—part	
6216	Home Health Care Agencies	Home Health Care	Home Health Care
6221; 6223	General Medical/Surgical Hospitals; Specialty Hospitals (except Psychiatric and Substance Abuse Hospitals)	General Hospitals	Hospital Care
6222	Psychiatric and Substance Abuse Hospitals	Specialty Hospitals	
623110	Nursing Care Facilities	Nursing Home Care	Nursing Home Care
623311	Continuing Care Retirement Communities (with onsite nursing home facilities)		
62322	Residential Mental Health and Substance Abuse Facilities		

SOURCE: 2007 NAICS Definition File. Available at: [http://www.census.gov/eos/www/naics/2007NAICS/2007\\_Definition\\_File.pdf](http://www.census.gov/eos/www/naics/2007NAICS/2007_Definition_File.pdf)

In addition, two categories of spending are not defined by NAICS. Unlike other spending categories where the establishment’s primary function is medical care, this spending is for services or products delivered by non-medical establishments. The first category is spending on the purchase of prescription drugs. This category represents products sold in retail establishments such as community pharmacies, mass merchandise retailers, grocery stores, or through mail order pharmacies. The second category is

insurance administration, which covers the cost of running various government health care programs, the net cost<sup>7</sup> of private health insurance, and the administrative costs associated with operating philanthropic organizations that provide donations for health care.

## Definitions

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The following list provides definitions of diagnoses, provider, payer, and setting categories used with the mental health and substance abuse spending accounts. The NAICS codes referenced in these definitions can be found on Table B.1 above.

### Diagnoses

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Spending for MH and SA services measured in these accounts are defined by diagnostic codes found in the International Classification of Diseases 9th Revision (ICD-9-CM) as “mental disorders” (i.e., codes in sections 290 through 319; see Table B.2). A subset of these “mental disorders” (dementias (290), transient mental disorders due to conditions classified elsewhere (293), persistent mental disorders due to conditions classified elsewhere (294), non-dependent use of drugs-tobacco abuse disorder (305.1), specific delays in development (315), and mental retardation (317–319)) is excluded as being outside the scope of this project. Also excluded are cerebral degenerations (e.g., Alzheimer’s disease, 331.0), tobacco abuse, and psychic factors associated with disease classified elsewhere (316). Two pregnancy-related complications are included: complications mainly related to pregnancy—drug dependence (648.3) and complications mainly related to pregnancy—mental disorders (648.4).

The allocation to MHSA spending for services is based on principal or primary diagnosis and does not include spending associated with secondary diagnoses. The diagnostic categories selected generally reflect what payers (insurers) consider as MHSA conditions. They exclude costs not directly related to treatment, such as costs stemming from lower productivity, missed workdays, and/or drug-related crimes. They also exclude expenditures on non-MHSA conditions that are caused by MHSA problems, such as liver cirrhosis.

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<sup>7</sup> Net cost is the difference between the insurance premiums earned and the benefit costs incurred. It includes all costs associated with administering health insurance (commissions, bill processing, reserves), dividends paid to stockholders, and other taxes and costs.

**Table B.2: ICD-9 Codes Included in Mental Health (MH) and Substance Abuse (SA) Diagnosis**

ICD-9 Code	ICD-9 Disease Category	Included in MH/SA
290-319	MENTAL DISORDERS	
290-299	Psychoses	
291	Alcohol-induced mental disorders	SA (Alcohol)
292	Drug-induced disorders	SA (Drug)
295	Schizophrenic disorders	MH
296	Episodic mood disorders	MH
297	Delusional disorders	MH
298	Other nonorganic psychoses	MH
299	Pervasive developmental disorders	MH
300-316	Neurotic disorders, personality disorders, and other nonpsychotic mental disorders	
300	Anxiety, dissociative and somatoform disorders	MH
301	Personality disorders	MH
302	Sexual and gender identity disorders	MH
303	Alcohol dependence syndrome	SA (Alcohol)
304	Drug dependence	SA (Drug)
305.2-305.9	Nondependent abuse of drugs – Except Tobacco Abuse Disorder	SA (Drug)
306	Physiological malfunction arising from mental factors	MH
307	Special symptoms and syndromes, not elsewhere classified	MH
308	Acute reaction to stress	MH
309	Adjustment reaction	MH
310	Specific nonpsychotic mental disorders due to brain damage	MH
311	Depressive disorder, not elsewhere classified	MH
312	Disturbance of conduct, not elsewhere classified	MH
313	Disturbance of emotions to childhood and adolescence	MH
314	Hyperkinetic syndrome of childhood	MH
648.3	Complications Mainly Related to Pregnancy—Drug Dependence	SA (Drug)
648.4	Complications Mainly Related to Pregnancy—Mental Disorders	MH

Source: International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)

Drugs for the treatment of mental health conditions and substance use disorders are generally identified differently, that is, not based on diagnosis. Rather, an indication for use of the drug for mental illness and/or a substance use disorder is required, regardless of the associated diagnosis.

