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# State-Level Variation in Medicare Spending

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*Theoretically, Medicare provides one standard benefit package to all enrollees. But because of State-level variations in populations, service supply, and local practice patterns, national policy changes may have unequal impacts on access and service utilization. Across-the-board policy changes may create hardships in one area while appropriately discouraging use in another area. In this article, the authors describe State-level variations in Medicare enrollees, their insurance coverage, 1995 Medicare and beneficiary spending patterns in aggregate, per capita, and by service, and certain spending patterns for dually eligible beneficiaries. These data are useful for considering the State-level effects of payment reform.*

## INTRODUCTION

Medicare provides, in theory, one standard benefit package to all its 39 million enrollees, regardless of health needs, age, or location. The program includes fairly comprehensive coverage for hospital and post-hospital skilled nursing facility (SNF) stays, ambulatory and physician services, home health and hospice care, and durable medical equipment. In practice, these benefits vary substantially across the United States, depending upon the needs of the population, supply of services, and local practice patterns. Yet there is limited understanding of these variations and the

ways they could affect the impact of policy reforms. That is, a change in Medicare's nationally standardized policies can have unequal impacts on access and use across the country, depending upon local variations in medical need, supply, and practice patterns in each area.

This issue is important for policymakers to understand. In some cases, a change in payment levels or policy for one service may then alter use of other services. For example, if home health care use is constrained through policy change, other post-acute care services may take up some of the slack. But potential substitute post-acute care may be more readily available in some parts of the country than in others. Further, concern about the level of service use may be more appropriate in some parts of the country than in others. Using across-the-board policy changes may consequently create hardships in some areas while appropriately discouraging overuse of care in other areas.

In this article, we provide baseline information on State-level characteristics of the Medicare population, including differences in population size, distributions of dually eligible beneficiaries (covered by Medicare and Medicaid) or enrolled in managed care, and average spending levels for each of the different populations and services covered by Medicare. These data should be useful for considering the implications of various reform proposals and understanding the potential impact of recent changes in Medicare. An analysis of the potential impact of the Balanced Budget Act on specific States can be found in Gage and Guterman, (to be published). The

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Medicare data presented here represent analysis of the 1995 Medicare claims and denominator files for a 5-percent beneficiary sample except where otherwise noted. Our Medicaid analysis uses the Urban Institute's edited data compiled for the *1998 State-Level Databook on Health Care Access and Financing* (Liska, Brennan, and Bruen, 1998).

## VARIATION IN POPULATION SIZE AND CHARACTERISTICS

Medicare spending and enrollment varies across the Nation according to the distribution of beneficiaries and their individual characteristics. Altogether, almost 34 million elderly (or 98 percent of all elderly persons in the United States) are covered by the program. Persons age 65 or over represent 85.7 percent of all Medicare beneficiaries. The rest qualify for Social Security as disabled persons or because they have end stage renal disease (ESRD). In 1998, the program spent \$211 billion covering these persons' acute care needs (Congressional Budget Office, 1999).

About 35 percent of all beneficiaries live in one of five States: California, Florida, New York, Pennsylvania, and Texas (Table 1). In Florida and Pennsylvania, beneficiaries represent both large numbers of patients and a large proportion of the States' residents (about one-fifth of each State's population). In California, New York, and Texas, the beneficiaries represent 15 percent or less of the population, but the sheer number of enrollees makes Medicare an important economic force in these States. Even in certain rural States, such as Arkansas, Iowa, Maine, and West Virginia, Medicare insures almost one-fifth of the population, making an important contribution to each State's financing and delivery system.

The types of beneficiaries living in each State also vary. These differences are important because health care costs and utilization vary by age and medical need. The younger disabled population tends to have chronic conditions requiring greater use of ambulatory services, and the very old are more likely to be hospitalized and have high end-of-life costs. Nationally, 14.3 percent of beneficiaries are under age 65 and qualify for Medicare because they are disabled or have ESRD. Certain States, such as Georgia, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, and West Virginia, have large shares (almost 20 percent of all beneficiaries) of young disabled beneficiaries. Another 10.3 percent of persons covered by Medicare are age 85 or over. They account for a substantial share of the beneficiaries in the District of Columbia, Iowa, Kansas, Massachusetts, Minnesota, Nebraska, New York, Rhode Island, North Dakota, and South Dakota. These very old populations are more likely to have higher costs due to expensive inpatient hospital and SNF stays.

Another important source of potential variation in spending is the share of beneficiaries also eligible for Medicaid. Slightly more than 15 percent of beneficiaries are poor enough to have supplemental coverage provided by State Medicaid programs. (These dually eligible beneficiaries are defined as those people who have State buy-in coverage. Some dually eligible beneficiaries, especially the medically needy, are not "bought in" but still participate in both programs. These groups are not included in the Medicaid counts.) Of these, one-half are fully covered by Medicaid for Medicare Part B premiums (about \$45 a month), copayments and deductibles on services used, and other non-Medicare benefits, such as prescription drugs and long-term care (LTC) services

