Projections of National Expenditures *for* Mental Health Services *and* Substance Abuse Treatment

2004–2014

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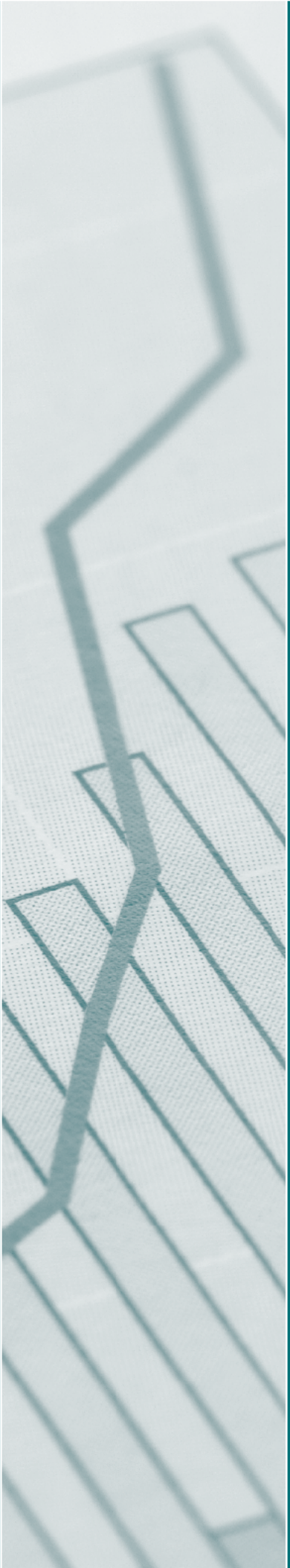

Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment

2004 – 2014

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The content of this publication does not necessarily reflect the views or policies of SAMHSA, DHHS, or the Expert Advisory Panel members. The authors are solely responsible for the content of this publication.

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ORIGINATING AGENCY

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Executive Summary

By 2014, expenditures on mental health (MH) and substance abuse (SA) treatment are projected to reach $239 billion, up from $42 billion in 1986 and $121 billion in 2003. The pace of growth in spending on MH and SA treatment is anticipated to be slower than for all-health spending over the next decade.[1] Because of the slower growth in MHSA spending compared to that for all health, MHSA expenditures are projected to account for progressively smaller shares of all-health expenditures: from 9.7 percent in 1986 to a predicted 6.9 percent in 2014.

MENTAL HEALTH (MH) SPENDING

Spending on MH treatment is anticipated to account for 85 percent of all MHSA spending (or $203 billion) by 2014. Although all-health spending growth is forecasted to slow, MH spending is expected to expand at about the same average annual rate during the projection period as it did historically. The growth rate for MH spending will likely be sustained over the next decade by the rapid increase in prescription drug spending that is a higher proportion (30 percent in 2014) of MH spending than of all-health spending (15 percent). However, as with the historic pattern, overall MH spending will likely expand over the next decade at a somewhat slower pace than the forecasts for all-health spending.

Public MH spending and private MH spending are anticipated to grow at the same rate over the coming decade, but with significant shifts within the group of public payers. Medicare coverage was expanded to include prescription drugs in 2006 for eligible Medicare beneficiaries. This Medicare expansion extended drug coverage to persons who formerly had drug coverage under Medicaid or private insurance and also to eligible persons who had no previous drug coverage. Medicare drug coverage is initially expected to offset some spending by Medicaid, which is projected to fall slightly in 2006 before gradually rising over the next decade. A drop in the share of MH spending from other state and local programs is also expected.

Growth in out-of-pocket MH spending is forecasted to slow. This slowdown is driven primarily by the expected moderation of spending for prescription drugs resulting from the anticipated increase in the use of lower-cost generic medications (which require smaller co-payments), and by the likely increase in the number of people who receive coverage under Medicare that would cause a reduction in the number of people who pay for MH drugs out of pocket.

The distribution of MH spending among providers is expected to shift as well. The overall hospital share of MH spending—especially the share for psychiatric and chemical dependency hospitals—is expected to decline throughout the projection period. This trend reflects the continuing shift of treatment to the outpatient setting and is especially noticeable in the growing share of MH spending for prescription drugs.

[1]Projections of all-health spending used in this report are prepared by the Centers for Medicare and Medicaid Services and reported in Heffler et al., 2005.

SUBSTANCE ABUSE (SA) SPENDING

Spending on SA treatment is projected to increase to $35 billion in 2014. SA treatment expenditures are anticipated to grow slightly faster during the projection period than they did historically, although still significantly slower than projected all-health spending. The gap in growth between SA and all-health spending is anticipated to narrow over the projection period. The largest contributions to forecasted growth are expected to come from general hospitals, which are expected to grow faster than historical patterns (although it is not clear how much growth is attributable to detoxification rather than rehabilitation services), and from specialty substance abuse centers.

Although it is anticipated to grow more slowly during the projection than during the historical period, public SA spending is forecasted to increase more rapidly than all SA spending. As a result, the public payers' share of SA spending is expected to increase. In 2003, public sources of SA financing—other State and local funding, Medicaid, other Federal (including SAMHSA SA block grants), and Medicare—together financed more than three-fourths (77 percent) of all SA spending. By 2014, the share financed by these public payers is anticipated to increase to 83 percent.

Growth in private SA spending is expected to accelerate from almost nonexistent increases between 1986 and 2003, but to remain well below (about half of) the growth rate exhibited by public payers. In part, this trend illustrates the major impact that the evolution of managed care and the cost-containment efforts of businesses (the major purchasers of private insurance) have had on SA spending.

Growth forecasts of private insurance and out-of-pocket spending show gains in the projection period over the trends they exhibited historically, but these are expected to remain significantly slower than overall SA spending growth. Private insurance is expected to account for only 7 percent of spending for SA treatment in 2014, a share that has steadily eroded from 30 percent in 1986. Out-of-pocket spending forecasts for SA treatment are substantially slower than for overall SA treatment spending. In part, this is because of the slow growth in spending by private insurance (that usually requires coinsurance and deductible payments) and the faster growth in public program spending (that usually requires only minimal, if any, out-of-pocket payments). By 2014, out-of-pocket spending is expected to account for 6 percent of all SA spending.

Sales of prescription drugs are a minor portion of spending for SA treatment—less than 1 percent throughout the historical and projection periods. Many hope for research breakthroughs to provide a major expansion in the number of medications to treat addictions. However, currently only a few drugs are available to treat substance use disorders and these are infrequently used.

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How to Use This Report

This is the fifth in a series of reports under the SAMHSA Spending Estimates (SSE) project, begun in 1996, on expenditures of national spending for mental health (MH) services and substance abuse (SA) treatment. Earlier reports were released describing and analyzing historical estimates (for 1986 through 1996 (McKusick et al., 1998), for 1987 through 1997 (Coffey et al., 2000), for 1991–2001 (Mark et al., 2005), and for 1993 through 2003 (Mark et al., 2007)).

This report is the first to forecast spending for the next decade (2004–2014). The forecasts are designed in conjunction with the latest historical estimates (Mark et al., 2007) to create a seamless time series of past and expected future expenditures. They are also designed to parallel all-health spending estimates released by Centers for Medicare & Medicaid Services (CMS) in 2005 (Heffler et al., 2005). The intent is to prepare updates to these historical and projected expenditures in alternating years in the future, with each projected set of MHSA spending linked to the previous set of historical estimates. The subsequent version of historical estimates, due to be released in 2008, may include changes in methods and data sources that could make them incompatible with these projections. Therefore, any set of projections should only be used in conjunction with historical estimates presented in the same publication.

The projections in this report build on historical estimates for 1986 through 2003 that were published in 2007. The definitions,[2] design, and methods used in the report on historical estimates and projections of expenditures follow closely those used in the National Health Expenditure Accounts (NHEA), produced by the CMS. The NHEA framework for estimates of spending for all-health care 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 projections in the historical report and in this report expand on the NHEA framework by including an additional dimension of spending—diagnosis (MH and SA disorders). Historical estimates include one other dimension—the setting where care is delivered (inpatient, outpatient, and residential), which is not separately estimated in the projections.

Projections are intended to provide a realistic picture of future spending for MH and SA treatment based upon trends that have existed in the past and laws and regulations known to have been enacted for the future. In addition, these projections of spending will incorporate developments in treatment and technology (prescription drugs) and changes in laws and regulations at rates similar to those in the historical estimates. However, these projections cannot account for extraordinary changes in the methods of treatment of mental illness or substance use disorders that may take place either because of changes in medical technology or because of changes in laws and regulations that may be enacted in the future. Some uncertainty is inherent in any projection, and this uncertainty increases as the years extend beyond the latest historical estimate.

[2]Definitions for SAMHSA Spending Estimates can be found in Appendix C.

Chapter 1 | Background and Methods

THIS REPORT AND ITS ORGANIZATION

This report presents projections of expenditures on mental health and substance abuse (MHSA) treatment services, along with an historical series of estimates of MHSA spending upon which the projections are based. Spending is presented for MHSA combined and for mental illness and substance use disorders separately because the expenditure patterns for these disorders differ in some important ways. These expenditure estimates and projections are discussed in terms of levels of spending, distribution among payers and providers, and average annual growth rates between years presented in this report. Spending trends are examined over time and in relation to all-health spending.

The organization of the report is as follows:

- **Chapter 1** provides an overview of this report and describes the methods and assumptions used to forecast spending.
- **Chapter 2** summarizes the findings for total MHSA spending and compares spending on MH and SA treatment to all-health spending, including trends from 1986 to 2014.
- **Chapter 3** examines mental health (MH) services spending by provider and payer and trends in this spending from 1986 to 2014.
- **Chapter 4** focuses on substance abuse (SA) treatment expenditures and explores the major providers and sources of financing treatment for substance use disorders, including trends from 1986 to 2014.
- **Chapter 5** discusses the implications of the projection trends.
- **Appendix A** contains tables of historical estimates and projections of spending that serve as the foundation for the discussion and graphs displayed in this report. Tables display historical estimates for 1986, 1993, 2000 and 2003 and projections of spending for 2006 and 2014. These years are chosen in part to reflect key health care policy periods: 1986 (the first available year of historical MHSA estimates); 1993 (start of major expansion of the managed care and managed behavioral care); 2000 (end of transition to managed care); 2003 (last available historical estimate); 2006 (year when Medicare Part D was implemented); and 2014 (concluding projection year). Tables include spending by type of service and by payer, with information presented on levels of spending, distribution among providers and payers, and average annual growth rates between years shown on the tables.
- **Appendix B** lists the members of the Expert Advisory Panel for this report.
- **Appendix C** furnishes definitions of categories of spending used throughout this report.
- **Appendix D** provides a list of abbreviations used in this report along with their meanings.

The remainder of this Chapter will cover the scope of the projections, the rationale for preparing the projections, uses for projections and forecasting procedures, including methods and the role of judgment in developing the projections. In addition, this Chapter discusses a context for viewing the results.

SCOPE OF ESTIMATES AND PROJECTIONS

The estimates and projections provide 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. This report describes estimates for 1986 through 2003 and projections for spending through 2014.

These estimates focus on expenditures for MHSA treatment, not on the burden of MHSA illnesses. 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. For example, physical consequences of MHSA problems include cirrhosis, trauma, HIV, and other infectious diseases. The report does not include expenditures for mental retardation services or for the diagnosis and treatment of related disorders that are normally, or historically, covered by general medical insurance, such as dementias and tobacco addiction. Services through self-help groups such as Alcoholics Anonymous are not included in these estimates because these programs are free to the clients. Finally, the expenditures reported do not include spending to prevent substance use disorders or mental illnesses.

Expenditures are presented overall for the whole MHSA system as well as for particular providers. However, estimates are not available for the overall number of persons served or for the number of persons served by provider type.

Detailed definitions of what is included in the spending categories used in this report can be found in Appendix C.

WHY PREPARE PROJECTIONS?

The Substance Abuse and Mental Health Services Administration (SAMHSA) is part of the U.S. Department of Health and Human Services. The SAMHSA vision is to promote a life in the community for everyone. SAMHSA aims to achieve that vision through a mission focused on building resilience and facilitating recovery for people with or at risk of substance abuse and/or mental illness—a mission that is both action-oriented and measurable. The SAMHSA goals are to improve accountability, capacity, and effectiveness in order to ensure that its resources are being used effectively and efficiently throughout State and community programs that serve clients. To promote accountability, SAMHSA tracks national trends, establishes measurement and reporting systems, and develops and promotes standards to monitor and guide efforts to improve delivery of services to its clients.

The estimates and projections in this report support SAMHSA's vision and mission by measuring many dimensions of spending on treatment for mental and substance use disorders. These estimates and projections provide a foundation of spending information that promotes accountability and is essential to the effectiveness of the goals articulated by the agency. This information aids SAMHSA—as well as other policy and decision makers, providers, and consumers—by increasing understanding of what the nation spends on MH services and SA treatment, which payers fund that treatment, who delivers that treatment, and how expenditures have changed over time. These projections are intended to assist SAMHSA in its policy and budget formulations by helping it to envision future funding requirements, the implications of policy actions, and the potential consequences of the continuing trends in spending that currently exist.

HOW CAN PROJECTIONS BE USED?

Health spending estimates and projections were first developed and used by the largest health care funding agency in the federal government—the Centers for Medicare and Medicaid Services (CMS)—in their budgeting and policy work. Similar uses are being developed at SAMHSA.

The CMS estimates and projections provide the federal government and many other users with a summary of all-health spending that incorporates the projections of the Medicare and Medicaid programs (also prepared by the Office of the Actuary (OACT)) as included in either the President's budget or the Report of the Trustees of the Medicare program. Because they provide an accounting framework consistent with the federal budget, the National Health Expenditure Accounts (NHEA) have been the basis for OACT's modeling of wide-ranging national health reform proposals since 1970. In this application, the NHEA serves as a base in estimating the cost to various payers of national health financing proposals. The NHEA is used to calibrate survey data when completeness is essential. For example, the OACT model for estimating national health reform proposals in the early 1990s was based on household surveys that were edited and calibrated to the NHEA. Similarly, the NHEA projection factors for prescription drugs were incorporated into the estimates for drug costs under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Projections of health spending are valuable policy, planning, and budgeting tools. No matter how current the latest historical estimates are, there is always a demand for more recent figures that focus on short run trends. State and Federal governments, health plans, and providers all need projections to guide business decisions and budget planning that may extend for 3 to 5 years or more. Yet few, if any, of these groups have the ability or resources to prepare projections with the sophistication provided in these forecasts—an essential part of planning, budgeting, and decision-making processes.

Over the longer run, projections help policymakers, consumers, and other interest groups to anticipate levels of spending if current trends continue and to highlight the potential consequences of current trends. This strategy may help inform policies or programs to both avert negative consequences and to better prepare for them. Earlier projections of the Medicaid share of State MH spending has helped to call attention to the importance of this growing component and triggered a number of activities designed to adapt to this trend and/or to better integrate Medicaid and non-Medicaid decisions within States. These new MHSA projections are expected to further this understanding by focusing attention on additional dimensions of spending patterns, such as the rising share of MH spending directed to prescription drug purchases and to the ever-increasing share of SA funding that is predicted to be the responsibility of State and local governments.

As for all-health spending, projections of MHSA spending will be useful for policy, budgeting, and planning purposes. Because MHSA spending is a subset of all-health spending, these forecasts by provider and payer will show how MHSA projections relate to national levels of all-health spending by provider and payer. The continuation of the trend toward smaller shares of all-health spending devoted to MHSA, especially by certain SA payers, may have implications for the providers and recipients of behavioral health care. These projections provide a basis for making any needed policy adjustments.

PROJECTION METHODS

In this section methods used in preparing projections of MHSA treatment expenditures are described. In general, the forecasts are projections from historical estimates of MH and SA spending for 1986–2003 that are documented and presented in a previously published report (Mark et al., 2007). These historical estimates follow the general format of the NHEA, published annually by the OACT at the CMS, and are comparable in definition and general methods to the CMS estimates. Unlike the historical estimates, however, certain categories of spending present in the historical estimates were not projected for this report. These categories include spending by setting (inpatient, outpatient, and residential) and for specialty and non-specialty providers—primarily because of data-related issues.

A variety of techniques specified below were used to project the historical MHSA spending estimates forward for 2004 through 2014. The resulting projections were further evaluated for their relationship to the CMS projections of all-health spending for dimensions of provider type and payer to ensure that trends remain reasonable throughout the projection period. As a final check on reasonableness, the projections and their assumptions were presented to the 2006 and 2007 Expert Advisory Panel, who provided guidance for this project. The Advisory Panel included experts in mental health, substance use disorders, expenditure estimation, actuarial methods, health services research, health economics, and State MH and SA programs, and included representatives from Federal health institutes and agencies, private sector organizations including consumer organizations, and academia. Appendix B lists members of the 2006 and 2007 Advisory Panel.

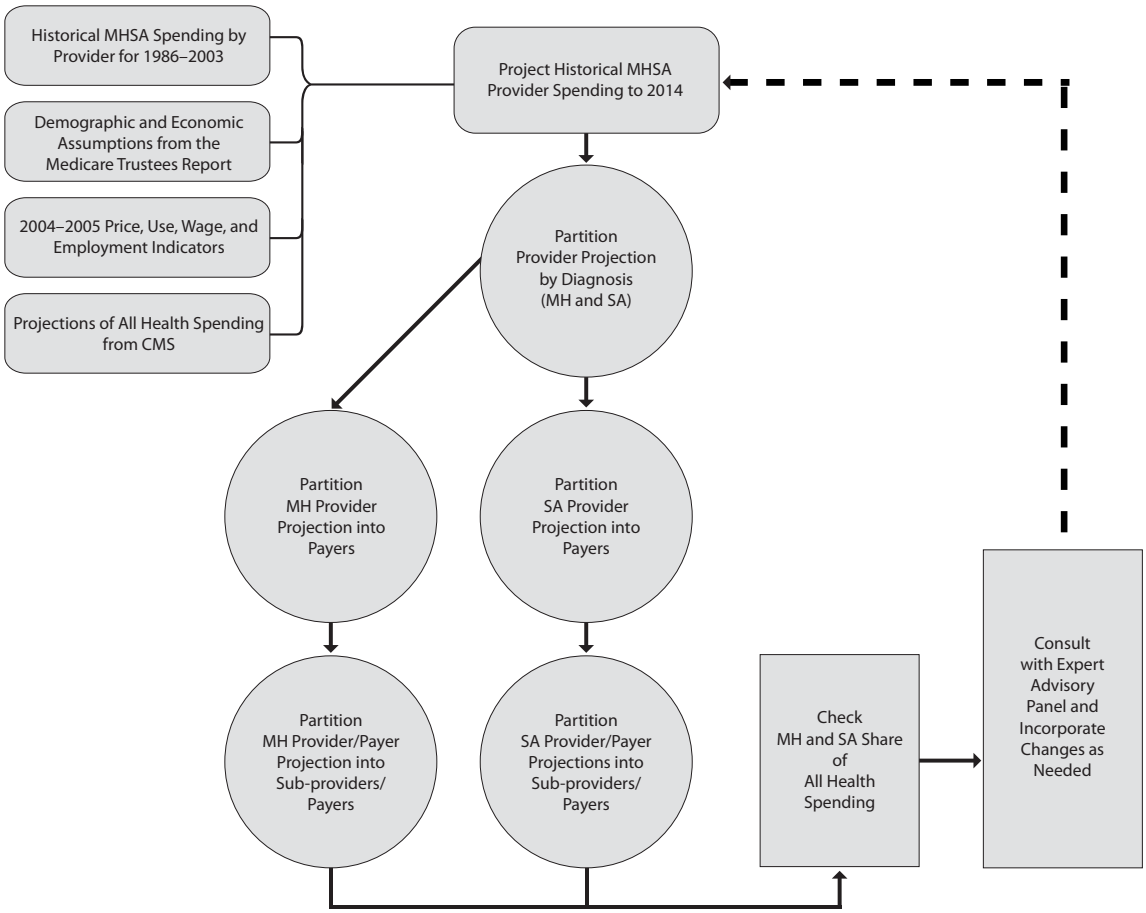
Most of the methods to project spending for MH and SA are based on techniques used by CMS in the past to project spending for all-health care. The use of earlier CMS methods is appropriate given that the MHSA spending projections are fairly new and depend on a more limited number of historical years than the CMS series.[3] CMS subsequently incorporated additional techniques for some dimensions of their projections; the MHSA spending projections may follow the same path in the future as relationships between providers and payers become better understood.

Both the MHSA historical estimates and projections presented here were prepared in the context of the historical and projected estimates of NHEA published in early 2005 and the 2005 Medicare Trustees Report (Heffler et al., 2005; Smith et al., 2005; The Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2005). The Medicare Trustees Report incorporates assumptions and estimates from the Old Age and Survivors Disability Insurance (OASDI) Trustees Report and also contains other assumptions specific to Medicare. The OASDI estimates used in the NHEA and in MHSA spending projections relate to basic economic and demographic projections for items such as disposable income growth, economy-wide price inflation, economic growth, and population size and growth.

[3]CMS historical estimates were first estimated for 1929, and a consistent time series is available for 1960 through 2005—a longer time series than for the historical MHSA spending estimates which begin in 1986 and end in 2003. Historical MHSA spending estimates are published in Mark T, et al., 2007. *National Expenditures for Mental Health Services and Substance Abuse Treatment, 1993–2003*, SAMHSA publication number SMA 07-4227. Rockville, MD: Substance Abuse and Mental Health Services Administration.

