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Health Spending By State 1991–2014: Measuring Per Capita Spending By Payers And Programs

ABSTRACT As the US health sector evolves and changes, it is informative to estimate and analyze health spending trends at the state level. These estimates, which provide information about consumption of health care by residents of a state, serve as a baseline for state and national-level policy discussions. This study examines per capita health spending by state of residence and per enrollee spending for the three largest payers (Medicare, Medicaid, and private health insurance) through 2014. Moreover, it discusses in detail the impacts of the Affordable Care Act implementation and the most recent economic recession and recovery on health spending at the state level. According to this analysis, these factors affected overall annual growth in state health spending and the payers and programs that paid for that care. They did not, however, substantially change state rankings based on per capita spending levels over the period.

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The State Health Expenditure Accounts produced by the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary provide insight into the diverse patterns of health spending in the states. Because they offer a multidimensional picture of health sector trends at the level at which health care is provided and consumed, they are widely used and cited in research. Additionally, data on state health expenditures can serve as a baseline for state- and national-level policy discussions in the context of health-sector reform. This article presents key highlights from the latest update of the data set, which now extends from 1991 through 2014.

Several developments that are important to the health sector occurred in the most recent historical period (2010–14) and have been previously discussed in the context of national health spending.[1] The most comprehensive was the implementation of the Affordable Care Act (ACA), which included a major expansion of health insurance coverage through Medicaid[2] and private health insurance Marketplaces in 2014. The period was also strongly influenced by the most recent economic recession and extended modest recovery, which had a dampening effect on private health insurance spending growth. Finally, the oldest members of the baby-boom generation reached Medicare eligibility starting in 2011—a development that has increased Medicare enrollment growth and has also changed the age mix within the Medicare population.

As was the case with the results at the national level, this study finds that the state-level impacts of these recent developments tend to be more evident in underlying spending trends by payer, rather than in aggregated personal health care spending trends. Consequently, the state rankings based on per capita spending levels did not change substantially between 2009 and 2014. However, annual growth in personal health care spending by payer varied by state depending on how a state implemented the ACA coverage expansions and the extent to which the recession and recovery affected states differentially. In addition, the full effect of the ACA coverage

expansions on insurance coverage and health spending extended beyond 2014;[1,3] accordingly, only the first-year impacts are assessed with these data at the state level.

Study Data And Methods

The State Health Expenditure Accounts are a subcomponent of the National Health Expenditure Accounts (NHEA), the official government estimates of health spending in the United States. These state-level estimates are derived with consistent data sources and methods in accordance with the NHEA classification and methodological framework, and they are comprehensive over the time period covered—features that allow for analysis of state-specific trends over time.

State health expenditures are measured at the personal health care level, which reflects all health care goods and services consumed but excludes other components of national health care expenditures, such as government administrative costs, the net cost of private health insurance, government public health activity, and investment (including investment in structures and equipment and noncommercial research). The state health expenditure data also include estimates of Medicare, Medicaid, and private health insurance spending. Other payers and programs, including out-of pocket payments by households, are included in the estimates of total personal health care by state but are not estimated separately.

The estimates are derived in a largely top-down fashion and in two main steps. First, total spending for personal health care from the most recent historical NHEA is disaggregated by state using the quinquennial Economic Census Geographic Area Series and other state-level data sources that capture or proxy health spending provided within a given state.[4] For the major payers of health care (Medicare, Medicaid, and private health insurance), program, survey, and plan cost data are used to allocate spending for each category by state.[4]

Because most of these estimates capture health care provided within each state, including services rendered to both state residents and nonresidents, the second step of this method reallocates spending to the state residence of the patient (where applicable), to permit comparisons of per capita health spending across states.[4] Medicare fee-for-service claims, private hospital inpatient discharges, and private physician claims are the key data sources used to measure and adjust for interstate flows of health spending.[4] Because of data limitations, the State Health Expenditures Accounts comprise health spending incurred within the United States only, by both US residents and non-US residents. Finally, the US census resident population does not include an adjustment for the population undercount by state—an exclusion that results in slightly inflated per capita spending, but this overstatement does not materially affect the findings.

This analysis of State Health Expenditure Accounts data employs both descriptive and multivariate regression-based approaches. The models provide further context for the key state-level demographic, macroeconomic, health status, and health care market factors affecting per capita personal health care spending levels by state.[5,6] These factors are discussed in the context of this study's major findings.