**Table 1**  
**Variation in Medicare Population, by State: United States, 1995**

State	Medicare		Age Distribution		Percent of Dually Eligible Beneficiaries	Percent in HMO in 1998
	Population in Thousands	Percent of Population	Under 65 Years	85 Years or Over		
National	38,634	14.7	14.3	10.3	14.9	16
Alabama	676	15.9	17.7	9.7	19.9	7
Alaska	36	6.0	17.6	6.1	22.0	0
Arizona	627	14.9	13.4	9.3	10.1	39
Arkansas	444	17.9	17.6	9.7	19.9	3
California	3,820	12.1	15.4	11.1	30.2	39
Colorado	447	11.9	15.2	10.9	14.9	31
Connecticut	528	16.1	11.9	11.3	11.0	19
District of Columbia	84	15.1	14.2	12.6	8.2	0
Delaware	108	15.0	13.8	8.7	21.8	0
Florida	2,758	19.5	11.6	10.2	12.6	28
Georgia	887	12.3	18.9	8.8	21.5	4
Hawaii	158	13.3	13.2	7.7	18.9	10
Idaho	158	13.5	12.1	9.9	9.7	2
Illinois	1,702	14.4	13.1	10.9	9.9	9
Indiana	859	14.8	14.2	10.0	10.9	1
Iowa	496	17.5	11.6	12.4	11.4	0
Kansas	402	15.7	11.7	12.7	10.0	1
Kentucky	620	16.1	19.8	9.1	18.4	2
Louisiana	611	14.1	18.0	9.1	21.4	17
Maine	212	17.1	14.9	10.3	15.3	0
Maryland	637	12.6	12.3	9.7	11.2	16
Massachusetts	981	16.2	13.5	12.0	15.7	22
Michigan	1,413	14.8	14.6	9.4	10.0	4
Minnesota	662	14.4	12.8	12.8	10.8	9
Mississippi	419	15.5	20.4	9.6	29.2	0
Missouri	871	16.4	14.6	11.4	9.9	16
Montana	136	15.7	14.3	9.8	8.8	0
Nebraska	262	16.0	11.4	13.0	7.3	5
Nevada	207	13.6	15.0	6.5	10.2	24
New Hampshire	163	14.2	13.0	10.8	4.7	8
New Jersey	1,231	15.5	11.7	9.9	11.9	12
New Mexico	221	13.1	16.5	9.5	18.2	19
New York	2,758	15.2	13.9	11.5	14.1	16
North Carolina	1,081	15.0	17.0	8.6	20.1	3
North Dakota	106	16.5	11.5	13.1	5.6	0
Ohio	1,756	15.7	13.8	9.5	11.2	15
Oklahoma	514	15.7	14.2	11.1	14.0	8
Oregon	499	15.9	14.2	10.4	12.8	28
Pennsylvania	2,174	18.0	11.5	10.0	8.4	25
Rhode Island	175	17.7	12.7	11.6	10.4	33
South Carolina	538	14.6	18.7	8.0	20.7	0
South Dakota	121	16.5	11.9	13.1	12.2	0
Tennessee	810	15.9	17.8	9.4	20.8	2
Texas	2,188	11.7	14.0	10.4	17.4	14
Utah	197	10.1	12.9	9.6	8.8	9
Vermont	88	15.0	16.4	10.7	15.7	0
Virginia	867	13.1	15.3	9.1	14.7	2
Washington	725	13.4	13.4	10.7	13.1	24
West Virginia	346	19.0	18.4	8.7	13.3	0
Wisconsin	794	15.5	12.6	11.3	10.3	3
Wyoming	63	13.0	13.4	8.9	9.7	0

NOTES: HMO is health maintenance organization. Payments are estimated interim payments.

SOURCE: Based on Medicare Denominator File, 1995; Medicare Managed Care Monthly Reports.

(Eppig and Chulis, 1997). The other half are qualified Medicare beneficiaries, who are exempt from Medicare premiums and cost-sharing (45 percent) or specified low

income Medicare beneficiaries, who are exempt from Medicare premiums only (5 percent).



Medicaid eligibility requirements and covered benefits for the full program vary by State. In 1995, Medicaid contributed \$53 billion for services to dually eligible beneficiaries (including both State and Federal dollars). Of this, 19 percent was for Medicare cost-sharing, 9 percent for acute care services, including prescription drugs, and 72 percent for LTC costs, such as nursing facility and personal care services not covered by Medicare (Health Care Financing Administration, 1997).

States may have large numbers of dually eligible Medicare beneficiaries because they have a substantial number of lower income residents, a generous definition of Medicaid eligibility that covers slightly higher income populations, a large number of younger, disabled beneficiaries who are more likely to qualify for Medicaid, and/or a large number of the very old, who "spend down" to Medicaid coverage for LTC services. California and Mississippi, for example, each have almost twice the national average share of dually eligible beneficiaries (30.2 percent and 29.2 percent of beneficiaries, respectively), yet they have somewhat different types of beneficiaries qualifying for the dual coverage. Both States have large shares of elderly in their Medicaid programs (71 percent are age 65 or over), but California's tend to be the younger old (84 percent of the elderly are age 65-84). Mississippi's tend to be older—only 78.6 percent of the dually eligible elderly beneficiaries are age 65-84; the remaining 21 percent are age 85 or over. These two groups have different service needs and costs.