The general flow of processes used to create MHSA projections is depicted in Figure 1.1. To understand the projection method, it is helpful to understand, at least at an overview-level, the methods for creating the MHSA historical spending estimates.[4] In brief, the historical estimates for some specialty services are provided by SAMHSA surveys of MH and SA facilities and providers. Non-survey years are estimated by interpolation and extrapolation. For the other services, mostly for general service providers, the NHEA is partitioned into MH, SA, and "other" diagnoses using survey data, primarily from the National Center for Health Statistics (NCHS) and the Agency for Healthcare Research and Quality (AHRQ). Each type-of-service by source-of-funds cell for each year is partitioned into the three diagnostic groups (MH, SA, and all other diagnoses). The ratios of MHSA spending to total spending for each cell are smoothed over time using a standard exponential smoothing method. These ratios are then applied to the NHEA totals for each provider category to estimate n on-specialty spending. These historical MHSA spending estimates by provider and payer for 1986 through 2003 are the beginning point for projections.

Figure 1.1: SAMHSA Spending Estimates Projection Process



Additional inputs to the projection process include economic and demographic assumptions used in the Medicare Trustees Report, recent (2004 and 2005) indicators of price, use, wage, and employment growth, and the CMS projections for all-health spending.

[4]More detailed methods are described in the historical MHSA spending estimates report: Mark T, et al., 2007.

Next, the historical aggregate spending totals are projected for each year in the 2004–2014 period. Three techniques (two borrowed directly from CMS) are used to project combined MHSA spending for each provider. The first technique is a five-factor model that allocates spending growth to changes in:

1. Population
2. Utilization
3. General inflation
4. Net price increases specific to the service (net of general inflation)
5. Residual—Changes in remaining influences which include intensity of services or any other factor above that could not be specified explicitly due to lack of data[5]

In this exercise, projections of general inflation and population growth are taken as given from the OASDI Trustees Report forecast. Historical measures of utilization growth and net price changes are chosen specific to each industry and are projected as part of this process. These measures are listed in Table 1.

The second technique is typically employed when suitable utilization and price measures specific to the service being forecast are not available. This technique, called the provider model, develops projections from estimates of provider input costs. Growth in input costs is assumed to be composed of changes in the number of workers, the hours per worker, wages per hour, and a residual of non-labor costs, including the cost of supplies, equipment and capital expenditures. In this model, trends in labor costs are used along with a projected residual (non-labor costs) to estimate growth trends. As a practical matter, wages dominate the cost of nearly all services (especially services related to MH and SA), so that the influence of the growth of non-labor costs on overall cost growth is usually small.

When possible both techniques (the five-factor model and the provider model) are used to develop projections. One of these two methods is used as the source of the projections, and the other as a reasonableness check.

For some providers, neither the five-factor model nor the provider model is used to forecast spending. In these cases, growth patterns developed by CMS are relied upon because there is little reason to assume that the projection patterns for MHSA would be different from those modeled by CMS.

Table 1 shows which of the three techniques described above is used for each provider and lists the sources of data used to measure price and use trends in the five-factor model and/or the specific industry of wage-related variables used in the provider model.

[5]The residual also includes the effects of any mismeasurement in any of the preceding factors.

Table 1: Summary of MHSA Spending Projection Methods and External Data Sources Used

SERVICE	PROJECTION MODEL (CHECK MODEL)	EXTERNAL SOURCES* FOR:		
		UTILIZATION	PRICE	EMPLOYMENT AND WAGES
Hospital	Five-Factor Model (Provider Model)	▪ American Hospital Association Annual Survey ▪ National Hospital Discharge Survey ▪ National Hospital Ambulatory Medical Care Survey	▪ Consumer Price Index (CPI) for Urban Consumers—Inpatient Hospital Services and Outpatient Hospital Services ▪ Producer Price Index (PPI) for Psychiatric and Substance Abuse Hospitals	▪ Bureau of Labor Statistics (BLS) Current Employment Survey (CES) North American Industrial Classification System (NAICS) 6221 General Medical and Surgical Hospitals
Physician	Five-Factor Model (Provider Model)	▪ National Ambulatory Medical Care Survey	▪ CPI for Urban Consumers—Physician Services	▪ CES NAICS 6211 Offices of Physicians
Prescription Drugs	Five-Factor Model	▪ National Association of Chain Drugstores ▪ IMS Health Inc. (IMS) ▪ OACT for retail drug projections by payer	▪ IMS	
Specialty Substance Abuse Centers	Provider Model (Five-Factor Model)	▪ Less than 24 hour mental health treatment episodes from *Mental Health United States 2002*	▪ None used	▪ CES NAICS 62142 Outpatient MH and SA Centers and NAICS 62322 Residential MH and SA Facilities
Multi-Service Mental Health Centers	Provider Model (Five-Factor Model)	▪ 24 hour residential and hospital use treatment episodes from *Mental Health United States 2002*	▪ None used	▪ CES NAICS 62142 Outpatient MH and SA Centers and NAICS 62322 Residential MH and SA Facilities
Other Professional	Five-Factor Model (Provider Model)	▪ None used	▪ CPI for Urban Consumers —Services by Other Medical Professionals	▪ CES series for NAICS 6213 Other Health Practitioners
Nursing Home	Other—NHEA Projections			
Home Health	Other—NHEA Projections			

* Factors for population change and inflation are from the 2005 Medicare Trustees Report; residual growth (intensity and other factors) for historical estimates is calculated by dividing aggregate spending growth by growth in population, overall inflation, net medical inflation, and use per capita.

Next, the forecasted spending for each provider for 2004 through 2014 is partitioned into diagnostic categories of MH and SA. This is accomplished by first calculating the historical distribution of MHSA spending by diagnoses. The year-to-year differences in this distribution are calculated separately for MH and SA. The average of these differences over the historical years becomes the target average difference in share for 2014. Between the last historical year and 2014, the year-to-year differences in distribution are interpolated, using either a geometric or straight-line formula. This provides a continuation of trends and makes the percentage shares change smoothly over the forecast period. For each year the projected year-to-year difference is added to the preceding year's distribution to project the share of MHSA spending for each diagnosis. These shares are ultimately applied to the aggregate provider projected spending to produce spending levels for MH and SA over the projection period. This method assumes that the general pattern and rate of change in the distribution over the historical years will continue into the future. For example, the declining spending on SA treatment that shows up in most services during the historical period is assumed to continue through 2014.

Next, total spending by diagnosis is partitioned into seven payer groups—out-of-pocket payments, private insurance, other private, Medicare, Medicaid, other Federal, and other State and local. The methods used for this step are similar to the ones used to produce spending by diagnosis. For many providers, this is the last step in the projection process.

For some providers, however, further partitioning of spending is necessary to create all of the spending categories required in the MHSA spending projections. These partitions may include creation of specialty spending estimates within providers, such as psychiatrist spending within the broader category of physician spending. Partitions of spending were also forecast where it was possible for services to be furnished through multiple providers, such as home health or nursing home services that could be associated with providers that are free-standing or hospital-based. Under the MHSA definitions,[6] providers are establishments that produce an array of services, and spending for any one provider may include spending for a variety of services. For example, hospital care may include inpatient and outpatient acute care services, and also may be the source for home health care or for care in a nursing home wing of the facility.

For most services, the NHEA forecast provides a benchmark to consider when evaluating the results of the MHSA forecast. Therefore, the projections by major provider types are taken as a share of all-health spending and assessed for reasonableness as a final step in the projection process.

In the final step, the projections were presented to an Expert Advisory Panel that provides advice on assumptions and the general trends observed within the industry. As necessary, projections were adjusted based on this advice and the processes were rerun to produce final projections.

ROLE OF JUDGMENT

While the projections have been developed from prior spending patterns, the models also provide a framework for incorporating informed opinion about trends and how emerging patterns might change future trends. Thus,

[6]See Appendix C for definitions.

the set of projections developed using the 5-factor or provider models was considered as a starting point and the assumptions initially used were considered default assumptions that could be changed. Using input from SAMHSA's Expert Advisory Panel members who have first-hand knowledge of the MHSA industry, the original assumptions were modified and these judgments were incorporated into the final projections.

In the five-factor model, judgments are needed on whether utilization, deflated price,[7] and the residual will follow or diverge from prior trends. The default assumption was that growth in each of these factors will revert to long term average growth by the end of the projection period with a smooth transition from the most recent data. In most cases measures of utilization are available though 2003 and a price proxy (a price index for a service either the same as or similar to the service in question) through 2005. Labor information used in the provider model is available through 2005. The residual can be calculated through the last year where measures of growth for both the total and all other non-residual factors are present—through 2003.

There are several examples where judgment has been used to alter the trajectory of overall, MH or SA, or payer spending growth. In spending for prescription drugs, the introduction of Medicare Part D prescription drug coverage in 2006 will alter spending trends by increasing the share of drug payments from Medicare and reducing those from Medicaid. Using the NHEA projections as a guide, the distribution of spending was modified so that it reflected these altered patterns of growth. Similarly, the trajectory of MHSA prescription drug spending was slowed throughout the entire projection period based on the expert opinion about recent decelerations in the rate of growth and based on analysis of MHSA spending as a share of all-health spending. In part, this change is based on the rising use of lower-cost generic medications, spurred by insurers' use of formulary designs that require lower cost-sharing for generic products and the rising number of branded products going off patent. In addition, analysis of literature showed an increasing number of black box warnings required by the Food and Drug Administration on medications in light of adverse side effects; these were expected to produce a slight dampening effect on drug growth compared to historical patterns. In another case, the rapid decline in spending for inpatient hospital services in specialty hospitals is projected to slow. The underlying assumption is that most services previously delivered on an inpatient basis have already been transferred to the outpatient sector, and that a minimum amount of inpatient care will be necessary in the future for the treatment of the most severe cases of mental illness or substance use disorders. Most judgmental changes that were introduced into the projections were in the steps where the MHSA spending was projected and where the projections by diagnosis were partitioned by payer.

FUTURE IMPROVEMENTS

This report is the first attempt to produce a complete set of MHSA projections. While reasonable methodologies have been used to create these projections, potential improvements that could further refine the projections are always being considered. Among the possible improvements is the development of regression models for certain sectors or payers. For example, it may be possible to project spending for MH and SA for State and local

[7]Deflated price is a service-specific price growth from which general economy-wide price growth has been removed. This represents price growth for a certain provider type that is in excess of general economy-wide inflation. For example, a price index for a specific provider such as the Consumer Price Index for physicians is calculated net of general inflation (measured as the GDP deflator). In this example, deflated price is calculated by dividing the CPI for physicians' services by the GDP deflator.

governments based on known historical relationships of this spending to overall economic growth. Because most State governments must balance their budgets each year and have a limited capacity for funding programmatic expenditures through borrowing, they will tend to have more immediate reactions to recessions, and funding expansions will tend to lag behind those in the overall economy. Regression modeling may help to refine projections of State and local spending based on these historical relationships.

There are also areas where the current assumptions could reasonably be altered if more information were available. For example, the growth rate of spending for psychiatrists' services is strong. Information on the number of practicing psychiatrists over time would help to ensure that the trajectory shown for this projection is reasonable.

A WORD ABOUT RESULTS

The projections produced in this report forecast spending under a specific set of assumptions about growth in population, employment, and inflation. Typically, these parameters, which are established as part of the Federal budget process, are generally accepted forecasts. In addition, these projections are produced using a current law assumption, meaning that only the impact of laws currently enacted, including those currently in effect as well as those that may go into effect during the projection period, will be incorporated.

Taken together, this means that it is unlikely that the forecast of spending shown here will precisely be achieved. This is because forecasts of variables such as employment and inflation are based on the current set of knowledge and do not take into effect any extraordinary changes in law or regulations, some of which could be influenced by the trends in these projections. For example, the oil crisis could unleash more serious inflation, causing repercussions in employment and economy-wide growth. These factors could influence policy makers to initiate cost-cutting measures in light of reduced revenue expectations. Such measures might include amending eligibility criteria or cost-sharing for Medicaid and Medicare beneficiaries or altering funding availability for SAMHSA block grants. Users of this information should understand that these are projections based on current circumstances that are likely to be influenced in the future by a variety of factors. Nevertheless, these forecasts will help users to envision future spending patterns and changes that should be informative to decision makers.

At times, users will compare various iterations of projections with the eventual historical estimates covering the same period of time. This is a reasonable exercise in that it may help illustrate the limitations inherent in the process and encourage forecasters to upgrade methods. As techniques advance and data improves, it is expected that forecasts will become more informative and perhaps more accurate. Business and government use forecasts as practical planning tools, particularly when it is understood that provisions must be made for uncertainty.

These MHSA projections can be useful for understanding the trajectory of spending by providers and payers for treatment of those with MH and SA diagnoses if future trends follow interpretation of the past. These projections may also provide more current information on spending than would otherwise be available, and help public and private decision makers understand the potential consequences of spending trends that currently exist. They also provide a resource for projecting budgets when no other information is available.

Chapter 2 | Overview of Expenditures for Mental Health Services and Substance Abuse Treatment, 1986–2014

Mental illness and substance abuse have a large impact on individuals, families, and communities. Many Americans experience mental illness or substance use disorders at some point in their lifetime (Kessler et al., 2005b), and co-occurrence among these disorders is common (Kessler et al., 1996).

An overview of projections for combined expenditures for mental health and substance abuse (MHSA) treatment and their relationship to all-health spending[8] is reported in this chapter. Subsequent chapters report separately and more in-depth on projected mental health (MH) services and substance abuse (SA) treatment expenditures, highlighting the differing MH and SA trends.

Combining MH and SA spending projections provides important information to support SAMHSA's overall mission and policy objectives. It also allows for a more organic presentation of expenditures on these disorders than looking at either MH or SA payments individually. This is because of the high rate of co-occurrence of substance use disorders and other psychiatric disorders (Regier et al., 1990; Kessler et al., 1994; Kessler et al., 2005a) in the U.S., and particularly between substance use disorders and mood and anxiety disorders (Grant et al., 2004). In addition, the MHSA estimates and projections allocate spending on treatment of co-morbid MHSA disorders entirely to a MH or SA illness based only on *principal* diagnosis of each treatment event. Because MH insurance benefits tend to be more generous than SA benefits, and because providers often document the MH diagnosis as primary to ensure reimbursement, treatment for co-occurring MHSA diagnoses are more apt to be coded as MH. Therefore, the combined MHSA spending is likely to be more accurate than MH or SA spending separately. Presenting projections for combined MHSA spending may portray more realistic future spending trends as current systemic and economic barriers to delivering integrated treatments for individuals who need both MH and SA treatment begin to disappear.

TOTAL EXPENDITURES FOR MENTAL HEALTH AND SUBSTANCE ABUSE

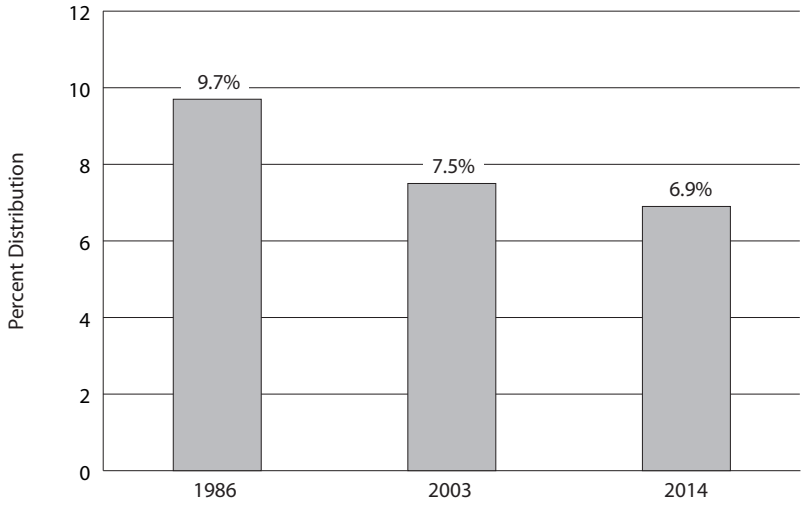
MHSA expenditures are projected to reach $239 billion in 2014, up from $42 billion in 1986 and $121 billion in 2003. These amounts translate into spending of $174 per person in the United States in 1986, $409 in 2003, and $735 in 2014. This four-fold increase in spending per person between 1986 and 2014 for MHSA spending is anticipated to occur at the same time that overall-health care spending per person is expected to grow six-fold (Table A.1, Appendix A).

MH spending accounts for the vast majority of MHSA spending. In 1986, 78 percent of MHSA spending was attributable to MH, a share that grew to 83 percent in 2003 and is expected to rise to 85 percent by 2014 (Table A.1, Appendix A).

[8]As reported in the National Health Expenditure Accounts (NHEA) produced by the U.S. Center for Medicare and Medicaid Services.

In 2014, MHSA spending is likely to account for 6.9 percent of the Nation's $3.5 trillion health care bill. This is a smaller share than in 2003 (7.5 percent) or 1986 (9.7 percent) (Figure 2.1 and Table A.1, Appendix A). In part, this fall in MHSA share of all-health spending is influenced by the rapid growth in cost-increasing technology that is reflected in all-health spending, but which has substantially less impact on MHSA service delivery and spending.

Figure 2.1: MHSA Expenditures as a Percent of Total Health Care Expenditures: 1986, 2003, and 2014

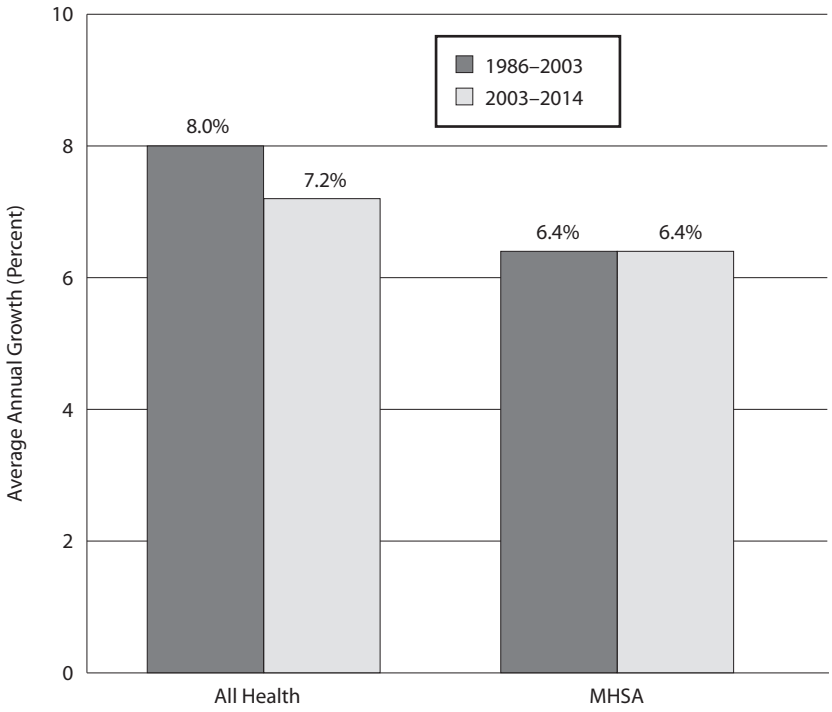


GROWTH IN MHSA SPENDING

The trend towards a smaller share of all-health expenditures attributable to MHSA reflects a projected growth rate in MHSA spending that is slower than for all-health (Figure 2.2). Over the 2003-2014 projection period, MHSA spending is expected to rise at a 6.4-percent average annual rate, somewhat slower than the projected average annual increase for all-health of 7.2 percent (Table A.4, Appendix A).

Spending for MHSA services is expected to grow at the same average rate in the projection period (2003-2014) as it did in the historical period (1986-2003)—6.4 percent. For all-health spending, however, the average rate of spending increases in the projection period (7.2 percent) is anticipated to be slower than in the historical period (8.0 percent) (Figure 2.2, Table A.4, Appendix A). Spending growth for MHSA is not projected to diminish in the projection period in part because a larger share of total spending in MHSA than in all-health is predicted to come from prescription drugs. MHSA prescription drug spending is expected to grow at a substantially faster average rate than overall MHSA spending throughout the projection period—9.2 percent for drugs compared to 6.4 percent for MHSA overall (Table A.4, Appendix A).