Study Results

KEY TRENDS BY STATE In 2014, state-level per capita personal health care spending ranged from $5,982 in Utah to $11,064 in Alaska—a nearly twofold difference (Exhibit 1).[7] Compared to the national average ($8,045), per capita spending in Alaska was 38 percent higher, while spending in Utah was about 26 percent lower; they have been the lowest and highest, respectively, since 2012. From a regional perspective, states with spending that is higher than the national average tend to be located in the New England, Mideast, Great Lakes, and Plains regions (Exhibit 2). Variation in per capita personal health care spending by state tends to be associated with several factors. States that have relatively higher levels of personal income per capita, greater percentages of the population enrolled in Medicare or Medicaid, and more health care capacity tend to have relatively higher levels of health spending per capita.[6] On the other hand, states that have relatively higher rates of uninsurance tend to have relatively lower levels of health spending per capita.[6]

Over the period 2010–14, growth in per capita personal health care spending ranged from an average of 4.8 percent per year in Alaska to 1.9 percent per year in Arizona (Exhibit 1).[8] The national average growth rate during these years was 3.1 percent. In addition, there was clearly wide variation among the states between per capita spending levels and growth rates for 2010–14. For example, Massachusetts and Connecticut were among the states with the highest per capita spending levels, but their average annual growth rates in per capita spending for 2010–14 were among the lowest at 2.8 percent and 3.6 percent per year, respectively. In contrast, Georgia and Idaho exhibited per capita spending levels that were among the lowest

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EXHIBIT 1

Per capita personal health care spending and average annual changes in selected time periods, by region and state of residence, 2004–14

		Personal health care spending			Average annual change		
Region	**State**	**2009**	**2013**	**2014**	**2004–9**	**2010–13**	**2014**
United States		$ 6,892	$ 7,703	$ 8,045	5.2%	2.8%	4.4%
New England	Connecticut	8,740	9,517	9,859	5.8	2.2	3.6
	Maine	8,359	9,133	9,531	5.4	2.2	4.4
	Massachusetts	9,417	10,273	10,559	6.1	2.2	2.8
	New Hampshire	8,134	9,369	9,589	7.6	3.6	2.4
	Rhode Island	8,393	9,160	9,551	5.7	2.2	4.3
	Vermont	8,111	9,919	10,190	5.9	5.2	2.7
Mideast	Delaware	8,405	9,766	10,254	5.3	3.8	5.0
	District of Columbia	10,439	11,466	11,944	5.3	2.4	4.2
	Maryland	7,507	8,250	8,602	5.7	2.4	4.3
	New Jersey	7,727	8,444	8,859	5.3	2.2	4.9
	New York	8,542	9,351	9,778	5.0	2.3	4.6
	Pennsylvania	7,701	8,877	9,258	4.8	3.6	4.3
Great Lakes	Illinois	6,917	7,911	8,262	5.3	3.4	4.4
	Indiana	6,791	7,923	8,300	5.1	3.9	4.8
	Michigan	6,816	7,745	8,055	5.8	3.2	4.0
	Ohio	7,322	8,286	8,712	5.1	3.1	5.1
	Wisconsin	7,512	8,189	8,702	5.6	2.2	6.3
Plains	Iowa	6,946	7,806	8,200	4.9	3.0	5.1
	Kansas	6,764	7,429	7,651	4.7	2.4	3.0
	Minnesota	7,521	8,465	8,871	4.8	3.0	4.8
	Missouri	6,902	7,860	8,107	4.9	3.3	3.1
	Nebraska	7,193	8,133	8,412	5.5	3.1	3.4
	North Dakota	7,919	9,385	9,851	6.2	4.3	5.0
	South Dakota	7,335	8,547	8,933	6.0	3.9	4.5
Southeast	Alabama	6,325	6,996	7,281	4.0	2.6	4.1
	Arkansas	6,238	6,929	7,408	5.1	2.7	6.9
	Florida	7,134	7,688	8,076	5.0	1.9	5.0
	Georgia	5,513	6,249	6,587	4.0	3.2	5.4
	Kentucky	6,698	7,543	8,004	4.7	3.0	6.1
	Louisiana	6,958	7,487	7,815	6.0	1.8	4.4
	Mississippi	6,615	7,362	7,646	5.8	2.7	3.8
	North Carolina	6,533	7,027	7,264	4.9	1.8	3.4
	South Carolina	6,363	7,020	7,311	4.7	2.5	4.1
	Tennessee	6,499	7,106	7,372	4.1	2.3	3.8
	Virginia	6,452	7,306	7,556	6.0	3.2	3.4
	West Virginia	7,772	8,969	9,462	5.5	3.6	5.5
Southwest	Arizona	5,874	6,262	6,452	6.3	1.6	3.0
	New Mexico	6,214	6,860	7,214	6.7	2.5	5.2
	Oklahoma	6,504	7,293	7,627	5.4	2.9	4.6
	Texas	6,004	6,661	6,998	5.1	2.6	5.1
Rocky Mountains	Colorado	5,882	6,472	6,804	4.3	2.4	5.1
	Idaho	5,700	6,593	6,927	5.0	3.7	5.1
	Montana	6,701	7,994	8,221	5.7	4.5	2.8
	Utah	5,101	5,658	5,982	4.8	2.6	5.7
	Wyoming	6,972	7,961	8,320	5.7	3.4	4.5
Far West	Alaska	8,745	10,428	11,064	6.2	4.5	6.1
	California	6,210	7,256	7,549	5.6	4.0	4.0
	Hawaii	6,542	6,955	7,299	5.5	1.5	5.0
	Nevada	5,700	6,275	6,714	4.4	2.4	7.0
	Oregon	6,484	7,467	8,044	5.6	3.6	7.7
	Washington	6,838	7,609	7,913	5.8	2.7	4.0