In the southern States, about 20 percent of the beneficiaries consistently have dual coverage. In Alabama, Arkansas, and Georgia, dually eligible beneficiaries are disproportionately older. In the other southern States, the high numbers are a

reflection of greater poverty in general. In contrast, many of the dually eligible beneficiaries in rural States, such as Nebraska, New Hampshire, North Dakota, Utah, and Vermont, are under 65 years of age. Most of these States (except Vermont) tend to have relatively small proportions of beneficiaries covered by Medicaid.

Market characteristics, such as managed care penetration, may also affect Medicare expenditures. Areas with high managed care penetration rates are more likely to have spillover effects that result in lower hospital and home health care use but higher physician and SNF use. If managed care affects how health care is delivered, that is likely to affect FFS practice as well. Although Medicare's managed care enrollment rates have been relatively modest (only 16 percent of beneficiaries were enrolled in 1998), certain States, such as Arizona and California, have historically had high proportions of beneficiaries enrolled in managed care plans (39 percent of the beneficiaries). These States also have high managed care enrollments in their private sector and Medicaid programs as well. Other States, such as Connecticut, Maryland, Massachusetts, Ohio, Pennsylvania, and Rhode Island, have had substantial Medicare managed care enrollment growth in recent years.

Finally, it is unlikely that individual characteristics can explain all the variations in health care discussed herein. Differences in the way that health care is practiced across the United States have been noted in many studies, dating back to early work by Wennberg and Gittelsohn (1973). Many of these differences cannot be explained except as practice pattern variations. And there is a great deal of variation in the geographic distribution of various providers (Prospective Payment Assessment Commission, 1996).

**Table 2**  
**Top States in Total Medicare Spending: 1995**

State	Aggregate Spending in Billions		Average per Capita Spending		Average Spending per User	
	Amount	Rank	Amount	Rank	Amount	Rank
National	\$155.0	—	\$4,070	—	\$5,151	—
California	13.2	1	3,572	32	6,122	4
New York	12.2	2	4,554	8	5,669	8
Florida	12.1	3	4,391	14	5,840	7
Texas	10.3	4	4,766	4	6,046	5
Pennsylvania	9.4	5	4,378	15	5,304	14
Illinois	7.0	6	4,183	18	5,223	18
Ohio	6.9	7	4,000	20	4,735	24
Michigan	6.4	8	4,551	9	5,277	16
New Jersey	5.3	9	4,377	16	5,217	19
Massachusetts	4.8	10	4,969	3	6,241	3
Louisiana	3.4	15	5,482	1	6,913	2
District of Columbia	0.4	44	5,254	2	6,924	1
Connecticut	2.4	21	4,646	5	5,357	12

NOTES: The first 10 States are ranked by aggregate spending. The last 3 States provide the remaining top 5 States in per capita spending. All per capita expenditures are based on fee-for-service enrollees because no claims are available for managed care enrollees.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

## STATE VARIATION IN EXPENDITURE PATTERNS

These population differences affect State-level spending on health care. Age, income (or Medicaid eligibility), and the relative costliness of different services used by these populations all influence State-level spending patterns. For example, Medicare payments for those age 85 or over are 44 percent greater than for the average beneficiary, and if they are dually eligible, their average costs are even higher (\$7,720 versus \$6,550 for those who are not participating in Medicaid).<sup>1</sup> Across all beneficiaries, average Medicare payments for the dually eligible population are 50-percent greater than for non-dually eligible beneficiaries, although this varies by age group. The greatest difference in costs is for the young old (65-74 years), where Medicare payments for dually eligible ben-

<sup>1</sup> Persons with ESRD are excluded from this count because they represent small numbers of people whose costs are about nine times greater than those of the average beneficiary (Prospective Payment Assessment Commission, 1995). As a result, these beneficiaries skew the averages. They are included in the rest of the tables. Health maintenance organization enrollees are excluded from all per capita and per user analyses because they have no claims. All Medicare numbers represent Medicare program spending and do not include any non-Medicare covered beneficiary costs, such as LTC or prescription drugs.

eficiaries are 76 percent greater than for those without Medicaid coverage (\$6,385 versus \$3,635 in 1995).

These population differences result in differences in overall State spending levels (Table 2). It is not surprising that the five States with the largest beneficiary populations—California, New York, Florida, Texas, and Pennsylvania—consistently have the highest aggregate spending levels for most types of Medicare-covered services. For example, California is home to 10 percent of all Medicare beneficiaries and accounts for 9 percent of total program payments.

But the more interesting differences arise from per capita measures, which more closely relate to variation in beneficiary characteristics. States with the highest per capita spending each have relatively costly populations. For example, Louisiana, the District of Columbia, and Texas have relatively large shares of dually eligible beneficiaries, and as previously noted, those with Medicaid coverage have substantially higher spending levels than the average Medicare beneficiary's. In addition to large numbers of dually eligible beneficiaries, Massachusetts and the District of Columbia also have substantial numbers of persons age 85 over. In

