Trends in State Health Care Expenditures and Funding: 1980-1998

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Health care spending estimates constitute an important public policy tool, providing a broad look at historical trends in unique State health care systems. The State health expenditure estimates presented here detail spending for the 50 States and the District of Columbia for calendar years 1980-1998. They include expenditure estimates for specific service types as well as for two major sources of funding—Medicare and Medicaid. In this article, the authors address health care's role in State economies, trends in major service sectors and payers, and factors influencing these trends.

INTRODUCTION

State health expenditure accounts (SHEA) are measures of personal spending for health care services and products by the State in which providers are located. Levels of spending, growth in spending over time, and the mix of services purchased with the health care dollar vary considerably among States and regions. The SHEA allow researchers and State and Federal policymakers to track broad historical trends in unique State health care systems, evaluate the effects of historical policy decisions on the delivery of health care services, and envision and model possible effects of future policy proposals (Long, Marquis, and Rodgers, 1999).

The SHEA follow the definitions and draw on many of the data sources used in producing national health expenditures (NHE), although SHEA are more limited than the NHE in that they include only personal health care (PHC) expenditures (refer to the Definitions and Methodology section). Expenditures for PHC include spending for hospital care, physician services, dentist services, other health professional services, home health care, nursing home care, and health care products purchased in retail outlets (such as prescription drugs or over-the-counter medicines sold in pharmacies and grocery stores, and eyeglasses sold in optical goods stores). Included in NHE, but not SHEA, are estimates of spending for public health programs, administration, research, and construction of health facilities.

In this article, we present the latest SHEA for calendar years 1980-1998 and update previously published estimates that contained data through 1993 only (Levit et al., 1995). Estimates by type of service and by Medicare and Medicaid are presented, as well as highlights of State-level variations in health care spending and financing. All State health expenditure estimates can be found at http://cms.hhs.gov/stats/nhe-oact/stateestimates.

STATE EFFORTS TO MEASURE HEALTH SPENDING

At least 13 States (Alaska, Colorado, Delaware, Florida, Kansas, Maryland, Minnesota, New Mexico, New York, Oregon, Washington, Wisconsin, and Vermont) have created current and/or historical measures of health spending.

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Several States have enacted legislation requiring State agencies to produce health spending reports for policymaking, and some have authorized data collection to provide source data for this activity. (Legislatures in the States of Florida, Maryland, Minnesota, and Vermont require regular reporting on State health expenditures. Maryland and Minnesota both enacted legislation requiring providers and/or health plans to report financial information.) Some States have initiated efforts to track health spending in an attempt to create policies to reign in the fast spending growth in their health care markets (Alaska State Legislature, 1993; Blewett et al., 1999). Other States noted reasons such as a desire to understand and analyze their own health care industry (Colorado Department of Health Care Policy and Financing, 1998), improve access to care for State residents (Ratledge and Mrozinski, 1998), improve health care budget forecasts (Insurance, Securities and Health Care Administration, 1999), and gain insight into the provision of care for special population groups (Agency for Health Care Administration, 1999).

For State policymakers, these individual State reports hold certain advantages over CMS's uniformly produced State estimates in that the State reports frequently present more detailed estimates of health spending designed to meet specific health policy needs of individual States (State of New York Department of Health, 1995; Washington State Office of Financial Management, 1997; Reynis, 1998; State of Maryland Health Care Access and Cost Commission, 1998). Most States, however, face severe resource and data constraints and lack staffing continuity, making it difficult to produce and maintain their own health spending accounts (Long, Marquis, and Rodgers, 1999).

Although SHEA are produced primarily for Federal policymakers, State policymakers find them useful as well. For States that produce their own estimates, SHEA provide a point of comparison; for other States, they augment or fill health spending information gaps. And all States benefit from these internally consistent estimates that utilize uniform definitions and data sources, helping to permit reliable comparisons among States—a goal that individual States using different definitions, data sources, and methods cannot attain.

PROVIDER LOCATION VERSUS LOCATION OF RESIDENCE

The estimates presented here represent spending in the State where the provider of a service is located. Although provider-based estimates are useful for measuring demand for health care in a State, they do not accurately reflect health spending on behalf of persons residing in that State. Because people exit or enter the State to receive services, estimates of spending based on location of provider can be higher or lower than estimates of spending by location of residence (Basu, 1996). For example, CMS's 991 provider-based estimates were 10-36 percent higher than the residence-based estimates in the District of Columbia, Minnesota, and North Dakota, and 11-17 percent lower than the residence-based estimates in Idaho and Wyoming. Because of this difference, per capita calculations will be accurate only if the health spending of a State reflects spending on behalf of that State's population, or by location of residence. Therefore, per capita calculations based on estimates by State of residence are not presented here but will be presented in a future report.

FACTORS AFFECTING SPENDING

Although many specific factors discussed in later sections influence the level and growth in health care spending in specific services sectors, some general factors affect overall spending (Table 1). These include the following:

Population

A State's population is a large factor in determining health spending levels. In 1998, the most populous States (California, Texas, and New York) accounted for 26 percent of both the U.S. population and U.S. health care spending. Between 1980 and 1998, population grew the fastest (4.4 percent) in Nevada and the slowest (-1.1 percent) in the District of Columbia, with spending on health care exhibiting similar differences in growth.

Age Distribution

As age increases, average spending on health care increases. Non-institutionalized elderly persons age 65 or over consume, on average, 6 times the health care of people under age 18 and almost 3 times that of people ages 18 to 64 years. (These figures are CMS tabulations of information for the non-institutionalized population from the 1996 Medical Expenditure Panel Survey [Agency for Healthcare Research and Quality, 2000].) In 1998, Alaska had the smallest elderly share of population of any State (6 percent), and Florida had the largest (18 percent). In 1998, the median age in Utah (26.7 years) was 12 years below the median age in West Virginia (38.5 years). Shifts in the age distribution also affect spending growth. Between 1980 and 1998, the median age of the population increased by 5.2 years nationwide, but by 2.5 years in Utah and 8.7 years in Wyoming.

Personal Income

Income of State residents influences the ability to purchase health care and also reflects the cost of producing services (through the wages and salaries of health care workers—a primary component in the production of health services). As the average income across States increases in any one year, so does the level of health care spending. However, health care spending per capita as a share of income per capita tends to fall in any one year as income rises among States because the proportional variation among States in income is substantially larger than the variation in health spending (calculated from estimates in Basu, 1996). This tendency suggests that above certain threshold levels, increases in income do not result in proportional increases in spending on health care.

Insured Status

The uninsured and the partially insured spend about one-half the amount on health care as do individuals with full insurance coverage. Part of the reason why partially insured and uninsured persons spend less stems from their lack of health insurance coverage for some or all parts of the year, compared with the fully insured, who are covered every month of the year. In 1998, uninsured rates varied across States from a low of 9.0 percent in Nebraska to a high of 24.5 percent in Texas (Table 1). As one would expect, uninsured persons also used fewer health care services than did those with coverage. Compared with the insured, the uninsured received less preventive care and were more likely to have skipped medical treatments, not filled prescriptions, postponed care, or experienced difficulty getting medical care for a serious ailment (The NewsHour with Jim Lehrer, 2000).

Table 1

Factors Influencing Health Care Spending: United States, 1998

State and Region	Total U.S. Population in Thousands	Percent of Population Age 65 or Over	Median Age	Personal Income per Capita	Beds per Thousand Population	Patient Care Physicians per 10,000 Civilian Population	Health Maintenance Organization Penetration	Percent of Population Without Health Insurance
United States	270,299	12.7	35.2	$27,198	3.1	22.5	29	16.3
New England	13,430	14.0	—	32,370	2.6	30.2	42	11.1
Connecticut	3,274	14.3	36.8	37,321	2.1	30.5	43	12.6
Maine	1,244	14.1	37.4	23,561	3.0	20.0	19	12.7
Massachusetts	6,147	14.0	36.2	33,481	2.7	34.2	54	10.3
New Hampshire	1,185	12.0	35.7	29,500	2.4	21.6	34	11.3
Rhode Island	988	15.6	36.4	28,240	2.6	29.7	30	10.0
Vermont	591	12.3	36.7	24,589	2.8	26.8	—	9.9
Mideast	44,693	13.9	—	31,072	3.5	29.7	37	15.2
Delaware	744	13.0	35.6	29,402	2.7	20.6	48	14.7
District of Columbia	523	13.9	36.9	36,297	6.8	59.5	33	17.0
Maryland	5,135	11.5	35.5	30,529	2.5	31.3	44	16.6
New Jersey	8,115	13.6	36.7	34,300	3.2	25.8	31	16.4
New York	18,175	13.3	36.0	32,080	3.8	33.1	38	17.3
Pennsylvania	12,001	15.9	37.6	27,471	3.7	25.6	37	10.5
Great Lakes	44,195	12.8	—	27,226	3.1	20.7	23	13.0
Illinois	12,045	12.4	34.9	29,913	3.3	22.9	21	15.0
Indiana	5,899	12.5	35.2	25,199	3.3	17.6	14	14.4
Michigan	9,817	12.5	35.3	26,893	2.8	19.8	25	13.2
Ohio	11,209	13.4	35.8	26,138	3.1	21.0	23	10.4
Wisconsin	5,223	13.2	35.7	26,277	3.2	20.5	31	11.8
Plains	18,695	13.6	—	26,116	4.1	19.6	22	10.1
Iowa	2,862	15.1	36.6	24,733	4.3	15.4	5	9.3
Kansas	2,629	13.5	35.2	25,630	4.2	18.4	14	10.3
Minnesota	4,725	12.3	35.2	29,269	3.5	22.1	32	9.3
Missouri	5,439	13.7	35.8	25,145	3.8	20.3	34	10.5
Nebraska	1,663	13.8	35.3	25,893	4.9	19.7	17	9.0
North Dakota	638	14.4	35.8	22,876	6.2	20.4	2	14.2
South Dakota	738	14.3	35.1	23,478	6.0	17.2	5	14.3
Southeast	65,922	13.5	—	24,598	3.5	20.1	19	16.4
Alabama	4,352	13.1	35.6	22,049	3.9	17.8	11	17.0
Arkansas	2,538	14.3	35.7	21,166	3.9	17.5	11	18.7
Florida	14,916	18.3	38.4	26,831	3.3	21.5	32	17.5
Georgia	7,642	9.9	33.7	25,820	3.3	18.8	16	17.5
Kentucky	3,936	12.5	35.7	22,170	3.9	19.0	35	14.1
Louisiana	4,369	11.5	33.8	22,174	4.1	22.2	17	19.0

See footnotes at end of table.