The following classifications of psychotherapeutic drugs are used in this study:

- Antianxiety agents
- Sedatives and hypnotics
- Antipsychotics and antimanics
- Antidepressants

This classification of MH and SA drugs includes spending for drugs whose main indication for use is mental illness or substance use disorders, but which may be used to treat other conditions.

Two other classes of drugs (central nervous system (CNS) stimulants and anorexiant/miscellaneous CNS drugs), plus specific anticonvulsant medications, are included if they have an associated mental or substance use diagnosis.

Two medications used to treat opioid addiction are also incorporated:

- Buprenorphine hydrochloride
- Buprenorphine hydrochloride/naloxone hydrochloride

Medications used in treating alcoholism are also captured:

- Acamprosate
- Disulfiram
- Naltrexone
- Extended-release naltrexone

Drugs whose main indication for use is not mental or substance use disorders may be used to treat these conditions, but spending on these drugs is not included in the SSE. Spending on methadone is captured as part of spending for the provider where methadone is dispensed, rather than with SA prescription drug spending.

## Providers<sup>8</sup>

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Providers of service are classified according to the major types of services they furnish. These services are listed in Table B.1. In addition to the major types of services they deliver, providers often perform other functions. For example, a hospital primarily provides inpatient health care services, but also may operate a home health agency or nursing home wing and provide physician services through staff physicians in clinics and outpatient departments. The classification of spending is made based on the primary services provided, even though the provider may also fill other functions. The reason for this classification scheme is that providers often furnish the data used to estimate spending. These providers seldom break apart spending by function, information that would be necessary to produce a “functional” display of spending.

**Hospital care** includes all billed services provided to patients by public and private general medical/surgical and psychiatric and substance abuse specialty hospitals.

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<sup>8</sup> The definitions below borrow liberally from two CMS National Health Expenditure Account websites: <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-08.pdf> and <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/quickref.pdf>; and from the U.S. Bureau of the Census NAICS website: <http://www.census.gov/epcd/naics02/naicod02.htm#N62>.

**General hospitals** are community medical/surgical and specialty hospitals (other than mental health and substance abuse specialty hospitals) providing diagnostic and medical treatment to inpatients, including inpatient psychiatric care in specialized treatment units of general hospitals, detoxification, and other MHSAs treatment services.

**General hospital specialty units** are any general medical/surgical hospital or non-psychiatric and non-substance abuse specialty hospital that provides MH or SA treatment or detoxification in a “specialty unit” specifically designated for the treatment of patients with mental illness and/or substance use disorder diagnoses. Inpatient care in Department of Veterans Affairs’ hospitals is included in this category.

**General hospital non-specialty care** is any general medical/surgical hospital or non-psychiatric and non-substance abuse specialty hospital that provides MH or SA treatment or detoxification in general units (i.e., other than “specialty units” specifically designated for the treatment of patients with mental illness or substance use disorders).

**Specialty hospitals** are establishments primarily engaged in providing diagnostic, medical treatment, and monitoring services for patients who suffer from mental illness or substance use disorders. Psychiatric, psychological, and social work services predominate at the facilities.

**Office-based professional care** as a summary category includes physician services and other professional services.

**Physician services** include independently billed services provided in establishments operated by Doctors of Medicine (M.D.) and Doctors of Osteopathy (D.O.), and outpatient care centers (except specialty mental health and substance abuse clinics). This category also includes services rendered by a physician in hospitals, if the physician bills independently for those services.

**Psychiatrists** include independently-billing private or group practices of health practitioners having the degree of M.D. or D.O. who are primarily engaged in the practice of psychiatry or psychoanalysis.

**Other professional services** cover services provided in establishments operated by health practitioners other than physicians and dentists. These professional services include those provided by private-duty nurses, chiropractors, podiatrists, optometrists, and physical, occupational and speech therapists; for the mental health and substance abuse field, these include services of psychologists, psychoanalysts, psychotherapists, clinical social workers, professional counselors and substance abuse counselors, and marriage and family therapists. For the SSE, these are establishments primarily engaged in the diagnosis and treatment of mental, emotional, and behavioral disorders and/or the diagnosis and treatment of individual or group social dysfunction brought about by such causes as mental illness, alcohol and substance abuse, physical and emotional trauma, or stress.

**Long term care** as a summary category includes home health and nursing home care.

**Home health care** covers medical care provided in the home by private and public freestanding home health agencies (HHAs). The ‘freestanding’ designation means that the agency is not facility-based—that is, based out of a hospital, nursing home, or other type of provider whose primary mission is something other than home health services. Medical equipment sales or rentals billed through HHAs

are included. Non-medical types of home care (e.g., Meals on Wheels, chore-worker services, friendly visits, or other custodial services) are excluded.