**Table 3**  
**Variation in Medicare Program Spending and Beneficiary Copayments: United States, 1995**

State	Total Spending		Spending per FFS Enrollee	
	Medicare Payments in Millions	Beneficiary Copayments in Millions	Medicare Payments	Beneficiary Copayments
National	154,539.6	25,565.1	4,000	662
Alabama	3,034.0	506.2	4,489	749
Alaska	158.9	21.6	4,402	597
Arizona	1,826.3	303.4	2,911	484
Arkansas	1,696.3	299.2	3,815	673
California	13,181.7	2,046.0	3,450	536
Colorado	1,443.7	238.3	3,230	533
Connecticut	2,395.7	396.8	4,539	752
Delaware	418.9	73.0	3,888	678
District of Columbia	424.0	65.9	5,069	788
Florida	12,063.8	2,040.6	4,374	740
Georgia	3,933.1	645.4	4,437	728
Hawaii	354.8	66.9	2,242	423
Idaho	484.2	86.0	3,073	546
Illinois	7,021.4	1,165.8	4,126	685
Indiana	3,308.2	584.2	3,853	680
Iowa	1,498.2	286.8	3,021	578
Kansas	1,574.4	281.6	3,919	701
Kentucky	2,347.6	421.3	3,785	679
Louisiana	3,351.8	447.5	5,481	732
Maine	702.7	132.6	3,320	627
Maryland	2,919.3	439.7	4,586	691
Massachusetts	4,760.2	749.0	4,851	763
Michigan	6,424.6	1,134.8	4,546	803
Minnesota	1,760.2	341.4	2,661	516
Mississippi	1,879.5	289.7	4,489	692
Missouri	3,450.2	603.7	3,962	693
Montana	455.4	81.0	3,339	594
Nebraska	789.0	150.1	3,009	572
Nevada	668.7	104.5	3,223	504
New Hampshire	555.6	94.9	3,410	583
New Jersey	5,272.1	874.3	4,284	710
New Mexico	640.4	107.1	2,894	484
New York	12,243.2	1,913.0	4,439	694
North Carolina	3,993.2	713.8	3,695	660
North Dakota	349.1	65.1	3,293	614
Ohio	6,939.4	1,209.6	3,952	689
Oklahoma	2,174.1	314.1	4,232	611
Oregon	1,139.0	194.1	2,285	389
Pennsylvania	9,437.0	1,630.2	4,342	750
Rhode Island	709.6	112.4	4,055	642
South Carolina	1,989.1	363.8	3,697	676
South Dakota	389.3	74.5	3,229	618
Tennessee	3,696.4	562.6	4,561	694
Texas	10,334.3	1,499.7	4,724	686
Utah	632.2	99.5	3,209	505
Vermont	306.3	50.3	3,487	572
Virginia	3,160.8	565.2	3,644	652
Washington	2,209.4	367.4	3,046	507
West Virginia	1,197.3	209.7	3,456	605
Wisconsin	2,620.6	503.8	3,301	635
Wyoming	224.1	36.8	3,583	589

NOTE: FFS is fee-for-service.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

fact, average Medicare payments for beneficiaries using services in these four States are among the highest in the Nation, suggesting these higher per capita costs are due to both large numbers of users and expensive types of cases.

States with the lowest Medicare spending per enrollee (Table 3) include Hawaii (\$2,289), Oregon (\$2,523), New Mexico (\$2,912), Arizona (\$2,916), and Minnesota (\$2,919). (These estimates are not wage-adjusted expenditures. If they were, Alaska's



Table 4

## Top 5 States in per Capita Hospital Expenditures, by Type of Hospital and State: 1995

State	PPS		Rehabilitation		Psychiatric		Long Term	
	Amount	Rank	Amount	Rank	Amount	Rank	Amount	Rank
National	\$1,762	—	\$86	—	\$69	—	\$19	—
District of Columbia	2,535	1	131	6	97	5	2	36
Alaska	2,412	2	140	3	99	4	—	5
New York	2,247	3	71	34	89	8	15	14
Maryland	2,218	4	43	45	38	44	14	17
Michigan	2,086	5	103	14	74	14	5	29
Louisiana	2,082	7	200	1	143	1	112	1
Texas	1,789	20	162	2	72	17	66	3
Arkansas	1,614	30	140	4	89	7	2	35
Pennsylvania	1,989	9	134	5	77	12	13	21
Massachusetts	2,052	8	8	16	143	2	107	2
New Hampshire	1,496	37	89	23	131	3	2	38
Oklahoma	1,561	32	130	7	80	10	39	4
Wyoming	1,694	27	45	44	28	49	38	5

NOTE: PPS is prospective payment system.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

and Hawaii's spending would be ranked even lower because of the high labor costs in these two States.) Hawaii and Arizona have slightly larger shares of the younger elderly populations, which are typically less expensive. The lower cost patterns in these States may also be partially explained by the high managed care penetration rates in local private markets. Managed care practices tend to reduce costly inpatient expenses and increase ambulatory service expenditures (Hurley, Freund, and Paul, 1993; Brown et al., 1993), and these differences may have spillover effects in the FFS program.

### Variation by Type of Service

Some of the variation in Medicare program expenditures may be explained by differences across States in the use of costlier services, such as inpatient hospital stays—one of the most expensive Medicare services (Table 4). Although only 20 percent of beneficiaries used hospitals in 1995 (Gage et al., 1997), these expenditures accounted for almost one-half of all Medicare spending. More than 90 percent of hospital expenditures were reimbursed under Medicare's prospective

payment system (PPS). The remaining hospital expenditures were for rehabilitation hospitals or units (4 percent), psychiatric hospitals (4 percent), LTC hospitals (1 percent), and others, including cancer and children's hospitals.