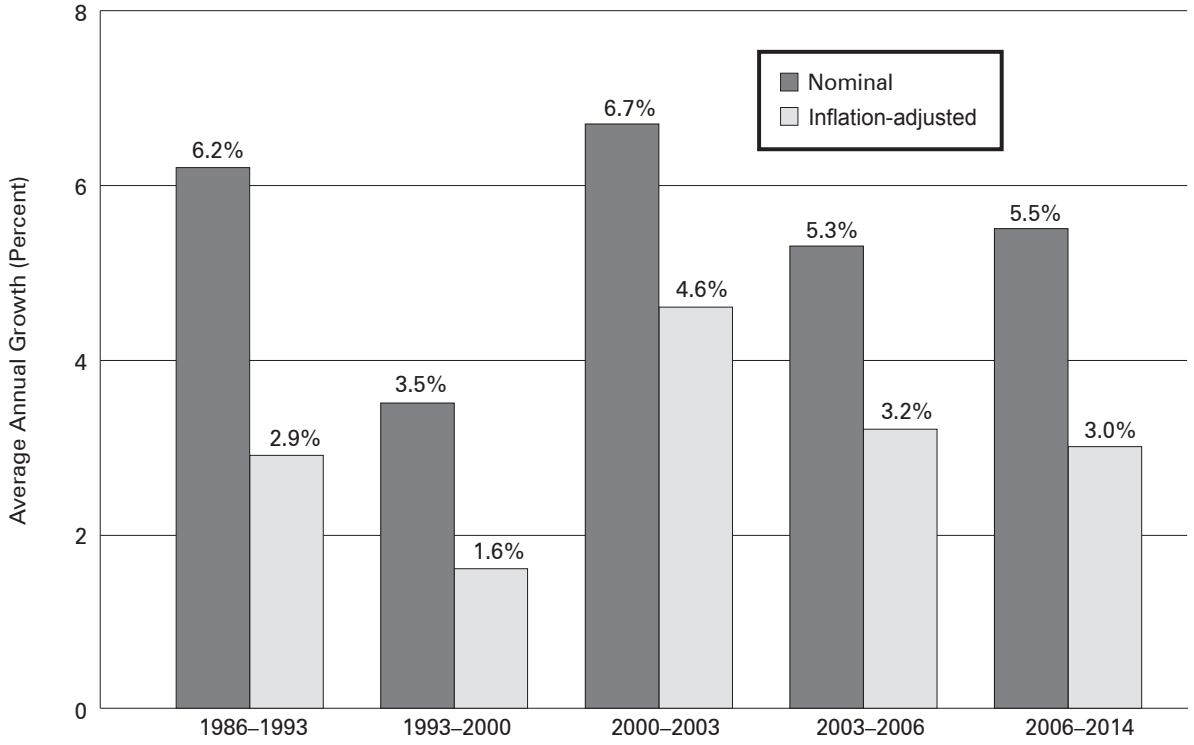
Figure 2.2: Growth of MHSA and All-health Expenditures: 1986-2014



Interpretation of spending growth over time can be complicated by different rates of price inflation exhibited in each year. By adjusting for general price inflation and calculating spending on a per person basis, we can remove two important factors that influence spending increases. Inflation-adjusted spending per person is a better approximation of whether services are increasing or decreasing. It falls short of a perfect measure because it does not adjust for inflation that is specific to this industry, which may be greater or less than general inflation.

Throughout the historical and projection period, inflation-adjusted spending per person has increased at positive rates. During the 1986-1993 period, inflation-adjusted MHSA spending per person averaged growth of 2.9 percent. In reaction to managed care policies, inflation-adjusted spending slowed to 1.6 percent between 1993 and 2000 before rebounding to 4.6 percent growth in 2000-2003. Compared to the recent 2000-2003 period, inflation-adjusted growth per person is expected to diminish slightly over the projection period–to 3.2 percent between 2003 and 2006 and 3.0 percent between 2006 and 2014 as spending increases for prescription drugs are predicted to wane (Figure 2.3 and calculated from Table A.1, Appendix A).

Figure 2.3: Growth of Inflation-Adjusted MHSA Expenditures per Person: 1986-2014



SUMMARY

Over more than a decade (1990-2003), the prevalence of mental health and substance use disorders in the United States' adult population (ages 18-54) has remained relatively constant while the rate of treatment has increased. Yet despite increases in the treatment rate, most people with mental illness or substance use disorders do not receive any treatment (Kessler et al., 2005c).

In part a reflection of this increase in treatment rate, historical estimates of MHSA spending show a positive growth in spending, a trend that is expected to continue in the future. MHSA spending is anticipated to grow to $239 billion in 2014, up from $121 billion in 2003 and $42 billion 1986. Similar to the historical period, the MHSA spending growth forecast remains positive in projected period when adjusted for inflation and population growth. However, the rate of MHSA spending growth is projected to continue at a pace that is slower than for all-health, resulting in a further shrinkage of MHSA spending as a share of all-health spending—from 9.7 percent in 1986 to a projected 6.9 percent in 2014. In part, this fall in the MHSA share of all-health spending is attributable to high cost technology that drives all-health care costs, technology that is less prevalent in the provision of MHSA services.

Chapter 3 | Expenditures for Mental Health Services, 1986–2014

This chapter presents spending for MH treatment separately from MHSA treatment, highlighting many of the distinct trends that are not apparent in combined MH and SA figures.

The delivery of MH services has undergone an enormous transformation over the past decade. The accessibility of treatment has expanded to encompass those who previously avoided treatment requiring a visit to a MH professional. Newer, safer MH medications prescribed by psychiatrists and primary care providers have opened new avenues to treatment and made treatment accessible in primary care settings.

This chapter presents estimates and projections of spending on treatments for mental illness in the United States for 1986–2014. Mental illness was identified using providers' diagnostic information for patients, and defined by diagnostic codes found in the International Classification of Diseases 9th Revision Clinical Modification (ICD-9-CM) as "mental disorders" (i.e., codes in sections 290 through 319) or as complications to pregnancy mainly related to mental illness (code 648.4).[9] A subset of these "mental disorders" (dementias (290), specific delays in development (315), mental retardation (317–319), and "cerebral degenerations" (e.g., Alzheimer's disease, (331.0))) are not included because these conditions are normally covered by general medical insurance and not under mental health carve-out plans; all substance abuse diagnoses (291–292 and 303–305) are excluded as being outside the scope of this chapter. Chapter 3 also presents information about the sources of financing for mental health (MH) treatment. A subsequent chapter (Chapter 4) presents information on treatment for substance use disorders.

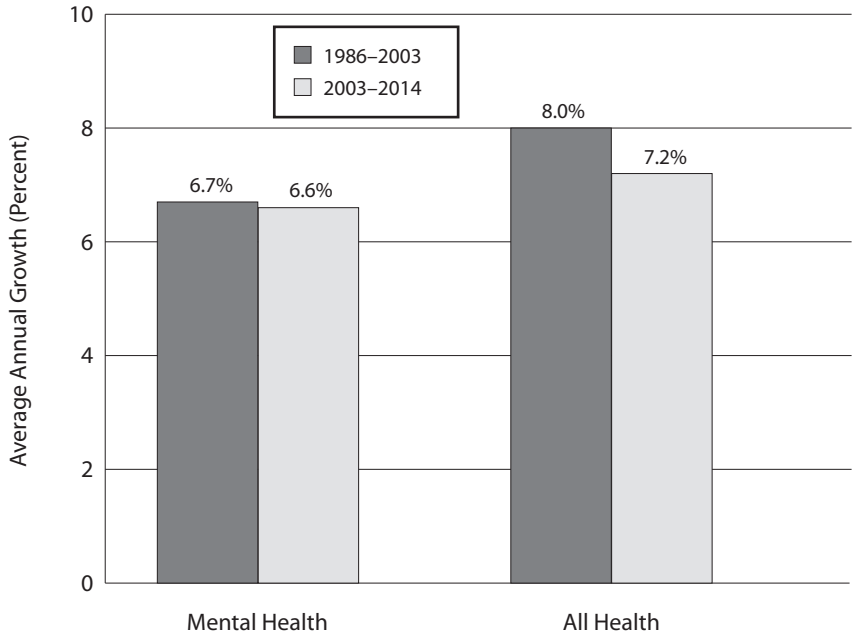
MENTAL HEALTH SPENDING AND ITS RELATIONSHIP TO ALL-HEALTH SPENDING

MH spending accounted for $33 billion in 1986 and $100 billion in 2003, amounts that are projected to increase to $203 billion in 2014. Spending on MH is anticipated to increase from an average $136 per person in the United States in 1986 and $339 per person in 2003 to $626 per person in 2014. The MH share of MHSA spending (78 percent in 1986 and 83 percent in 2003) is expected to expand slightly over the projection period—to 85 percent in 2014 (Table A.1, Appendix A).

MH spending comprised 7.5 percent of total health care spending in 1986 and 6.2 percent in 2003. It is predicted to continue its fall as a share of all-health spending to 5.9 percent in 2014. This trend toward a smaller MH share of all-health expenditures reflects a projected growth rate in MH spending that is slower than for all-health. From 2003 to 2014, MH spending is expected to grow at a 6.6 percent average annual rate, somewhat slower than the projected average annual increase for all-health of 7.2 percent (Figure 3.1 and Table A.4, Appendix A).

[9]MH diagnoses include ICD-9-CM codes 295-302, 306-314, and 648.4. See Appendix C for a more in-depth definition of these diagnoses.

Figure 3.1: Growth in MH and All-health Expenditures: 1986-2003 and 2003-2014



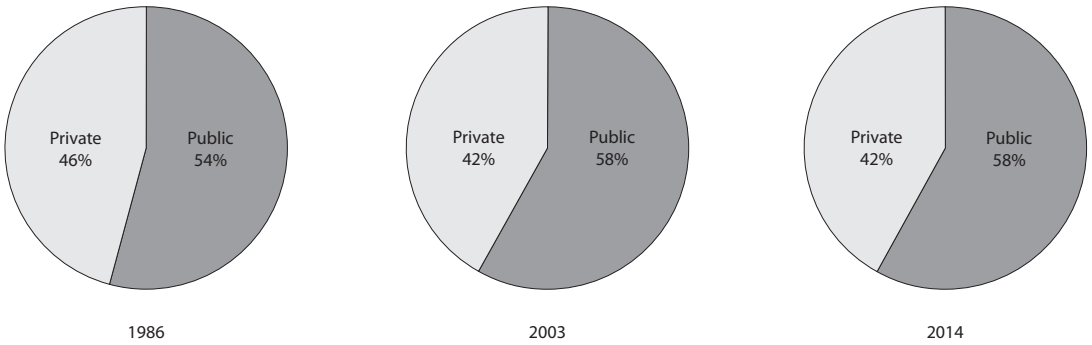
Expenditures on MH treatment are projected to grow at approximately the same average annual rate during the projection period as they did historically—6.7 percent from 1986 to 2003 and 6.6 percent from 2003 to 2014. This comes despite a slowdown in forecasted all-health spending increases—from 8.0 percent average annual increases from 1986 to 2003 to 7.2 percent in the pr ojection period (Figure 3.1 and Table A.4, Appendix A). The growth rate for MH spending is expe cted to be sustained over the next decade by a rapid increase in prescription drug spending that is a higher proportion (30 percent in 2014) of MH spending than of all-health spending (15 percent) (Table A.3 and Table A.4, Appendix A).

WHO FUNDS MENTAL HEALTH SERVICES?

Public and Private Payers

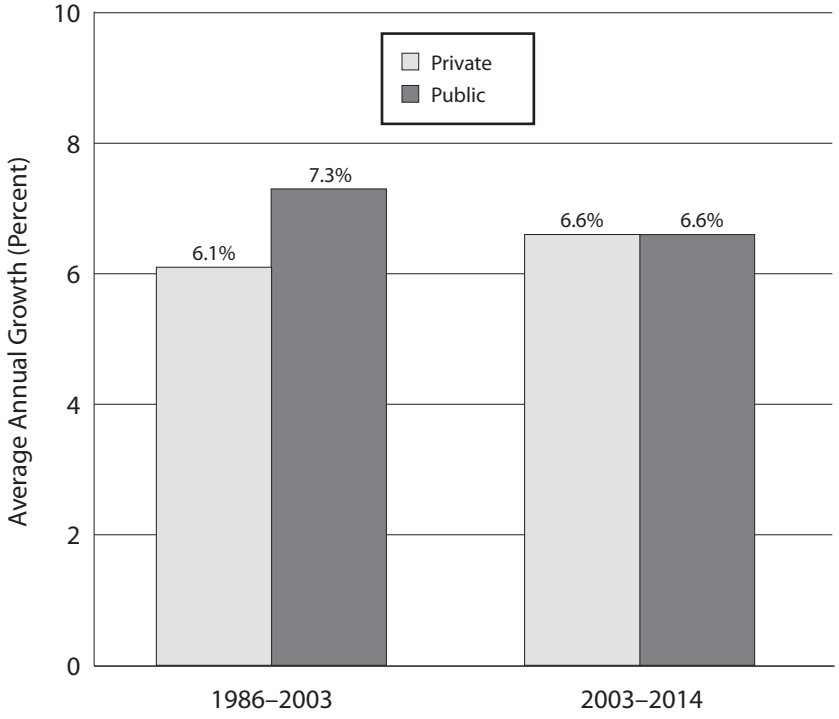
Public programs pay for the majority of treatment for mental illness, mostly through Medicaid and other State and local funding. Public funding shares increased from 54 percent of MH spending in 1986 to 58 percent in 2003, where it is projected to remain in 2014 (Figure 3.2 and Table A.6, Appendix A). Strong growth in provider sectors that are dominated by private payers (i.e., physicians and prescription drugs) is predicted to curb the historical expansion in public spending shares in the future.

Figure 3.2: Distribution of MH Expenditures by Public-Private Payer: 1986, 2003, and 2014



Over the 1986-2003 period, public MH spending grew at a faster pace than private spending (Figure 3.3 and Table A.7, Appendix A). In part, the slower private spending growth was due to the private sector's ability to intensely embrace managed care in the early 1990s. This acceptance of care management principles (including utilization and cost controls) produced slow private spending growth in the late 1980s and early 1990s that was initially unmatched in the public sector. The recession in the early 1990s caused many people to turn to Medicaid for health care coverage, resulting in ballooning enrollment and spending increases during this period. Spending growth slowed in both the private and public sectors in the mid- to late 1990s as managed care came to dominate health insurance in both sectors. By the late 1990s, the initial cost-savings in the private sector resulting from managed care gave way to a return to higher spending growth—due in part to the exhaustion of the one-time cost savings resulting from lower inpatient hospital utilization and to spending increases for prescription drugs. These factors returned spending to higher growth rates in the early 2000s, before a projected slowing during the 2003-2014 period to growth rates that reflect the longer historical trends (Table A.7, Appendix A).

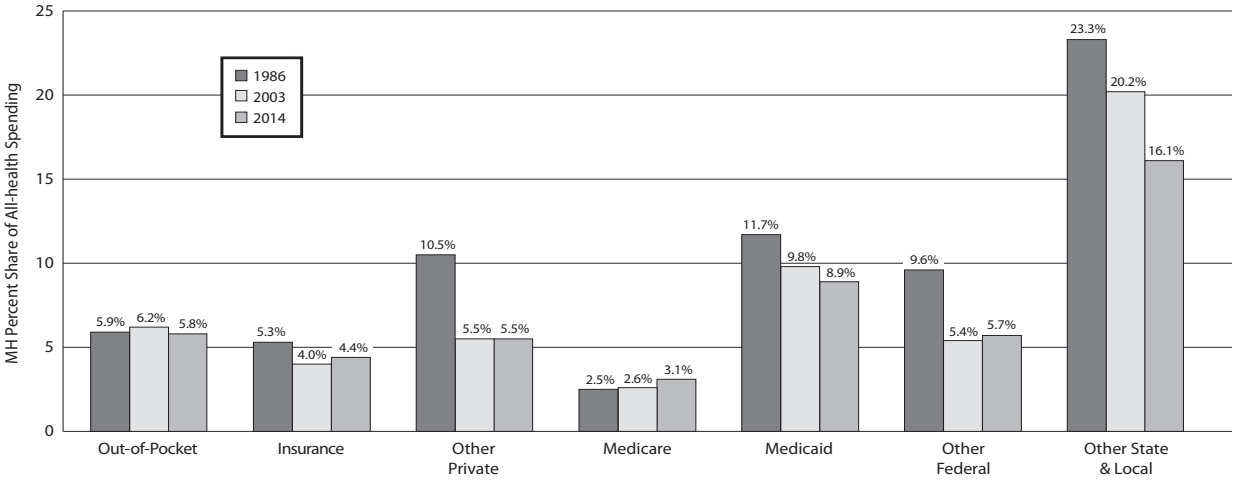
Figure 3.3: Growth in Private and Public MH Expenditures: 1986-2014



Although growth in overall spending for MH averaged similar rates in the historical and projection period, the patterns are different for public and private payers separately. During the historical period, growth in public spending (7.3 percent average annual increases) outpaced growth in private spending (6.1 percent average annual increases). In the projection period, however, changes in the mix of providers are forecasted to result in similar average annual growth rates (6.6 percent) for both public and private payers (Figure 3.3 and Table A.7, Appendix A). Spending on providers with larger portions of funding from private sources (physicians and prescription drugs) will grow the fastest, capturing larger shares of MH funding and preventing further declines in the private MH spending share. The growth in public spending is forecasted to diminish slightly from the historical period, while growth in private spending will accelerate slightly (Figure 3.3 and Table A.7, Appendix A).

MH spending accounted for 7.5 percent of all health spending in 1986 and a projected 5.9 percent in 2014. However, the MH share of all-health spending for certain payers is greater than these percentages. Expenditures for MH disproportionately rely on other State and local funding and Medicaid. MH spending captured 23 percent of all-health other State and local spending in 1986, a share that is projected to fall to 16 percent in 2014. The MH shares of all-health Medicaid spending are also disproportionately high and have also fallen over time—from 12 percent in 1986 to a projected 9 percent in 2014 (Figure 3.4, calculated from Table A.5, Appendix A).

Figure 3.4: MH Spending as a Share of All-health Spending by Payer: 1986, 2003, and 2014

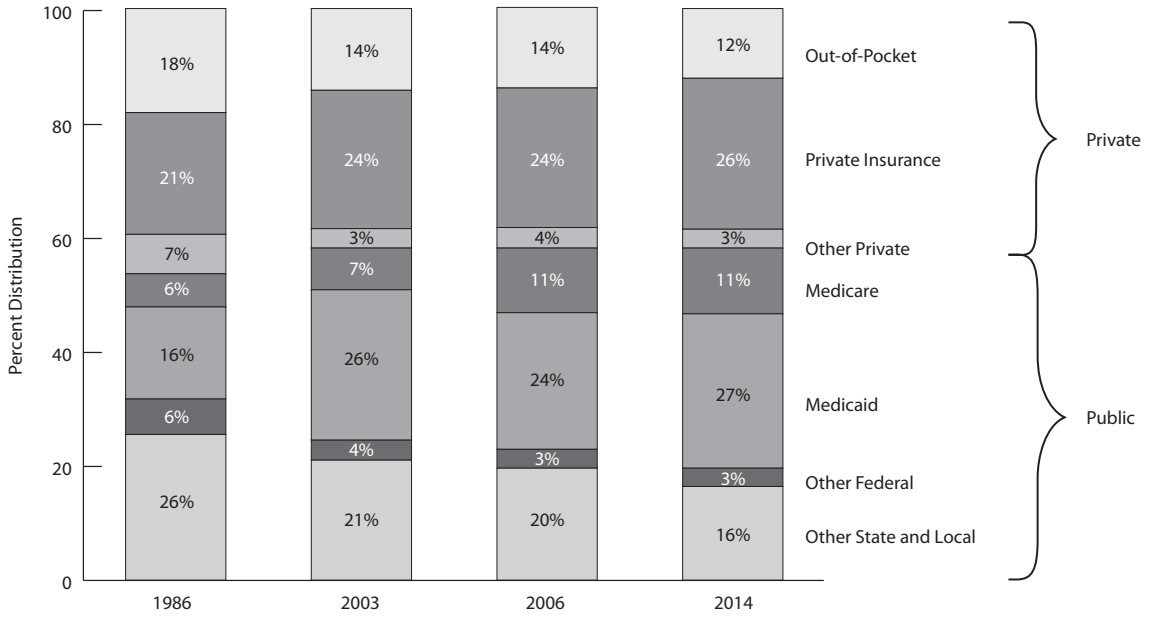


Public Payers

The changing role of treatment in MH specialty hospitals is driving changes in payer shares of MH financing. Over the 1986 to 2014 period, MH treatment has and is expected to continue to rely increasingly on funding from Medicaid. Medicaid shares of MH spending rose from 16 percent in 1986 and 26 percent in 2003 and to a projected 27 percent in 2014. Simultaneously, the share of MH spending funded by other State and local sources declined from 26 percent in 1986 and 21 percent in 2003 and to an estimated 16 percent in 2014 (Figure 3.5 and Table A.6, Appendix A). State facilities that provide specialty inpatient psychiatric treatment are heavily subsidized in their operations. The movement to deinstitutionalize the population residing in these facilities allowed States to focus spending on less costly treatment options that are often funded through

Medicaid, such as outpatient treatment by physicians and other professional providers, and in multi-service mental health organizations (MSMHOs) and specialty substance abuse centers (SSACs). This change in focus of State and local funds to less costly outpatient treatment facilities is a contributing factor to the diminishing shares of other State and local MH funding.

Figure 3.5: Distribution of MH Expenditures among Payers: 1986, 2003, 2006, and 2014



The public payer mix is predicted to undergo a major change as drug coverage for Medicare beneficiaries is implemented. This coverage provides prescription medication payments for persons enrolled in Medicare and relieves Medicaid of some of its responsibilities for drug coverage for beneficiaries dually enrolled in both programs.[10] Further, it provides subsidies to employers who furnish actuarially equivalent (or better) drug benefits to Medicare-eligible retirees enrolled in its employer-sponsored health insurance plans. The Medicare share of MH spending is expected to jump from 7 percent in 2003 to 11 percent in 2006 and 2014. Medicaid initially is projected to experience a drop in its share of MH spending, from 26 percent in 2003 to 24 percent in 2006, but then resume the gradual long-term rise to a 27 percent share of MH spending in 2014 (Figure 3.5 and Table A.6, Appendix A).[11]

[10] Medicaid initially transfers funds to Medicare (the ''clawback") to offset a large portion of the funding States would have spent providing coverage for dually eligible beneficiaries. Over time, the clawback is reduced and Medicaid's responsibility for these dually eligible beneficiaries declines from 90 percent in 2006 to 75 percent in 2015 and beyond (Section 1935(c)(5) of the Social Security Act).