SOURCES Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and Census Bureau.

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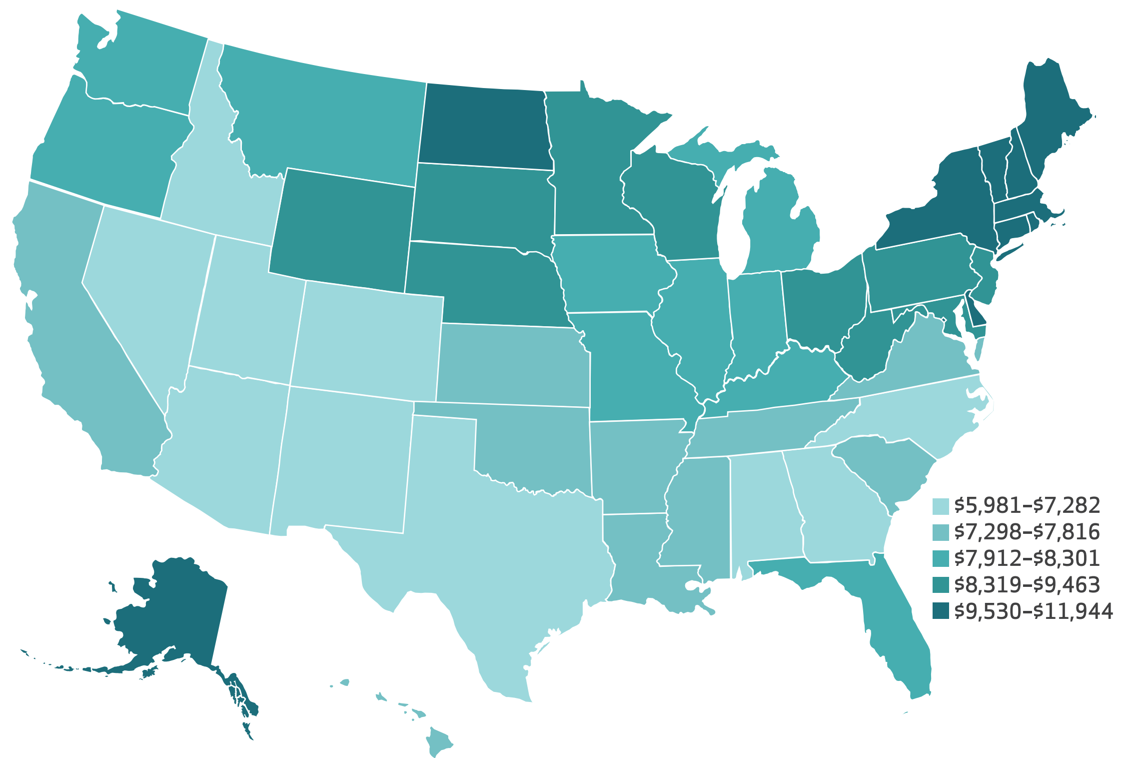
EXHIBIT 2

Per capita personal health care spending by state of residence, calendar year 2014



SOURCES Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and Census Bureau.

but per capita spending growth rates for 2010–14 that were among the highest.