The five States with the highest per capita PPS hospital expenditures are the District of Columbia, Alaska, New York, Maryland, and Michigan. New York and Maryland are historically high-cost hospital States because of high input prices and higher use of costlier urban hospitals (Ashby et al., 1996). Similar factors may also explain the District of Columbia's and Alaska's high expenditures.

In PPS-excluded hospitals, Louisiana ranks first in per capita spending for all three types of non-PPS hospitals: rehabilitation, psychiatric, and LTC. This, coupled with the lower use of PPS hospitals and SNFs, suggests these hospitals are being used differently in Louisiana than in other States. Other States relying heavily on rehabilitation hospitals are Texas, Alaska, and Arkansas. In psychiatric expenditures, Massachusetts, New Hampshire, Alaska, and the District of Columbia have the highest spending levels.

**Table 5**  
**Top 5 States in per Capita and per User Medicare Spending for Short-Stay Hospitals: 1995**

State	Average per Capita Spending		Average Spending per User	
	Amount	Rank	Amount	Rank
National	\$1,762	—	\$10,388	—
District of Columbia	2,535	1	14,570	1
Alaska	2,412	2	14,539	2
New York	2,247	3	13,725	3
Maryland	2,218	4	11,725	8
Michigan	2,086	5	11,318	10
California	1,455	39	13,144	4
Hawaii	1,108	50	12,531	5

NOTE: All per capita expenditures are based on fee-for-service enrollees because no claims are available for managed care enrollees.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

Although rehabilitation and psychiatric hospitals serve distinctly specialized populations, long-term hospitals are treated separately only because they have an average length of stay greater than 25 days and are not certified as rehabilitation or psychiatric facilities. They may serve the chronically ill or be used to substitute for rehabilitation or psychiatric facilities (Prospective Payment Assessment Commission, 1992). In some places, they may substitute for PPS hospitalizations or SNF admissions, depending upon the availability of these providers and the types of cases treated. Long-term hospital per capita expenditures are highest in Louisiana, Massachusetts, Texas, Oklahoma, and Wyoming.

Although State rankings may change based on whether one looks at per capita or per user spending levels, certain States remain high in both, suggesting they have both many users and expensive cases (Table 5). New York, for example, which has the highest aggregate PPS spending, ranks third in both per capita and per user spending. On the other hand, a smaller proportion of California's and Hawaii's beneficiaries are admitted to hospitals, but when they are, they undergo expensive procedures. (Some of Alaska's and Hawaii's high-ranking per capita expenditures may be explained by high labor costs because these expenditure amounts have

not been wage adjusted. However, this would also affect the per enrollee expenditures. Despite these differences in labor costs and population size, Hawaii still ranks the lowest in spending per enrollee in the Nation.) These low utilization rates may be a spillover effect from the high HMO penetration in California, where 39 percent of the beneficiaries are in managed care.

Physician expenditures account for the second-largest group of Medicare expenditures, almost 25 percent of all Medicare spending in 1995. These services are the most widely used benefit in the Medicare program, with almost 80 percent of all beneficiaries having at least one physician visit during the year (Gage et al., 1997).

New Jersey ranks highest on physician spending per capita, followed closely by Florida, where per user spending is highest (Table 6). (In fact, almost 10 percent of all physician expenditures are for Florida residents.) California is the only State not to make the top five in average spending but to rank third per user of services. This suggests a high use of more expensive specialists or a higher-than-average number of visits to a physician. The latter would be consistent with managed care utilization patterns, where physicians are seen more frequently than in FFS arrangements (Brown et al., 1993), probably reflecting the influence of a higher managed care penetration in California.



**Table 6**  
**Top 5 States in per Capita and per User Medicare Spending for Physician Services: 1995**

State	Average per Capita Spending		Average per User Spending	
	Amount	Rank	Amount	Rank
National	\$891	—	\$1,165	—
New Jersey	1,209	1	1,465	4
Florida	1,185	2	1,603	1
Maryland	1,120	3	1,388	6
New York	1,118	4	1,444	5
District of Columbia	1,108	5	1,513	2
California	825	20	1,473	3

NOTE: All per capita expenditures are based on fee-for-service enrollees because no claims are available for managed care enrollees.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

**Table 7**  
**Top 5 States in per Capita and per User Medicare Spending for Skilled Nursing Facilities: 1995**

State	Average per Capita Spending		Average per User Spending	
	Spending	Rank	Amount	Rank
National	\$199	—	\$6,281	—
Massachusetts	314	1	7,305	9
Connecticut	296	2	6,800	11
Indiana	287	3	7,133	10
Colorado	282	4	8,355	3
Utah	276	5	7,491	7
California	266	7	8,652	1
Nevada	155	32	8,519	2
Florida	242	10	8,096	4
District of Columbia	184	22	7,582	5

NOTE: All per capita expenditures are based on fee-for-service enrollees because no claims are available for managed care enrollees.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

Medicare covers SNF services if the patient was recently discharged from an inpatient hospital stay. These services account for 5 percent of Medicare spending and are used by about 5 percent of beneficiaries (Gage et al., 1997). Of the five States with the highest per capita spending, only Massachusetts is in the top five of PPS hospital spending (Table 7). Connecticut, Indiana, Colorado, and Utah have high SNF expenditures but do not make the list for any other type of hospital spending, including those hospitals that may represent alternatives to SNF care. These States also have relatively high payments per user for SNF care, suggesting they are both high-use and high-cost-per-user States, although California and Nevada top the list on a per user basis. Louisiana is notably absent from the top SNF States because other ser-

vices, such as LTC hospitals or home health care, are likely substituting for these services.