[11] There will be no visible effect of the Medicare subsidy to employers providing drug coverage through retiree health plans in this accounting structure because the spending by employers for this coverage is counted as private insurance rather than Medicare.

Private Payers

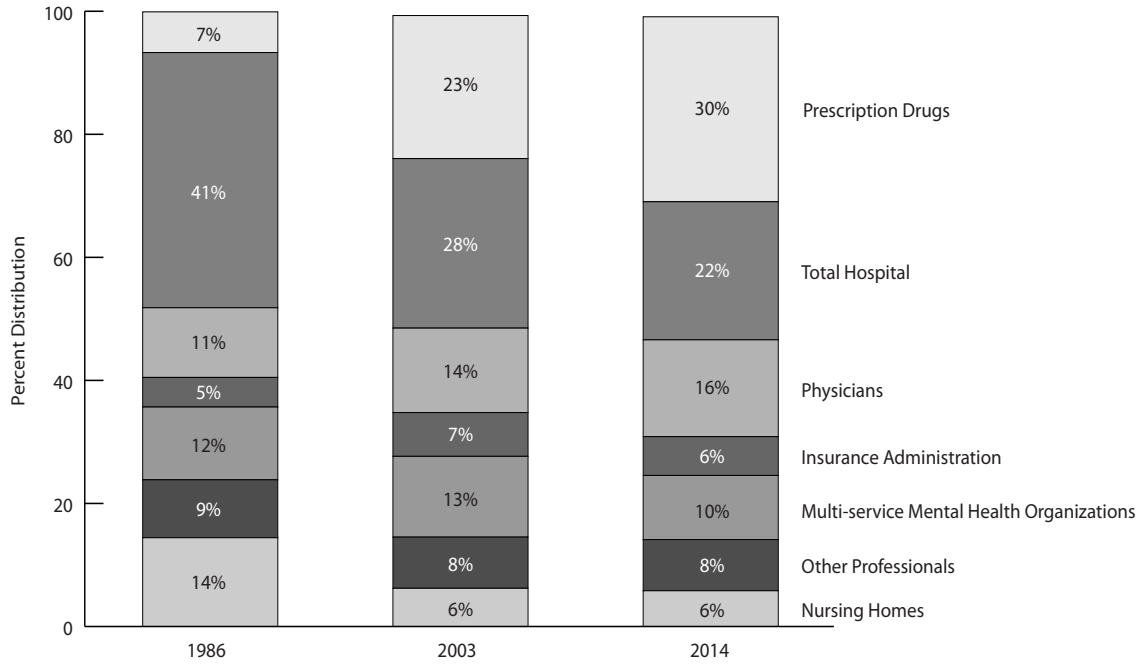
Changes in the private payer distribution are likely to be more modest than the changes in the public payer mix over the projection period. Out-of-pocket payments that accounted for 18 percent of MH spending in 1986 and 14 percent in 2003 are forecasted to continue to drop to 12 percent by 2014. This share decline between 2003 and 2014 is anticipated despite fairly rapid growth in out-of-pocket spending (averaging 10.1 percent) in the 2000-2003 period (Table A.6 and Table A.7, Appendix A). This short-lived acceleration in out-of-pocket spending growth was the result of rapidly rising drug spending, which is expected to abate in the projection period as use of generic drugs with lower out-of -pocket copayments becomes more popular with consumers.

The private insurance share of MH spending (21 percent in 1986 and 24 percent in 2003) is projected to increase to 26 percent by 2014, while the share from other private funding (defined as philanthropy and revenues from non-patient sources such as educational programs, parking lots, and gift shops—7 percent in 1986 and 3 percent in 2003) is projected to remain stable (at 3 percent of MH spending in 2014) (Figure 3.5 and Table A.6, Appendix A).

WHAT MENTAL HEALTH SERVICES ARE FUNDED?

In 2003, the largest shares of MH spending went for hospital care (28 percent), prescription drugs (23 percent), physician services (14 percent), and care in MSMHOs (13 percent) (Figure 3.6 and Table A.3, Appendix A). Examining hospital services, 16 percent of MH spending went for care in general hospitals and 12 percent for care in specialty MHSA hospitals (Table A.3, Appendix A).

Figure 3.6: Distribution of MH Expenditures by Provider: 1986, 2003, and 2014



Note: Home Health is 1 percent or less and is not labeled on this graph.

The total hospital share of spending is expected to decline from 41 percent of total MH spending in 1986 and 28 percent in 2003 to 22 percent in 2014. Most of the decline in share between 1986 and 2014 is anticipated to occur in specialty hospitals (down 18 percentage points) (Table A.3, Appendix A).

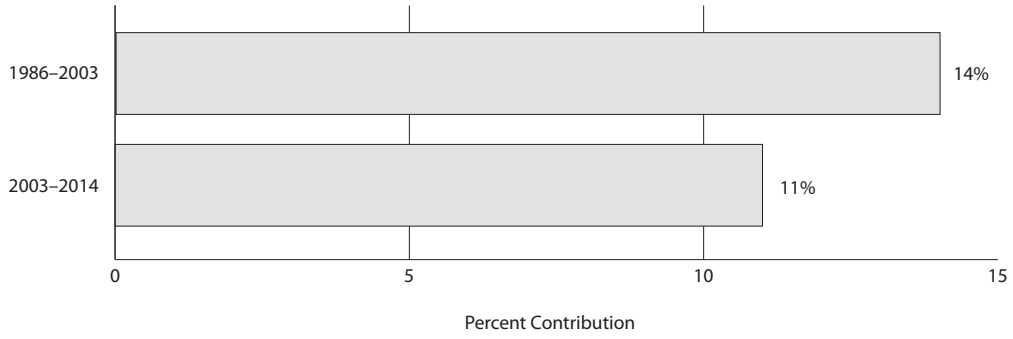
Although the share of MH spending is forecasted to continue to decline for specialty hospital care through the projection period, the rate at which the shares decline is expected to slow. Similar to the trend for all-health hospital spending, the trend assumes that most of the reduction in inpatient hospital services in specialty hospitals has already occurred and that some minimum amount of specialty inpatient care will be required in the future for the treatment of mental illness. Therefore, the share of MH spending going for specialty hospital services is predicted to drop 4 percentage points from 2003 to 2014 (from 11.6 percent to 7.2 percent of MH spending), smaller than the 13 percentage point decline in the previous 17 years (from 25 percent in 1986 to 12 percent in 2003) (Table A.3, Appendix A).

An increasing share of MH spending is expected to go to prescription drugs over the projection period. Spending for prescription drugs increased from 7 percent of MH spending in 1986 to 23 percent in 2003 and is projected to reach 30 percent in 2014 (Figure 3.6 and Table A.3, Appendix A). Growth in prescription drug spending from 2003 to 2014 is anticipated to average 9.2 percent annually, substantially slower than the 14.9 percent average annual growth that occurred between 1986 and 2003. The moderation in drug spending growth results from restructuring of drug insurance benefits that encourages consumers to purchase lower cost generic drugs rather than branded products that require higher cost-sharing. This projected MH prescription drug growth rate is also slower than the average annual increase in all-health prescription drug spending (a projected 10.2 percent) for 2003 through 2014 (Table A.4, Appendix A).[12]

Spending on MH prescription drugs is responsible for a substantial share of all-health drug spending and for a correspondingly large contribution to the increase in all-health drug spending as well. Although MH spending overall comprised only 6.2 percent of all-health spending in 2003 (Table A.1, Appendix A), MH prescription drugs amounted to 13 percent of all-health spending for prescription drugs in that year (calculated from Table A.2, Appendix A). From 1986 to 2003, spending on MH prescription drugs accounted for 14 percent of the increase in all-health spending for prescription drugs. Purchases of MH prescription drugs are projected to contribute 11 percent of the future increase in all-health prescription drugs from 2003 to 2014 (Figure 3.7, calculated from Table A.2, Appendix A).

[12] More recently published projections of all health spending (Borger et al., 2006) than those used in developing these MHSA projections (Heffler et al., 2005) show a revised average annual growth of 8.1 percent for all health prescription drug spending for 2003-2014. Our projections were designed to account for this revision in CMS' drug spending projection.

Figure 3.7: Contribution of MH Prescription Drug Expenditures to Increases in All-health Prescription Drug Expenditures: 1986- 2003 and 2003-2014



The share of MH spending allocated to physician services will also increase, from 11 percent of all MH in 1986 and 14 percent in 2003 to 16 percent in 2014. About 70 percent of MH services provided by physicians are projected to come from psychiatrists, a share that has remained fairly steady throughout the historical and projection periods (Table A.3, Appendix A). The remainder goes for treatment delivered by non-psychiatric physicians, including primary care physicians. However, spending on treatment by primary care physicians may be underestimated because prescriptions for psychotropic medications are often written by these non-specialty physicians without specifically listing an accompanying mental health diagnosis that is used in this report to classify MH spending (Williams et al., 1999; Gardner et al., 2004).

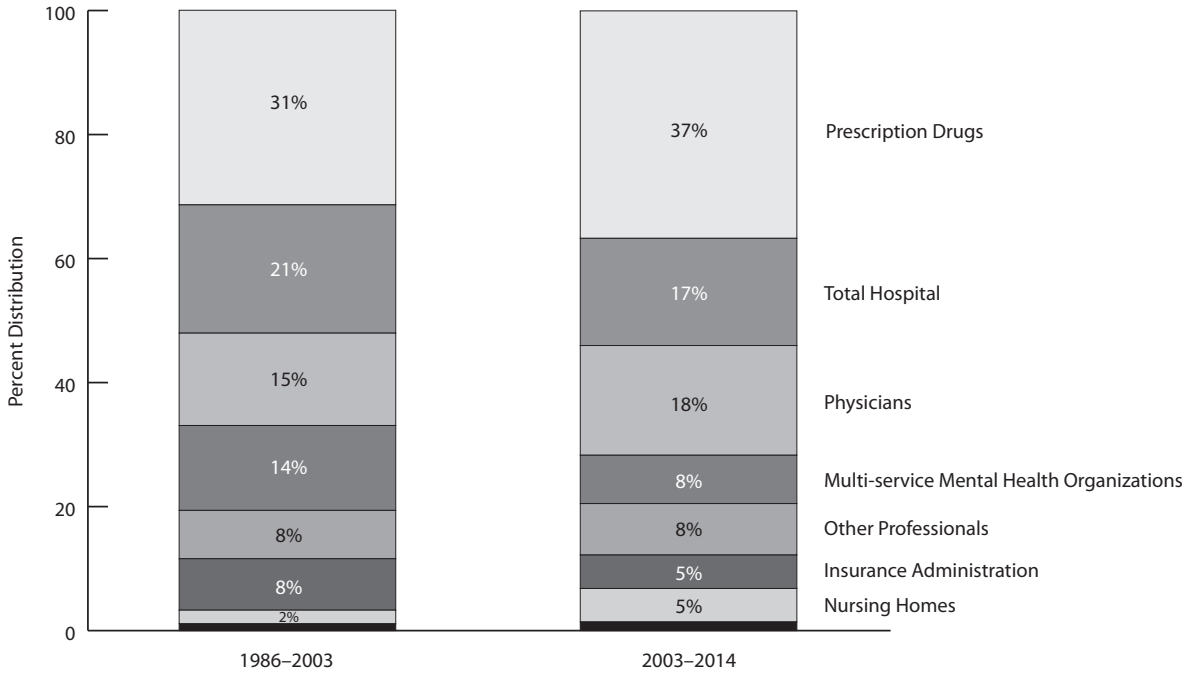
Another important group of MH providers is other professionals (psychologists, counselors, and social workers). The share of MH spending for services of these providers has and is expected to change very little over the projection period—from 9 percent in 1986 to 8 percent in 2003 and 2014 (Table A.3, Appendix A). Growth in spending for these other independently practicing professional providers (6.6 percent average annual growth) is expected to continue to be slower than the growth in spending for physician services (8.0 percent) in the projection period (Table A.4, Appendix A).

In 2003 and 2014 respectively, MH spending accounted for 6.2 percent and 5.9 percent of all-health care spending (Table A.1, Appendix A). By provider type, however, MH has historically accounted for, and is predicted during the projection period to continue to account for, a disproportionate share of spending for other professional services (17 percent in 2003 and in 2014) and for the purchase of retail prescription drugs (13 percent in 2003 and 12 percent in 2014) (calculated from Table A.2, Appendix A).[13]

The largest contributors to the $103 billion increase in MH spending from 2003 to 2014 were prescription drugs (37 percent of the increase), physician services (18 percent of the increase), and hospitals of the increase (17 percent) (Figure 3.8 and calculated from Table A.2, Appendix A).

[13] As expected, MH spending also comprises a disproportionate share of spending for specialty psychiatric and substance abuse hospitals—61 percent in 2003. However, there is not a separate projection from all-health spending for this component; thus a projected MH share of all health spending for this provider cannot be calculated, although it is assumed to continue to be large. Similarly, all-health estimates for treatment in MSMHOs are not available, although it is presumed that most spending in these facilities are for MH and SA treatment.

Figure 3.8: Contribution of MH Provider Expenditures to Increases in MH Expenditures: 1986-2003 and 2003-2014



Note: Home Health is 1 percent or less and is not labeled on this graph.

SUMMARY

By 2014, MH expenditures are expected to reach $203 billion, doubling spending recorded in 2003. The MH share of the all-health spending bill is projected to shrink further—from 6.2 percent to 5.9 percent of all-health care spending between 2003 and 2014. Public sources that paid for most (58 percent) of MH services in 2003 are anticipated to remain at the same share in 2014. This public expenditure share for MH treatment is a greater percentage than for all-health. Medicaid is forecasted to be the largest payer category at 27 percent in 2014, while other State and local funding is expected to represent 16 percent of MH spending (second largest public payer). Despite the implementation of Medicare Part D drug benefit, Medicare will account for only an 11 percent share of all MH spending by 2014.

For private payers, spending shares are expected to increase slightly for private health insurance between 2003 and 2014 (from 24 percent to 26 percent), offset by a decrease in spending share coming from out-of-pocket sources (from 14 percent in 2003 to 12 percent in 2014). The continued forecasted growth in spending for MH drugs are expected to influence the private insurance trend and the increasing use of generic medications will slow the growth in consumer spending.

Three out of every ten dollars spent on MH treatment are expected to go for retail purchases of prescription drugs in 2014, up from 23 percent in 2003. Specialty and general hospitals are forecasted to account for 22 percent of total MH expenditures (down from 28 percent in 2003), physicians and other professionals for 16 percent (up from 14 percent in 2003), and MSMHOs for 10 percent (down from 13 percent in 2003).

The development and use of MH drugs with fewer side effects have heightened primary care physicians' comfort with and involvement in prescribing MH drugs, leading to a growing share of MH prescriptions being ordered by primary care physicians.[14] Psychotropic medications are the primary form of treatment for many mental health disorders, and spending on them is projected to continue to rise, albeit at a slower pace than in recent historical years. Redesigned insurance plans aimed at reducing costs through the use of drug formularies have prompted many consumers to switch from branded to generic products to reduce their out-of-pocket liability. This has led to slower cost increases for drugs overall.

[14]Author analysis of IMS prescriptions for MH drugs sold at retail pharmacies.

Chapter 4 | Substance Abuse Treatment Expenditures, 1986–2014

This chapter presents spending for SA treatment separately, showing many trends that are distinctly different from those exhibited by MH spending.

The estimated cost to society of drug abuse in 2002 was $181 billion; $107 billion of this was associated with drug-related crime (Office of National Drug Control Policy, 2004). The costs of alcohol abuse and alcoholism are staggering, as well, with social costs estimated at $185 billion in 1998 (Harwood, 2000). The direct burden on those suffering from substance use disorders includes lost work days, shorter life-spans, economic difficulties, and higher health care costs. Additionally, there are compromises and life adjustments for the families of people with these conditions. And, while those who abuse alcohol and drugs pay higher medical and legal costs, the effects of substance abuse can also be felt by the non-abusing population in terms of higher insurance premiums resulting from motor vehicle crashes, escalating crime, and increased health care expenses.

In 2005, approximately 9.1 percent of the U.S. population ages 12 and older (or 22.2 million people) had a substance use or dependence disorder in the past year (Substance Abuse and Mental Health Services Administration, 2006). Of this group, 3.9 million persons ages 12 and older (1.6 percent of the population) received some kind of treatment in 2005 for a problem related to drug or alcohol use (Substance Abuse and Mental Health Services Administration, 2006). For those who sought treatment, cost or insurance barriers and stigma are among the most frequently cited reasons for not accessing care (Substance Abuse and Mental Health Services Administration, 2006).

The face of substance abuse is evolving in a number of important ways. Illicit use of prescription drugs in the U.S. is growing, and by 2005, was second only to marijuana abuse. Prescription medications, especially those for pain, have also become the drugs of choice for new initiates to drug abuse (Substance Abuse and Mental Health Services Administration, 2006). And, among young people of secondary school and college age, there has been a gradual long-term increase in the use of prescription medications without medical supervision (Johnston et al., 2006).

Over 70 million Americans will reach age 65 or older within the next 25 years. Many medical conditions related to aging require treatment with medications that have the potential for misuse or dependency (Korper and Raskin, 2002). The illicit use of drugs may cause an increased need for SA treatment among older Americans, particularly with the aging of the baby boom generation (Manchikanti, 2006). Some estimates predict a two and one half-fold increase in the need for substance abuse treatment in the aging population by 2020 (Gfroerer et al., 2003).

Taken together, changes in the types of drugs being abused, the rising number of youthful initiates to substance abuse, and rising rates of substance abuse among the aging baby boom population are placing increasing demands on the substance abuse treatment system. A shift in focus will be required to address the treatment needs of those with substance use problems in the coming decades.

Spending for substance abuse treatment presented in this chapter was identified using providers' diagnostic information for patients. These disorders are defined by diagnostic codes found in the International Classification of Diseases 9th Revision (ICD-9-CM) under codes in sections 290 through 319, under the category of "mental disorders," or as complications to pregnancy mainly related to substance abuse (code 648.3). Included are alcohol- and drug-induced disorders (code 291-292), alcohol and drug dependence and non-dependence (code 303-304, 305.0, and 305.2-305.9) and drug dependence complications mainly related to pregnancy (code 648.3). Excluded are tobacco dependence diagnoses. This section also presents information about the sources of financing for substance abuse (SA) treatment.

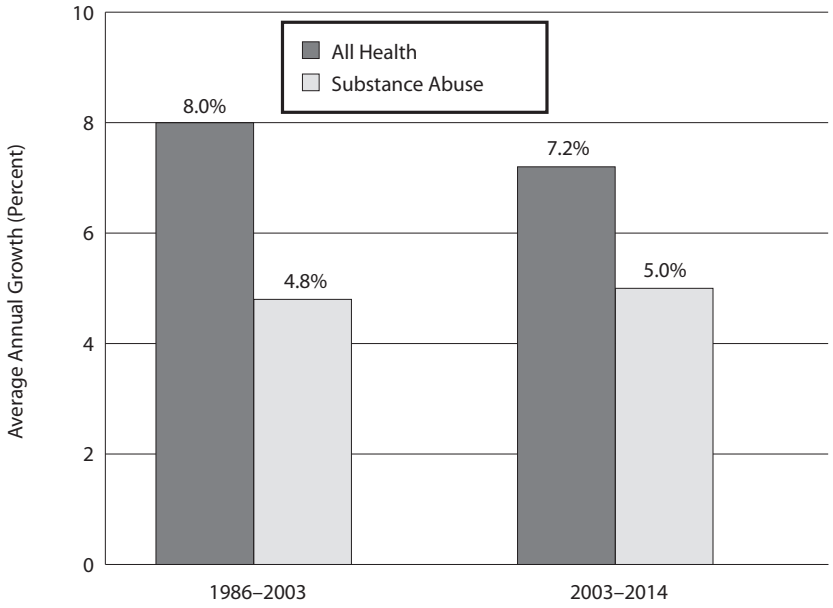
SUBSTANCE ABUSE SPENDING AND ITS RELATIONSHIP TO ALL-HEALTH SPENDING

SA spending amounted to $9 billion in 1986 and $21 billion in 2003, and is projected to increase to $35 billion in 2014. Spending on SA is anticipated to increase from an average $38 per person in the United States in 1986 and $70 per person in 2003 to $109 in 2014.

Spending for SA treatment amounts to only a small share of both MHSA spending and all-health spending over the study period. The SA share of MHSA spending (22 percent in 1986 and 17 percent in 2003) is likely to fall slightly over the projection period—to 15 percent in 2014. SA spending comprised only 2.1 percent of total health care spending in 1986 and 1.3 percent in 2003 and is predicted to continue its fall as a share of all-health spending to 1.0 in 2014 (Table A.1, Appendix A). However, the high rate of co-occurring mental and substance use disorders could cause SA estimates to be understated. SA estimates are based on primary diagnosis only. When MH and SA diagnoses co-occur, it is likely that most spending for treatment is counted as MH. Benefits for MH treatment services tend to be more generous than for SA treatment and providers are more likely to be paid for services supplied for a MH diagnosis.

