



How Will the Affordable Care Act Affect the Use of Health Care Services?

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Abstract In January 2014, the Affordable Care Act extended access to health insurance coverage to an estimated 30 million previously uninsured people. This issue brief provides state-level estimates of the increased demand for physician and hospital services that is expected to result from expanded access and assesses the sufficiency of the existing supply of providers to accommodate the anticipated increase in demand. We project that primary care providers will see, on average, 1.34 additional office visits per week, accounting for a 3.8 percent increase in visits nationally. Hospital outpatient departments will see, on average, 1.2 to 11.0 additional visits per week, or an average increase of about 2.6 percent nationally. Increases of the magnitude likely to be generated by the Affordable Care Act will have modest effects on the demand for health services, and the existing supply of providers should be sufficient to accommodate this increased demand.

OVERVIEW

Since January 2014, some 11 million formerly uninsured Americans have gained health insurance coverage under the Affordable Care Act (ACA).¹ In addition to providing financial protection against high health care costs, the law should improve access to care, though this will depend partly on the availability of health services. This issue brief examines the expected new demand for health services in each state as a result of the ACA's coverage expansion and draws inferences about the capacity of the health care workforce to meet the new demand.

Most analysts anticipate that the insurance expansions will not lead, in the aggregate, to substantial strains on the health care delivery system. The Centers for Medicare and Medicaid Services' Office of the Actuary projects an increase of about 2.1 percent in aggregate health spending, with larger increases in prescription drug spending and smaller increases in inpatient care spending.² Studies of the impact on use of certain services, mainly primary care, indicate that the coverage expansions are likely to lead to between 15 million and 26 million additional primary care visits annually and these studies project that between 4,300 and 7,200 additional primary care physicians will be needed to meet these new demands.^{3,4,5} The health law's effects on demand will likely vary substantially by state, as the number of people gaining health coverage and the supply of physicians both vary by state.

Most earlier analyses assumed that the primary care physician supply is currently fully utilized, so that new demand would require new resources to maintain

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access to care. But newer research demonstrates that the intensity of health service use varies considerably across the United States. The Dartmouth Atlas of Health Care shows, for example, that only 60 percent of Medicare beneficiaries in the Bronx, N.Y., saw a primary care physician in the preceding year, compared with about 90 percent of beneficiaries in Florence, S.C.⁶ Moreover, provider supply is not correlated with consumers' access to care, as evidenced by the large and persistent variations in waiting times for physician appointments among U.S. cities.⁷

Part of the reason for this disconnect between supply and access is that differences in how health care systems are organized across localities and regions substantially mediate variations in physician supply. For example, compared with a solo practitioner, a physician working in a group practice can see 12.2 percent more patients, in part by utilizing nonphysician health professionals on staff or electronic health record–enabled communication.^{8,9} Patient-centered medical homes and nurse-managed health centers also can offer expanded access to care, holding physician supply constant.¹⁰

Our study, which draws from the Medical Expenditure Panel Survey and findings from previously published studies, provides new estimates of the ACA's likely impact on utilization of health services, including primary care, medical and surgical specialty services, pharmaceuticals, and inpatient and outpatient hospital services. We then compare these demand estimates with measures of supply and compute the likely rates of new patient visits per provider. Finally, we assess the relationship between the supply of physicians and access to care. (For more about the study's design, see the box on the opposite page and "[Appendix. Study Methodology in Detail](#)" on page 7.)

FINDINGS

Impact on Utilization Will Be Nominal

Our analysis indicates that the ACA is expected to result in roughly 20.3 million additional primary care visits nationally, with people newly insured through the marketplaces accounting for more than a third of these visits, or about 3.8 percent above base ([Table A](#)). Emergency room visits by the newly insured are predicted to increase by 1.1 million, with those gaining Medicaid coverage accounting for more than two-thirds of these visits ([Table C](#)).

Overall, our projected increases in health care utilization are small. Only 17 states are expected to experience increases in primary care visits that exceed 4 percent, and only seven states are expected to see increases of greater than 5 percent; the U.S. average is expected to be 3.8 percent ([Table A](#)). The ACA's impact on medical and surgical specialty services is projected to be even more modest, with increases in medical and surgical specialty use projected to range from less than one-half of 1 percent in Massachusetts to just under 2 percent in New Mexico ([Table B](#)). Projected increases in outpatient service use are similar to those for primary care services. With the exception of six states, the vast majority of the country is expected to experience increases in outpatient care utilization of no more than 4 percent ([Table C](#)).

The ACA is also expected to bring about very modest increases in prescription drug use. In all but two states (New Mexico and Oregon) increases in prescription drug use are expected to be below 2.5 percent. Increases in inpatient service use will likely vary considerably across states, with the West experiencing a 4 percent average increase, compared with a 3.4 percent increase in the South and a 2 percent increase in the Northeast ([Table C](#)).

HOW WE DESIGNED THIS STUDY

Our findings on the impact of the ACA expansion on health care use and resource supply are best understood in light of how we structured our study. We conducted separate analyses for the newly insured who gained coverage under the ACA's Medicaid expansion and those who gained coverage in the ACA's health insurance marketplaces, as these populations differ demographically and in their use of care. (We assumed that all states participate in the Medicaid expansion, even though several states have not moved forward with this expansion. Therefore, our estimates incorporate a larger increase in service utilization than is currently likely.) Our projections are based on analyses of the experience of previously uninsured people who obtained coverage at some point between 2006 and 2010.