The magnitude of the variation in per capita personal health spending levels across the states, measured as the ratio between the maximum and minimum per capita health spending levels, has remained relatively stable since 2009 at 1.8–1.9 (Exhibit 1). Relatively few states experienced average annual growth over the 2010–14 period that resulted in a large change in their rankings within the per capita spending distribution (data not shown). Oregon experienced the largest upward change in per capita spending rankings (from 37th to 28th during the period) with an average annual per capita spending growth rate of 4.4 percent that was the fourth-fastest over the period. Conversely, Louisiana (from 22nd to 31st) and North Carolina (from 34th to 42nd) experienced reductions in their rankings resulting from average annual per capita spending growth rates that were among the five slowest during 2010–14.

IMPACT OF THE FIRST YEAR OF COVERAGE EXPANSIONS The coverage expansions under the Affordable Care Act went into full effect in 2014; they were the main reason for the reduction in the uninsured by nearly nine million people that year.[1] Twenty-six states and the District of Columbia chose to expand eligibility for their Medicaid programs,[2] increasing enrollment by 6.3 million adults in 2014. In addition, the federal and state Marketplaces offered individuals private health insurance plans for direct purchase in all states, and the majority of the enrollees in those plans received advanced premium tax credits and cost-sharing reductions. On net, private health insurance enrollment increased by 4.7 million in 2014. States that expanded Medicaid accounted for over half (5.6 million) of the total reduction in the number of uninsured people in 2014.

Most states experienced some acceleration in per capita personal health care spending growth from 2013 to 2014, in part because of the coverage expansions through Medicaid and the Marketplaces. However, growth rates for this spending in Medicaid expansion and nonexpansion states were similar, at 4.4 percent and 4.5 percent, respectively (Exhibit 3). Of the twenty-six states that experienced per capita spending growth above the national average, fourteen expanded their Medicaid programs. States with per capita spending growth rates below the national average were nearly evenly split between

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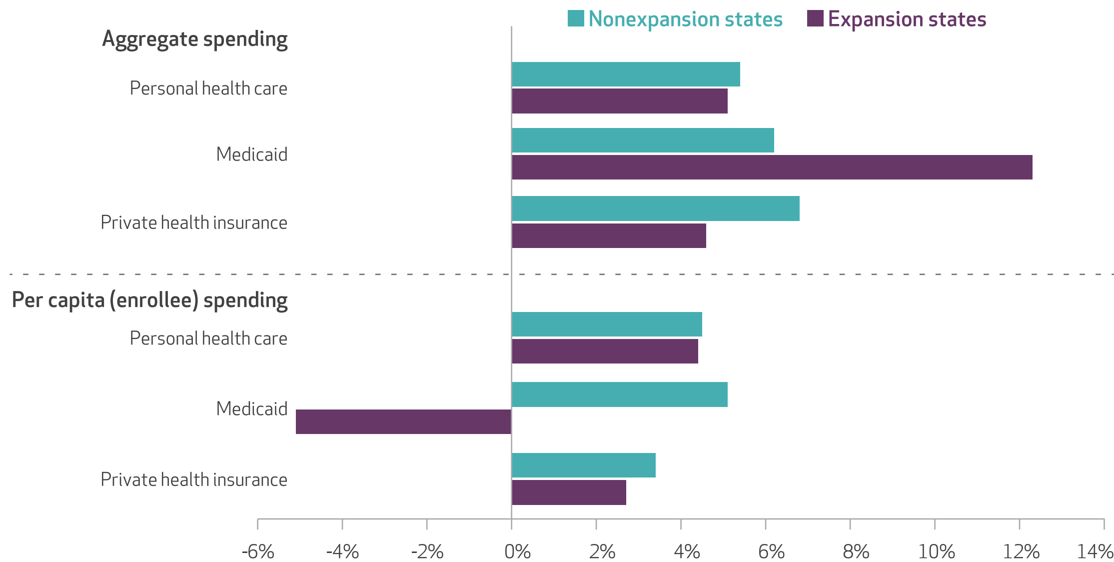
EXHIBIT 3

Growth in personal health care, Medicaid, and private health insurance spending from 2013 to 2014, by Medicaid expansion status as of December 31, 2014



SOURCES Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and Census Bureau.

Medicaid expansion (eleven states and the District of Columbia) and nonexpansion (thirteen states). The similarity in aggregate per capita spending growth in expansion and nonexpansion states in 2014 is a result of two key effects: faster growth in utilization in expansion states relative to nonexpansion states because of larger increases in percentage insured in expansion states, and faster growth in spending per insured person in nonexpansion states relative to expansion states.