SA spending is expected to grow at approximately the same pace in 2003–2014 (5.0 percent annually) as it did from 1986–2003 (4.8 percent annually). This forecasted pace is significantly slower than for all-health spending (7.2 percent annually), although the gap in spending growth between SA and all-health is expected to narrow (Figure 4.1 and Table A.4, Appendix A). In part, slower growth in spending for SA treatment is driven by the reduced need for high priced and rapidly growing technology that is prevalent in all-health spending. Unlike MH spending, SA spending does not have a large proportion of spending allocated to prescription drugs—a sector that has been an important driver in MH spending increases.

Figure 4.1: Growth in SA and All-health Expenditures: 1986-2003 and 2003-2014



After adjusting for economy-wide inflation, SA spending averaged increases of 2.3 percent between 1986 and 2003. This growth is projected to be similar over the projection period, averaging 2.6 percent between 2003 and 2014 (calculated from Table A.1, Appendix A). In comparison, inflation-adjusted MH spending is forecasted to increase by 4.2 percent annually and all-health spending by 4.7 percent annually.

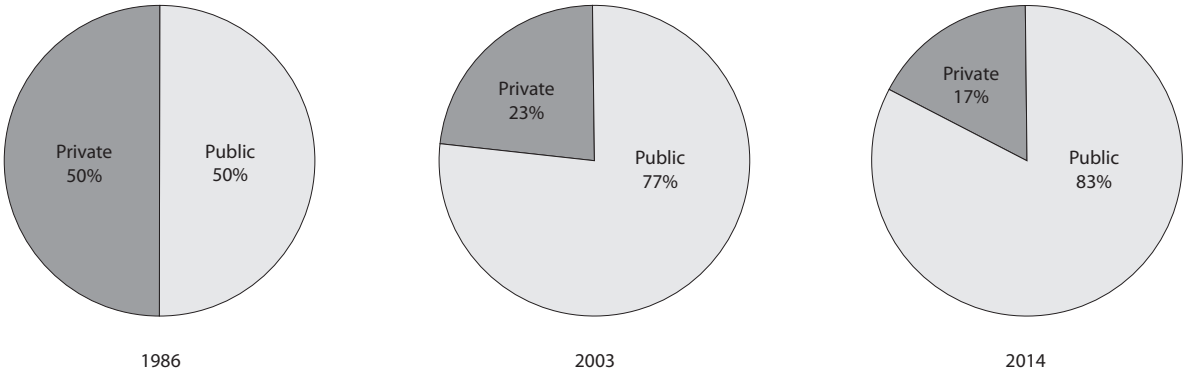
WHO FUNDS SUBSTANCE ABUSE SERVICES?

Public and Private Payers

Public payers are expected to continue to pay for the vast majority of SA services through 2014. Public payers accounted for 50 percent of SA spending in 1986 and 77 percent in 2003 and are predicted to increase to 83 percent by 2014. The public share of funding for SA treatment is very different from the public share of funding for all-health care. Although public funding shares are also increasing for all-health, the public funding share for all-health will reach 49 percent in 2014, well below the public share of funding for treatment of substance use disorders (Figure 4.2 and Table A.6, Appendix A).

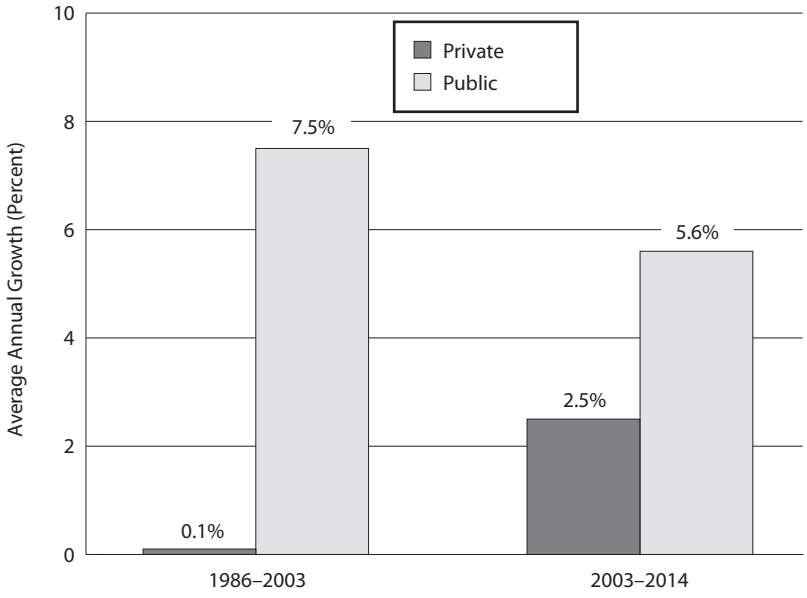
Private payers made up 50 percent of SA spending in 1986 and 23 percent in 2003 and are expected to finance only 17 percent of SA spending in 2014 (Figure 4.2 and Table A.6, Appendix A).

Figure 4.2: Distribution of SA Expenditures by Public and Private Payers: 1986, 2003, and 2014



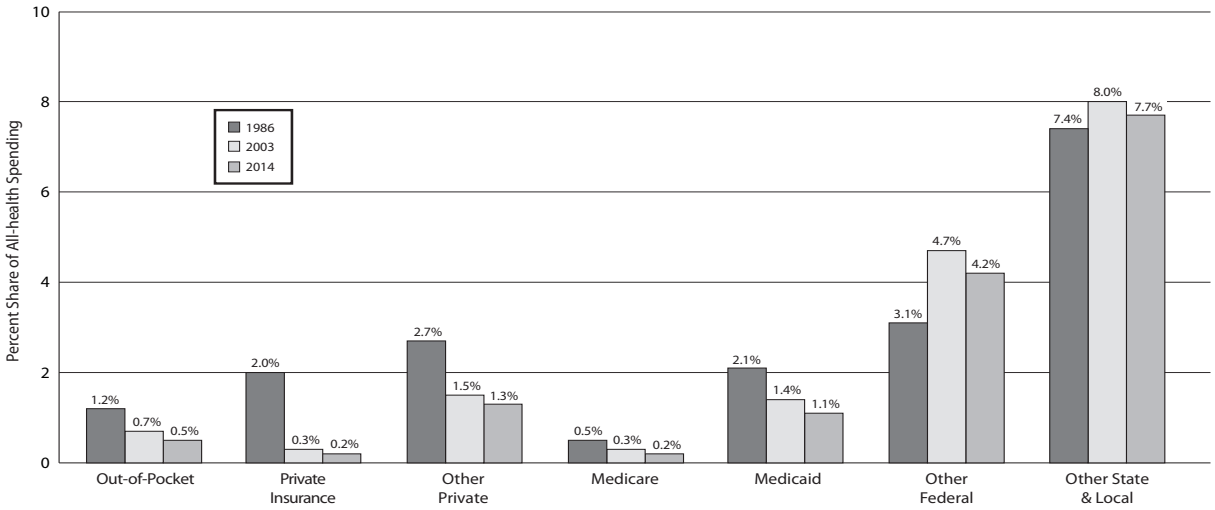
Growth in public spending is expected to slow, but nevertheless increase at twice the average annual rate of private spending throughout the projection period. Public spending increased at a 7.5 percent average annual rate from 1986 to 2003 and is predicted to slow to 5.6 percent average annual increase from 2003 to 2014—still more than twice as fast as the 2.5 percent average annual increase forecasted in private spending (Figure 4.3 and Table A.7, Appendix A). Private spending that exhibited little growth during the historical period is anticipated to increase throughout the projection period, albeit at a modest rate.

Figure 4.3: Growth in Public and Private SA Expenditures: 1986-2014



SA spending accounted for 2.1 percent of all health spending in 1986 and a projected 1.0 percent in 2014. However, the SA share of all-health spending for certain payers is greater than these percentages. Expenditures for SA disproportionately rely on other State and local funding—as they did for MH as well. SA spending captured 7 percent of all-health other State and local spe nding in 1986, and 8 percent in 2003, an amount projected be to unchanged in 2014 (Figure 4.4, calculated from Table A.5, Appendix A).

Figure 4.4: SA Spending as a Share of All-health Spending by Payer: 1986, 2003, and 2014

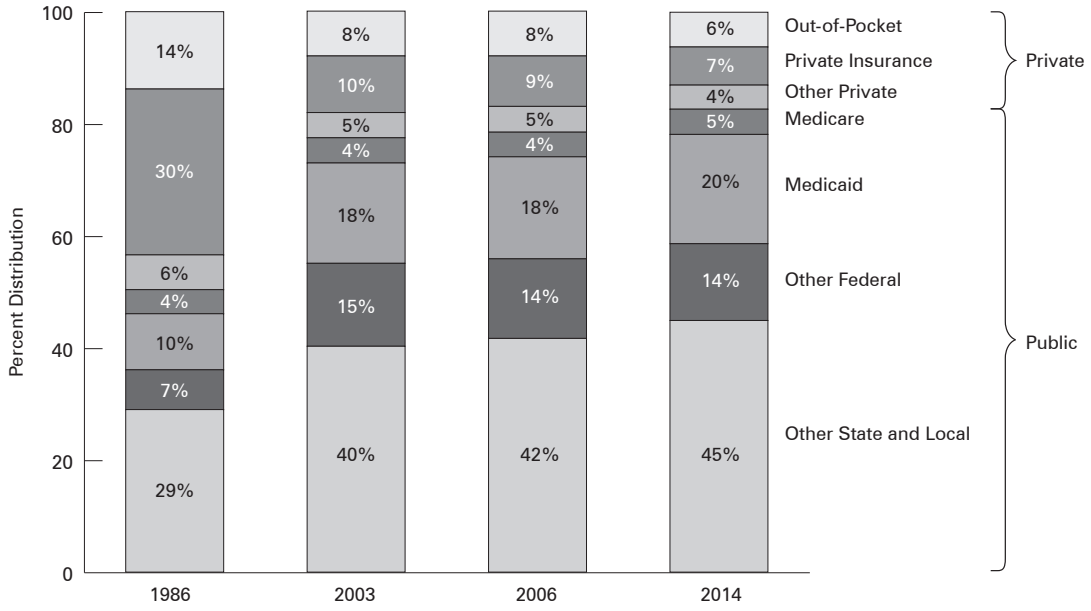


Public Payers

In 2003, the largest sources of SA financing—other State and local funding (39 percent of SA spending) and Medicaid (18 percent of SA spending)—together financed 58 percent of all SA spending. By 2014, the share financed by these major payers is anticipated to increase by a combined 7 percentage points to 64 percent (Figure 4.5 and Table A.6, Appendix A).

The SA public payer mix is predicted to shift toward programs that are wholly or partially funded by State and local governments. Other State and local spending is expected to continue to increase as a share of SA spending throughout the projection period, rising from a 29-percent share in 1986 and a 40-percent share in 2003 to a projected 42-percent share in 2006 and 45-percent share in 2014. Medicaid is forecasted to account for an 18-percent share of SA spending in 2006 and a 20-percent share in 2014, up from a 10-percent share in 1986 and an 18-percent share in 2003 (Figure 4.5 and Table A.6, Appendix A). The implementation of Medicare Part D drug coverage will have little impact on the Medicare share of SA spending because so few medications are used in the treatment of substance use disorders.

Figure 4.5: Distribution of SA Expenditures Among Payers: 1986, 2003, 2006, and 2014



Private Payers

Unlike any other payer, private spending on SA services grew very little over the historical period: from $4.6 billion in 1986 to $4.7 billion in 2003—an average annual growth rate of just 0.1 percent (Table A.5 and Table A.7, Appendix A). In part, this trend illustrates the major impact that the evolution of managed care has had on SA spending as well as the efforts of businesses that are the major purchasers of private insurance to contain costs.

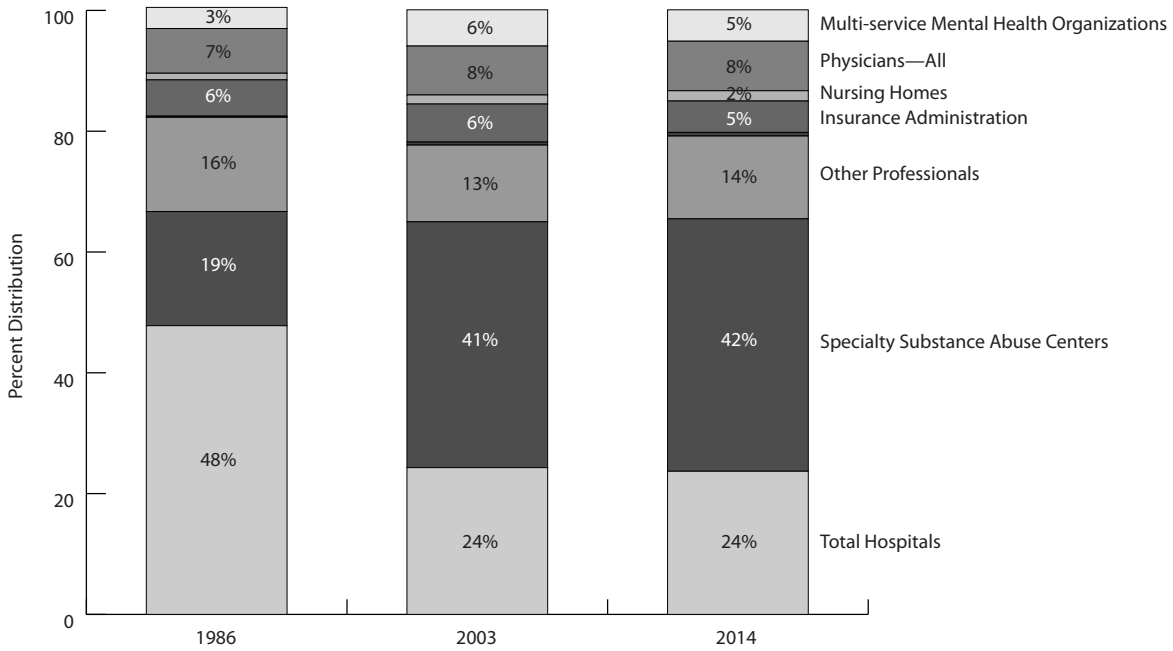
Average annual growth in private SA spending over the projection period is predicted to be somewhat faster (2.5 percent) than in the historical period, but still well below the average growth for private all-health spending (6.5 percent) (Table A.7, Appendix A). This new trend reflects recent historical (2000-2003) growth in private SA spending that is forecasted to continue over the next decade, but at rates that are half that of public SA spending increases.

Most public programs do not require co-insurance that is common in private health insurance coverage. The anticipated expansion of public SA spending and slow growth in private insurance spending is expected to result in reduced out-of-pocket spending shares over the projection period. The private insurance share (30 percent in 1986 and 10 percent in 2003) is anticipated to fall to 9 percent in 2006 and 7 percent by 2014. Out-of-pocket payments accounted for 14 percent of SA spending in 1986 and 8 percent in 2003 and are expected to remain at 8 percent in 2006 before declining to 6 percent by 2014 (Figure 4.5 and Table A.6, Appendix A).

WHAT SUBSTANCE ABUSE SERVICES ARE FUNDED?

Over the historical period the specialty substance abuse centers (SSACs), facilities that provide both residential and outpatient treatment services, emerged as dominant players in SA treatment. In 1986, these providers accounted for one-fifth of all SA spending, more than doubling their share of SA spending by 2003. Offsetting this share expansion in spending for SSACs was a decline in the spending share for treatment in hospitals. During the early to mid 1990s, expensive inpatient and residential treatment, viewed as less cost effective than intensive outpatient treatment models, was targeted as an area for cost-cutting, particularly for private insurance. In 2003, the largest shares of SA spending went to SSACs (41 percent), up from a 19 percent share in 1986 (Figure 4.6 and Table A.3, Appendix A).

Figure 4.6: Distribution of SA Expenditures by Provider: 1986, 2003, and 2014



Note: Home Health and Prescription Drugs are less than 1 percent each and are not shown on this graph.
Nursing Homes are less than 1 percent in 1986 and 2003 and data values are not labeled in those two years.

With this major shift in SA treatment setting completed, changes in spending distribution occurring in the projection period are likely to be modest. Spending on SSACs is expected to grow slightly in share and the hospital share is expected to remain stable as the post-managed care era changes stabilize. Spending on physician services is expected to account for similar shares of SA spending (7 percent in 1986 and 8 percent in 2003 and 2014) throughout the study period, as did the shares of SA spending for other professional services (16 percent in 1986, 13 percent in 2003, and 14 percent in 2014) and for nursing home care (1 percent in 1986 and 2003 and 2 percent in 2014). For MSMHOs, SA spending shares rose from 3 percent in 1986 to 9 percent in 2000 before falling to 6 percent in 2003 and a projected 5 percent in 2014 (Table A.3, Appendix A). Sales of prescription drugs are a minor portion of spending for SA treatment—less than 1 percent throughout the historical and projection periods (Table A.3, Appendix A).

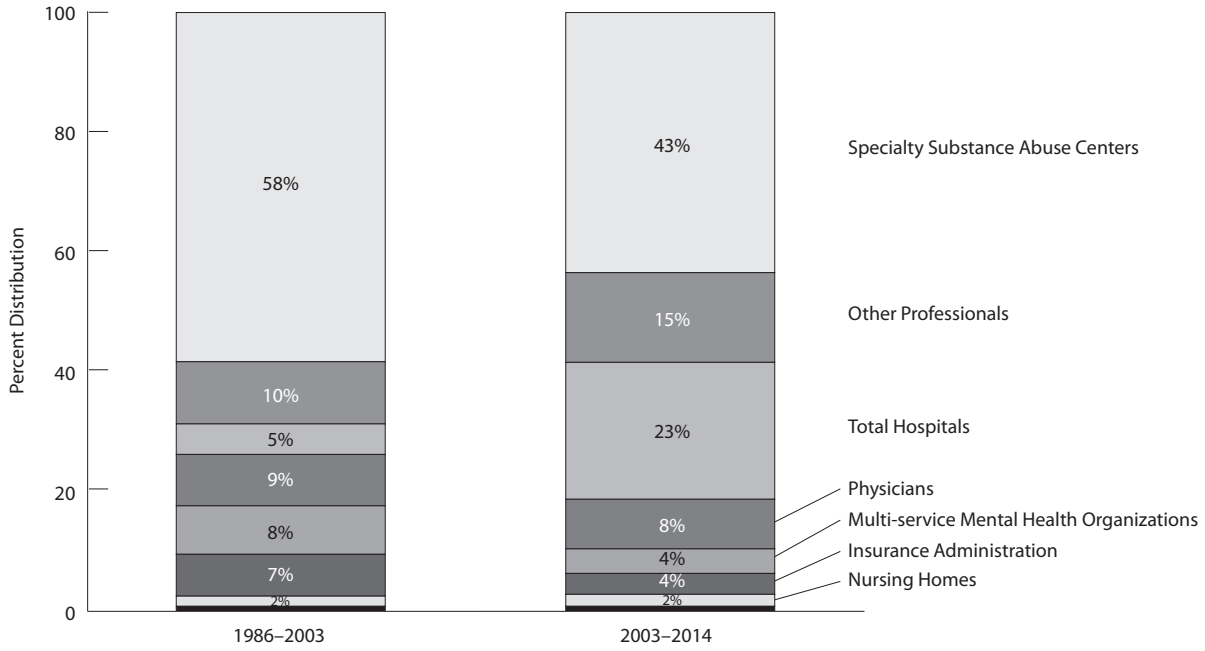
Sales of prescription drugs are a minor portion of spending for SA treatment—less than 1 percent throughout the historical and projection periods (Table A.3, Appendix A). Only a few drugs are available to treat

substance use disorders. In 2004, acamprosate (Campral®) joined two other previously FDA approved medications—disulfiram (Antabuse®) and naltrexone (ReVia®)—for the treatment of alcoholism. Buprenorphine (Subutex® and Suboxone®) for the treatment of opiate addiction was approved in 2002. Methadone for treatment of opioid addiction is not available as a retail prescription drug. Spending for methadone is included with expenditures for SSACs.

Hospitals, which accounted for almost half of all SA spending in 1986, saw their shares of spending erode to 24 percent in 2003 as SA care moved to outpatient settings. This share of spending is expected to remain stable over the next decade, reflecting trends from 2000-2003 (Figure 4.6 and Table A.3, Appendix A). Spending in specialty mental health and chemical dependency hospitals is projected to continue to fall as a share, but at rates that are much slower than in the previous 10 years. This share of spending (down 1 percentage point from 2003 to 2014) is anticipated to fall more slowly than in the historical period (1986-2003) when its share of SA spending declined by 13 percentage points (Table A.3, Appendix A). Some speculate that the slight rise in share of inpatient SA care delivered in general hospitals may be for detoxification only and not for actual treatment.

From 2003 to 2014, SA spending is expected to grow by $14.7 billion. The largest contributors to the increase in SA spending from 2003 to 2014 are expected to be SSACs (43 percent of the increase), hospitals (23 percent of the increase), and other professionals (15 percent of the increase) (Figure 4.7 and calculated from Table A.2, Appendix A).