Table 1—Continued
Factors Influencing Health Care Spending: United States, 1998

State and Region	Total U.S. Population in Thousands	Percent of Population Age 65 or Over	Median Age	Personal Income per Capita	Beds per Thousand Population	Patient Care Physicians per 10,000 Civilian Population	Health Maintenance Organization Penetration	Percent of Population Without Health Insurance
Mississippi	2,752	12.2	33.4	$19,770	4.7	14.9	4	20.0
North Carolina	7,546	12.5	35.2	25,178	3.1	20.5	17	15.0
South Carolina	3,836	12.2	35.2	22,393	3.0	18.6	10	15.4
Tennessee	5,431	12.5	35.9	24,446	3.8	22.1	24	13.0
Virginia	6,791	11.3	35.1	28,055	2.6	21.6	17	14.1
West Virginia	1,811	15.2	38.5	20,191	4.5	19.3	11	17.2
Southwest	29,512	11.1	—	24,502	2.8	17.8	20	23.5
Arizona	4,669	13.2	34.4	24,199	2.3	18.0	30	24.2
New Mexico	1,737	11.4	34.1	21,122	2.0	18.6	32	21.1
Oklahoma	3,347	13.4	35.5	21,917	3.3	15.3	14	18.3
Texas	19,760	10.1	32.9	25,309	2.9	18.1	18	24.5
Rocky Mountains	8,661	10.4	—	25,781	2.6	18.7	26	15.7
Colorado	3,971	10.1	35.5	29,978	2.3	21.2	36	15.1
Idaho	1,229	11.3	33.3	22,119	2.8	14.4	6	17.7
Montana	880	13.3	37.7	21,207	5.0	17.7	4	19.6
Utah	2,100	8.8	26.7	22,249	1.9	17.7	36	13.9
Wyoming	481	11.5	35.7	24,268	4.0	15.4	1	16.9
Far West	45,192	11.3	—	28,075	2.2	21.1	42	19.9
Alaska	614	5.5	31.4	27,889	2.0	15.2	—	17.3
California	32,667	11.1	33.3	28,177	2.3	21.6	47	22.1
Hawaii	1,193	13.3	36.3	26,703	2.3	23.8	33	10.0
Nevada	1,747	11.5	35.2	29,148	2.0	15.8	27	21.2
Oregon	3,282	13.2	36.7	25,912	2.1	20.2	45	14.3
Washington	5,689	11.5	35.3	28,712	1.9	20.8	26	12.3

SOURCES: (U.S. Bureau of the Census, 2000a, 2000b; U.S. Bureau of Economic Analysis, 2000; American Hospital Association, 1999a; National Center for Health Statistics, 2000.)

PHC EXPENDITURES

Americans spent $1.0 trillion on PHC in 1998 (Table 2). Spending in five States—California, Florida, New York, Pennsylvania, and Texas—accounted for more than 37 percent of PHC expenditures in the Nation. Between 1980 and 1998, PHC spending nationwide grew at a 9 percent average annual rate. The Southeast Region experienced the fastest average annual growth (10 percent), increasing from 20 to 24 percent of U.S. health spending. (Refer to Table 1 for a breakdown of regions.) The slowest growing region—with an average annual growth of 8.1 percent from 1980 to 1998—was the Great Lakes, where the share of U.S. health spending fell from 19 to 16 percent. Among States, Nevada experienced the fastest average annual growth in health care spending at 11.2 percent, while the District of Columbia had the slowest at 6.4 percent—both figures direct reflections of these areas' population growth over this period.

In 1998, the Nation spent an average of $3,760 per person on PHC expenditures. New England led the Nation with an average PHC expenditure of $4,574, which was 22 percent higher than the U.S. average (Table 3). The Rocky Mountain Region continued to have the lowest per capita health spending, and by 1998, the level ($3,147) was 16 percent below the U.S. average.

Share of Gross State Product

Gross State product (GSP) measures the market value of goods and services produced by labor and property located within a State (U.S. Department of Commerce, 2000). The SHEA measure the value of goods and services produced by the health care industry within the State. As a share of GSP, the SHEA provide one measure of the importance of the health care sector in that State's economy. In 1998, the SHEA accounted for almost 12 percent of GSP nationwide (Table 4). Readers may be more familiar with the NHE share of gross domestic product (GDP), which was 13.5 percent in 1998 (Cowan et al., 1999). The higher share results from differences in definitions used in the NHE and SHEA. NHE includes spending for public insurance administration, net cost of private health insurance, government public health, medical research and construction, and some spending in U.S. territories that are not included in the SHEA.

Among States, Wyoming's health spending as a share of its GSP was the lowest at 8 percent, while West Virginia's share was the highest at 18 percent. (The District of Columbia's health care spending as a share of GSP was 8 percent.) Wyoming's low share was primarily due to lower-than-average in-State production of health care services and a large percentage of out-of-State health care services provided to Wyoming residents. West Virginia's large health expenditure share of GSP was driven by the health care demands of its relatively older population and a GSP per capita that was the lowest in the Nation in 1998.

From 1980 to 1998, health spending as a share of GSP nationwide increased from 8 to 12 percent. During this period, health spending as a share of GSP increased the most (9.3 percentage points) in West Virginia and the least (0.8 percentage points) in the District of Columbia. The large GSP share increase in West Virginia between 1980 and 1998 resulted from very slow GSP growth (4.2 percent average annual rate), which increased at only two-thirds the U.S. rate (6.7 percent annually). The negligible change in the District of Columbia's health-spending share of GSP resulted from that area's slow health spending growth (6.4 percent annually—

Table 2

Personal Health Care Expenditures and Average Annual Percent Growth, by Region and State: United States, Selected Calendar Years 1980-1998

Region and State of Provider	Expenditures						Average Annual Percent Growth
	1980	1985	1990	1995	1997	1998	1980-1998
	Amounts in Millions						
United States	$215,817	$374,684	$612,245	$876,212	$965,701	$1,016,383	9.0
New England	12,763	22,042	38,194	52,891	58,040	61,424	9.1
Connecticut	3,133	5,575	10,013	13,662	14,600	15,221	9.2
Maine	928	1,582	2,695	3,908	4,554	4,925	9.7
Massachusetts	6,634	11,124	19,027	25,997	28,471	30,039	8.8
New Hampshire	699	1,385	2,558	3,779	4,333	4,658	11.1
Rhode Island	974	1,700	2,728	3,783	4,149	4,515	8.9
Vermont	395	674	1,172	1,762	1,933	2,066	9.6
Mideast	43,977	75,525	123,777	173,378	187,249	196,811	8.7
Delaware	560	1,005	1,728	2,619	2,915	3,106	10.0
District of Columbia	1,390	2,264	3,564	4,184	4,205	4,258	6.4
Maryland	4,070	6,998	11,755	16,838	18,596	19,646	9.1
New Jersey	6,438	11,607	20,169	29,504	31,580	32,695	9.4
New York	19,788	32,809	53,926	75,183	81,100	85,785	8.5
Pennsylvania	11,732	20,841	32,635	45,050	48,853	51,322	8.5
Great Lakes	40,154	65,133	100,780	142,463	156,199	163,736	8.1
Illinois	11,678	18,351	27,618	39,000	42,267	44,305	7.7
Indiana	4,563	7,672	12,692	18,388	20,207	21,259	8.9
Michigan	9,366	14,767	22,133	31,089	34,435	35,647	7.7
Ohio	10,118	17,366	26,896	37,246	40,552	42,581	8.3
Wisconsin	4,430	6,976	11,441	16,739	18,738	19,945	8.7
Plains	16,571	27,337	42,442	61,116	67,926	72,434	8.5
Iowa	2,597	3,919	6,067	8,513	9,496	10,198	7.9
Kansas	2,264	3,596	5,540	7,989	8,890	9,394	8.2
Minnesota	4,227	7,238	11,462	16,826	18,858	20,313	9.1
Missouri	4,817	8,181	12,690	18,024	19,783	20,911	8.5
Nebraska	1,455	2,281	3,531	5,091	5,721	6,095	8.3
North Dakota	631	1,159	1,639	2,373	2,542	2,680	8.4
South Dakota	581	963	1,513	2,301	2,635	2,842	9.2
Southeast	43,570	79,745	137,652	205,273	231,112	243,107	10.0
Alabama	3,150	5,434	9,163	13,654	15,519	16,056	9.5
Arkansas	1,753	3,009	4,925	7,149	8,033	8,463	9.1
Florida	9,752	19,910	35,789	51,328	56,754	59,724	10.6
Georgia	4,555	8,463	15,303	23,096	25,940	27,219	10.4
Kentucky	2,714	4,714	7,820	11,790	13,592	14,414	9.7
Louisiana	3,574	6,502	9,975	14,673	15,946	16,500	8.9
Mississippi	1,769	2,943	4,729	7,447	8,431	8,882	9.4

See footnotes at end of table.