Among the top five States with high SNF expenditures, none also have the highest per capita home health care expenditures (Table 8). (If we ranked these numbers through the highest 10 States, however, there would be more overlap.) Louisiana, which did not have high SNF spending, has extraordinarily high home health care spending. It has the highest payments per beneficiary and per user for home health care services in the Nation. Louisiana's per beneficiary spending is almost three times the national mean.

The same States that have high proportions of beneficiaries using home health care also tend to have high payments per user. Utah ranks fifth by user but seventh

**Table 8**

**Top 5 States in per Capita and per User Medicare Spending for Home Health Care Services: 1995**

State	Average Spending per FFS Enrollee		Average Spending per User	
	Amount	Rank	Amount	Rank
National	\$395	—	\$4,485	—
Louisiana	1,102	1	8,030	1
Tennessee	893	2	6,803	4
Mississippi	882	3	6,143	7
Oklahoma	879	4	7,418	2
Texas	805	5	7,350	3
Utah	637	7	6,548	5

NOTES: FFS is fee-for-service. All per capita expenditures are based on FFS enrollees because no claims are available for managed care enrollees.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

on per capita spending. Because home health care payments will also be moved to a PPS by October 2000, utilization patterns in all these States may change in response to Medicare's new payment policies.

Some of this high spending on SNF and home health care may be attributable to having high numbers in the State of the very old or disabled populations, who have greater need for these types of services. Massachusetts and Connecticut, for example, both have a large proportion of very old beneficiaries (age 85 or over), while Louisiana has a large proportion of the younger, disabled beneficiaries (under age 65) and the sixth-largest share of dually eligible beneficiaries. Similarly, Utah's and Massachusetts' high expenditures may be explained by their large proportions of disabled persons and dually eligible beneficiaries, including a high proportion who are at least age 85, each of whom may need these services more than other beneficiaries.

**Medicare-Medicaid Interactions**

The Medicare program can also have important impacts on a State's Medicaid program. Benefits are sometimes covered by both programs, and many providers serve both populations. When the benefits are identical, Medicare is the primary payer, and States face incentives to shift costs to Medicare. However, Medicaid

also covers additional services. In general, Medicare only pays for short-term, post-hospital nursing facility stays, while Medicaid pays for these short stays and longer term, residential care in these settings if one is poor enough to meet the State Medicaid eligibility rules. In home health care, Medicare covers nursing, therapies, and aide visits, if a beneficiary requires nursing or therapy, but does not cover the homemaker and personal care services that Medicaid allows. Medicaid also covers the same home health care services as Medicare without the skilled medical requirement, using only an income-based eligibility standard for these services. Here our results are restricted to elderly beneficiaries.

Comparing State-level spending on nursing facilities and home care for dually eligible elderly beneficiaries indicates that nursing facilities in certain States may rely more on Medicare for their revenues. States such as Indiana, Colorado, and Florida, which have the highest spending per dually eligible elderly person under Medicare's SNF benefit, rank among the moderate- to lower spending States per elderly recipient in Medicaid nursing facilities (Table 9). The relative difference in ranking between the two programs suggests nursing facilities in these States may be concentrating on serving the shorter stay Medicare population instead of longer





**Table 9**  
**Nursing Facility and Home Health Care per Capita Expenditures for Dually Eligible Elderly Beneficiaries, by Medicare or Medicaid: Selected States, 1995**

State	Nursing Facility				Home Health Care			
	Medicare		Medicaid		Medicare		Medicaid	
	Amount	Rank	Amount	Rank	Amount	Rank	Amount	Rank
National	\$519	—	\$6,145	—	\$931	—	\$865	—
Indiana	1,076	1	8,342	16	796	16	94	47
Colorado	1,035	2	6,066	29	918	15	548	20
Connecticut	904	3	13,888	2	929	14	1,419	4
Florida	888	4	4,675	36	1,219	9	197	43
Arizona	799	5	NA	—	437	42	NA	—
New Hampshire	464	23	14,827	1	450	40	981	9
Massachusetts	788	6	12,164	3	1,154	10	534	22
District of Columbia	510	17	11,865	4	454	39	416	29
Minnesota	420	27	11,797	5	143	50	815	12
Louisiana	353	37	4,670	37	2,555	1	75	48
Oklahoma	416	28	4,432	39	2,342	2	287	39
Tennessee	360	36	4,914	33	2,114	3	71	49
Mississippi	258	44	3,465	46	1,860	4	5	50
Texas	569	16	3,325	48	1,764	5	926	10
New York	190	48	9,922	9	458	38	4,381	1
Oregon	386	33	3,428	48	441	41	2,265	2
Montana	698	11	10,087	7	511	33	1,469	3
Missouri	578	15	4,711	36	851	15	1,253	5

NOTES: NA is not available. States are ranked by the top 5 States in each program for each service. The top 5 States are presented for each provider/payer combination. Per capita expenditures are based on program spending for aged dually eligible beneficiaries divided by the number of aged dually eligible persons in each State. Program expenditures are not directly comparable because both programs cover different types of services from these two types of providers. All per capita expenditures are based on fee-for-service enrollees because no claims are available for managed care enrollees.