Figure 4.7: Contribution of SA Provider Expenditures to Increases in SA Expenditures: 1986-2003 and 2003-2014



Note: Home Health and Prescription Drugs are less than 1 percent each in each period and are not labeled on this graph.

SUMMARY

SA spending is projected to increase to $35 billion in 2014, an average of $109 per person. However, SA spending is predicted to fall to 15 percent of spending on MHSA by 2014. The projected growth rate in SA spending will also continue to be slower than spending growth for all-health and for MH, resulting in further erosion of SA spending as a share of all-health spending to 1.0 percent by 2014.

Public payers are expected to fund the vast majority of SA services through 2014, accounting for 83 percent of SA spending. While the public funding share for all-health will reach 49 percent in 2014, this is well below the expected public share of funding for treatment of substance use disorders. Other State and local funding and Medicaid (40 percent and 18 percent, respectively), were the largest sources of SA financing in 2003, and their share of SA spending is anticipated to increase by 7 percentage points to 65 percent in 2014.

Private payers are expected to finance only 17 percent of SA spending in 2014. Changes in the distributional mix of private spending are likely to continue over the projection period. Out-of-pocket payments are expected to fall to 6 percent by 2014. Private insurance share will fall to 7 percent by 2014.

Spending on other professional services (including those delivered by psychologists, social workers and counselors) historically accounted for a larger share of SA spending than did physician services—a trend that is predicted to continue over the next decade. Spending on other professional services is anticipated to grow slightly to 14 percent, while spending on physician services is expected to account for similar shares of SA spending over the next decade (8 percent) as it did in 2003. Shares of SA spending for nursing home care are also predicted to be similar to those during the historical period.

Chapter 5 | Discussion

Spending projections are useful budget and policy tools to help anticipate future trends and levels of spending. The historical and projected spending for mental health (MH) services and substance abuse (SA) treatment in this report shows probable evolving spending patterns by primary diagnoses, by payers, and by provider type. These patterns will evolve if current laws and regulations affecting care delivery and funding continue as they have in the past.

MAJOR FORECASTED TRENDS

The major themes for MH and SA spending portrayed in these spending forecasts include:

Return to Long-run Spending Growth. Of the 17 years covered by the MHSA historical estimates, about half were strongly influenced by the spread of managed care. Managed care shifted treatment from inpatient hospitalization to less costly outpatient settings—both in the all-health and the MHSA sectors. This transition dampened spending growth from 1993 to 2000 and led to the overall reduction in hospital inpatient stays and beds. Once that shift was completed, spending growth rebounded, particularly in hospitals. Analysts speculate that the rebound in all-health spending comes from a variety of factors (including weaker negotiating positions of managed care in light of reduced hospital capacity, higher demand for hospital services by an aging society, and limits to further reductions in lengths-of-stay) (Shactman et al., 2003). MHSA spending was also influenced by a surge in spending for prescription drugs that began in the mid-to-late 1990s. MHSA spending is forecasted to return to a long run growth of 6.4 percent annually that is faster than was exhibited during 1993–2000 (4.7 percent annually) but slower than the surge in 2000–2003 (7.8 percent annually).

In inflation-adjusted terms, the forecasted average annual growth in MHSA spending for 2003–2014 (3.9 percent) is expected to be about the same as it was in the historical period (3.8 percent, 1986–2003).

Spending Growth Slower for MHSA than for All-health. Unlike most of the rest of the health care sector, MHSA treatment does not rely extensively on the high priced, rapidly evolving technology that drives cost increases. (The one exception is in MH prescription drugs.) Instead, MHSA spending has historically increased at average annual rates that have been about 1 to 2 percent slower than for all-health.

This slower-than-all-health growth pattern is responsible for MHSA shares of all-health spending that have fallen from 9.7 percent of all-health spending in 1986 to 7.5 percent in 2003. This trend is expected to continue in the future, with the MHSA share falling to 6.9 percent by 2014. The share decline is anticipated to moderate in the projection period as a higher proportion of rapidly increasing spending for prescription drugs in MH spending than in all-health spending is expected to help sustain the MH spending growth rate over the next decade.

Increasing MH Spending for Prescription Medications. Spending on pharmaceuticals was responsible for almost half of the increase in MHSA spending from 1993–2000 and for more than a quarter of the increase from 2000–2003. The meteoric rise in the use of prescription medications in the treatment of mental illness over the past decade has had many positive effects on the treatment of mental illness. Drug therapies with increased

efficacy, fewer safety issues, and improved side-effect profiles since the early 1990's have led to greatly expanded utilization (Zuvekas, 2005; Mark et al., 2007). In part, increased utilization comes from primary care physicians who have become more comfortable with prescribing some types of medications to their patients with MH conditions.[15] This has helped some patients, who typically might not visit a MH professional because of access issues or stigma, receive treatment.

More recently, however, there has been a slowdown in pharmaceutical spending growth overall, and in MH pharmaceuticals as well, stemming from several factors. Many health plans have encouraged patients to switch to generic medications or face higher out-of-pocket costs. This has been accomplished by implementing a variety of formulary designs such as tiered formularies that require higher co-payments for newer, more expensive drugs on higher tiers. Step-therapy (requiring older, less costly medications be used before more costly newer drugs will be covered) is another technique employed to manage costs. Together with the slump in new drug development (Berenson, 2006) as well as a rise in black box warnings about drug side-effects, spending growth on MH prescription drugs is projected to slow over the next decade. Although the magnitude of that slowdown contains considerable uncertainty, spending on prescription drugs is still expected to outpace growth in most other provider sectors, both for all-health and MH through the coming decade.

Return to Faster Hospital Spending Growth. After 7 years of slow growth, spending for hospital services resurged in the early 2000s. The reduced capacity of the hospital industry brought on by managed care and Medicare payment constraints, as well as consolidation within the industry itself, provided hospitals with the leverage they needed to boost prices, resulting in more rapid hospital spending increases in all-health (Cuellar and Gertler, 2005; Catlin et al., 2007). For all-health hospital spending, growth is expected to become weaker throughout the projection period (Borger et al., 2006). Similar patterns exist for MHSA treatment as well. Hospital spending barely increased (0.4 percent average annual increases) between 1993 and 2000 as third-party payers placed increased emphasis on moving care to outpatient settings and reducing lengths of stay. MHSA hospital treatment capacity declined during this period, especially in specialty psychiatric and chemical dependency hospitals. With increasing competition for more limited bed capacity, MHSA hospital spending began to grow again at pre-managed care rates—5.9 percent between 2000 and 2003. Mirroring the all-health trends, the MHSA hospital spending forecast calls for a return to moderate growth (4.7 percent) between 2003 and 2014—a pace that is faster than the 1993–2000 rates but slower than the most recent surge in spending growth in 2000–2003. MHSA spending growth is also expected to be strongest for treatment in general hospitals.

Reliance on Public Financing. Public financing is anticipated to continue as the major funding source during the next decade for both MH and SA treatment spending. However, public spending growth is forecasted to slow somewhat from historical growth rates. For MH, public spending growth that had historically been faster than all MH spending is forecasted to increase at the same rate as growth in total MH spending, resulting in the same share of spending from public sources in 2003 as in 2014 (58 percent). The public share of MH spending is not expected to grow more rapidly than all MH spending, in part because of stronger MH spending growth in sectors (i.e., prescription drugs and physicians) dominated by private payers. SA public spending, on the other hand,

[15]Author analysis of IMS number of prescriptions sold by specialty of prescribing physician for 2000–2004.

which accounted for more than three-quarters of all SA spending in 2003, is expected to increase faster than all SA spending in the coming decade as public programs assume responsibility for care that private insurance is gradually abandoning (Gabel et al., 2007).

Impact of Medicare Part D. Medicare Part D extended drug coverage to participating elderly and disabled individuals covered by Medicare beginning in 2006. The impact of this program will be to shift spending for drugs to the public sector from out-of-pocket and private insurance. Some financing will also be shifted within the public sector from Medicaid to Medicare, as Medicare picks up responsibility for financing prescription drugs for people dually-eligible for those programs. Other Medicare Part D spending is expected to cover people who previously had no coverage for prescription drugs. It is projected that these trends in all-health spending will be reflected in spending for prescription MH medications as well.

Medicaid and Other State and Local Financing. Both MH and SA treatment rely heavily on funding directed by State governments through Medicaid and other State and local financing.[16] Slightly less than half of all MH funding came from these sources in 2003. Medicaid and other State and local funding shares of MH funding are expected to diminish slightly by the end of the projection period, in part because much of the financing of MH drugs for dually eligible Medicaid and Medicare beneficiaries became the responsibility of Medicare beginning in 2006. In addition, patterns of falling shares of MH spending coming from State and local governments in the historical period are predicted to continue through the projection period, driven once again by prescription drugs that will be heavily financed by private sources, even after the implementation of Medicare Part D.

For SA, 58 percent of SA spending in 2003 came from Medicaid and other State and local sources,[16] a share that is anticipated to rise throughout the next decade. Unlike for MH where Medicaid is the more important source of funding, other State and local funding is the predominant payer for SA services, responsible for almost half of all SA funding. Both Medicaid and other State and local funding of SA services are anticipated to increase in share throughout the projection period. By 2014, together they are forecasted to finance 65 percent of SA treatment as they attempt to fill the gap caused by very slow growth in private insurance and out-of-pocket spending.

Shrinking Private Insurance Financing Shares for SA. Spending growth through private insurance is expected to remain weak, with levels of spending forecasted for 2014 below those estimated for 1986. While private financing of SA is forecasted to increase at faster-than-historical rates, growth is expected to still remain at less than half the rate of public SA spending increases. Over the historical period, barriers to SA insurance coverage emerged that were not present in medical/surgical coverage. These included annual and lifetime limits in inpatient hospital and outpatient visits, and higher cost-sharing through deductibles and coinsurance than those encountered in medical/surgical coverage (Gabel et al., 2007). In addition, increasing emphasis on drug-free workplaces, particularly in some industries such as transportation, heightened employee concerns for job security if SA treatment were discovered.

[16]Block grants are counted as part of Other Federal in the SAMHSA spending estimates. However, SAMHSA provides these grants to state agencies, which disperse the funds to treatment providers.

SOME FACTORS THAT COULD CHANGE PROJECTIONS

The forecasts shown in this report are extensions of patterns of spending exhibited in historical estimates. The historical estimates include the effects of new policies, treatment research and technological developments that have occurred and been implemented over the 1986–2003 period. Similar factors are implicitly a part of the MHSA forecasts to the extent that they were present in historical trends. However, there are many additional factors that can alter future spending patterns. For MHSA, these include the expanding body of evidence regarding the most efficacious treatments, greater inclusion of MHSA treatment in general health sectors, better integration of MHSA services to serve those with co-occurring disorders, technological advances, and extraordinary policy developments. Because of their speculative nature, impacts from these types of factors have not explicitly been incorporated into this report but are described below.

Pharmaceuticals. Because there are a limited number of medications approved to treat addictive disorders, sales of prescription drugs were a minor portion of spending for SA treatment over the historical period. They are projected to remain so during the study period. However, there is increased emphasis on research into pharmacological treatments for addictive disorders (Vocci et al., 2005) that could alter these trends. Drugs such as buprenorphine offer the prospect of expanding sites of care from stigmatized methadone clinics into physicians' practices. New patterns of spending on prescription treatments may emerge as additional medications are approved for addictive indications, or as clinicians and addiction counselors become familiar with and more widely accepting of medications to curb cravings, some of which are FDA-approved for other indications (O'Brien, 2005; Thomas and Miller, 2007).

Behavioral Treatments. Research findings on behavioral treatments for substance abuse have shown that these treatments can be potent interventions for several types of addictions. New technologies like brain imaging have improved clinicians' understanding of the importance of behavioral treatments that are tailored to an individual drug user's unique biological characteristics. Continued advances in substance abuse treatment research could affect the expected long-term trend away from specialty care in SA spending.

For example, the strategy of brief alcohol interventions for patients who drink excessively has been designated as one of the top 10 prevention priorities for the U.S. (Maciosek et al., 2006). The low rates of substance abuse screening and intervention in many health care settings are associated with increased risk of injury, illness, disability and death. Brief interventions following an initial positive screen for substance abuse, on the other hand, are associated with reductions in drinking, hazardous patterns of substance use, traffic fatalities and drugged- or drunk-driving, injuries and illnesses, and use of emergency services and hospital inpatient services (Cydulka et al., 1998; Blondell et al., 2002; Nordlund et al., 2004). Both the hazardous alcohol use screening and brief intervention measures have the potential for tremendous impact across many health care settings, including primary care and specialty care ambulatory practice, hospital inpatient and emergency services, and on the health care and disability costs of employers and public purchasers of health care.

Treatment of Co-occurring Disorders. One broad area of treatment that is being widely discussed in the MH and SA treatment industry is the simultaneous treatment of co-occurring mental illness and substance use disorders. However, to date widespread adoption of integrated treatment approaches has been slow (U. S. Department of Health and Human Services, 1999 and 2003). Integrated treatments for MH and SA problems

have been hampered by systemic and economic barriers such as differing funding streams, regulatory environments, and treatment philosophies, and by a lack of financing incentives (Libby and Riggs, 2005; Burnam and Watkins, 2006).

Yet individuals treated in programs that provide specific services for both conditions show significantly greater improvements in psychological functioning (Grella and Stein, 2006). Approaches such as integrated dual disorders treatment (IDDT) offer simultaneous and comprehensive services by a multidisciplinary treatment team for those suffering from co-occurring MHSA problems (Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, 2003). IDDT integrates services at the client level, targeting both disorders for effective diagnosis and treatment with a single treatment plan. Many states have modified regulations that govern service definitions and billing codes to make Medicaid funding flexible, allowing IDDT services to be reimbursed for Medicaid-eligible patients (Burnam and Watkins, 2006). Widespread adoption of promising approaches such as treating co-occurring MHSA disorders, treating MHSA disorders that are comorbid with other illnesses, and increased patient monitoring for people with MHSA conditions, could dramatically alter the projected financing and provider spending trends described in this report.

E-health. Many factors, some of which may be beyond the horizon of these projections, could affect future spending for mental health. New models to improve the quality of mental health care in the primary-care setting are emerging, particularly in rural areas of the United States. "E-health" innovations like video and Web conferencing, e-mail, and the Internet are increasingly being used for consultation and liaison services by primary care physicians who provide mental health treatment to patients (Hilty et al., 2006; Luo et al., 2006). Specialty mental health providers are also beginning to combine traditional forms of patient interventions with the Internet through e-mail, depression screening surveys, electronic chat rooms, and electronic informed consent (Proudfoot, 2004). These approaches hold the potential for increasing treatment caseloads and access to specialists (Recupero and Rainey, 2006). Moreover, Federal commitments to electronic health records (EHR) are encouraging the development of interoperable data systems that can provide platforms for greater integration of MH and SA care with general health care.

Medicare Part D. The recent implementation of Medicare Part D and its effect on access to and cost of prescription medications for the elderly is only beginning to be understood. Its full funding impact on drug usage by the Medicare-eligible population, employer-sponsored drug coverage for retirees, and on Medicaid will evolve over the next several years as information from tracking these effects become available.

State/Local Funding. Growth in financial support for SA service providers may slow as funding through Medicaid and State/local governments grows in share. State/local governments are more vulnerable to economic downturns because, unlike the Federal government, they are required to balance their budgets each year. As SA treatment providers become more dependent on State/local financing, their ability to weather recessions may become more problematic.

Benefit Parity. For employers, expanded MH (including SA) parity legislation that is under consideration by Congress would require large employers to provide the same coverage of outpatient visits and inpatient care as is supplied under their medical plans. Currently, SA benefits typically include higher patient cost-sharing, annual

benefit limits, and lifetime benefit caps in inpatient and outpatient care—limits infrequently applied to other medical conditions (Gabel et al., 2007). If SA benefit parity were enacted, the demand for MH and SA treatment providers could increase and potentially alter future spending trends depicted in this report.

Prison System. Spending by the prison system on MHSA treatment within its own facilities is not currently captured in these historical estimates or projections due to data issues.[17] Yet, because it serves individuals with and at high risk for substance use disorders and mental illness, the criminal justice system offers a unique opportunity to link vulnerable populations with needed services—a linkage that could change spending patterns for MHSA services. Seventy percent of those incarcerated have regularly abused drugs, which eventually leads to unmet healthcare needs (Narevic et al., 2006). For criminally-involved substance users, treatment through drug courts, work release programs, and support for the transition between prison and the community reduces drug use, crime, HIV-AIDS, and Hepatitis B and C (Haig, 2003; Butzin et al., 2005; Volkow, 2006); it could also yield a return of $4 to $7 in reduced drug-related crimes for every dollar spent on SA treatment (Volkow, 2006). If prison-based SA treatment becomes more widely accepted and implemented during the projection period, growth in spending for SA treatment would increase, but be offset over the long run by lower overall costs to society through reduced criminal activity and reduced costs for the criminal justice system (Flynn et al., 1999; Mark et al., 2001).

CONCLUSION

The projections of MH and SA spending provide useful information on current and future spending on MHSA services, and the financing that supports that spending. The report presents one scenario for potential future spending trends. Like any set of projections, these also involve some uncertainty—uncertainty that gradually increases throughout the projection period. Nevertheless, they provide a reasonable context for considering current policy and budget decisions and for envisioning likely issues and possible solutions that may emerge in the longer run. The potential implications of these projections and their consequences can provide a context for preemptive action that could be taken to alter future spending trends.

[17]Spending by prisons on treatment of inmates within community-based facilities is included. About 0.4 percent of admissions for substance abuse treatment to SA treatment facilities are referrals from the prison system (Substance Abuse and Mental Health Services Administration, 2007b).

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Appendix A | Detailed Tables of MHSA Spending Estimates

Table A.1: Mental Health, Substance Abuse, and All-health Expenditures: Amount, Percent Distribution, Average Annual Growth, Expenditures Per Capita, Share of All Health Spending, Inflation-Adjusted Spending, and Average Annual Growth in Inflation-Adjusted Spending, Selected Years 1986–2014

	Year					
	Historical				Projection	
Item and Diagnostic Category	1986	1993	2000	2003	2006	2014
Expenditures in Millions						
All Health (Note 1)	$439,201	$856,274	$1,260,935	$1,614,223	$1,997,843	$3,451,284
Mental Health and Substance Abuse	42,428	70,189	96,748	121,062	145,281	238,717
Mental Health	33,125	55,166	79,203	100,321	121,709	203,294
Substance Abuse	9,302	15,023	17,545	20,740	23,572	35,423
Percent Distribution						
Mental Health and Substance Abuse	100%	100%	100%	100%	100%	100%
Mental Health	78	79	82	83	84	85
Substance Abuse	22	21	18	17	16	15
Average Annual Growth from Previous Year Shown						
All Health (Note 1)	-	10.00%	5.70%	8.60%	7.40%	7.10%
Mental Health and Substance Abuse	-	7.5	4.7	7.8	6.3	6.4
Mental Health	-	7.6	5.3	8.2	6.7	6.6
Substance Abuse	-	7.1	2.2	5.7	4.4	5.2
Expenditures Per Capita						
All Health (Note 1)	$1,799	$3,234	$4,389	$5,452	$6,568	$10,632
Mental Health and Substance Abuse	174	265	337	409	478	735
Mental Health	136	208	276	339	400	626
Substance Abuse	38	57	61	70	77	109
Share of All Health Spending (Note 1)						
Mental Health and Substance Abuse	9.70%	8.20%	7.70%	7.50%	7.30%	6.90%
Mental Health	7.5	6.4	6.3	6.2	6.1	5.9
Substance Abuse	2.1	1.8	1.4	1.3	1.2	1
Inflation-Adjusted "Real" Expenditures in Millions (Base year = 2000) (Note 2)						
All Health (Note 1)	$623,352	$973,252	$1,260,935	$1,522,808	$1,772,523	$2,525,471
Mental Health and Substance Abuse	60,217	79,778	96,748	114,206	128,896	174,681
Mental Health	47,014	62,702	79,203	94,640	107,983	148,760
Substance Abuse	13,203	17,075	17,545	19,566	20,913	25,920
Average Annual Growth in Real Expenditures from Previous Year Shown						
All Health (Note 1)	-	6.60%	3.80%	6.50%	5.20%	4.50%
Mental Health and Substance Abuse	-	4.1	2.8	5.7	4.1	3.9
Mental Health	-	4.2	3.4	6.1	4.5	4.1
Substance Abuse	-	3.7	0.4	3.7	2.2	2.7

Sources: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014; Mark T, et.al., 2007; Centers for Medicare & Medicaid Services, OACT; U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

Notes:

1. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary.
2. Adjusted using the GDP price index produced by the Bureau of Economic Analysis.