Table 2—Continued

Personal Health Care Expenditures and Average Annual Percent Growth, by Region and State: United States, Selected Calendar Years 1980-1998

Region and State of Provider	Expenditures						Average Annual Percent Growth 1980-1998
	1980	1985	1990	1995	1997	1998	
	Amounts in Millions						
North Carolina	$4,205	$7,294	$13,748	$21,966	$25,584	$27,327	11.0
South Carolina	2,110	3,784	6,806	10,616	12,363	13,204	10.7
Tennessee	4,066	7,200	12,213	18,820	21,154	22,021	9.8
Virginia	4,336	7,869	13,252	18,712	21,103	22,261	9.5
West Virginia	1,585	2,621	3,930	6,024	6,692	7,037	8.6
Southwest	18,576	34,111	55,518	82,741	93,573	98,865	9.7
Arizona	2,442	4,883	8,562	12,352	13,834	14,782	10.5
New Mexico	917	1,792	2,917	4,430	5,075	5,344	10.3
Oklahoma	2,580	4,353	6,357	9,454	10,419	10,988	8.4
Texas	12,637	23,084	37,682	56,504	64,245	67,750	9.8
Rocky Mountains	5,315	9,638	15,091	22,585	25,584	27,255	9.5
Colorado	2,696	4,999	7,740	11,395	12,776	13,669	9.4
Idaho	627	1,068	1,697	2,758	3,194	3,397	9.8
Montana	621	1,042	1,628	2,445	2,680	2,838	8.8
Utah	1,045	1,948	3,233	4,807	5,622	5,944	10.1
Wyoming	327	581	793	1,179	1,313	1,407	8.5
Far West	34,890	61,153	98,790	135,767	146,018	152,750	8.5
Alaska	470	959	1,347	1,921	2,133	2,299	9.2
California	26,503	46,302	74,369	99,215	105,790	110,057	8.2
Hawaii	923	1,681	2,745	4,168	4,452	4,658	9.4
Nevada	833	1,542	2,806	4,471	5,170	5,606	11.2
Oregon	2,355	3,848	6,247	9,182	10,259	10,840	8.9
Washington	3,806	6,822	11,276	16,810	18,214	19,292	9.4

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Table 3

Personal Health Care Expenditures per Capita and Average Annual Percent Growth, by Region: United States, Selected Calendar Years 1980-1998

Region and State of Provider	Expenditures per Capita						Average Annual Growth 1980-1998
	1980	1985	1990	1995	1997	1998	
United States	$953	$1,575	$2,454	$3,335	$3,607	$3,760	7.9
New England	1,034	1,730	2,889	3,985	4,341	4,574	8.6
Mideast	1,041	1,765	2,831	3,901	4,201	4,404	8.3
Great Lakes	963	1,573	2,395	3,268	3,548	3,705	7.8
Plains	964	1,571	2,399	3,327	3,654	3,875	8.0
Southeast	827	1,419	2,315	3,231	3,547	3,688	8.7
Southwest	873	1,412	2,187	2,960	3,228	3,350	7.8
Rocky Mountains	811	1,345	2,068	2,741	3,001	3,147	7.8
Far West	1,070	1,697	2,435	3,131	3,280	3,380	6.6

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary: Estimates prepared by the National Health Statistics Group.

slower than any other State), as the population and the proportion of services provided to persons living in surrounding States declined. These statistics show the increasing importance of health care to the economy of West Virginia and health care's fairly stable importance in the District of Columbia.

EXPENDITURE HIGHLIGHTS BY ESTABLISHMENT TYPE

Hospital Care

Hospital expenditures include spending for all services delivered by hospital establishments. (Under the SHEA, hospital care includes hospital-based home health care and hospital-based nursing care.) Growth in hospital spending has been slower than in any other service sector, averaging 7.6 percent annually between 1980 and 1998. At $380 billion in 1998, this sector is the largest service provider category (Table 5). Spending for hospital services peaked at 48 percent of all PHC spending in 1982, before dropping to 37 percent by 1998.

Two major factors were instrumental in shaping this trend. The diagnosis-based prospective payment system (PPS), introduced in 1983, and the many forms of managed care (whose impact was greatest in the 1994-1998 period), provided incentives to reduce length of stay and increase efficiency in services delivered in the inpatient hospital setting. PPS and managed care also spurred the development of technologies instrumental in transferring care from inpatient to outpatient departments and other ambulatory settings, where costs were lower. As a result, many areas of the United States were left with excess hospital bed capacity. (Hospital occupancy rates nationwide fell from 75 percent in 1980 to 62 percent in 1998.) This oversupply of beds allowed managed care organizations to negotiate substantial discounts for hospital services in some areas—a major factor in slowing the growth in hospital spending (Duke, 1996).

There was more than a threefold variation in beds per capita among States in 1998, ranging from 1.9 beds per 1,000 in Washington to 6.2 beds per 1,000 in North Dakota (Table 1). (The District of Columbia registered 6.8 beds per 1,000.) States that continued to maintain a higher-than-average number of beds per person usually had a share of the population age 65 years and over that was greater than the U.S. average, reflecting the higher use per elderly person. These States also tended to be more rural and have low health maintenance organization (HMO) penetration.

Table 4

Personal Health Care Expenditures, by Region and State, as a Percent of Gross State Product: United States, Selected Calendar Years 1980-1998

Region and State of Provider	1980	1985	1990	1995	1997	1998
				Percent		
United States	7.9	9.0	10.7	12.0	11.7	11.6
New England	8.9	9.3	11.2	12.7	12.3	12.2
Connecticut	7.7	8.4	10.1	11.5	10.8	10.7
Maine	9.1	9.8	11.5	13.9	14.9	15.2
Massachusetts	9.7	9.7	11.9	13.2	12.7	12.5
New Hampshire	7.4	8.2	10.7	11.7	11.4	11.3
Rhode Island	10.0	11.2	12.6	14.8	14.2	14.8
Vermont	8.0	8.8	10.0	12.6	12.5	12.7
Mideast	8.3	9.3	10.8	12.4	12.0	12.0
Delaware	7.2	7.7	8.5	9.6	9.3	9.2
District of Columbia	7.1	8.0	8.8	8.6	8.3	7.9
Maryland	8.6	9.1	10.2	12.0	12.0	11.9
New Jersey	7.1	7.9	9.3	10.9	10.4	10.2
New York	8.4	9.0	10.7	12.6	12.1	12.1
Pennsylvania	9.0	11.5	13.1	14.2	14.1	14.1
Great Lakes	8.3	9.5	11.1	12.0	11.8	11.8
Illinois	8.0	8.9	10.0	10.8	10.5	10.4
Indiana	7.8	9.4	11.4	12.4	12.3	12.2
Michigan	9.1	9.8	11.6	12.2	12.3	12.1
Ohio	8.2	9.9	11.7	12.6	12.5	12.5
Wisconsin	8.3	9.4	11.4	12.5	12.6	12.6
Plains	8.4	9.6	11.4	12.6	12.4	12.6
Iowa	7.6	9.1	10.8	11.8	11.6	12.1
Kansas	8.1	8.9	10.7	12.5	12.2	12.2
Minnesota	8.5	9.7	11.4	12.8	12.4	12.6
Missouri	9.0	10.3	12.1	12.9	12.7	12.8
Nebraska	8.1	8.9	10.5	11.5	11.5	11.8
North Dakota	8.1	10.6	14.0	16.1	15.7	15.6
South Dakota	8.5	9.8	11.6	12.5	13.2	13.4
Southeast	7.9	9.3	11.6	12.8	12.9	12.7
Alabama	8.7	10.1	12.8	14.3	14.8	14.6
Arkansas	8.7	10.3	12.8	13.3	13.6	13.7
Florida	9.6	11.5	13.9	14.9	14.5	14.3
Georgia	8.0	8.5	10.8	11.4	11.1	10.7
Kentucky	7.4	9.1	11.5	12.9	13.4	13.5
Louisiana	5.6	7.6	10.5	12.9	12.5	12.8
Mississippi	8.2	9.6	12.1	13.7	14.2	14.3
North Carolina	7.0	7.4	9.7	11.3	11.6	11.6
South Carolina	7.5	8.5	10.3	12.3	13.1	13.2
Tennessee	9.0	10.4	12.9	13.8	14.0	13.8
Virginia	7.2	7.8	8.9	9.9	9.9	9.6
West Virginia	8.3	11.2	13.9	16.6	17.4	17.6
Southwest	6.4	7.7	10.2	11.3	10.9	10.9
Arizona	8.1	9.9	12.4	11.8	11.2	11.0
New Mexico	5.7	7.6	10.7	10.5	10.9	11.2
Oklahoma	6.9	8.2	11.0	13.6	13.3	13.5
Texas	6.1	7.3	9.7	11.0	10.6	10.5
Rocky Mountains	6.4	8.0	10.0	10.5	10.2	10.1
Colorado	7.0	8.5	10.4	10.4	9.9	9.6
Idaho	6.4	8.2	9.6	10.2	11.0	11.0
Montana	6.9	9.3	12.1	13.8	14.1	14.3
Utah	6.7	8.1	10.3	10.4	10.0	10.0
Wyoming	3.0	4.5	5.9	7.5	7.4	8.0
Far West	7.7	8.6	9.3	10.7	10.1	9.9
Alaska	3.1	3.7	5.4	7.9	8.4	9.5
California	8.1	8.8	9.3	10.7	10.1	9.8
Hawaii	6.9	8.4	8.5	11.2	11.5	11.7
Nevada	6.9	8.4	8.9	9.1	8.8	8.9
Oregon	7.7	9.6	10.8	11.3	10.4	10.3
Washington	7.3	9.2	9.8	11.1	10.3	10.0

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Table 5

Personal Health Care Expenditures by Type of Service, by Region and State: United States, 1998