**Nursing home care** covers services provided in private and public freestanding nursing home facilities. The 'freestanding' designation means that the nursing home is not based out of a hospital or other type of provider whose primary mission is something other than nursing home care. These facilities include nursing and rehabilitative services generally for an extended period of time by staffs of registered or licensed practical nurses with physician consultation or oversight. Services provided in nursing facilities operated by the U.S. Department of Veterans Affairs are also included.

**Center-based providers** include specialty mental health centers and specialty substance abuse centers.

**Specialty mental health centers** are facilities providing outpatient and/or residential services, or some combination of those to individuals with mental and/or substance use disorder diagnoses. In most of these facilities, a physician provides medical assessments and prescribes and manages medications, usually with the assistance of a registered nurse. Most of the services provided by these facilities, however, are counseling, rehabilitation, and case management services delivered by psychologists, counselors and social workers.

**Specialty substance abuse centers** are facilities providing either residential or outpatient services, or both to individuals with substance use disorder diagnoses. Residential facilities include residential substance abuse facilities providing residential care, detoxification, and treatment for patients with substance use disorders. These establishments provide rehabilitation, social and counseling services, supervision, room, and board, but only incidental medical services. Outpatient treatment centers and clinics, which generally do not provide residential care, include establishments with medical and/or non-medical staff primarily engaged in providing outpatient diagnostic, detoxification, and treatment services related to substance use disorders. They may provide counseling staff, information on a wide range of substance use disorder issues, and referral services for more intensive treatment programs, if necessary. In addition, the MHSAs expenditures may also include spending in establishments whose main function is something other than the provision of health or social services, and therefore falls outside of the NAICS health and social services classifications. Examples include treatment centers that are part of schools or religious facilities.

**Prescription drugs** include the sales of psychotherapeutic medications sold through retail outlets such as community pharmacies; pharmacies in mass merchandise stores, grocery stores, and department stores; and mail order pharmacies. Excluded are sales through hospital, exclusive-to-patient HMOs, and nursing home pharmacies, which are instead counted with the establishment (hospital, physicians' offices, or nursing home) where the pharmacy is located.

The classifications of psychotherapeutic drugs used in this study are: antianxiety agents, sedatives and hypnotics, antipsychotics and antimanic, and antidepressants. In addition, two other classes of drugs are used if they have an associated mental or substance use diagnosis: central nervous system (CNS) stimulants and anorexiant, and miscellaneous CNS drugs. Specific anticonvulsant medications have been captured if they have an associated mental or substance use diagnosis. The study also incorporated buprenorphine hydrochloride as well as buprenorphine hydrochloride/naloxone hydrochloride, used to treat opioid addiction, and acamprosate, disulfiram, naltrexone, and extended-release naltrexone for treating alcoholism.

Adjustments are made to prescription drug spending for rebates. This adjustment measures rebates that are returned to the insurer directly from the manufacturer after the pharmacy transaction takes place, thereby reducing the true cost. These rebates serve as incentives for insurers to include particular drugs on an insurer's formulary, thus helping the manufacturer increase its volume of sales.

**Insurance administration** covers spending for the cost of running various government health care insurance programs. It also covers the net cost of private health insurance (the difference between premiums earned by insurers and the claims or losses incurred for which insurers become liable). The net cost of private insurance includes claims processing costs, reserves to cover future liabilities, advertising costs, premium taxes, investor dividends, and profits of insurance companies, among other things.

## Payers

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**Private health insurance** is represented in two pieces in the MHSAs spending estimates: a) benefits paid by private insurance to providers of service or for prescription drugs, or b) the net cost of private insurance, the difference between health premiums earned and benefits incurred, that is included in the category of "insurance administration." The net cost of private insurance includes costs associated with bill processing, advertising, sales commissions, other administrative costs, net additions to reserves, rate credits and dividends, premium taxes, and profits or losses, among other items.

**Out-of-pocket** payments include direct spending by consumers for health care goods and services, including coinsurance, deductibles, and any amounts paid for health care services that are not covered by public or private insurance. Health insurance premiums paid by individuals are not covered here, but are counted as part of private health insurance.

**Other private** includes spending from philanthropic and foundation sources for health care services and from non-patient revenues. Non-patient revenues are monies received by hospitals and other health care providers for non-health purposes, such as from the operation of gift shops, parking lots, cafeterias, and educational programs, or returns on investments.