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Table A.2: Amount in Millions of Mental Health, Substance Abuse, and All-health Expenditures by Type of Provider for All Payers: Selected Years 1986–2014

	Year					
	Historical			Projection		
Type of Provider	1986	1993	2000	2003	2006	2014
Mental Health and Substance Abuse Expenditures	$42,428	$70,189	$96,748	$121,062	$145,281	$238,717
Total All Service Providers and Products	40,337	66,315	90,697	112,610	135,705	224,166
All Hospitals	18,168	26,647	27,459	32,635	36,968	53,844
General Hospitals	8,464	13,467	15,718	20,286	24,114	38,510
Specialty Hospitals	9,703	13,181	11,740	12,348	12,854	15,334
All Physicians	4,438	8,269	11,858	15,420	19,600	34,907
Psychiatrists	2,918	5,592	8,079	10,342	13,194	23,245
Non-psychiatric Physicians	1,520	2,677	3,779	5,077	6,406	11,662
Other Professionals (Note 1)	4,550	6,703	8,327	11,006	14,118	21,803
Freestanding Nursing Homes	4,860	5,667	5,564	6,535	7,753	12,336
Freestanding Home Health	114	384	621	827	1,197	2,265
Other Personal and Public Health	6,002	14,453	20,384	22,830	25,229	37,790
Multi-Service Mental Health Organizations (Note 2)	4,241	9,284	13,539	14,390	15,710	22,969
Specialty Substance Abuse Centers (Note 3)	1,761	5,169	6,845	8,441	9,519	14,822
Retail Prescription Drugs	2,205	4,191	16,484	23,357	30,840	61,222
Insurance Administration	2,091	3,874	6,051	8,452	9,576	14,551
Mental Health Expenditures	$33,125	$55,166	$79,203	$100,321	$121,709	$203,294
Total All Service Providers and Products	31,546	52,025	74,157	93,177	113,537	190,571
All Hospitals	13,720	21,509	23,074	27,600	31,471	45,448
General Hospitals	5,469	9,665	12,069	15,927	19,167	30,722
Specialty Hospitals	8,251	11,843	11,005	11,673	12,305	14,726
All Physicians	3,753	7,126	10,445	13,748	17,595	32,017
Psychiatrists	2,681	4,973	7,569	9,802	12,537	22,321
Non-psychiatric Physicians	1,072	2,153	2,876	3,946	5,057	9,695
Other Professionals (Note 1)	3,099	4,749	6,251	8,370	10,735	16,959
Freestanding Nursing Homes	4,754	5,512	5,310	6,234	7,395	11,743
Freestanding Home Health	113	377	612	823	1,192	2,256
Other Personal and Public Health	3,916	8,588	12,048	13,143	14,434	21,126
Multi-Service Mental Health Organizations (Note 2)	3,916	8,588	12,048	13,143	14,434	21,126
Specialty Substance Abuse Centers (Note 3)	-	-	-	-	-	-
Retail Prescription Drugs	2,191	4,165	16,417	23,259	30,715	61,022
Insurance Administration	1,579	3,141	5,046	7,145	8,172	12,724

Substance Abuse Expenditures	$9,302	$15,023	$17,545	$20,740	$23,572	$35,423
Total All Service Providers and Products	8,791	14,290	16,540	19,433	22,168	33,596
All Hospitals	4,447	5,139	4,385	5,035	5,496	8,396
General Hospitals	2,995	3,802	3,649	4,359	4,948	7,788
Specialty Hospitals	1,453	1,337	736	676	549	608
All Physicians	685	1,143	1,413	1,672	2,006	2,890
Psychiatrists	237	619	510	540	657	923
Non-psychiatric Physicians	448	524	902	1,131	1,348	1,967
Other Professionals (Note 1)	1,451	1,953	2,076	2,636	3,383	4,844
Freestanding Nursing Homes	106	155	254	301	358	593
Freestanding Home Health	2	7	10	4	5	9
Other Personal and Public Health	2,086	5,866	8,337	9,687	10,795	16,664
Multi-Service Mental Health Organizations (Note 2)	325	696	1,492	1,246	1,276	1,842
Specialty Substance Abuse Centers (Note 3)	1,761	5,169	6,845	8,441	9,519	14,822
Retail Prescription Drugs	14	26	67	98	125	200
Insurance Administration	512	733	1,005	1,307	1,404	1,827
All Health (Note 4)	$439,201	$856,274	$1,260,935	$1,614,223	$1,997,843	$3,451,284
Total All Service Providers and Products	417,251	802,970	1,179,973	1,494,511	1,850,527	3,198,388
All Hospitals	177,941	319,963	413,131	515,866	623,542	1,007,156
All Physicians	99,562	201,239	290,192	369,746	453,821	782,458
Other Professionals	9,737	24,478	38,791	48,507	59,621	102,281
Freestanding Nursing Homes	33,508	65,713	95,296	110,797	127,128	194,574
Freestanding Home Health	6,388	21,879	31,616	40,009	54,756	95,914
Retail Prescription Drugs	24,290	51,250	121,539	179,204	249,299	521,325
All Other Services & Products (Note 5)	65,825	118,448	189,408	230,382	282,360	494,681
Insurance Administration	21,950	53,304	80,963	119,712	147,316	252,896

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. Includes psychologists and counselors/social workers.
2. Includes Residential Treatment Centers for Children.
3. Includes other facilities for treating substance abuse.
4. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.
5. Includes spending for Dentist Services, Other Personal Health Care, Durable Medical Products, Other Nondurable Medical Products (including over-the-counter medications), and Public Health Activities.

Table A.3: Percent Distribution of Mental Health, Substance Abuse, and All-health Expenditures by Type of Provider for All Payers: Selected Years 1986–2014

	Year					
	Historical			Projection		
Type of Provider	1986	1993	2000	2003	2006	2014
Mental Health and Substance Abuse Expenditures	100%	100%	100%	100%	100%	100%
Total All Service Providers and Products	95	94	94	93	93	94
All Hospitals	43	38	28	27	25	23
General Hospitals	20	19	16	17	17	16
Specialty Hospitals	23	19	12	10	9	6
All Physicians	10	12	12	13	13	15
Psychiatrists	7	8	8	9	9	10
Non-psychiatric Physicians	4	4	4	4	4	5
Other Professionals (Note 1)	11	10	9	9	10	9
Freestanding Nursing Homes	11	8	6	5	5	5
Freestanding Home Health	0	1	1	1	1	1
Other Personal and Public Health	14	21	21	19	17	16
Multi-Service Mental Health Organizations (Note 2)	10	13	14	12	11	10
Specialty Substance Abuse Centers (Note 3)	4	7	7	7	7	6
Retail Prescription Drugs	5	6	17	19	21	26
Insurance Administration	5	6	6	7	7	6
Mental Health Expenditures	100%	100%	100%	100%	100%	100%
Total All Service Providers and Products	95	94	94	93	93	94
All Hospitals	41	39	29	28	26	22
General Hospitals	17	18	15	16	16	15
Specialty Hospitals	25	21	14	12	10	7
All Physicians	11	13	13	14	14	16
Psychiatrists	8	9	10	10	10	11
Non-psychiatric Physicians	3	4	4	4	4	5
Other Professionals (Note 1)	9	9	8	8	9	8
Freestanding Nursing Homes	14	10	7	6	6	6
Freestanding Home Health	0	1	1	1	1	1
Other Personal and Public Health	12	16	15	13	12	10
Multi-Service Mental Health Organizations (Note 2)	12	16	15	13	12	10
Specialty Substance Abuse Centers (Note 3)	-	-	-	-	-	-
Retail Prescription Drugs	7	8	21	23	25	30
Insurance Administration	5	6	6	7	7	6

Substance Abuse Expenditures	100%	100%	100%	100%	100%	100%
Total All Service Providers and Products	95	95	94	94	94	95
All Hospitals	48	34	25	24	23	24
General Hospitals	32	25	21	21	21	22
Specialty Hospitals	16	9	4	3	2	2
All Physicians	7	8	8	8	9	8
Psychiatrists	3	4	3	3	3	3
Non-psychiatric Physicians	5	3	5	5	6	6
Other Professionals (Note 1)	16	13	12	13	14	14
Freestanding Nursing Homes	1	1	1	1	2	2
Freestanding Home Health	0	0	0	0	0	0
Other Personal and Public Health	22	39	48	47	46	47
Multi-Service Mental Health Organizations (Note 2)	3	5	9	6	5	5
Specialty Substance Abuse Centers (Note 3)	19	34	39	41	40	42
Retail Prescription Drugs	0	0	0	0	1	1
Insurance Administration	6	5	6	6	6	5
All Health (Note 4)	100%	100%	100%	100%	100%	100%
Total All Service Providers and Products	95	94	94	93	93	93
All Hospitals	41	37	33	32	31	29
All Physicians	23	24	23	23	23	23
Other Professionals	2	3	3	3	3	3
Freestanding Nursing Homes	8	8	8	7	6	6
Freestanding Home Health	1	3	3	2	3	3
Retail Prescription Drugs	6	6	10	11	12	15
All Other Services & Products (Note 5)	15	14	15	14	14	14
Insurance Administration	5	6	6	7	7	7

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. Includes psychologists and counselors/social workers.
2. Includes Residential Treatment Centers for Children.
3. Includes other facilities for treating substance abuse.
4. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.
5. Includes spending for Dentist Services, Other Personal Health Care, Durable Medical Products, Other Nondurable Medical Products (including over-the-counter medications), and Public Health Activities.

Table A.4: Average Annual Growth in Mental Health, Substance Abuse, and All-health Expenditures by Type of Provider for All Payers: Selected Years 1986–2014

	Period						
	Historical			Projection			
Type of Provider	1986–1993	1993–2000	2000–2003	2003–2006	2006–2014	1986–2003	2003–2014
Mental Health and Substance Abuse Expenditures	7.50%	4.70%	7.80%	6.30%	6.40%	6.40%	6.40%
Total All Service Providers and Products	7.4	4.6	7.5	6.4	6.5	6.2	6.5
All Hospitals	5.6	0.4	5.9	4.2	4.8	3.5	4.7
General Hospitals	6.9	2.2	8.9	5.9	6	5.3	6
Specialty Hospitals	4.5	-1.6	1.7	1.3	2.2	1.4	2
All Physicians	9.3	5.3	9.1	8.3	7.5	7.6	7.7
Psychiatrists	9.7	5.4	8.6	8.5	7.3	7.7	7.6
Non-psychiatric Physicians	8.4	5	10.3	8.1	7.8	7.4	7.9
Other Professionals (Note 1)	5.7	3.1	9.7	8.7	5.6	5.3	6.4
Freestanding Nursing Homes	2.2	-0.3	5.5	5.9	6	1.8	5.9
Freestanding Home Health	18.9	7.1	10	13.1	8.3	12.3	9.6
Other Personal and Public Health	13.4	5	3.8	3.4	5.2	8.2	4.7
Multi-Service Mental Health Organizations (Note 2)	11.8	5.5	2.1	3	4.9	7.5	4.3
Specialty Substance Abuse Centers (Note 3)	16.6	4.1	7.2	4.1	5.7	9.7	5.3
Retail Prescription Drugs	9.6	21.6	12.3	9.7	8.9	14.9	9.2
Insurance Administration	9.2	6.6	11.8	4.3	5.4	8.6	5.1
Mental Health Expenditures	7.60%	5.30%	8.20%	6.70%	6.60%	6.70%	6.60%
Total All Service Providers and Products	7.4	5.2	7.9	6.8	6.7	6.6	6.7
All Hospitals	6.6	1	6.2	4.5	4.7	4.2	4.6
General Hospitals	8.5	3.2	9.7	6.4	6.1	6.5	6.2
Specialty Hospitals	5.3	-1	2	1.8	2.3	2.1	2.1
All Physicians	9.6	5.6	9.6	8.6	7.8	7.9	8
Psychiatrists	9.2	6.2	9	8.5	7.5	7.9	7.8
Non-psychiatric Physicians	10.5	4.2	11.1	8.6	8.5	8	8.5
Other Professionals (Note 1)	6.3	4	10.2	8.6	5.9	6	6.6
Freestanding Nursing Homes	2.1	-0.5	5.5	5.9	6	1.6	5.9
Freestanding Home Health	18.8	7.2	10.4	13.1	8.3	12.4	9.6
Other Personal and Public Health	11.9	5	2.9	3.2	4.9	7.4	4.4
Multi-Service Mental Health Organizations (Note 2)	11.9	5	2.9	3.2	4.9	7.4	4.4
Specialty Substance Abuse Centers (Note 3)	-	-	-	-	-	-	-
Retail Prescription Drugs	9.6	21.6	12.3	9.7	9	14.9	9.2
Insurance Administration	10.3	7	12.3	4.6	5.7	9.3	5.4

Substance Abuse Expenditures	7.10%	2.20%	5.70%	4.40%	5.20%	4.80%	5.00%
Total All Service Providers and Products	7.2	2.1	5.5	4.5	5.3	4.8	5.1
All Hospitals	2.1	-2.2	4.7	3	5.4	0.7	4.8
General Hospitals	3.5	-0.6	6.1	4.3	5.8	2.2	5.4
Specialty Hospitals	-1.2	-8.2	-2.8	-6.7	1.3	-4.4	-1
All Physicians	7.6	3.1	5.8	6.3	4.7	5.4	5.1
Psychiatrists	14.7	-2.7	1.9	6.7	4.3	5	5
Non-psychiatric Physicians	2.3	8.1	7.8	6	4.8	5.6	5.2
Other Professionals (Note 1)	4.3	0.9	8.3	8.7	4.6	3.6	5.7
Freestanding Nursing Homes	5.6	7.3	5.9	5.9	6.5	6.3	6.4
Freestanding Home Health	21.8	4.2	-28.7	11	7.6	3.9	8.5
Other Personal and Public Health	15.9	5.2	5.1	3.7	5.6	9.5	5.1
Multi-Service Mental Health Organizations (Note 2)	11.5	11.5	-5.8	0.8	4.7	8.2	3.6
Specialty Substance Abuse Centers (Note 3)	16.6	4.1	7.2	4.1	5.7	9.7	5.3
Retail Prescription Drugs	9.9	14.3	13.7	8.2	6.1	12.3	6.6
Insurance Administration	5.3	4.6	9.1	2.4	3.3	5.7	3.1
All Health (Note 4)	10.00%	5.70%	8.60%	7.40%	7.10%	8.00%	7.20%
Total All Service Providers and Products	9.8	5.7	8.2	7.4	7.1	7.8	7.2
All Hospitals	8.7	3.7	7.7	6.5	6.2	6.5	6.3
All Physicians	10.6	5.4	8.4	7.1	7	8	7.1
Other Professionals	14.1	6.8	7.7	7.1	7	9.9	7
Freestanding Nursing Homes	10.1	5.5	5.2	4.7	5.5	7.3	5.3
Freestanding Home Health	19.2	5.4	8.2	11	7.3	11.4	8.3
Retail Prescription Drugs	11.3	13.1	13.8	11.6	9.7	12.5	10.2
All Other Services & Products (Note 5)	8.8	6.9	6.7	7	7.3	7.6	7.2
Insurance Administration	13.5	6.2	13.9	7.2	7	10.5	7

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. Includes psychologists and counselors/social workers.
2. Includes Residential Treatment Centers for Children.
3. Includes other facilities for treating substance abuse.
4. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.
5. Includes spending for Dentist Services, Other Personal Health Care, Durable Medical Products, Other Nondurable Medical Products (including over-the-counter medications), and Public Health Activities.

Table A.5: Amounts in Millions of Mental Health, Substance Abuse, and All-health Expenditures by Payer for All Providers: Selected Years 1986–2014

	Year					
	Historical			Projection		
Type of Payer	1986	1993	2000	2003	2006	2014
Mental Health and Substance Abuse Expenditures	$42,428	$70,189	$96,748	$121,062	$145,281	$238,717
Private — Total	20,006	26,103	34,651	46,702	56,227	91,174
Out-of-Pocket	7,316	9,090	12,110	15,977	18,979	27,001
Private Insurance	9,822	13,239	19,232	26,400	31,819	55,989
Other Private	2,869	3,774	3,309	4,325	5,429	8,184
Public — Total	22,422	44,085	62,098	74,360	89,054	147,543
Medicare	2,314	5,397	7,471	8,270	14,764	24,957
Medicaid (Note 1)	6,253	14,143	23,975	30,101	33,338	61,886
Other Federal (Note 2)	2,703	5,318	5,414	6,591	7,329	11,418
Other State and Local (Note 2)	11,151	19,228	25,237	29,398	33,623	49,281
All Federal (Note 3)	8,517	19,641	26,844	32,598	41,248	71,857
All State (Note 4)	13,904	24,444	35,253	41,762	47,806	75,686
Mental Health Expenditures	$33,125	$55,166	$79,203	$100,321	$121,709	$203,294
Private — Total	15,393	21,351	30,654	42,013	51,147	85,041
Out-of-Pocket	6,033	7,158	10,735	14,312	17,100	24,802
Private Insurance	7,068	11,174	17,375	24,311	29,700	53,582
Other Private	2,292	3,019	2,545	3,390	4,347	6,657
Public — Total	17,732	33,815	48,549	58,308	70,562	118,254
Medicare	1,915	4,732	6,575	7,343	13,716	23,355
Medicaid (Note 1)	5,320	11,723	20,900	26,391	29,059	54,965
Other Federal (Note 2)	2,047	2,732	2,766	3,525	3,993	6,572
Other State and Local (Note 2)	8,451	14,628	18,308	21,049	23,794	33,362
All Federal (Note 3)	6,939	14,864	21,510	26,419	34,405	61,441
All State (Note 4)	10,794	18,951	27,039	31,889	36,157	56,813

Substance Abuse Expenditures	$9,302	$15,023	$17,545	$20,740	$23,572	$35,423
Private — Total	4,613	4,753	3,996	4,689	5,080	6,134
Out-of-Pocket	1,282	1,933	1,375	1,665	1,879	2,199
Private Insurance	2,754	2,065	1,857	2,089	2,119	2,407
Other Private	576	755	764	935	1,082	1,528
Public — Total	4,689	10,270	13,549	16,052	18,492	29,289
Medicare	399	664	896	927	1,048	1,602
Medicaid (Note 1)	933	2,420	3,075	3,710	4,279	6,921
Other Federal (Note 2)	657	2,586	2,648	3,066	3,337	4,846
Other State and Local (Note 2)	2,700	4,600	6,930	8,349	9,828	15,920
All Federal (Note 3)	1,579	4,778	5,335	6,179	6,843	10,416
All State (Note 4)	3,111	5,493	8,214	9,873	11,649	18,872
All Health (Note 5)	$439,201	$856,274	$1,260,936	$1,614,222	$1,997,843	$3,451,284
Private — Total	259,441	484,049	699,244	892,564	1,053,393	1,775,986
Out-of-Pocket	103,103	146,948	193,110	230,483	257,745	430,886
Private Insurance	134,604	298,078	450,586	600,594	721,977	1,224,827
Other Private	21,734	39,023	55,548	61,487	73,720	120,372
Public — Total	179,760	372,225	561,692	721,658	944,449	1,675,298
Medicare	76,829	148,336	224,484	283,104	424,817	746,925
Medicaid	45,363	121,612	203,410	268,629	321,623	618,500
Other Federal	21,311	36,247	50,021	65,672	77,801	115,368
Other State and Local	36,257	66,030	83,777	104,253	126,400	206,850
All Federal	123,531	261,345	392,937	507,480	687,412	1,216,903
All State	56,229	110,880	168,755	214,178	263,228	470,740

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. The State Children's Health Insurance Program (SCHIP) total all health spending was $6.6 billion in 2003. MHSA SCHIP spending was estimated at $1.1 billion or about 1 percent of total MHSA spending. In this table, SCHIP is distr buted 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. Federal government SAMHSA block grants to State and Local agencies are included as part of "Other Federal" government spending. In 2003, block grants amounted to $385 million for MH and $1,227 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.
5. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.

Table A.6: Percent Distribution of Mental Health, Substance Abuse, and All-health Expenditures by Payer for All Providers: Selected Years 1986–2014

	Year					
	Historical			Projection		
Type of Payer	1986	1993	2000	2003	2006	2014
Mental Health and Substance Abuse Expenditures	100%	100%	100%	100%	100%	100%
Private — Total	47	37	36	39	39	38
Out-of-Pocket	17	13	13	13	13	11
Private Insurance	23	19	20	22	22	23
Other Private	7	5	3	4	4	3
Public — Total	53	63	64	61	61	62
Medicare	6	8	8	7	10	10
Medicaid (Note 1)	15	20	25	25	23	26
Other Federal (Note 2)	6	8	6	5	5	5
Other State and Local (Note 2)	26	27	26	24	23	21
All Federal (Note 3)	20	28	28	27	28	30
All State (Note 4)	33	35	36	34	33	32
Mental Health Expenditures	100%	100%	100%	100%	100%	100%
Private — Total	46	39	39	42	42	42
Out-of-Pocket	18	13	14	14	14	12
Private Insurance	21	20	22	24	24	26
Other Private	7	5	3	3	4	3
Public — Total	54	61	61	58	58	58
Medicare	6	9	8	7	11	11
Medicaid (Note 1)	16	21	26	26	24	27
Other Federal (Note 2)	6	5	3	4	3	3
Other State and Local (Note 2)	26	27	23	21	20	16
All Federal (Note 3)	21	27	27	26	28	30
All State (Note 4)	33	34	34	32	30	28

Substance Abuse Expenditures	100%	100%	100%	100%	100%	100%
Private — Total	50	32	23	23	22	17
Out-of-Pocket	14	13	8	8	8	6
Private Insurance	30	14	11	10	9	7
Other Private	6	5	4	5	5	4
Public — Total	50	68	77	77	78	83
Medicare	4	4	5	4	4	5
Medicaid (Note 1)	10	16	18	18	18	20
Other Federal (Note 2)	7	17	15	15	14	14
Other State and Local (Note 2)	29	31	39	40	42	45
All Federal (Note 3)	17	32	30	30	29	29
All State (Note 4)	33	37	47	48	49	53
All Health (Note 5)	100%	100%	100%	100%	100%	100%
Private — Total	59	57	55	55	53	51
Out-of-Pocket	23	17	15	14	13	12
Private Insurance	31	35	36	37	36	35
Other Private	5	5	4	4	4	4
Public — Total	41	43	45	45	47	49
Medicare	17	17	18	18	21	22
Medicaid	10	14	16	17	16	18
Other Federal	5	4	4	4	4	3
Other State and Local	8	8	7	6	6	6
All Federal	28	31	31	31	34	35
All State	13	13	13	13	13	14

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. The State Children's Health Insurance Program (SCHIP) total all health spending was $6.6 billion in 2003. MHSA SCHIP spending was estimated at $1.1 billion or about 1 percent of total MHSA spending. 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. Federal government SAMHSA block grants to State and Local agencies are included as part of "Other Federal" government spending. In 2003, block grants amounted to $385 million for MH and $1,227 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.
5. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.