Region and State of Provider	Total	Hospital Care	Physicians and Other Professionals	Dental Services	Home Health Care	Drugs and Other Medical Non-Durables	Vision Products and Other Medical Durables	Nursing Home Care	Other Personal Care
					Amounts in Millions				
United States	$1,016,383	$380,050	$296,102	$53,829	$29,255	$121,906	$15,499	$87,826	$31,917
New England	61,424	21,811	16,896	3,228	2,133	6,427	768	7,378	2,783
Connecticut	15,221	4,686	4,292	896	599	1,705	231	2,264	548
Maine	4,925	1,846	1,219	233	188	559	58	476	345
Massachusetts	30,039	11,305	8,322	1,472	999	2,882	347	3,568	1,144
New Hampshire	4,658	1,559	1,405	283	145	539	68	425	234
Rhode Island	4,515	1,702	1,095	217	134	505	35	468	358
Vermont	2,066	712	563	127	68	237	29	177	155
Mideast	196,811	75,104	50,594	9,205	6,893	22,599	2,753	21,931	7,732
Delaware	3,106	1,166	792	155	110	390	49	290	153
District of Columbia	4,258	2,585	781	151	54	239	42	245	161
Maryland	19,646	7,313	5,978	1,047	390	2,304	322	1,695	598
New Jersey	32,695	11,191	9,506	1,917	938	4,564	552	3,233	793
New York	85,785	32,636	20,103	3,698	4,292	8,940	1,099	10,586	4,431
Pennsylvania	51,322	20,213	13,434	2,237	1,109	6,162	688	5,883	1,596
Great Lakes	163,736	65,167	43,642	8,512	3,844	20,003	2,596	15,808	4,164
Illinois	44,305	17,996	11,975	2,283	972	5,174	662	3,924	1,320
Indiana	21,259	8,515	5,613	1,021	415	2,649	328	2,337	381
Michigan	35,647	14,641	9,186	2,141	841	4,884	626	2,459	868
Ohio	42,581	16,763	11,024	1,978	1,224	5,027	647	4,978	940
Wisconsin	19,945	7,252	5,844	1,089	393	2,269	333	2,110	656
Plains	72,434	28,168	20,214	3,400	1,556	8,024	1,120	7,344	2,609
Iowa	10,198	4,084	2,457	482	248	1,219	177	1,186	344
Kansas	9,394	3,580	2,538	484	220	1,087	128	920	437
Minnesota	20,313	6,540	7,183	1,052	419	2,004	343	1,964	808
Missouri	20,911	8,828	5,310	877	567	2,403	280	2,002	644
Nebraska	6,095	2,597	1,367	274	71	791	119	697	179
North Dakota	2,680	1,282	612	110	20	250	35	287	83
South Dakota	2,842	1,257	747	121	11	268	40	286	113
Southeast	243,107	93,302	69,711	11,269	7,787	31,777	3,622	18,799	6,839
Alabama	16,056	6,618	4,609	652	470	2,049	186	1,064	407
Arkansas	8,463	3,324	2,225	392	242	1,177	87	776	240
Florida	59,724	19,742	18,985	2,957	2,225	8,226	1,184	4,880	1,525
Georgia	27,219	10,396	8,510	1,381	810	3,367	432	1,545	778
Kentucky	14,414	5,731	3,785	533	506	1,966	185	1,283	425
Louisiana	16,500	7,139	4,249	703	629	1,992	198	1,248	342

See footnotes at end of table.

Table 5—Continued

Personal Health Care Expenditures by Type of Service, by Region and State: United States, 1998

Region and State of Provider	Total	Hospital Care	Physicians and Other Professionals	Dental Services	Home Health Care	Drugs and Other Medical Non-Durables	Vision Products and Other Medical Durables	Nursing Home Care	Other Personal Care
					Amounts in Millions				
Mississippi	$8,882	$3,848	$2,212	$317	$293	$1,222	$93	$687	$211
North Carolina	27,327	10,987	7,106	1,323	934	3,411	338	2,347	880
South Carolina	13,204	5,597	3,254	591	391	1,721	168	907	576
Tennessee	22,021	8,276	6,719	927	617	2,751	271	2,001	459
Virginia	22,261	8,689	6,265	1,272	484	2,947	392	1,546	666
West Virginia	7,037	2,955	1,793	221	187	949	87	515	331
Southwest	98,865	36,835	29,599	4,857	3,727	12,786	1,663	6,395	3,003
Arizona	14,782	4,977	5,135	867	331	2,066	267	839	300
New Mexico	5,344	2,317	1,415	268	143	630	77	257	238
Oklahoma	10,988	4,218	2,978	505	391	1,418	142	954	383
Texas	67,750	25,322	20,071	3,218	2,862	8,672	1,176	4,346	2,083
Rocky Mountains	27,255	10,182	7,934	1,886	599	3,375	567	1,804	908
Colorado	13,669	4,850	4,314	944	324	1,546	323	904	464
Idaho	3,397	1,236	935	253	60	474	59	264	116
Montana	2,838	1,224	695	151	56	349	41	222	99
Utah	5,944	2,290	1,648	461	136	828	121	300	160
Wyoming	1,407	582	343	76	24	178	22	113	69
Far West	152,750	49,482	57,511	11,471	2,716	16,915	2,410	8,366	3,878
Alaska	2,299	986	568	173	9	221	38	42	262
California	110,057	34,948	44,239	7,999	1,951	11,604	1,656	5,626	2,033
Hawaii	4,658	1,775	1,594	284	60	514	78	204	149
Nevada	5,606	1,865	1,918	391	180	825	123	164	140
Oregon	10,840	3,545	3,285	902	151	1,386	169	838	563
Washington	19,292	6,362	5,908	1,722	365	2,365	346	1,492	732

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

In 1998, Alabama, Arkansas, Iowa, Kansas, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, and West Virginia exhibited these characteristics; in addition, all had a larger-than-average share of PHC spending devoted to hospital care.

The share of PHC expenditures for hospital services was the lowest in the Far West Region in 1998. This region was dominated by spending in California, where the hospital share (32 percent) of PHC was the lowest in the Nation. The HMO experience was longer running and more pervasive in California than in any other State, and this factor likely played an important role in the mix of services, overall level of health care expenditures, and slower-than-average PHC growth in that State. (Analysis by the Office of the Actuary showed a definitive shift in service mix from hospital to physician services when comparing data on Medicare fee-for-service (FFS) payments with service-specific rates submitted by HMOs participating in Medicare on their Adjusted Community Rating forms.)

Physician and Other Professional Services

Physician and other professional services is a broad-based category that includes all ambulatory medical services provided in medical offices and clinics outside of hospitals and dentist offices. This category includes offices of physicians; HMO medical centers; freestanding ambulatory surgical and emergency centers; offices of chiropractors, podiatrists, optometrists, mental health practitioners, therapists and other licensed medical professionals; clinics for family planning, substance abuse, mental health and other outpatient services; and the portion of freestanding laboratory revenue generated from their own billing. Fees paid by hospitals to physicians for contractual work and other services are subtracted from revenues of these providers to avoid double-counting. Spending for these services amounted to $296 billion in 1998 or 29 percent of all PHC expenditures. Annual growth in spending averaged 13 percent between 1980 and 1991 but slowed to an average of 5 percent between 1994 and 1998 as a direct result of the growth in managed care and changes in the Medicare payment system. (By 1998, managed care grew to cover 85 percent of persons employed by medium and large employers who obtained employer-sponsored insurance, 54 percent of persons enrolled in Medicaid, and 17 percent of persons with Medicare coverage.) As with hospitals, an oversupply of physicians in certain areas allowed managed care organizations to effectively negotiate low payment rates in exchange for access by physicians to insured patient groups. Consequently, spending for these services grew from 24 to 29 percent of PHC between 1980 and 1988 and remained at that level through 1998.

In general, areas with higher physician concentrations tended to have higher HMO penetration, as in the New England and Mideast Regions. The share of PHC spent for physician and other professional services was also lower than average in these regions. In contrast, California, with its large HMO penetration, contradicts this pattern by spending a larger proportion (40 percent) on physician and other professional services than does any other State. Lower-than-average shares spent for hospital care, home health care and nursing home services, and prescription drugs offset this large share. Although California's service mix can be expected in a market heavily dominated by well-established HMOs, it also is indicative of the service mix required of California's population, which has a younger median age.

Dental Services

From 1980 to 1998, spending on dental services grew at an average annual rate of 8.1 percent ($13 billion to $54 billion). Dental services were the second-slowest-growing sector behind hospital care for this period. Growth in dental spending in Nevada, Utah, and New Hampshire—States in which population growth was above the U.S. average—grew more than 10 percent on average between 1980 and 1998. However, in States where population growth was lower than the U.S. average for this period (States such as Michigan, Iowa, Wyoming, and West Virginia), dental spending growth was less than 7 percent.

Home Health Care

Expenditures for home health care include services and products furnished by freestanding establishments that are primarily engaged in providing skilled nursing services in the home. Establishments delivering Medicaid-funded personal care services in the home are also counted here. Expenditures for home health services that are delivered through hospital-based agencies are excluded from this category and are counted with hospital expenditures.

Home health care spending totaled $29 billion in 1998. Between 1980 and 1998, this sector was the fastest growing component of PHC, averaging increases of 15 percent annually. The Southwest experienced the fastest average annual growth (19.6 percent).