**Medicare** is a Federal government program that provides health insurance coverage to eligible elderly and disabled persons. It is composed of four parts: Part A (coverage of institutional services, including inpatient hospital services, nursing home care, initial home health visits, and hospice care); Part B (coverage for physicians and other professional services, outpatient clinic or hospital services, laboratory services, rehabilitation therapy, and home health visits not covered by Part A, among other services); Part C (Medicare Advantage program providing coverage through private plans); and Part D (coverage for prescription drugs, starting in 2006).<sup>9</sup>

**Medicaid** is a program jointly funded by the Federal and State governments that provides health care coverage to certain classes of persons with limited income and resources. Within Federal guidelines, State governments set eligibility standards, determine optional services provided, set reimbursement rates, and administer the program. Income and resources are only two factors in determining eligibility, so not all poor people in a State are necessarily covered by this program.<sup>10</sup> Spending represents both Federal and State portions unless otherwise specified. This line also includes SCHIP spending that is administered as part of the Medicaid program.

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<sup>9</sup> For more information, see Medicare & You 2007 at <http://www.medicare.gov/Library/PDFNavigation/PDFInterim.asp?Language=English&Type=Pub&PubID=10050>.

<sup>10</sup> For more information, see <http://www.cms.hhs.gov/MedicareProgramRatesStatsdownloadsMedicareMedicaidSummaries2008.pdf>

**Other Federal** includes spending provided through the Department of Veterans Affairs and Department of Defense; treatment spending through mental health and substance abuse block grants administered by SAMHSA; and treatment under the Indian Health Service, among other Federal payers. It also includes any Federal SCHIP spending that is administered separately from the Medicaid program.

**Other State and local** includes programs funded primarily through State and local offices of mental health and substance abuse, but may also include funding from other State and local sources such as general assistance or State and local hospital subsidies. It also includes any state and local SCHIP spending that is administered separately from the Medicaid program.

## Settings

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**Inpatient services** cover inpatient care provided in an acute medical care unit or setting, usually a hospital.

**Outpatient services** include care provided in an ambulatory setting, such as in a hospital outpatient department or emergency room, and in physicians' and other medical professionals' offices and clinics.

**Residential services** include care provided in a 24-hour-care setting that provides therapeutic care to patients using licensed mental/behavioral health professionals. All nursing home care, whether provided in a freestanding or hospital-based nursing home, is counted as residential care.

Note: Neither insurance administration nor prescription drugs are classified by setting.

# Appendix C: Methods

This appendix describes the methods and data sources used to produce the SAMHSA Spending Estimates (SSE) for 1986-2005. The SSE measures spending for mental health and substance abuse (MHSA) treatment by provider type, payer, and setting of treatment. The initial report, issued in 1998, was the first effort to measure disease-specific spending in a comprehensive way using concepts similar to those used in the National Health Expenditure Accounts (NHEA). Subsequent reports in 2000, 2005, and 2007 provided updates to these estimates. Current efforts have produced updates through 2005.

## Overview of Estimating Methods and Algorithms

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The estimates integrate national data sources from various government agencies and private organizations. Data were analyzed using both actuarial and statistical techniques. Complex issues must be addressed when combining the data to produce comprehensive estimates, such as assuring consistency across data sources, avoiding duplicate accounting, and adjusting for incomplete observations.

**Expert Advice.** Over many years, the methods for the estimation of national mental health and substance abuse (MHSA) expenditures drew extensively upon suggestions from reviewers and a technical panel of experts. The advisors included experts in mental illness, substance use disorders, expenditure estimation, actuarial methods, health services research, and health economics. Experts on State programs (including the National Association of State Alcohol and Drug Abuse Directors Research Institute, Inc. and the National Association of State Mental Health Program Directors) also reviewed the methods and provided advice. Government experts on the SAMHSA specialty sector survey data shared information and insights on the imputation methods in those surveys. Technical experts also provided guidance on the report format and focus, and external technical advisers reviewed and commented on the report content.

**Overview of Methods.** The approach taken to estimate national MHSA spending was designed to be consistent with the National Health Expenditure Accounts (NHEA). The NHEA constitutes the framework for which the estimates of spending for all health care are constructed by the Centers for Medicare & Medicaid Services (CMS). The framework is a two-dimensional matrix. Along one dimension are health care providers or products that constitute the U.S. health care industry, while the other dimension is comprised of sources of funds used to purchase this health care.

MHSA spending estimates were constructed for two major treatment categories of spending: MH and SA, with SA estimated in two separate subcategories—alcohol abuse (AA) and drug abuse (DA). While estimates of SA were prepared at this more detailed level, in most instances findings are presented in this report as a sum of AA and DA spending.

CMS has a long history and substantial expertise in estimating national spending. The estimates of MHSA spending for non-specialty providers were carved out of estimates of total national health services and supplies expenditures developed by CMS. Separate estimates were developed from SAMHSA data for specialty MHSA facilities. Duplicate expenditures between the two sectors (specialty and non-specialty providers) were removed. Then, sector estimates were summed to obtain total national spending for MH, SA (AA plus DA) and for total MHSA in the U.S. from 1986 through 2005. Finally, MHSA dollars were compared to all personal health care, government public health expenditures, and spending on administration, which are referred to as “health services and supplies” in the national health expenditure accounts or as “all-health expenditures” in this report.