SOURCES: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995; Medicaid data prepared by The Urban Institute.

stay Medicaid recipients. Connecticut is the exception, with high annual per capita spending in both programs for dually eligible elderly beneficiaries.

These differences are even more pronounced in home health care spending for dually eligible beneficiaries. Three of the four highest Medicare spending States for the aged (Louisiana, Tennessee, Mississippi) are among the three lowest Medicaid spending States for that population. This pattern also exists in home health care expenditures for dually eligible disabled beneficiaries in Texas, where home health care costs rank 2nd in Medicare and 44th in Medicaid. For the aged population in Texas, though, both Medicare and Medicaid have high per capita home health expenditures.

Certain States have high Medicaid home health care expenditures but low Medicare per capita spending, such as New York,

Oregon, Montana, and Missouri. This may reflect differences in the services being used because Medicaid covers non-medical personal care and homemaker services not included in Medicare's home health care benefit. Under Medicare, a home health care patient must require part-time or intermittent skilled nursing, physical therapy, speech therapy, or ongoing occupational therapy to qualify for aide services, and homemaker and personal care services are not covered at all.

A few States seem to have high SNF and home health care expenditures in both programs. For example, Connecticut is in the top five States for nursing facility expenditures in both programs and Medicaid home health care, and is ranked 14th for Medicare home health care. Similarly, Massachusetts is ranked among the top 10 States for nursing facility coverage in both programs and Medicare home health care,



and is 22nd for Medicaid home health coverage. Both States have large proportions of elderly residents and a higher-than-average share of the population age 85 or over in both their total Medicare population and their number of dually eligible beneficiaries (Table 1).

### Impact on Beneficiaries

Medicare beneficiaries must pay both deductibles and coinsurance on most services received under both Parts A and B of the program.<sup>2</sup> Under hospital insurance, Part A, a hospital deductible of \$768 was charged for the initial hospitalization in each spell of illness in 1999.<sup>3</sup> (The deductible amount was \$716 in 1995.) Because multiple spells of illness can occur in a given year, some beneficiaries pay two or more deductibles per year. After 60 days as a hospital inpatient during any given spell of illness, coinsurance is also charged. In 1999, the daily rate for the coinsurance was \$192. After 90 days, patients must tap into an additional 60 lifetime days of coverage but were still required to pay \$384 per day in 1999. SNF coinsurance payments, assessed on days 21 through 100 of a SNF stay during a spell of illness, are also tied to the level of the hospital deductible and were \$96 a day in 1999.

<sup>2</sup> In practice, many beneficiaries do have some protection from these out-of-pocket costs. About 55 percent of Medicare beneficiaries have supplemental policies through either their employers (29 percent) or private medigap policies (26 percent) to cover out-of-pocket costs or different types of benefits than Medicare offers (Moon, Brennan, and Segal, 1998). Like Medicaid, these supplemental policies typically cover out-of-pocket costs and sometimes additional benefits such as prescription drug coverage. Altogether, almost 90 percent of FFS Medicare beneficiaries have some type of public or private coverage in addition to Medicare.

<sup>3</sup> A spell of illness is a period of consecutive days that starts when a patient begins receiving inpatient care or other qualified services and ends with a period of 60 consecutive days in which the patient is not receiving covered care as a hospital inpatient or as a patient in a SNF.

On the Part B side, the deductible is substantially lower—just \$100—and above that deductible, most services are subject to a 20-percent coinsurance requirement. One exception is outpatient hospital services, where beneficiaries pay coinsurance to facilities on the basis of the hospital's charges instead of program payments. That has led to high sharing levels for outpatient services. (However, changes contained in the Balanced Budget Act of 1997 that will be phased in over time will reduce the outpatient cost sharing and bring it into line with other Part B requirements.) Clinical laboratory services (and any home health care services found under Part B) carry no coinsurance requirements.

In 1995, cost-sharing averaged \$673 for FFS beneficiaries in Medicare. On a per beneficiary level, District of Columbia residents faced the highest cost-sharing charges of \$817 per person. Oregon was lowest, with an average of only \$430. Table 10 lists the top 10 States in terms of per capita coinsurance. Michigan and Massachusetts come in second and third, with cost-sharing amounts of \$804 and \$782, respectively.

These top coinsurance States do not directly correspond to States with the highest per capita spending, however. For example, Louisiana ranks first in per capita expenditures but only eighth in cost sharing. Texas, Tennessee, and New York are all in the top 10 of per capita spending but do not make the list in Table 10. Pennsylvania is 5th in cost sharing and 15th in all Medicare spending. These differences occur because, as previously noted, cost sharing varies considerably, depending upon what services are used. Because there is considerable variation in the composition of Medicare expenditures across the States, it stands to reason that

**Table 10**  
**Top 10 States in Average Annual per Capita**  
**Cost-Sharing: 1995**

State	Amount	Rank
National	\$673	—
District of Columbia	817	1
Michigan	804	2
Massachusetts	782	3
Connecticut	769	4
Pennsylvania	756	5
Alabama	753	6
Florida	743	7
Louisiana	732	8
Georgia	730	9
New Jersey	726	10

NOTE: Cost-sharing consists of average annual Medicare copayments and deductibles.