The home health care industry sustained generally high growth through 1996, but in 1997 and 1998, growth in home health care spending reversed, falling 2.2 and 4.0 percent, respectively. This slowdown is largely attributed to actions affecting Medicare, the payer responsible for 35 percent of all home health expenditures. The implementation of the Balanced Budget Act of 1997 and its Medicare Interim Payment System, designed as a transition between cost-based reimbursement and prospective payment, reduced the existing Medicare per visit cost limits. Growth in home health expenditures was also strongly affected by efforts to reduce fraud and abuse in the Medicare program, as evidenced by the reversal in growth rates even before the Interim Payment System was implemented in 1998. In addition, low health sector wages and low State unemployment rates contributed to worker shortages and agency closures (and thus slower growth) in States such as New York, Pennsylvania, and Maryland (The National Journal Group, Inc., 2000).

The deceleration of home health care growth can be seen most explicitly in States such as Louisiana, Mississippi, Tennessee, and Oklahoma—States documented as having high utilization and high growth prior to the enactment of the Balanced Budget Act (U.S. General Accounting Office, 1999). For example, Louisiana and Oklahoma each experienced average annual growth rates of 39 percent between 1990 and 1995, before dropping by 12 percent and 19 percent, respectively, between 1996 and 1998. The fluctuation in these States' growth was partially an effect of the high proportion of home health spending being financed by Medicare in these States.

Drugs and Other Medical Non-Durable Products

In 1998, expenditures for prescription drugs, over-the-counter medicine, and sundries grew to $122 billion, an average annual increase of 10.1 percent since 1980. This was the second-fastest-growing sector behind physicians and other professionals. Between 1980 and 1998, spending for

drugs and other non-durables as a share of total PHC increased from 10 percent to 12 percent nationwide.

Expenditure growth was fastest in the Southeast Region between 1980 and 1998. This region's share of total U.S. spending for drugs and other non-durables increased 2.3 percentage points during this time period, and its growth averaged 10.7 percent over this period. The Far West, on the other hand, grew more slowly. Its share of total U.S. spending increased only 1.9 percentage points and experienced the slowest average annual growth (9.3 percent) between 1980 and 1998.

As in 1996 and 1997, spending on drugs and non-durables had the highest growth rate of any PHC category in 1998 (12.3 percent). This rapid increase in spending was led by the increases in the retail purchase of prescription drugs. Several causes are cited as reasons. Changes in the Food and Drug Administration's approval process sped the introduction of new prescription medicines that tend to be higher priced than drugs already on the market. As drug companies increased spending for advertising, consumer demand rose for these new products. Additionally, private health insurance companies were covering more of the cost of prescription drug spending. Finally, managed care helped to increase access to physician services, which in turn led to increased prescription drug utilization (Cowan et al., 1999).

Vision Products and Other Medical Durables

Expenditures for vision products and other medical durables include items such as eyeglasses, hearing aids, surgical appliances and supplies, bulk and cylinder oxygen, and medical equipment rentals. In 1998, spending on this category reached $16 billion, growing at an average annual rate of 8.2 percent since 1980. In 1998, this was the smallest PHC category, accounting for only 1.5 percent of all health spending.

States tending to have a larger proportion of the elderly population exhibited faster growth than States in which smaller proportions of the population are over age 65. Nevada, New Hampshire, South Carolina, and Florida all exhibited average annual growth of more than 10 percent between 1980 and 1998, while the District of Columbia and Wyoming, with average annual growth rates of 5.7 and 6.6 percent, respectively, experienced the slowest growth. Florida is ranked fourth in durables spending, and it has the largest percentage of its population over the age of 65 (18.3 percent in 1998).

Among the regions, the Southeast was the fastest growing (9.3 percent) in the durables category, while the Plains exhibited the slowest average annual growth (7.4 percent) between 1980 and 1998. The Southeast Region's share of U.S. expenditures increased 4.0 percentage points, and the Plains's share dropped 1.1 percentage points during the same period.

Nursing Home Care

Expenditures for nursing home care include services provided in freestanding nursing homes but do not include nursing home services provided in long-term care units of hospitals. Like home health care, services provided in hospital-based nursing home care units are counted with hospital expenditures.

Nursing home expenditures reached $88 billion in 1998, increasing at an average annual rate of 9.3 percent since 1980. Growth slowed in 1998 to 3.7 percent, compared with 13.3 percent in 1990 and 14.5 percent in 1981. Between 1980 and 1998, spending for nursing home care grew the fastest in the Southeast, driven by the

growth in Florida's expenditures (14.7 percent annually). The slowest growing region was the rural Plains, with an average annual growth rate of 8.1 percent between 1980 and 1998.

More than one-half (58 percent) of all nursing home expenditures are paid from Medicare and Medicaid, and the slowdown in overall nursing home revenue growth has been affected by the Medicare conversion to PPS. The conversion from cost-based reimbursement to PPS started in July 1998 and contributed to that year's deceleration in growth. Some other contributing factors accounting for a deceleration in nursing home expenditures include declining occupancy rates, increasing labor costs, and nursing personnel shortages (Saphir, 2000).

Other PHC

Expenditures for other PHC cover spending that is not provided through either private or public health care establishments. Other PHC services are provided through non-medical locations such as job sites, schools, military field stations, or community centers where delivery of medical services is incidental to the function of the site. Although accounting for only a small share of total health spending (3.1 percent in 1998), other PHC has grown 12.3 percent annually since 1980, reaching $32 billion in 1998. The slowest growing States (Mississippi, Indiana, and the District of Columbia) grew at an average annual rate of less than 9 percent between 1980 and 1998, while the fastest growing States, experiencing average annual growth above 16 percent, were Oregon, Kansas, Maine, and Rhode Island.

HIGHLIGHTS BY SOURCE OF FUNDING

Medicare and Medicaid

Medicare and Medicaid, the largest publicly funded health care programs, paid for 36 percent of all health care spending in 1998, up from 28 percent in 1980. Medicare, providing coverage for its 38 million aged and disabled enrollees in 1998, was originally designed to pay benefits primarily for hospital care and physician services. In 1998, combined hospital and physician spending represented 82 percent of the $209 billion spent by Medicare. Medicaid largely funds hospital and nursing home care, accounting for 64 percent of the $159 billion in Medicaid spending in 1998. Among States in 1998, the Medicare and Medicaid share of total health spending was highest in New York (51 percent) and lowest in Alaska (23 percent).

Medicare

In 1998, Medicare expenditures for PHC increased only 2.4 percent to $209 billion—their slowest rate since 1981 (Table 6). From 1994 to 1998, the annual increase in Medicare expenditures continually decelerated. Between 1980 and 1998, rural Plain States such as Iowa, Kansas, Minnesota, and North Dakota grew most slowly, increasing at an average annual rate of 8.5 percent, compared with 10.2 percent nationally. In the Southwest, overall Medicare expenditures grew the fastest during the same time period (11.8 percent annually), as a result of faster growth in spending on home health care and nursing home services.

Table 6

Number of Medicare Enrollees and Medicare Expenditures for Personal Health Care, by Type of Service, Region, and State: United States, 1998

Region and State of Provider	Number of Enrollees in Thousands	Personal Health Care								
		Total	Hospital Care	Physician Services	Dental Services[1]	Other Professional Services	Home Health Care	Non-Durable Medical Products[1]	Durable Medical Equipment	Nursing Home Care
		Amounts in Millions								
United States	37,998	$209,355	$123,464	$48,992	$90	$9,088	$10,343	$1,169	$5,771	$10,438
New England	2,093	12,481	7,222	2,570	1	544	909	7	303	925
Connecticut	510	3,065	1,623	674	1	142	248	5	78	294
Maine	211	925	546	168	0	39	90	0	25	56
Massachusetts	951	6,431	3,846	1,313	0	276	410	1	149	437
New Hampshire	165	698	429	128	0	27	46	0	17	51
Rhode Island	170	1,027	579	230	0	50	72	1	24	70
Vermont	87	335	199	57	0	11	42	0	9	17
Mideast	6,756	41,613	25,070	10,105	18	1,656	1,496	238	992	2,037
Delaware	108	475	276	109	0	26	24	0	14	25
District of Columbia	76	809	576	153	0	32	27	0	10	12
Maryland	628	3,847	2,278	959	0	163	157	13	99	177
New Jersey	1,189	6,736	4,011	1,703	0	234	254	4	145	384
New York	2,666	16,817	10,152	4,115	9	637	571	107	365	861
Pennsylvania	2,089	12,929	7,778	3,066	9	563	462	114	360	578
Great Lakes	6,310	32,340	19,804	7,184	1	1,367	1,261	19	883	1,821
Illinois	1,626	8,352	5,289	1,834	0	365	302	3	215	344
Indiana	841	4,241	2,716	816	0	142	159	1	115	292
Michigan	1,379	7,749	4,707	1,705	0	367	383	2	218	367
Ohio	1,689	8,807	5,174	2,155	0	375	309	13	245	536
Wisconsin	775	3,191	1,919	674	0	118	108	0	90	282
Plains	2,832	13,036	8,543	2,756	0	515	310	14	340	559
Iowa	476	1,790	1,195	360	0	80	38	0	54	63
Kansas	389	1,735	1,074	395	0	85	60	0	50	71
Minnesota	644	2,772	1,805	594	0	92	66	0	60	156
Missouri	851	4,697	3,067	991	0	185	126	13	124	191
Nebraska	252	1,080	731	224	0	40	11	0	32	43
North Dakota	103	471	338	96	0	16	4	0	8	10
South Dakota	118	492	334	96	0	17	6	0	13	26
Southeast	10,011	54,349	31,708	12,409	29	2,586	3,067	281	1,719	2,551
Alabama	670	3,556	2,103	779	0	179	195	0	130	170
Arkansas	433	1,971	1,255	407	0	107	59	0	69	74
Florida	2,761	16,970	8,624	5,049	29	786	688	272	512	1,011
Georgia	885	4,620	2,752	978	0	274	243	2	159	211

See footnotes at end of table.