**Strengths of Approach.** The major benefit of developing estimates to be consistent with the NHEA is that it allows for an analysis of and comparison between MHSA and all health care spending. When the same methods, underlying data sources, and estimates are used for both calculations, the results are consistent and can be used to produce meaningful comparisons. In addition, both MHSA and all-health spending can be followed over time as public programs and the health care system change. Furthermore, spending by clinical problem—mental illness and substance use disorders—can be studied to understand the patterns of public and private spending on these problems, and the participation by types of providers can be monitored as treatment patterns change.

**Basic Calculations.** Table C.1 summarizes the methods for estimating MHSA expenditures for the MHSA specialty facilities and other providers. The specialty MHSA facility expenditure estimates were predominantly drawn from specialty surveys by facility type and by payment source. Three major steps for the basic calculations were followed. First, spending on mental disorders that were beyond the scope of these estimates (dementia, tobacco addiction, mental retardation, and mental developmental delays) was subtracted from total revenues by facility. Second, revenues for providers who delivered multiple modes of care (inpatient, outpatient, and residential treatment) were re-estimated by modality using client counts by modality and the average revenue per client for single modality providers specified by ownership type and region. Third, total revenues were summarized by type of provider (for example, specialty mental health centers or specialty substance abuse centers) and by payer and diagnosis.

**Table C.1: Overview of Methods for Estimating MHSA Expenditure**

<b>Method Component</b>	<b>Specialty Institutions<sup>1</sup></b>	<b>All Other Providers<sup>2</sup></b>
<b>Data Sources</b>	Facility/organization surveys (Facility-level reporting)	Encounter data (administrative claims and encounter-focused surveys)
<b>Critical Data Elements</b>	Total revenue <sup>3</sup> by facility, modality of care (inpatient, outpatient, residential), diagnosis, payer	Components of spending (service use and price) by provider type, payer and diagnosis
<b>Basic Calculations</b>	Eliminate diagnoses out of scope (e.g., dementias, MR/DD)	Eliminate duplicate specialty providers
	Split multi-modality revenue by modality based on single modality providers' revenue	Multiply "components of spending" together for each diagnosis (mental, alcohol, drug abuse, all other health disorders) and payer to estimate diagnosis share of total health care expenditures by payer
	Estimate total revenue by provider type, payer, diagnosis	Multiply national health care expenditures (excluding specialty MHSA specialty providers) by "diagnosis share"
<b>Special Calculations</b>	Imputations for missing revenue = $f$ (modality, ownership, region of the country, number of client days) by facility	
	Survey non-response adjustments	Survey non-response adjustments
	Extrapolations for missing years of data	
	Projections for missing years of data: CMS five-factor model with producer price indices	
	Smooth expenditure estimates across all years	Smooth expenditure estimates across all years
<b>Results for 1986-2005</b>	MHSA specialty expenditures by provider type, payer, and type of care	MHSA non-specialty provider expenditures by provider type, payer, and type of care

<sup>1</sup> Includes methods for estimating spending in specialty hospitals, specialty mental health centers, and specialty substance abuse centers whose underlying data come from specialty provider surveys sponsored by SAMHSA.

<sup>2</sup> For inpatient psychiatric units in general hospitals, estimates are based on data reported in Medicare Cost Reports submitted by hospitals to CMS. For spending on retail prescription drugs for treatment of substance use disorders, estimates come directly from data supplied by IMS. In both cases, the method is more direct than the two methods described in this table.

To develop MHSA expenditures for the other providers consistent with the methods of the NHEA, the 2009 release of 2007 NHEA health care expenditures<sup>11</sup> was used. The NHEA reports health care expenditures for all diagnoses only. Because the NHEA encompass both specialty institutions and general health care services, most specialty institution MHSA providers (specialty MHSA hospitals, specialty mental health centers, and specialty substance abuse centers) had to be eliminated from the NHEA estimates. This elimination avoided double-counting the specialty service expenditures, which were estimated separately from specialty facility surveys as noted above.

<sup>11</sup> In 2009, NHEA released estimates through calendar year 2007 (Hartman M, Martin A, McDonnell P, Catlin A. National health spending in 2007: Slower drug spending contributes to lowest rate of overall growth since 1998. Health Affairs 28:246-261, 2009).

To distinguish MHSAs from all-disease general health care expenditures, spending rates were estimated by type of diagnosis. Only the principal diagnosis was used to identify spending on MH, AA, or DA, and all-health treatments.<sup>12</sup> Spending proportions for MH, AA, and DA were calculated by multiplying utilization by average prices (accounting for discounts and cost sharing) for each diagnostic group and dividing by the sum of all diagnoses. These proportions were applied to the estimates from the NHEA to estimate the MH, AA, and DA national spending. SA expenditures were summed from AA and DA estimates. These estimations were made within type of payer and provider as described next.