State-specific impacts of the ACA coverage expansions are most evident in the underlying trends for Medicaid and private health insurance spending by state. In states that expanded coverage, total Medicaid spending increased 12.3 percent from 2013 to 2014, compared with 6.2 percent in states that did not expand Medicaid (Exhibit 3). Per enrollee[9] Medicaid spending, however, declined considerably in expansion states (–5.1 percent) in 2014 but increased 5.1 percent in nonexpansion states. Trends in per enrollee Medicaid spending can be attributed to the coverage expansion, which increased the share of relatively less expensive enrollees relative to the previous Medicaid beneficiary population mix in expansion states (data not shown). Adult enrollees, whose per enrollee spending is 70 percent lower than spending for disabled enrollees and 62 percent lower than spending for aged enrollees,[10] accounted for just 17 percent of total Medicaid enrollment in nonexpansion states but 43 percent in states that expanded coverage (up from 32 percent in 2013).[9] In contrast, the more costly disabled enrollees accounted for 30 percent of total Medicaid enrollment in nonexpansion states and just 20 percent in expansion states in 2014.[9] Children—the least costly eligibility group—had per enrollee spending that was 43 percent lower than that of the adult expansion population and represented a much higher share of total enrollment in nonexpansion states (53 percent) than in expansion states (37 percent) in 2014.[9,10]

For private health insurance, however, aggregate spending grew more rapidly in states that did not expand Medicaid eligibility by 2014 than in states that did, at rates of 6.8 percent and 4.6 percent, respectively (Exhibit 3). A majority of this difference reflects faster private health insurance enrollment growth in nonexpansion states (3.2 percent) compared to that for expansion states (1.9 percent) (data not shown). This more rapid growth was caused, in part, by enrollment in Marketplace plans, as nonexpansion states accounted for 53.4 percent of Marketplace enrollment but 45.5 percent of overall private health insurance enrollment in 2014. Per enrollee, the growth rate for private health insurance spending in 2014 also increased more rapidly for nonexpansion states (3.4 percent) than for expansion states (2.7 percent) (Exhibit 3). This faster growth was partially attributable to per person spending for enrollees in the Marketplaces that was higher than spending for

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non-Marketplace individual coverage.[11]

From a distributional perspective, between 2013 and 2014 there were relatively minor changes in the variation in total per capita personal health care spending levels, as well as in the rankings of states by those spending levels. The growth rate in per capita personal health care spending in 2014 was highest in Oregon (7.7 percent) and lowest in New Hampshire (2.4 percent)—a threefold difference that was consistent with the ratio observed for Vermont and Hawaii, the states with the highest and lowest per capita spending growth during the 2010–13 period (Exhibit 1). Of particular interest regarding Oregon and New Hampshire, however, is that both expanded Medicaid in 2014, which suggests that other factors also contributed to the relative differences in growth rates. For Oregon, the high per capita growth is attributed to very high total Medicaid spending and enrollment growth rates (46.9 percent and 53.8 percent, respectively), as well as strong spending growth rates for aggregate hospital services (10.1 percent) and retail prescription drugs and other nondurable medical products (13.2 percent) (data not shown). The low growth in New Hampshire is due to that state's midyear expansion of Medicaid and slower spending growth rates for aggregate hospital services (3.1 percent), physician and clinical services (2.9 percent), and retail prescription drugs and non-durable medical products (6.4 percent) (data not shown).

IMPACT OF THE RECESSION AND RECOVERY The most recent economic recession, which ended in 2009, and the subsequent modest rate of recovery had a substantial and sustained effect on health spending and health insurance coverage in the years that followed.[12] For 2010–13, per capita personal health spending grew at a rate of 2.8 percent per year, on average—substantially slower than 5.2 percent per year, on average, for 2004–09 (Exhibit 1). Loss of employment and related loss of income and private health insurance coverage led to faster growth in Medicaid enrollment and in the number of uninsured people.[13]

During 2010–13, the average deceleration across the states was 2.3 percentage points compared to the 2004–09 period, and every state experienced a deceleration in per capita spending growth of at least 0.8 percentage point (Exhibit 1). Vermont experienced the fastest per capita spending growth rate over the 2010–13 period (5.2 percent per year), though this represented a 0.8-percentage-point deceleration compared to the prior period. The growth rate was lowest in Hawaii, at 1.5 percent per year, 3.9 percentage points slower than in the prior period. Arizona experienced the largest deceleration in growth (4.7 percentage points).

During 2010–13, every state experienced a deceleration in per capita spending growth compared to the 2004–09 period.