Table 6—Continued

Number of Medicare Enrollees and Medicare Expenditures for Personal Health Care, by Type of Service, Region, and State: United States, 1998

Region and State of Provider	Number of Enrollees in Thousands	Personal Health Care								
		Total	Hospital Care	Physician Services	Dental Services[1]	Other Professional Services	Home Health Care	Non-Durable Medical Products[1]	Durable Medical Equipment	Nursing Home Care
		Amounts in Millions								
Kentucky	610	$2,890	$1,863	$571	$0	$123	$128	$0	$93	$112
Louisiana	596	4,404	2,672	779	0	180	563	5	114	91
Mississippi	411	2,233	1,423	359	0	113	196	0	74	69
North Carolina	1,094	5,191	3,228	1,033	0	262	251	0	163	254
South Carolina	546	2,541	1,589	491	0	137	124	0	86	114
Tennessee	807	4,605	2,761	900	0	186	400	1	147	211
Virginia	865	3,835	2,391	799	0	183	157	0	123	182
West Virginia	334	1,533	1,049	265	0	54	63	0	49	52
Southwest	3,573	21,089	11,754	4,469	7	1,011	2,117	235	602	893
Arizona	651	3,170	1,620	931	6	182	89	114	79	148
New Mexico	225	893	519	204	0	42	51	4	34	38
Oklahoma	501	2,607	1,563	480	0	108	300	0	81	75
Texas	2,196	14,420	8,052	2,855	2	678	1,676	117	408	631
Rocky Mountains	1,006	4,363	2,609	966	0	157	180	5	176	272
Colorado	451	2,196	1,257	545	0	83	75	5	84	147
Idaho	159	575	351	109	0	24	25	0	25	42
Montana	134	523	344	104	0	16	16	0	23	20
Utah	198	861	530	171	0	26	55	0	31	49
Wyoming	64	208	128	37	0	7	9	0	14	14
Far West	5,402	30,084	16,753	8,533	35	1,252	1,004	371	756	1,381
Alaska	38	178	134	26	0	7	4	0	5	2
California	3,783	23,055	12,585	6,682	33	974	862	349	569	1,002
Hawaii	159	507	324	132	0	16	10	0	13	13
Nevada	223	1,203	689	343	1	41	46	16	31	36
Oregon	481	1,945	1,159	524	0	80	27	4	60	90
Washington	718	3,196	1,861	826	1	134	56	2	79	238

[1] Estimates for these services include dollars for capitated payments only.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Table 7

Number of Medicaid Recipients and Medicaid Expenditures for Personal Health Care, by Type of Service, Region, and State: United States, Calendar Year 1998

Region and State of Provider	Number of Medicaid Recipients in Thousands	Personal Health Care								
		Total Personal Health Care	Hospital Care	Physician Services	Dental Services	Other Professional Services	Home Health Care	Drugs and Other Non-Durables	Nursing Home Care	Other Personal Care
		Amounts in Millions								
United States	39,666	$159,212	$60,508	$14,968	$1,993	$1,668	$4,993	$15,486	$40,647	$18,949
New England	1,831	11,490	3,379	789	129	99	510	1,229	3,235	2,119
Connecticut	381	2,672	639	80	9	53	193	283	1,036	379
Maine	170	1,059	340	67	8	4	19	108	224	288
Massachusetts	908	5,701	1,858	484	86	24	277	675	1,466	831
New Hampshire	94	709	144	102	5	7	6	49	208	188
Rhode Island	153	961	321	15	12	3	5	74	224	306
Vermont	124	388	77	40	8	9	10	40	76	127
Mideast	6,238	43,540	16,026	2,813	206	300	2,308	3,242	13,279	5,367
Delaware	101	395	93	45	3	3	16	36	115	84
District of Columbia	166	712	349	73	2	1	16	39	212	21
Maryland	561	2,516	1,091	182	2	10	122	186	593	330
New Jersey	813	4,779	1,833	260	18	37	223	508	1,494	407
New York	3,073	26,979	10,260	1,839	120	224	1,854	1,629	7,569	3,484
Pennsylvania	1,523	8,158	2,400	414	62	26	77	843	3,295	1,040
Great Lakes	5,143	23,903	9,308	1,930	178	271	442	2,233	7,193	2,348
Illinois	1,364	6,764	3,205	353	35	44	8	545	1,765	810
Indiana	607	2,517	865	164	27	46	30	307	937	142
Michigan	1,363	5,360	2,093	720	54	24	236	423	1,328	481
Ohio	1,291	6,569	2,568	555	43	90	34	655	2,178	445
Wisconsin	519	2,693	577	138	19	67	133	303	985	471
Plains	2,192	10,125	3,071	589	93	123	251	1,158	3,069	1,771
Iowa	315	1,657	570	98	27	11	29	201	497	223
Kansas	242	1,055	265	45	10	5	14	103	282	331
Minnesota	538	2,903	768	159	22	72	145	231	895	611
Missouri	734	2,938	1,029	149	13	19	56	460	833	380
Nebraska	211	868	235	73	13	11	5	110	312	109
North Dakota	62	343	101	28	4	3	0	24	126	56
South Dakota	90	361	104	37	4	2	1	28	124	62
Southeast	10,532	33,934	13,143	4,358	317	261	463	3,917	8,000	3,475
Alabama	527	2,061	689	317	13	17	19	269	556	182
Arkansas	425	1,390	449	249	11	19	32	134	346	149
Florida	1,905	6,272	2,246	572	74	65	86	936	1,554	741

See footnotes at end of table.

Table 7—Continued

Number of Medicaid Recipients and Medicaid Expenditures for Personal Health Care, by Type of Service, Region, and State: United States, Calendar Year 1998

Region and State of Provider	Number of Medicaid Recipients in Thousands	Personal Health Care								
		Total Personal Health care	Hospital Care	Physician Services	Dental Services	Other Professional Services	Home Health Care	Drugs and Other Non-Durables	Nursing Home Care	Other Personal Care
		Amounts in Millions								
Georgia	1,222	$3,267	$1,342	$508	$35	$50	$27	$336	$657	$311
Kentucky	644	2,465	922	325	34	20	60	334	522	248
Louisiana	721	3,127	1,483	282	18	2	21	315	819	187
Mississippi	486	1,514	623	182	3	5	9	236	371	85
North Carolina	1,168	4,518	1,716	648	45	23	136	413	1,033	505
South Carolina	595	2,253	915	325	18	11	11	203	443	326
Tennessee	1,844	3,588	1,503	555	32	19	21	309	935	214
Virginia	653	2,209	899	229	13	17	5	289	465	292
West Virginia	343	1,269	357	166	21	14	37	141	300	233
Southwest	3,504	12,457	5,057	1,344	211	260	461	906	2,510	1,707
Arizona	508	1,731	1,131	412	58	13	9	15	13	79
New Mexico	329	985	363	119	8	107	6	68	152	161
Oklahoma	342	1,339	390	93	7	6	25	128	429	260
Texas	2,325	8,402	3,172	721	136	133	421	696	1,915	1,207
Rocky Mountains	831	3,236	1,118	455	48	23	72	308	686	528
Colorado	345	1,505	560	191	12	7	46	131	290	266
Idaho	123	452	131	48	10	5	11	49	132	66
Montana	101	403	170	33	7	4	8	50	70	59
Utah	216	676	214	156	18	5	3	62	130	88
Wyoming	46	201	43	26	2	1	2	15	63	48
Far West	9,394	20,526	9,405	2,690	811	332	488	2,493	2,675	1,633
Alaska	75	358	134	89	8	2	2	29	37	57
California	7,082	14,240	7,360	1,837	669	188	379	1,723	1,500	583
Hawaii	185	637	244	89	1	4	2	93	156	47
Nevada	128	498	225	60	14	5	8	31	92	62
Oregon	511	1,674	516	131	5	3	17	307	258	436
Washington	1,413	3,119	927	483	115	128	79	310	632	447

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

The Medicare share of PHC ranged from 28 percent in Florida to 8 percent in Alaska largely because of variations in the share of each State's population enrolled in Medicare. The highest concentration of Medicare enrollees was in New England (16 percent of total population) as well as in Florida and West Virginia (both 19 percent).

Medicaid

In 1998, Medicaid expenditures for total PHC reached $159 million (Table 7). After increasing 4.0 percent in 1997, Medicaid spending grew 4.9 percent in 1998, the first year since 1993 that growth accelerated. Medicaid expenditures, like overall health spending, experienced gradually slowing growth in the early- to mid-1990s. Slowing inflation, as well as legislation enacted to restrict States' use of Medicaid disproportionate share hospital (DSH) payments, contributed to this trend. Though it bottomed out in 1997 when the greatest impact of welfare-to-work programs was felt, spending growth increased again in 1998.

Between 1980 and 1998, Medicaid growth was fastest (13.0 percent annually) in the Southwest, compared with 10.9 percent nationally. The Great Lakes Region grew the most slowly (9.7 percent annually) during the same period. Historical Medicaid expenditure growth can be partially attributable to growth in the number of eligible enrollees. Average annual growth in Medicaid recipients was 6.9 percent in the Southwest between 1980 and 1998, compared with 3.8 percent nationally. Growth in the number of Medicaid recipients was slower in regions such as the Mideast, Great Lakes, and New England during this same period.

Medicaid expenditures represented 16 percent of total PHC spending nationally in 1998, with New York having the highest share (31 percent) and Nevada the lowest (9 percent).

DEFINITIONS AND METHODOLOGY

Health Account Structure

The structure of the SHEA parallels that of the NHE accounts. The SHEA use the same definitions and, to the extent possible, the same data sources as does NHE (Lazenby et al., 1992). For health services, this structure clusters spending according to the establishment providing those services.[1] For retail purchases of medical products, it groups spending according to product classification. Thus, the SHEA are establishment-based, grouping services together according to place of service or of product sale, rather than according to type of service.