The public sector payer categories are: Medicare, Medicaid, State and local government sources excluding contributions to Medicaid, and Federal sources other than Medicare and Medicaid (e.g., Department of Veterans Affairs, Department of Defense, and Federal Block Grants). Medicaid expenditures are combined Federal, State, and local funds. The private sources are: private insurance, out-of-pocket expenditures, and other private sources (e.g., philanthropy and other non-patient revenues received by providers).

The provider categories are: specialty MHSAs hospitals, general hospitals with specialty units, general hospitals with services outside of specialty units, psychiatrists, non-psychiatrist physicians, other non-physician MHSAs professionals (e.g., psychologists, psychotherapists, social workers, SA counselors), freestanding home health agencies, freestanding nursing homes, specialty MH centers, specialty SA centers, and retail purchases of prescription drugs. Although the definition has differed across SAMHSA surveys and across time, specialty MH centers generally include any facility that provides a variety of MH services and that is not hospital-based. Similarly, specialty SA centers are generally clinics and residential treatment centers that specialize in treating substance abuse and dependence.

MHSA estimates are also presented by grouping providers into specialty or non-specialty categories. Specialty providers include specialty MHSAs hospitals, general hospital specialty units, psychiatrists, other MHSAs professionals, specialty MH centers, and specialty SA centers. Non-specialty providers include general hospitals with services outside of specialty units, non-psychiatric physicians, home health agencies and nursing homes. The remaining two categories of spending, retail purchases of prescription drugs and insurance administration are not given a specialty/non-specialty designation.

Expenditures by provider and payer are further divided into inpatient, outpatient, and residential care. In some cases, providers offered all three types of care. For example, hospital expenditures could comprise inpatient, outpatient, or residential services. Home health expenditures were classified as outpatient expenditures only, and nursing home expenditures were classified as residential expenditures only. Expenditures on retail purchases of prescription drugs (a medical product rather than a provider) and insurance administration are not subdivided into these settings of service.

## Data Source Descriptions

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Table C.2 lists the data sources used to develop the SSE, how they were used, and the years of data that contributed to the estimates. For specialty institutional providers, SAMHSA conducts censuses and surveys of facilities that treat mental or substance use disorders, through the Survey of Mental Health Organizations (SMHO, the successor survey to the Inventory of Mental Health Organizations (IMHO)), and through the National Survey of Substance Abuse Treatment Services (N-SSATS, formerly called the Uniform Facilities Data Set (UFDS)). Facility and organization administrators answered these surveys and reported

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<sup>12</sup> As a result, spending for non-psychiatric physician visits in which a psychotherapeutic medication was prescribed, but no MH diagnosis was included on the billing record, is not captured.

data at the aggregate facility level or organization level (for example, total number of Medicaid clients or total revenues for clients treated for substance abuse).

The 1998, 2000, and 2002 SMHOs were conducted in two-parts. In the first part, all organizations were asked a small number of questions about types of organizations, ownership, number of patients, and number of beds staffed during the reporting year. The second part included only a sample of facilities but obtained more detailed information, including total revenue and source of payment. However, the response rate to these revenue questions was poor, resulting in some erratic trends in total revenue and by payer. In 2004, the format for this survey was revised so that total and payer revenue was collected from a census of facilities. A substantially higher response rate in 2004 than in 2000 and 2002 led to the decision to use only the data for 1998 and 2005 (projected from 2004 data), disregarding the 2000 and 2002 data points. For estimating expenditures in psychiatric hospitals and specialty MH centers, total revenue and payer information from the 1998 and 2004 (projected to 2005) SMHO data were used. For estimating overall expenditures in psychiatric units of general hospitals, we used Medicare Cost Report data on psychiatric units to establish the total expenditures for 1996-2005, relying on the distribution of spending by payer from the SMHO for 1994, 1998 and 2005. Data from earlier IMHO surveys were used to extend the psychiatric unit estimates to earlier years and to estimate payers.

For other providers, various data sources were used. These included administrative claims, cost data, and surveys that collect encounter-level or patient-level data. In some cases, these surveys sampled a first stage of providers and then a second stage of encounters between providers and patients. Because diagnosis on each encounter or patient is included in these sources, expenditures for specific treatments such as MH, SA, or all health care could be calculated.