At the national level, a strong relationship between income and health spending has been consistently observed, which points to cyclical factors underlying the slowdown in health care spending growth.[14] In line with these findings, regression analysis of per capita personal health care spending at the state level also suggests a strong positive relationship between that spending and per capita income. Moreover, regional patterns in income alone explained nearly 60 percent of the variation in personal health care spending by state over the period 1991–2014 (they explained more than 80 percent if a time trend was also considered as part of the model specification).[6] Further, in the period following the most recent recession, incremental annual regression analysis showed that economic factors such as per capita personal income and the uninsurance rate by state (which are both closely tied to regional unemployment rates) became more significant and explained an increasing share of the variation in health spending.[6]

As a result, regions that experienced the largest slowdowns in average personal income per capita by state also experienced some of the largest slowdowns in personal health care spending per capita during the recession, and vice versa as the economy began to recover. From 2007 to 2009, the regions with the largest decelerations in per capita personal income growth (Far West and Rocky Mountains) also experienced the most significant slowdowns in per capita personal health care spending growth (Exhibit 4). From 2009 to 2013, however, the opposite was true, as the Far West and Rocky Mountains experienced the fastest acceleration in per capita income growth and were the regions with the smallest deceleration in per capita health spending growth. California (in the Far West) experienced the fifth-highest average annual growth rate in per capita personal health care spending over the

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2010–13 period (4.0 percent) and the sixth-highest average annual growth rate in per capita personal income (3.8 percent). As a result, California had one of the largest changes in the per capita ranking (from 43rd in 2009 to 36th in 2013) (data not shown).

Conversely, the New England, Mideast, and Southeast regions experienced the slowest per capita personal income growth during 2010–13, and they were the slowest-growing regions in per capita personal health care spending. Of note in these regions were Massachusetts, New York, and Florida—the states with the most total spending in these respective regions—all of which were among the slowest growing in per capita personal health care spending and all of which experienced some reduction in their per capita spending rankings over this period (data not shown).

MEDICARE SPENDING Unlike private health insurance and Medicaid, Medicare coverage was not affected by the ACA coverage expansions in 2014 and was likely less affected by the recession because of its universal coverage based on eligibility requirements.[15] US average Medicare per enrollee spending was $10,986 in 2014 (Exhibit 5). This spending was highest in New Jersey at $12,614 (15 percent higher than the national average), while it was lowest in Montana at $8,238 (25 percent below the US average). Thus, spending per enrollee varied by 53 percent between the highest- and lowest-spending states, a narrower range than in 2009 (when there was a 60 percent difference). According to published research, factors influencing the variation in Medicare spending include the average age of the population; health status; relative cost of living; and differences in socioeconomic status, demographic characteristics, and provider practice patterns.[16,17]

During 2010–14, Medicare spending per enrollee increased at an average annual rate of 1.2 percent across the United States (Exhibit 5). North and South Dakota had the highest increases in average per enrollee Medicare spending growth rates at 4.1 percent and 3.1 percent per year, respectively. This growth caused per enrollee Medicare spending for North Dakota to rise in ranking from 48th highest in 2009 to 35th highest in 2014 ($9,461), and it caused such spending for South Dakota to increase from 46th highest to 39th highest ($9,315). For both states, growth in per enrollee Medicare hospital spending was strong from 2010 to 2014, increasing at rates of 5.7 and 4.6 percent, respectively, compared with just 0.3 percent nationally (data not shown). In no other state was this growth rate above 2.8 percent per year during this time period.

EXHIBIT 4

Per capita personal health care spending and personal income, by region, level and growth rate, calendar years 2007, 2009, and 2013

Region	Personal health care spending			Personal income		
	2007	2009	2013	2007	2009	2013
United States	$6,370	$6,892	$7,703	$39,821	$39,376	$44,493
New England	8,087	8,903	9,807	49,201	50,537	55,517
Mideast	7,468	8,068	8,964	46,178	46,227	52,227
Great Lakes	6,488	7,051	8,005	37,187	36,826	42,054
Plains	6,593	7,126	8,054	37,896	38,560	44,380
Southeast	6,097	6,572	7,232	36,259	35,595	39,066
Southwest	5,540	6,043	6,666	36,050	35,779	41,706
Rocky Mountains	5,415	5,790	6,493	37,760	36,244	42,154
Far West	5,856	6,327	7,302	42,793	41,414	47,259
	Growth from prior period shown[a]					
	2007	2009	2013	2007	2009	2013
United States	6.4%	4.0%	2.8%	3.8%	−0.6%	3.1%
New England	7.1	4.9	2.4	4.0	1.3	2.4
Mideast	6.4	3.9	2.7	4.0	0.1	3.1
Great Lakes	6.6	4.3	3.2	3.0	−0.5	3.4
Plains	6.3	4.0	3.1	3.9	0.9	3.6
Southeast	6.1	3.8	2.4	4.1	−0.9	2.4
Southwest	6.4	4.4	2.5	4.2	−0.4	3.9
Rocky Mountains	6.2	3.4	2.9	3.8	−2.0	3.8
Far West	7.0	3.9	3.6	4.0	−1.6	3.4

SOURCES Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; Census Bureau; and Bureau of Economic Analysis as of March 2017. [a]Growth for 2007 is average annual rate change from 2000.