The Federal Government maintains an establishment-based structure for data collection codified in the *Standard Industrial Classification* (SIC) *Manual* (Office of Management and Budget, 1987). This SIC structure (Table 8) forms the basis for the health establishment categories used in SHEA by defining activities that are primary to these establishments. In 1997, SIC was replaced by the *North American Industrial Classification System* (NAICS) (Office of Management and Budget, 1997) (Table 9).

The newer NAICS is designed to capture the evolving structure of the economy and to group establishments into common classifications based on similar inputs to the production process. For the health care and social services industry, NAICS is also

[1] The U.S. Census Bureau uses accurate and complete information on the physical location of each establishment to tabulate the census data for the States. If a provider did not provide acceptable information on their physical location, location information from Internal Revenue Service tax forms was used as a basis for coding geographic area.

Table 8

Selected 1987 Standard Industrial Classification Numbers

Industry Group Number	Industry
801	Offices and Clinics of Doctors of Medicine
802	Offices and Clinics of Dentists
803	Offices and Clinics of Doctors of Osteopathy
804	Offices and Clinics of Other Health Practitioners
805	Nursing and Personal Care Facilities
806	Hospitals
807	Medical and Dental Laboratories
808	Home Health Agencies
809	Miscellaneous Health and Allied Services, Not Elsewhere Classified

SOURCE: (Office of Management and Budget, 1987.)

Table 9

Selected 1997 North American Industrial Classification System Numbers

Industry Group Number	Industry
62	Health Care and Social Services
621	Ambulatory Health Care Services
6211	Offices of Physicians
6212	Offices of Dentists
6213	Offices of Other Health Practitioners
6214	Outpatient Care Centers
6215	Medical and Diagnostic Laboratories
6216	Home Health Care Services
6219	Other Ambulatory Health Care Services
622	Hospitals
6221	General Medical and Surgical Hospitals
6222	Psychiatric and Substance Abuse Hospitals
6223	Specialty (Except Psychiatric and Substance Abuse) Hospitals
623	Nursing and Residential Care Facilities
6231	Nursing Care Facilities
6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
6233	Community Care Facilities for the Elderly
6239	Other Residential Care Facilities
624	Social Assistance

SOURCE: (Office of Management and Budget, 1997.)

structured to capture a continuum of medical and social care that often blends seamlessly from one type of facility to another. For example, the structure transitions from the most acute medical care facilities, such as offices of physicians and hospitals, to non-acute medical care facilities, such as nursing homes, to those facilities providing little or no medical care, such as certain residential facilities and those offices providing social services only.

The transition between SIC and NAICS is important because some of our data sources continue to be collected based on SIC, while other data employ the newer NAICS. For consistency and continuity, we group the SHEA according to the SIC structure and merge together NAICS classifications to equivalent SIC groupings wherever possible.

However, using different classification systems over time to collect data does introduce special problems into the estimation of State health expenditures. SIC and NAICS structures are not identical, and individual SIC categories in one structure do not map directly into NAICS categories. For example, some establishments not previously defined as health establishments in the NHE are now included as health care and social services in NAICS (NAICS 62191, Ambulance; NAICS 62322, Residential

Mental Health and Substance Abuse Facilities; NAICS 623312, Homes for the Elderly; NAICS 6239, Other Residential Care Facilities; NAICS 624, Social Assistance). In addition, some parts of health care establishment categories are switched from one category to become part of another. This shift occurs for certain clinics that were previously classified as Offices and Clinics of Doctors of Medicine (SIC 801) but are now grouped with certain other SIC 809 clinics under NAICS 6214 (Outpatient Care Centers). Such switches interrupt the definitional continuity of a data series and present unique challenges in devising methods to realign information to maintain that continuity. In these SHEA, we have realigned data from NAICS to SIC so as not to introduce any changes solely as a result of differences in classification systems. Because we could not maintain continuity for the categories of physician and other professional services, we have combined the estimates of spending for services in these establishments, which we previously reported separately.

For health expenditure accounting, this establishment-based structure of SHEA allows us to tap a wealth of State-level information collected by the Federal Government for other purposes. This structure also makes comparisons among States possible by ensuring uniformity in concepts, collection methods, and data processing across States. When individual States create their own health accounts using different concepts and data sources, such comparisons among States become more tenuous.

Although collecting data by establishment type eases the data collection burden and increases uniformity in definitions, it does not permit the accounts to measure spending for specific services. This is especially true for several health care establishment types that produce a variety of services. For example, hospitals produce inpatient and outpatient hospital services but may also operate nursing home units and/or home health agencies (HHAs) under the same organizational and establishment structure. Therefore, this establishment-based structure may not meet all the analytical needs of researchers and policymakers who wish to track delivery of specific services.

For establishment-based expenditures, spending is located in the State of the provider rather than in the beneficiary's State of residence. Because people are able to cross State borders to receive health care services, health care spending by provider location (which we present in this article) is not necessarily an accurate reflection of spending on behalf of persons residing in that State. Therefore, computing per capita health spending using State-of-provider expenditure data and resident population is not advised because of the misalignment between State of provider and State of residence. In the next phase of SHEA, we will estimate border-crossing for health care services and apply these estimates to our State-of-provider expenditures, which will produce expenditures based on location of beneficiary residence. We will produce per capita expenditures, as well as interstate comparisons of spending, that are similar to those produced earlier (Basu, 1996).

For all SHEA estimates, distributions of expenditures by State are controlled to NHE totals. However, U.S. expenditure totals presented in corresponding SHEA tables will differ occasionally from NHE totals (Levit et al., 2000; Cowan et al., 1999). This difference is due to spending in U.S. territories and for government spending in foreign nations (for example, U.S. Department of Defense spending for health care facilities on foreign military bases).

The following sections contain further detail on the data sources and methods used to produce expenditure estimates by establishment type and for two large public sources of funding, Medicare and Medicaid. Throughout these sections, we refer to categories of data produced by government agencies for different health establishment types. The sources of these data are business receipts and revenues for taxable and tax-exempt establishments from the 5-year Census of Service Industries (CSI) (U.S. Bureau of the Census, 1997); resident population (U.S. Bureau of the Census, 2000a); wages and salaries (U.S. Bureau of Labor Statistics, 1999); and business receipts for sole proprietorships, partnerships, and corporations from the Business Master File (BMF) (U.S. Internal Revenue Service, 1977-1997).

Hospital Care

Hospital care expenditure estimates (SIC 806/NAICS 622) reflect spending for all services that are provided to patients and that are billed by the hospital. Expenditures include revenues received to cover room and board, ancillary services such as operating room fees, services of resident physicians, inpatient pharmacy, hospital-based nursing home care, care delivered by hospital-based HHAs, and other services billed by the hospital. We exclude expenditures of physicians who bill independently for services delivered to patients in hospitals. These independently billed physicians are included in the physician sector.

We estimate non-Federal hospital expenditures using American Hospital Association (AHA) Annual Survey (1998) data that capture information from registered and non-registered hospitals in the United States. To meet the definitions of SHEA, we modify AHA data in four ways. First, we combine data from each year's survey to create a longitudinal file containing one multiple-year record for each hospital. Second, we impute hospital revenues from expense data using revenue-to-expense ratios provided by the AHA. Third, we convert the individual hospital's imputed accounting year revenues to a calendar year basis. Finally, when complete calendar year data are not available for a facility through the most current period, we extrapolate the latest available data using patterns of acceleration and deceleration observed in AHA (1999b) National Hospital Panel Survey data.

To estimate spending in Federal hospitals, we use data either from the Federal agencies that administer those facilities or from the AHA.

Physician and Other Professional Services

For reasons stated earlier, we have grouped physician services with other professional services in these SHEA. We estimate the combined expenditures for medical and osteopathic physician services and other professional services (SICs 801, 803, 804, and 809/NAICS 6211, 6213, 6214, and parts of 6219) in five pieces: (1) expenditures in private physician offices and clinics, specialty clinics,[2] and miscellaneous health and allied services;[3] (2) fees of independently billing laboratories; (3) professional fees received by physicians from hospitals; (4) expenditures for the services of licensed professionals; and (5) spending for Medicare ambulance services.

[2] Specialty clinics include alcohol and substance abuse outpatient clinics, mental health clinics, outpatient rehabilitation clinics, respiratory therapy clinics, and kidney dialysis centers.

[3] Miscellaneous health and allied services include blood banks and donor stations, health screening services, childbirth preparation classes, and insurance physical examination services.

Expenditures in private physician offices and clinics, specialty clinics, and miscellaneous health and allied services are based on State distributions of business receipts from taxable establishments and on revenues from tax-exempt establishments, as reported in the 1977, 1982, 1987, 1992, and 1997 CSI. To estimate the distribution of expenditures among States between census years, we use growth in business receipts of sole proprietorships, partnerships, and corporations for taxable establishments; for tax-exempt establishments, we use growth in population. These distributions are then separately scaled to national totals. To estimate the 1998 distribution of expenditures in taxable establishments, we extrapolate using growth in wages and salaries in offices and clinics of medical and osteopathic physicians, specialty clinics, and miscellaneous health and allied services. For tax-exempt establishments, we extrapolate using growth in population to obtain the 1998 distribution of spending among States. These distributions are also separately scaled to national totals.

We separately estimate independently billing laboratory expenditures, and we base our distributions by State on business receipts in taxable physician establishments from the BMF. These amounts are scaled to national totals and are added to the physician and other professional services estimates.

We reduce expenditures in physicians and other professionals for each State by the amount of professional fees paid by hospitals to physicians. Based on professional fee expenses from the AHA Annual Surveys for 1980, 1985, and 1990-1993, we distribute professional fees to the States. Using AHA community hospital revenues, we estimate expenditures by State for intervening years and for 1994-1998 through interpolation and extrapolation techniques. Finally, we scale the results to U.S. totals.