**Table C.2: Data Sources for the MHSA Spending Estimates**

<b>DATA SOURCE</b>	<b>USE IN SPENDING ESTIMATES</b>	<b>YEARS USED</b>
Alcohol and Drug Services Study (ADSS)	• Expenditures in substance abuse specialty organizations.	1996
Inventory/Survey of Mental Healthcare Organizations (IMHO/SMHO)	• Expenditures in MH specialty organizations.	1986, 1988, 1990, 1992, 1994, 1998, 2004
National Survey of Substance Abuse Treatment Services (NSSATS)/Uniform Facility Data Set (UFDS)	• Expenditures in substance abuse specialty organizations.	1987, 1990, 1991, 1993, 1995, 1996, 1998, 2000, 2002, 2003, 2004, 2005
National Health Expenditure Accounts (NHEA)	• National health care expenditures by provider and payer.	1986–2005 (from NHEA 2007 released in January 2009)
National Hospital Discharge Survey (NHDS)	• Proportion of general hospital inpatient visits devoted to MHSA diagnoses.	1986–1992 (for remaining years see HCUP below)

DATA SOURCE	USE IN SPENDING ESTIMATES	YEARS USED
National Hospital Ambulatory Medical Care Survey (NHAMCS)	<ul style="list-style-type: none"> <li>• Proportion of general hospital outpatient visits devoted to MHSAs.</li> <li>• Proportion of emergency department visits devoted to MHSAs.</li> <li>• Proportion of MHSAs drug mentions during visits to general hospital outpatient and emergency departments devoted to MHSAs.</li> </ul>	1992–2005
National Ambulatory Medical Care Survey (NAMCS)	<ul style="list-style-type: none"> <li>• Proportion of physician office visits devoted to MHSAs.</li> <li>• Proportion of office visits attributable to visits to psychiatrists.</li> <li>• Proportion of MHSAs drug mentions during physician office visits.</li> </ul>	1985, 1990–2005 for office visits; 1985, 1992–2005 for drugs
National Nursing Home Survey (NNHS)	<ul style="list-style-type: none"> <li>• Proportion of nursing home residents with MHSAs.</li> </ul>	1985, 1995, 1997, 1999, 2004
National Home and Hospice Care Survey (NHHCS)	<ul style="list-style-type: none"> <li>• Proportion of home health users with MHSAs.</li> </ul>	1994, 1996, 1998, 2000
MarketScan®	<ul style="list-style-type: none"> <li>• Payment for MHSAs physician visits relative to all physician visits.</li> <li>• Proportion of physician bills for MHSAs by inpatient, outpatient, and emergency department care.</li> <li>• Proportion of other provider bills (e.g., psychiatrists and home health agencies) for MHSAs.</li> <li>• Average copayment amounts.</li> </ul>	1995, 1996, 1997, 1998
IMS Health Inc. data	<ul style="list-style-type: none"> <li>• Spending on prescription drugs for SA treatment.</li> <li>• To verify MEPS prescription drug estimates.</li> </ul>	2002–2005
Medicaid drug rebate data	<ul style="list-style-type: none"> <li>• To estimate SA drug rebates. (Rebates for MH drugs are assumed to be the same share as for all drugs; these rebate amounts are implicitly included when the MH share of all drugs is applied to the NHEA drug spending estimate.)</li> </ul>	Selected years

DATA SOURCE	USE IN SPENDING ESTIMATES	YEARS USED
Healthcare Cost and Utilization Project, Nationwide Inpatient Sample (HCUP-NIS)	<ul style="list-style-type: none"> <li>• Proportion of general hospital inpatient visits for MHSA diagnoses.</li> <li>• MHSA charges for inpatient hospitalizations by primary payer.</li> <li>• Charge differential between MHSA services and other health care services.</li> </ul>	1993–2005
National Medical Expenditure Survey (NMES)	<ul style="list-style-type: none"> <li>• Distribution of payments among multiple payers for services.</li> </ul>	1987
Medical Expenditure Panel Survey (MEPS)	<ul style="list-style-type: none"> <li>• Distribution of payments among multiple payers for services.</li> <li>• Spending for psychologists and counselors.</li> <li>• Spending on drugs to treat mental illness as a share of all drug spending.</li> </ul>	1996–2005
Economic Census, Health Care and Social Assistance Sector	<ul style="list-style-type: none"> <li>• Data on number of establishments and receipts for offices of MH professionals (except physicians).</li> </ul>	1997, 2002
Services Annual Survey	<ul style="list-style-type: none"> <li>• Revenue from offices of other professionals (other than physicians).</li> </ul>	1997–2005
Department of Veterans Affairs <sup>13</sup>	<ul style="list-style-type: none"> <li>• Spending on inpatient, outpatient and residential MH and SA treatment.</li> </ul>	Selected years 1993–2005
Medicare Cost Reports	<ul style="list-style-type: none"> <li>• Costs of psychiatric units in non-psychiatric hospitals.</li> </ul>	1996–2005
CMS Medicare and Medicaid Statistics (in published reports and special tabulations)	<ul style="list-style-type: none"> <li>• Inpatient services provided by physicians by diagnostic group for Medicare patients.</li> <li>• Relative Medicare payments for physician services in offices, hospital outpatient and emergency departments.</li> <li>• Distribution of hospital-based nursing home, home health, and personal care agency payments out of total community hospital payments.</li> </ul>	1992–2006  1992–2006  Background information from NHEA through 2007