Louisiana had the slowest annual average growth rate in per enrollee Medicare spending during 2010–14 at just 0.2 percent—nearly a percentage point slower than the national average (Exhibit 5). As a result, Louisiana's ranking based on per enrollee Medicare spending fell from the 3rd highest level in 2009 to the 9th highest in 2014 (when it amounted to $11,811). While the growth in per enrollee Medicare spending for physician and clinical services and hospital services in Louisiana was slow during this time period, also contributing was a 3.4 percent decline in the state's per enrollee home health care spending from 2010 to 2014 compared with a 0.5 percent decline in national home health care spending during these years (data not shown).

Nationally, for 2012–13, Medicare per enrollee spending experienced slow growth that can be partly attributed to a combination of payment reductions and policies put in place by the Affordable Care Act and budget sequestration.[12] This was also the period when the first baby boomers became eligible for Medicare; accordingly, enrollment increased at relatively faster rates, and per enrollee Medicare spending in-

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EXHIBIT 5

Per enrollee Medicare, Medicaid, and private health insurance (PHI) personal health care spending and average annual percentage change, by region and state of residence, calendar year 2014

		Personal health care spending			Average annual change, 2010–14		
Region	**State**	**Medicare**	**Medicaid**	**PHI**	**Medicare**	**Medicaid**	**PHI**
United States		$10,986	$ 6,815	$4,551	1.2%	0.0%	3.3%
New England	Connecticut	11,964	8,058	5,187	1.6	−5.7	2.5
	Maine	9,325	7,504	5,015	1.5	−1.1	4.2
	Massachusetts	11,899	8,922	5,302	1.2	−5.6	3.9
	New Hampshire	9,397	9,129	4,880	1.8	−2.3	1.3
	Rhode Island	10,901	10,934	4,620	1.5	0.2	1.6
	Vermont	9,231	7,917	5,313	1.7	2.4	3.9
Mideast	Delaware	11,460	6,921	4,806	2.0	1.1	2.7
	Dist. of Columbia	11,814	8,998	8,831	1.0	−3.4	2.8
	Maryland	12,000	7,677	4,343	1.1	−1.9	2.4
	New Jersey	12,614	8,049	5,081	1.2	−5.4	5.2
	New York	12,179	9,803	5,338	1.0	−1.5	3.3
	Pennsylvania	11,243	9,407	4,634	1.2	3.2	4.2
Great Lakes	Illinois	11,116	4,959	4,875	1.0	−3.5	2.9
	Indiana	10,714	8,285	4,078	1.8	5.7	2.0
	Michigan	11,318	5,915	3,950	0.8	1.4	0.4
	Ohio	11,038	7,007	4,371	1.4	−1.1	3.5
	Wisconsin	9,608	7,057	5,159	1.7	0.1	2.1
Plains	Iowa	9,317	6,702	4,076	2.3	−0.5	2.1
	Kansas	10,126	6,736	4,855	1.7	−3.3	6.9
	Minnesota	9,917	9,176	4,603	2.2	−1.3	3.7
	Missouri	10,457	9,413	4,354	1.6	1.6	2.8
	Nebraska	9,956	7,964	4,536	2.0	−0.5	4.0
	North Dakota	9,461	12,413	4,410	4.1	5.1	4.2
	South Dakota	9,315	7,056	4,335	3.1	0.4	4.1
Southeast	Alabama	10,267	5,042	3,641	1.1	−0.4	0.9
	Arkansas	9,479	6,108	3,906	1.3	1.0	3.1
	Florida	12,229	5,175	4,606	0.5	−0.7	4.0
	Georgia	10,429	5,199	4,406	1.2	1.9	4.0
	Kentucky	10,368	7,016	4,551	1.6	−0.2	2.8
	Louisiana	11,811	6,281	4,420	0.2	−0.1	4.2
	Mississippi	11,021	6,690	4,045	0.7	2.8	3.2
	North Carolina	10,260	7,225	3,859	1.1	−0.6	0.4
	South Carolina	10,298	5,491	4,235	1.4	−3.3	3.0
	Tennessee	10,371	5,677	4,680	0.7	2.3	4.3
	Virginia	9,677	7,361	4,218	2.1	1.0	4.8
	West Virginia	10,268	6,557	3,917	2.1	−0.8	2.7
Southwest	Arizona	10,096	6,032	4,035	1.4	1.5	2.1
	New Mexico	8,663	5,445	4,155	1.3	−2.9	3.4
	Oklahoma	10,429	6,529	3,878	1.0	1.2	2.3
	Texas	11,895	7,273	4,696	0.7	2.1	4.1
Rocky Mtn.	Colorado	9,287	7,143	4,623	1.3	0.5	4.4
	Idaho	8,737	7,069	3,560	2.3	0.0	2.5
	Montana	8,238	9,378	3,882	2.1	−0.4	4.5
	Utah	9,084	6,484	3,657	1.8	−0.8	3.9
	Wyoming	9,050	7,698	4,957	2.5	−0.7	3.4
Far West	Alaska	9,288	12,001	5,958	1.5	1.2	3.5
	California	11,833	5,368	4,735	1.5	3.5	4.6
	Hawaii	8,592	6,087	4,222	2.2	2.2	3.0
	Nevada	10,796	5,484	3,417	2.1	−1.5	−3.6
	Oregon	8,942	7,185	4,232	1.6	−1.3	0.8
	Washington	8,997	5,851	4,328	1.3	−0.2	1.4