To estimate expenditures for the services of licensed professionals such as chiropractors, optometrists, podiatrists, and independently practicing nurses, we use CSI and BMF data, just as we do for taxable physician offices and clinics, specialty clinics, and miscellaneous health and allied services. (There are no tax-exempt establishments for licensed other professionals.)

Finally, we use Medicare data to estimate spending for Medicare ambulance services.

Dental Services

Expenditures in Offices and Clinics of Dentists (SIC 802/NAICS 6212) are based on State distributions of business receipts from taxable establishments reported in the 1977, 1982, 1987, 1992, and 1997 CSI. (No tax-exempt dental offices and clinic establishments report in the CSI.) We estimate State distributions for intervening years using business receipts from the BMF for sole proprietorships, partnerships, and corporations. To estimate State distributions of 1998 spending, we extrapolate the 1997 CSI-based estimates using growth in wages and salaries in dental offices. For all years, distributions are scaled to national totals.

Home Health Care

We base expenditure estimates for care provided in freestanding HHAs (SIC 808/NAICS 6216) on revenue estimates for taxable businesses and on receipt information from the CSI for tax-exempt businesses. Because a separate SIC for HHAs (SIC 808) was first created with the release of the 1987 SIC, data for this service category are available for 1987, 1992, and 1997 only and serve as a benchmark for private spending on freestanding home health services by State. Comparing Medicare reimbursements

for government-owned HHAs with Medicare reimbursements for all ownership types of HHAs, we develop separate estimates of spending for government-supplied home health services (not surveyed by the CSI) for 1987, 1992, and 1997. We then sum expenditures for services from government and private HHAs. Next, using expenditures for home health services paid by Medicare and Medicaid, we interpolate and extrapolate estimates for 1980-1991. For 1993-1996, we interpolate CSI-based spending using the growth in private and government wages and salaries paid by home health care establishments. For 1998 expenditures by State, we extrapolate using the growth in private and government wages and salaries paid by home health care establishments. Finally, we control our State distributions to national estimates of freestanding home health expenditures.

Drugs and Other Medical Non-Durable Products

We estimate this category in two parts: spending for prescription drugs and spending for non-prescription (over-the-counter) medicines and sundries. For both parts, we base our estimates on retail sales data reported in the 1977, 1982, 1987, and 1992 Census of Retail Trade, Merchandise Line Sales (U.S. Bureau of the Census, 1998). We interpolate distributions for intervening years using population data.

In the case of prescription drugs, we estimate expenditures for 1995 and later using State data reported in the 1997, 1998, and 1999 *Retail Prescription Method of Payment Report* (IMS Health, 1997-1999), and for 1993 and 1994, we interpolate between the census and IMS data sources. For non-prescription drugs, we extrapolate for years 1993-1998 using population data. In both cases, we scale distributions to national totals.

Vision Products and Other Medical Durables

Using State data from the Census of Retail Trade for 1977, 1982, 1987, and 1992 (U.S. Bureau of the Census, 1998), we estimate expenditures for optical goods sold in retail establishments. To estimate optical goods sales that occur in optometrist offices, we use optometrist offices' business receipts from the 1977, 1982, 1987, 1992, and 1997 CSI. We rely on population statistics to extrapolate and interpolate estimates of optical sales for years when actual retail sales are not available. Finally, distributions by State are scaled to national totals.

Nursing Home Care

Expenditures for care provided in freestanding nursing homes include services delivered in Nursing and Personal Care Facilities (SIC 805/NAICS 6231, part of 6232 and part of 6233) but do not include nursing home services provided in long-term care units of hospitals. (Nursing home services provided in hospitals are contained in the hospital estimates.) We prepare estimates for four facility types: private nursing homes, State and local nursing homes, nursing homes operated by the U.S. Department of Veterans Affairs (DVA), and intermediate care facilities for the mentally retarded (ICFs/MR).

To estimate spending in private facilities, we use revenues for taxable businesses, and for tax-exempt businesses, we use receipts that are collected in the CSI for 1977, 1982, 1987, 1992, and 1997. We interpolate and extrapolate revenues and receipts by State using wages and salaries paid in private nursing home establishments. To estimate expenditures in government nursing homes, we inflate wages and salaries to revenues for State and local government nursing facilities. We estimate

spending for nursing home care in DVA facilities from State-specific data furnished by DVA. To estimate spending for ICFs/MR, we use Medicaid expenditures for nursing home care in ICFs/MR reported by State Medicaid agencies on Form HCFA-64 (Health Care Financing Administration, 1980-1998). For each facility type, distributions by State are scaled to national totals.

Other PHC

Privately funded other PHC consists of industrial inplant services provided by employers for the health care needs of their employees. These services may be furnished either on-site or off-site. We estimate expenditures for industrial inplant services using the number of occupational health nurses (American Nurses' Association, 1979; Health Resources and Services Administration, 1985, 1993, and 1997) and average annual wages in the health services sector (U.S. Bureau of Economic Analysis, 1929-1997).

Public expenditures include Medicaid and States' general medical assistance spending for health screening services, certain home and community-based waivers, case management, and transportation services. Also covered in this category are expenses for shipboard facilities and field stations operated by the U.S. Department of Defense; expenditures for certain services funded through State and local maternal and child health programs; school health programs; and Federal agency programs targeting veterans, military personnel, Native Americans, and persons with drug or alcohol dependency or mental health-related problems. We use agency-supplied data to estimate government spending for each other PHC program.

Medicare

We estimate FFS Medicare spending based on the State-of-provider payments recorded in Medicare's National Claims History (NCH) files (Health Care Financing Administration, 1991-1993, 1996). These detailed claim records, which were tabulated for 1991-1993 and 1996 only, permit us to assemble expenditures for each SHEA service category. Using unpublished tabulations of Medicare reimbursements by State for separate Medicare program service categories, we extrapolate payments for each type of service from 1980-1990, 1994-1995, and 1997-1998. When State-of-provider data are unavailable, we perform extrapolations using State-of-beneficiary reimbursement information. Finally, we adjust State distributions for each year to equal NHE expenditure estimates.

We separately determine Medicare estimates for services provided to Medicare enrollees in managed care plans. Based on information from Adjusted Community Rating forms submitted to CMS, we obtain capitated Medicare payments by type of service. We then distribute the service totals to each State.

Medicaid

Our Medicaid estimates include both Federal and State-reported funds. Additionally, because of the nature of the Medicaid program, in which States pay only for residents of their State, we assume that Medicaid estimates primarily reflect spending by State of residence.

We base our calendar year Medicaid estimates on the fiscal year *Medicaid State Financial Management Reports* (Form HCFA-64) (Health Care Financing Administration, 1980-1998) that are filed by the State Medicaid agencies. The HCFA-64s

show total and service-specific program expenditures. However, we adjust reported program data to fit the estimates into the framework of SHEA. The first adjustment splits home health care spending into two parts: (1) expenditures flowing to hospital-based home health care establishments, and (2) expenditures flowing to freestanding home health care establishments. This split is based on ratios supplied from Medicare program data. We remove the hospital-based home health care estimate from Medicaid home health care expenditures and add that estimate to Medicaid hospital care expenditures.

The Medicaid nursing home estimate includes expenditures for freestanding nursing homes and nursing home ICFs/MR. Another adjustment removes expenditures flowing to hospital-based nursing homes from Medicaid nursing home spending and includes them with Medicaid hospital expenditures. We also remove hospital-based ICF/MR spending from Medicaid nursing home expenditures and add the hospital-based ICF/MR spending to Medicaid hospital expenditures.

For the purposes of the SHEA, we exclude part of Medicaid DSH payments to hospitals. These partial DSH payments are offset either by taxes and donations paid by the receiving facilities or by intergovernmental transfers from the receiving facilities and State governments. Such payments are excluded because they do not contribute additional State funds to overall hospital operations (Coughlin, Ku, and Kim, 2000).

We then estimate the administrative expenses of Medicaid managed care providers. We multiply Medicaid premiums by national ratios of benefits to premiums for HMOs and non-HMO private health insurance plans to obtain an estimate of Medicaid managed care benefits. We subtract these managed care benefits from total Medicaid managed care expenditures to determine the administrative cost of Medicaid managed care, which we then add to Medicaid administrative expenditures.

Finally, we allocate Medicaid managed care premiums among services in a manner similar to the way we allocate FFS expenditures for acute care services. Sometimes spending for certain categories such as drugs are "carved out" of HMO premiums and are administered separately. (Medicaid agencies frequently carve out drug benefits to retain rebates that some manufacturers are mandated to pay. If drugs are not carved out of the HMO premium, the HMO can negotiate their own rebates with the manufacturer.) We remove drugs from the HMO premium allocation for all known cases of drug carve-outs.

CONCLUSION

The health care sector is an important part of most States' economies, accounting on average for $1 out of every $9 of goods and services produced. The demand for services in a State varies for many reasons, including population size and demographics, insurance status and income, the generosity of public health care programs, and the extent to which services are exported or imported to residents of other States. The cost of providing these services varies as well and is influenced by the extent of HMO and other managed care penetration and the supply of providers and facilities. The complex interactions of these and other factors have created many unique natural experiments in subnational jurisdictions across the United States.

As the costs of providing services and products to an increasingly aged and uninsured population rise, each State will face special challenges. These challenges may involve funding care for Medicaid and the

uninsured in the State, determining the most appropriate way to supply chronic and rehabilitative services to an aging population, regulating insurance premium growth, or providing incentives to close excess hospital beds. With the baseline estimate of health care spending presented here—which provides an overview of levels and trends in State spending—public and private decisionmakers can begin to frame responses to the important questions they face.

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