**Special Calculations.** Several complex methodological adjustments were made to develop national spending estimates from multiple and disparate data sets. Methods were devised to allocate spending by diagnosis for facility-level data where disease classifications differed across surveys. Specifically, when co-occurring alcohol and drug abuse was adopted as a survey classification for clients in SAMHSA surveys,

<sup>13</sup> Chen S, Smith MW, Wagner TH, Barnett PG. Spending for specialized mental health treatment in the VA: 1995–2001. *Health Affairs* 22(6):256-263, 2003; Chen S, Wagner TH, Barnett PG. The effect of reforms on spending for veterans’ substance abuse treatment, 1993–1999. *Health Affairs* 20(4):169-175, 2001.

those co-existing SA diagnoses expenditures were divided between single-diagnosis care types. Missing total revenues from MH and SA facility surveys were imputed based on numbers of clients and facility characteristics (ownership and region). Estimates from data sources with small samples and high variance in estimates from year-to-year were smoothed. Estimates based on incomplete survey response rates were adjusted. Missing years of survey data were extrapolated and projected to 2005 when necessary. The costs of health insurance administration for MHSA coverage were estimated using the administrative cost share of total expenditures for each payer from the NHEA. Finally, NHEA-equivalent estimates used in this report were computed by eliminating a small proportion of expenditures for social services from SAMHSA survey results in order to compare MHSA estimates to total national health spending.

## Appendix D: Abbreviations

<b>Abbreviation</b>	<b>Meaning</b>
<b>AA</b>	Alcohol Abuse
<b>ADSS</b>	Alcohol and Drug Services Study
<b>AHRQ</b>	Agency for Healthcare Research and Quality
<b>BLS</b>	Bureau of Labor Statistics
<b>CES</b>	Current Employment Survey (conducted by BLS)
<b>CMS</b>	Centers for Medicare & Medicaid Services
<b>CNS</b>	Central Nervous System
<b>CPI</b>	Consumer Price Index
<b>DA</b>	Drug Abuse
<b>DHHS</b>	U.S. Department of Health and Human Services
<b>D.O.</b>	Doctor of Osteopathy
<b>DoD</b>	Department of Defense
<b>DVA</b>	Department of Veterans Affairs
<b>FDA</b>	Food and Drug Administration
<b>GDP</b>	Gross Domestic Product
<b>HCUP-NIS</b>	Healthcare Cost and Utilization Project, Nationwide Inpatient Sample (AHRQ)
<b>HHAs</b>	Home Health Agencies
<b>HMO</b>	Health Maintenance Organization
<b>ICD-9-CM</b>	International Classification of Diseases 9th Revision, Clinical Modification
<b>IMHO</b>	Inventory of Mental Health Organizations (SAMHSA)
<b>M.D.</b>	Medical Doctor
<b>MEPS</b>	Medical Expenditure Panel Survey (AHRQ)
<b>MH</b>	Mental Health
<b>MHSA</b>	Mental Health and Substance Abuse
<b>NAICS</b>	North American Industrial Classification System
<b>NAMCS</b>	National Ambulatory Medical Care Survey (NCHS)
<b>NCHS</b>	National Center for Health Statistics
<b>NHAMCS</b>	National Hospital Ambulatory Medical Care Survey (NCHS)
<b>NHEA</b>	National Health Expenditure Accounts (CMS)
<b>NHDS</b>	National Hospital Discharge Survey (NCHS)
<b>NHHCS</b>	National Home and Hospice Care Survey (NCHS)
<b>NIAAA</b>	National Institute on Alcohol Abuse and Alcoholism
<b>NIDA</b>	National Institute on Drug Abuse
<b>NMES</b>	National Medical Expenditure Survey (AHRQ)
<b>NNHS</b>	National Nursing Home Survey (NCHS)
<b>NSSATS</b>	National Survey of Substance Abuse Treatment Services (SAMHSA)

<b><i>Abbreviation</i></b>	<b><i>Meaning</i></b>
<b>PPI</b>	Producer Price Index
<b>SA</b>	Substance Abuse
<b>SAMHSA</b>	Substance Abuse and Mental Health Services Administration
<b>SCHIP</b>	State Children’s Health Insurance Program
<b>SMHO</b>	Survey of Mental Health Organizations (SAMHSA)
<b>SSE</b>	SAMHSA Spending Estimates
<b>UFDS</b>	Uniform Facility Data Set (SAMHSA)

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SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities

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