SOURCES Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and Census Bureau.

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The ratio between the maximum and minimum per capita spending levels remained virtually unchanged during 2009–14.

creased at modest rates, as the average age of the Medicare population became younger. Per enrollee Medicare spending increased at a rate of 0.3 percent nationally over the period 2012–13, with eleven states experiencing negative per enrollee Medicare growth rates during these years (Louisiana had the lowest at −1.5 percent) and only two states (North Dakota and Montana) experiencing growth rates above 2 percent (data not shown).

For 2014, faster growth in Medicare per enrollee spending was affected in part by increased use of prescription drugs, which was attributable to the use of expensive specialty drugs, including those used to treat hepatitis C.[12] Per enrollee Medicare spending growth rates for prescription drugs and other nondurable medical products increased, on average, 10 percent nationally, with growth rates above 15 percent in Colorado, Maryland, and South Carolina (data not shown).

Conclusion

The health sector experienced substantial change during the period 2010–14. Concurrent with the lagged impact of a severe recession and extended modest recovery, the enactment and implementation of comprehensive health reform legislation affected not only coverage for health care but also its financing and delivery. Additionally, the baby-boom generation began to enroll in Medicare—a notable demographic shift both for the nation as a whole and for the Medicare population itself.

As we have demonstrated, by using data from the State Health Expenditure Accounts to compare state-specific trends for overall personal health care spending and for spending by the major health care payers, it is possible to evaluate how state-level total and per person spending, spending growth, and measures of spending variation changed from 2009 through 2014. Over this period, clear state-specific impacts can be observed with regard to amounts of spending by payer and rates of spending growth because of economic and health-sector factors. Still, despite significant effects on the availability of, and enrollment in, health insurance and on the resources devoted to health care, the variation in overall health care spending by state, measured as the ratio between maximum and minimum per capita health spending levels, remained virtually unchanged during these years. As a result, there was minimal movement in the relative rankings of overall per capita health spending by state.

Notably, however, this article covers only the first-year impacts of the Affordable Care Act coverage expansions. Future vintages of state health expenditure data will permit further evaluation of state-level health spending experiences beyond 2014, as coverage continues to expand and economic factors continue to evolve. ■

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NOTES

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7 Because spending within the District of Columbia tends to be an outlier compared to the states, it is excluded from our descriptive and econometric analysis of health spending variation. For more information, see Cuckler G, Martin A, Whittle L, Heffler S, Sisko A, Lassman D, et al. Health spending by state of residence, 1991–2009. Medicare Medicaid Res Rev. 2011;1(4):E1–31.

8 These growth rates are calculated based on the spending level of the prior year shown in the exhibits. For example, the 2010–14 growth rate for Alaska is based on the 2014 and 2009 levels. This captures the growth that occurred for all years in the 2010–14 period.

9 Medicaid enrollment is based on unpublished analysis by the CMS Office of the Actuary of data from the Medicaid Analytical eXtract (MAX) for the nonexpansion population and from the CMS-64 Quarterly Expense Reports for the expansion population; enrollment was estimated for the nonexpansion population when MAX data were not available.

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