SOURCE: Based on per person aggregations of all Part A and Part B claims for Medicare's 5-percent sample, 1995.

there is also variation in the levels of cost sharing required. Louisiana has lower cost sharing in large part because it is such a heavy user of home health care services, which require no coinsurance. The District of Columbia, at the top of the list, is a high consumer of hospital, physician, and SNF services, all of which require cost sharing. Physician service use is high in New Jersey, helping to elevate it to the top 10 cost sharing list, even though it ranks much lower in overall spending.

Another way to look at cost sharing is to examine the percentage of total spending that cost-sharing constitutes. (It is important to note that these cost sharing amounts reflect only Medicare covered benefits and do not include items not covered by Medicare, such as prescription drugs.) In 1995, the overall average was 14 percent. The highest cost sharing States were Minnesota, Wisconsin, South Carolina, Iowa, and Nebraska. None of these States are in the top five by dollar values. The lowest States in terms of percentages were Alaska, Louisiana, and Oklahoma. Louisiana thus makes the top 10 list only because its per capita expenditures are so high.

## DISCUSSION

Medicare plays an important role in the States because of its absolute size relative to health care spending, the large number of dually eligible beneficiaries, and its importance to those it serves. Given the variation in expenditures by State, interest in differential impacts of various reform options should be expected. For example, the new Medicare payment policies being implemented under the Balanced Budget Act may affect State health care expenditures, especially in certain States where Medicare spending is relatively high, such as Louisiana, which is 15th in terms of aggregate Medicare spending but has the highest per capita Medicare spending in the Nation. States like this are likely to feel a greater impact from Medicare's payment policy changes than other States. And to the extent that some services are affected to a larger degree than others in various reform proposals, there may be other variations in State impacts in the future.

Further, these variations in Medicare spending also affect beneficiaries differentially across the States. Although there is a correlation between high per capita expenditures and high levels of cost sharing, variations in the types of services used and other coverage available also affect the total cost-sharing individuals face.

In practice, despite Medicare being a standardized benefit, use of the benefit is not as uniform as one might expect. Although all beneficiaries are guaranteed the same types and levels of coverage, actual utilization varies according to medical need, local practice patterns, and availability of services. These differences, in turn, affect individual out-of-pocket costs—and these are further affected by individual

levels of supplemental insurance—either through a State Medicaid program or a private medigap policy. Whether the variation is attributable to legitimate differences in need or to variations in access to care is unclear, but these factors should be considered when discussing future policy changes.

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## REFERENCES

- Ashby, J., Fisher, K., Gage, B., et al.: *State Variation in the Resource Costs of Treating Aged Medicare Beneficiaries*. Washington, DC. Prospective Payment Assessment Commission, 1996.
- Brown, R., Clement, D., Hill, J., et al.: *Does Managed Care Work for Medicare? An Evaluation of the Medicare Risk Program for HMOs*. Princeton, NJ. Mathematica Policy Research, Inc., 1993.
- Congressional Budget Office: *The Economic and Budget Outlook: Fiscal Year 2000-2009*. Washington, DC. U.S. Government Printing Office, January 1999.
- Eppig, F., and Chulis, G.: Trends in Medicare Supplementary Insurance: 1992-1996. *Health Care Finance Review* 19(1):201-206, Fall 1997.
- Gage, B., and Guterman, S.: *The Balanced Budget Act of 1997: The Impact of Changes in Hospital Inpatient and Post-Acute Payment Across the States*. Washington, DC. The Urban Institute, to be published.
- Gage, B., Moon, M., Nichols, L., et al.: *Medicare Savings: Options and Opportunities*. New York. The Commonwealth Fund, June 1997.
- Health Care Finance Administration: Overview of the Medicare and Medicaid Programs. *Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 1997*.
- Hurley, R., Freund, D., and Paul, J.: *Managed Care in Medicaid*. Ann Arbor, MI. Health Administration Press, 1993.
- Liska, D., Brennan, N., and Bruen, B.: *State-Level Databook on Health Care Access and Financing*. 3rd Edition. Washington, DC. Urban Institute Press, 1998.
- Moon, M., Brennan, N., and Segal, M.: Options for Aiding Low Income Beneficiaries. *Inquiry* 35(3):346-356, Fall 1998.
- Prospective Payment Assessment Commission: *Medicare and the American Health Care System: Report to Congress*. Washington, DC. June 1995.
- Prospective Payment Assessment Commission: *Medicare and the American Health Care System: Report to Congress*. Washington, DC. June 1996.
- Prospective Payment Assessment Commission: *Interim Report on Payment Reform for PPS-Excluded Facilities*. Technical Report Series: Congressional Report C-92-05. Washington, DC. October 1992.
- Wennberg, J., and Gittelsohn, A.M.: Small Area Variations in Health Care Delivery. *Science* 182(117):1102-1108, 1973.

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