Table A.7: Average Annual Growth for Mental Health, Substance Abuse, and All-health Expenditures by Payer for All Providers: Selected Years 1986–2014

	Period						
	Historical			Projection			
Type of Payer	1986–1993	1993–2000	2000–2003	2003–2006	2006–2014	1986–2003	2003–2014
Mental Health and Substance Abuse Expenditures	7.50%	4.70%	7.80%	6.30%	6.40%	6.40%	6.40%
Private — Total	3.9	4.1	10.5	6.4	6.2	5.1	6.3
Out-of-Pocket	3.2	4.2	9.7	5.9	4.5	4.7	4.9
Private Insurance	4.4	5.5	11.1	6.4	7.3	6	7.1
Other Private	4	-1.9	9.3	7.9	5.3	2.4	6
Public — Total	10.1	5	6.2	6.2	6.5	7.3	6.4
Medicare	12.9	4.8	3.4	21.3	6.8	7.8	10.6
Medicaid (Note 1)	12.4	7.8	7.9	3.5	8	9.7	6.8
Other Federal (Note 2)	10.1	0.3	6.8	3.6	5.7	5.4	5.1
Other State and Local (Note 2)	8.1	4	5.2	4.6	4.9	5.9	4.8
All Federal (Note 3)	12.7	4.6	6.7	8.2	7.2	8.2	7.5
All State (Note 4)	8.4	5.4	5.8	4.6	5.9	6.7	5.6
Mental Health Expenditures	7.60%	5.30%	8.20%	6.70%	6.60%	6.70%	6.60%
Private — Total	4.8	5.3	11.1	6.8	6.6	6.1	6.6
Out-of-Pocket	2.5	6	10.1	6.1	4.8	5.2	5.1
Private Insurance	6.8	6.5	11.8	6.9	7.7	7.5	7.4
Other Private	4	-2.4	10	8.6	5.5	2.3	6.3
Public — Total	9.7	5.3	6.3	6.6	6.7	7.3	6.6
Medicare	13.8	4.8	3.7	23.2	6.9	8.2	11.1
Medicaid (Note 1)	11.9	8.6	8.1	3.3	8.3	9.9	6.9
Other Federal (Note 2)	4.2	0.2	8.4	4.2	6.4	3.3	5.8
Other State and Local (Note 2)	8.2	3.3	4.8	4.2	4.3	5.5	4.3
All Federal (Note 3)	11.5	5.4	7.1	9.2	7.5	8.2	8
All State (Note 4)	8.4	5.2	5.7	4.3	5.8	6.6	5.4

Substance Abuse Expenditures	7.10%	2.20%	5.70%	4.40%	5.20%	4.80%	5.00%
Private — Total	0.4	-2.4	5.5	2.7	2.4	0.1	2.5
Out-of-Pocket	6	-4.7	6.6	4.1	2	1.5	2.6
Private Insurance	-4	-1.5	4	0.5	1.6	-1.6	1.3
Other Private	3.9	0.2	7	5	4.4	2.9	4.6
Public — Total	11.9	4	5.8	4.8	5.9	7.5	5.6
Medicare	7.5	4.4	1.1	4.2	5.5	5.1	5.1
Medicaid (Note 1)	14.6	3.5	6.5	4.9	6.2	8.5	5.8
Other Federal (Note 2)	21.6	0.3	5	2.9	4.8	9.5	4.2
Other State and Local (Note 2)	7.9	6	6.4	5.6	6.2	6.9	6
All Federal (Note 3)	17.1	1.6	5	3.5	5.4	8.4	4.9
All State (Note 4)	8.5	5.9	6.3	5.7	6.2	7	6.1
All Health (Note 5)	10.00%	5.70%	8.60%	7.40%	7.10%	8.00%	7.20%
Private — Total	9.3	5.4	8.5	5.7	6.7	7.5	6.5
Out-of-Pocket	5.2	4	6.1	3.8	6.6	4.8	5.9
Private Insurance	12	6.1	10.1	6.3	6.8	9.2	6.7
Other Private	8.7	5.2	3.4	6.2	6.3	6.3	6.3
Public — Total	11	6.1	8.7	9.4	7.4	8.5	8
Medicare	9.9	6.1	8	14.5	7.3	8	9.2
Medicaid	15.1	7.6	9.7	6.2	8.5	11	7.9
Other Federal	7.9	4.7	9.5	5.8	5	6.8	5.3
Other State and Local	8.9	3.5	7.6	6.6	6.4	6.4	6.4
All Federal	11.3	6	8.9	10.6	7.4	8.7	8.3
All State	10.2	6.2	8.3	7.1	7.5	8.2	7.4

Source: SAMHSA Spending Estimates: MHSA Spending Projections for 2004–2014.

Notes:

1. The State Children's Health Insurance Program (SCHIP) total all health spending was $6.6 billion in 2003. MHSA SCHIP spending was estimated at $1.1 billion or about 1 percent of total MHSA spending. 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. Federal government SAMHSA block grants to State and Local agencies are included as part of "Other Federal" government spending. In 2003, block grants amounted to $385 million for MH and $1,227 million for SA.
3. Includes Federal share of Medicaid.
4. Includes State and Local share of Medicaid.
5. "Health Services and Supplies" from the National Health Expenditure Accounts produced by the Centers for Medicare & Medicaid Services, Office of the Actuary. Excludes spending for Noncommercial Research and Capital Investment in Medical Structures that is included in National Health Expenditures.

Appendix B | 2006 and 2007 Expert Advisory Panel

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Appendix C | SAMHSA Spending Estimates Definitions

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

This appendix presents the structure used in the MHSA SSE estimates and projections, describes the classification system used as a basis for that structure, and defines many of the concepts used in the SSE. It draws heavily on the definitions used for the NHEA that are posted on the CMS NHEA website.[18]

SAMHSA SPENDING ESTIMATES STRUCTURE

The SSE measure aggregate spending on the treatment of MH and SA. Historical estimates are constructed in 4 dimensions, but not all these dimensions are included in projections:

- Diagnosis:
  - Mental illness/disorders
  - Substance use disorders[19]
- Provider and products:
  - Hospital care[20]
  - Physician services[21]
  - Other professional services
  - Nursing home care
  - Home health care
  - Multi-service mental health organizations (MSMHOs)
  - Specialty substance abuse centers (SSACs)
  - Prescription drugs
  - Insurance administration
- Setting:
  - Inpatient
  - Outpatient
  - Residential

[18]**http://www.cms.gov/NationalHealthExpendData/downloads/dsm-09.pdf** and **http://www.cms.gov/NationalHealthExpendData/downloads/quickref.pdf**
[19]Estimates are also prepared separately for drug abuse and alcohol abuse.
[20]Hospital care is estimated separately for "specialty" psychiatric and chemical dependency hospitals and, within general hospitals, separately for "specialty unit" and non-specialty care.
[21]Physician services are estimated separately for psychiatric physicians and for non-psychiatric physicians.

- Payer:
  - Private insurance
  - Out-of-pocket
  - Other private
  - Medicare
  - Medicaid
  - Other Federal
  - Other State and local

In addition, more detailed provider categories of spending are estimated when both specialty[22] and non-specialty[23] care are furnished by the same category of providers. More detailed categories of providers include specialty and general hospitals, specialty unit and non-specialty care in general hospitals, and psychiatrists and other non-psychiatric physicians. In addition, other professional services (e.g., psychologists and psychiatric social workers), MSMHOs, and SSACs are considered specialty providers.

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 whose main indications are 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 MHSA government public health activity, research, or investment in structures or equipment that are used in providing treatment.

CLASSIFICATION SYSTEM

As in the NHEA, the type of establishment providing the service determines the provider category for health care spending. In other words, the MHSA 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 latter case, home health care spending would be classified as part of hospital care.

The classification system for private establishments 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

[22]Includes general hospital specialty units, specialty hospitals, psychiatrists, other professional services, multi-service mental health organizations (MSMHOs), and specialty substance abuse centers (SSACs).
[23]Includes general hospital non-specialty care, non-psychiatric physicians, home health, and nursing home care.

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) 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 MHSA estimates, however, take a somewhat broader approach by counting spending at certain facilities (usually "residential" facilities) that may not be included in the NHEA (Table C.1). These facilities may appear to provide little "medical care" in the traditional sense used in the NAICS definitions, and therefore some 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, protective environment that is removed from people, places, or situations that contribute to the patient's dysfunction.

Table C.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	Multi-Service Mental Health Organizations (MSMHOs)—part; Specialty Substance Abuse Centers (SSACs)—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	MSMHOs—part; SSACs—part	Excluded

SOURCE: Executive Office of the President, North American Industry Classification System. Washington, U.S. Government Printing Office, 1997.

In addition, two categories of spending are not defined by the NAICS. Unlike other spending categories where the establishment's primary function is medical care, the medical purchases represented in these two categories are a small portion of the overall products or services produced by that establishment. 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[24] of private health insurance, and the administrative costs associated with operating philanthropic organizations that provide donations for health care.

DEFINITIONS

The following list provides definitions of diagnosis, 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 C.1 above.

DIAGNOSIS

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 C.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 also included: Complications mainly related to pregnancy—drug dependence (648.3) and mental disorders (648.4).

[24]Net cost is the difference between the insurance premium cost and the benefits incurred. It includes all costs associated with administering health insurance (commissions, bill processing, reserves), dividends paid to stockholders, and other taxes and costs.

Table C.2: ICD-9 Codes Included in SSE Mental Health and Substance Abuse 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 non-psychotic 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)
305.0	Alcohol abuse	SA (Alcohol)
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)

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 substance abuse-related crimes. They also exclude expenditures on non-MHSA conditions that are caused by MHSA problems, such as liver cirrhosis.

Drugs for the treatment of MH and SA are generally identified differently, that is, not based on diagnosis. Rather, the principal indication for use of the drug for MH and/or SA treatment is required, regardless of the associated diagnosis. There are four classifications of psychopharmacologic drugs used in this study:

- Sedatives and hypnotics
- Antianxiety medications
- Antipsychotics
- Antidepressants

In addition, two other classes of drugs are used if patients also have an associated MH or SA diagnosis:

- Central nervous system (CNS) stimulants and anorexiants
- Miscellaneous CNS drugs

This classification of MH and SA drugs includes spending for drugs whose main indication for use is MH or SA, but which may be used to treat other conditions. In addition, other drugs whose main indication for use is not MH or SA may be used to treat MH or SA conditions. Spending for these drugs is missing from these estimates.

DEFINITIONS OF PROVIDERS, PAYERS, AND SETTINGS

The following sections provide definitions of spending categories used in the preparation and presentation of MH and SA spending estimates.

PROVIDERS[25]

Providers of service are classified according to the major type of services they furnish. These services are listed in Table 1. In addition to the major type of service 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.

General hospitals are establishments classified as general medical and surgical hospitals and specialty hospitals (other than mental health and substance abuse hospitals) that provide diagnostic and medical treatment (both surgical and non-surgical) to inpatients with any of a wide variety of medical conditions or, in the case of specialty hospitals, for a specific type of disease or medical condition (except psychiatric or substance abuse). These hospitals are general community hospitals (general medical and surgical hospitals) and other types of non-psychiatric and non-substance abuse specialty hospitals such as those concentrating on cancer care and treatment; obstetrics; ears, nose and throat; orthopedics; or physical rehabilitation.

[25]The definitions below borrow liberally from two CMS National Health Expenditure Account websites (**http://www.cms.gov/NationalHealthExpendData/downloads/dsm-09.pdf** and **http://www.cms.gov/NationalHealthExpendData/downloads/quickref.pdf**) and from the U.S. Bureau of the Census NAICS website (**http://www.census.gov/eos/www/naics**).

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 health, chemical dependency, and substance abuse diagnoses). For purposes of these estimates, only spending for patients with MH and SA primary diagnoses is counted in this category.

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 health, chemical dependency, and substance abuse diagnoses. For purposes of these estimates, only spending for patients with MH and SA primary diagnoses is counted in this category.

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. These freestanding HHAs are establishments that fall into NAICS 6216—Home Health Care Agencies.

Hospital care covers all services provided to patients by public and private general medical/surgical, psychiatric and substance abuse, and other specialty hospitals. Services include room and board, ancillary charges, services of resident physicians, inpatient pharmacy, hospital-based nursing home and home health care, and any other services billed by hospitals. The value of hospital services is measured by total net revenue, which equals gross patient revenues (charges) less contractual adjustments, bad debts, and charity care. It also includes government tax appropriations as well as non-patient and non-operating revenues. Hospitals fall into NAICS 6221–6223 (Hospitals). Estimates are made separately for "specialty" psychiatric/substance abuse hospitals (NAICS 6222) and for all other hospitals (general medical/surgical hospitals (NAICS 6221) and specialty hospitals other than psychiatric/substance abuse hospitals (NAICS 6223)).

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.

Multi-service mental health organizations (MSMHOs) are organizations providing outpatient and/or residential services to individuals with MH and SA diagnoses. In most of these facilities, a physician would provide medical assessments and prescribe and manage 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.

Outpatient treatment centers and clinics include establishments with medical personnel and other therapeutic staff primarily engaged in providing outpatient diagnostic and treatment services related to mental health disorders. They may provide counseling staff, information on a wide range of mental health issues, and referral services for more intensive treatment programs, if necessary. These organizations are covered under NAICS 621420 (Outpatient Mental Health and Substance Abuse Centers). Establishments in this category include facilities such as psychiatric outpatient clinics.

Residential facilities provide mental rehabilitation, social and counseling services, and supervision. These organizations are covered under NAICS 623220 (Residential Mental Health and Substance Abuse Facilities). Establishments in this category include residential mental health facilities, homes for emotionally disturbed children and adults, and residential group homes.

Other outpatient and residential treatment centers may also be captured in MSMHOs. These establishments may include halfway homes and other types of residential facilities. In addition, the MHSA expenditures may also include spending in establishments whose main function is something other than those specified in these NAICS classifications. Examples include treatment centers that are part of schools, jails or prisons, or religious organizations.

Nursing home care covers services provided in private and public freestanding nursing home facilities. The 'freestanding' designation means that the nursing home is 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 provided 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. These establishments are classified in NAICS 6231 (Nursing Care Facilities) and NAICS 623311 (Continuing Care Retirement Communities with on-site nursing care facilities).

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, psychologists, psychoanalysts, psychotherapists, clinical social workers, professional counselors, substance abuse counselors, and marriage and family therapists are also included in this category. For the SSE, these establishments are classified as a subset of NAICS 6213 (NAICS 62133 Offices of Mental Health Practitioners) and cover establishments of independent mental health practitioners (except physicians) 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.

Physician services include services provided in establishments operated by Doctors of Medicine (M.D.) and Doctors of Osteopathy (D.O.), outpatient care centers (except specialty mental health and substance abuse clinics), plus the portion of medical laboratory services that are billed independently by the laboratories. This category also includes services rendered by a physician in hospitals, if the physician bills independently for those services. Clinical services provided in freestanding outpatient clinics operated by the U.S. Department of

Veterans Affairs, U.S. Coast Guard Academy and U.S. Indian Health Service are also included. The establishments included in Physician and Clinical Services are classified in NAICS 62111 (Offices of Physicians), NAICS 6214 (Outpatient Care Centers (except outpatient mental health (MSMHOs) and substance abuse (SSACs) clinics (NAICS 62142), which are separate entries in these estimates), and the independently-billed portion of NAICS 62151 (Medical and Diagnostic Laboratories).

Prescription drugs include the sales of prescription drugs through retail outlets such as community pharmacies; pharmacies in mass merchandise stores, grocery stores, and department stores; and mail order pharmacies. Sales through hospital, exclusive-to-patient Health Maintenance Organization (HMO), and nursing home pharmacies are excluded and are counted instead with the establishment (hospital, physicians' offices, or nursing home) where the pharmacy is located. There are four classifications of psychopharmacologic drugs used in this study:

- Sedatives and hypnotics
- Anti-anxiety medications
- Anti-psychotics
- Anti-depressants

In addition, two other classes of drugs are used if they also have an associated MH or SA diagnosis: Central nervous system (CNS) stimulants and anorexiants, and miscellaneous CNS drugs. Adjustments are made to this 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 a pharmacy's formulary, thus helping the manufacturer increase its volume of sales.

Psychiatrists include establishments of health practitioners having the degree of M.D. (Doctor of Medicine) or D.O. (Doctor of Osteopathy) primarily engaged in the independent practice of psychiatry or psychoanalysis. These practitioners operate private or group practices in their own offices (e.g., their own centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers. To be included in this category, they must bill independently. These establishments are classified under NAICS 621112 (Offices of Physicians, Mental Health Specialists).

Specialty hospitals are establishments primarily engaged in providing diagnostic, medical treatment, and monitoring services for inpatients who suffer from mental illness or substance use disorders. Psychiatric, psychological, and social work services predominate at the facilities. These establishments are classified under NAICS 6222 (Psychiatric and Substance Abuse Hospitals).

Specialty substance abuse centers (SSACs) are organizations providing either residential or outpatient services, or both to individuals with SA 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 abuse issues, and referral services for more intensive treatment programs, if necessary. These organizations are covered under part of NAICS 623220 (Residential Mental Health and Substance Abuse Facilities) and NAICS 621420 (Outpatient Mental Health and Substance Abuse Centers). In addition, the MHSA 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. Currently, the SSE does not include treatment in jails or prisons, unless these services are contracted out to community providers.

PAYERS

Private health insurance equals the premiums earned by private health insurers, including behavioral health plans, for health care coverage. In the MHSA spending estimates, private health insurance is represented in two pieces: 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 all-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 sources and from non-patient revenues. Non-patient revenues are monies received 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 aged 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).[26]

Medicaid is a program jointly funded by the Federal government and various 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 services provided, set reimbursement rates, and administer

[26]For more information, see *Medicare & You 2007* at **http://www.medicare.gov/Library/PDFNavigation/PDFInterim.asp?Language=English&Type=Pub&PubID=10050**.

the program. Income and resources are only one factor in determining eligibility, so that not all poor people in a State are necessarily covered by this program.[27]

Other Federal includes programs provided through the Department of Veterans' Affairs and Department of Defense; for all providers, through block grants administered by the Substance Abuse and Mental Health Services Administration (SAMHSA), and through the Indian Health Service, among other federal payers.

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. In estimates of other State and local spending for individual providers, SAMHSA block grants are included as other State and local spending because providers who supply the data upon which estimates are based do not have the ability to separate block grant monies from other State and local revenue streams. In the all provider estimates, however, these block grant amounts are moved from "other State and local" spending to the "other Federal" payer category.

SETTINGS

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. Estimates by setting were not prepared as part of the projections.

[27]For more information, see **http://www.cms.gov/MedicareProgramRatesStats/downloads/MedicareMedicaidSummaries2005.pdf**.

Appendix D | Abbreviated Terms

ABBREVIATION	MEANING
AHRQ	Agency for Healthcare Research and Quality
BLS	Bureau of Labor Statistics
CES	Current Employment Survey (conducted by BLS)
CMS	Centers for Medicare & Medicaid Services
CNS	Central Nervous System
CPI	Consumer Price Index
DHHS	U.S. Department of Health and Human Services
D.O.	Doctor of Osteopathy
DUI	Driving Under the Influence (of alcohol or other drugs)
FDA	Food and Drug Administration
GDP	Gross Domestic Product
HHAs	Home Health Agencies
HMO	Health Maintenance Organization
ICD-9-CM	International Classification of Diseases 9th Revision Clinical Modification
IDDT	Integrated Dual Disorders Treatment
IMS	IMS Health, Inc.
M.D.	Doctor of Medicine
MH	Mental Health
MHSA	Mental Health and Substance Abuse
MSHMOs	Multi-service Mental Health Organizations
NAICS	North American Industrial Classification System
NCHS	National Center for Health Statistics
NHEA	National Health Expenditure Accounts
NIAAA	National Instutite on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
OACT	Office of the Actuary, CMS
OASDI	Old Age and Survivors Disability Insurance
PPI	Producer Price Index
SA	Substance Abuse
SAMSHA	Substance Abuse and Mental Health Services Administration
SCHIP	State Children's Health Insurance Program
SSACs	Specialty Substance Abuse Centers
SSE	SAMSHA Spending Estimates

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