We also account for the likely difference in utilization between people who moved from uninsurance to insurance in the past and those who gain eligibility under the ACA. Many people who formerly gained access to Medicaid did so because they were already ill and had been admitted to a hospital that then enrolled them in coverage; many women gained coverage because of pregnancy. The population gaining coverage under the Affordable Care Act is likely to be relatively healthier and to use less inpatient care than previously. To account for this potential bias, we calibrated our estimates against the estimates of Finkelstein et al. from the Oregon Medicaid experiment.¹¹ It is less clear how the marketplace population differs from those who gained coverage in the past. Historically, some people who gained access to group insurance may have done so in anticipation of future health needs, resulting in a less healthy population of newly insured individuals compared with those enrolled under the ACA because of the mandate to enroll and subsidies provided. At the same time, some of those who will be eligible under the ACA for nongroup coverage would have been denied such coverage in the prior unregulated market, making the new nongroup risk pool sicker than in the past.

Additionally, our projections of increased visits are aggregated by type of services and settings: primary care, including internal medicine, family practice, and pediatric care (Table A); specialty care, including ob/gyn, psychiatric, medical specialty, and surgical services (Table B); and other services (emergency room, outpatient, inpatient, and prescription drugs) (Table C).

Projected Additional Visits per Doctor Will Vary Across States

Exhibit 1 illustrates how the ACA will affect the average number of primary care visits per primary care physician (including doctors in community health centers) across the states. The map on the left shows these ratios in 2010 before ACA's implementation, while the map on the right, which combines pre-ACA figures with figures for the projected visit increase, shows the ratios following ACA implementation.

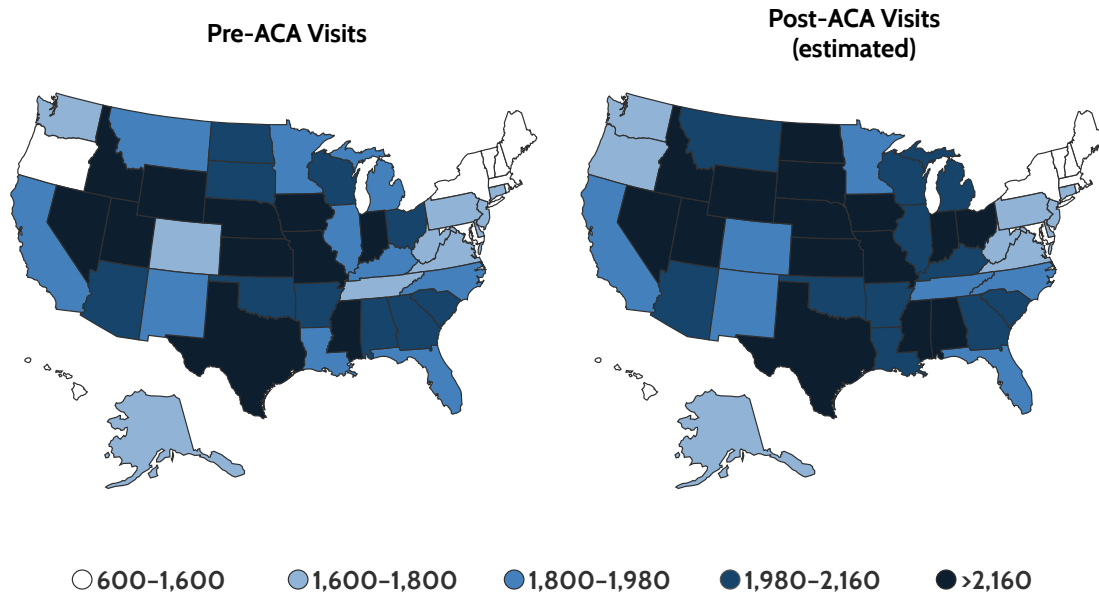
Baseline visit rates vary substantially across regions. States in the Northeast (including Maine, Massachusetts, New York, and Vermont) have the fewest visits per primary care doctor, with doctors averaging around 1,500 visits annually. Colorado and California, with about 1,800 visits a year, also have relatively low visit-per-doctor ratios. States in the South and Midwest and in the West and Southwest have higher visit-per-doctor ratios. Utah's visit-per-doctor ratio prior to ACA implementation was the highest, at 2,488; this is projected to rise to nearly 2,600, once the law is fully implemented.

A comparison of states pre- and post-ACA suggests that only a few will see noticeable increases in visits after the ACA expansions take full effect. The law's impact on primary care visits is projected to vary substantially by region, with states in the Northeast expected to experience the smallest rise. Seven states are projected to experience increases in primary care visits per doctor per year that exceed 100, or between 2.1 and 2.7 additional visits per week.

Table D details, by physician and service type, the anticipated number of new visits per provider per week across types of providers. On average, the expansion forecast is for roughly 70 additional visits annually for a primary care physician, or 1.34 visits a week.

Most specialties will see much smaller weekly increases in use by comparison. Some new utilization is expected to occur in hospital outpatient departments. The largest increases are expected in the South and West, where these regions' outpatient departments are expected to see growth of about 5.7 and 7.3 visits a week per outpatient department, respectively.

Exhibit 1. Visits per Primary Care Physician, Pre- and Post-Affordable Care Act



Notes: Ratios calculated by dividing the number of visits (pre-ACA and estimated post-ACA from MEPS) by the supply of doctors in each state (denominator reflects number of total primary care physicians, not full-time equivalents).

Source: Physician supply data from AHRQ, "The Number of Practicing Primary Care Physicians in the United States," and primary care visit data calculated from the Medical Expenditure Panel Survey (MEPS).

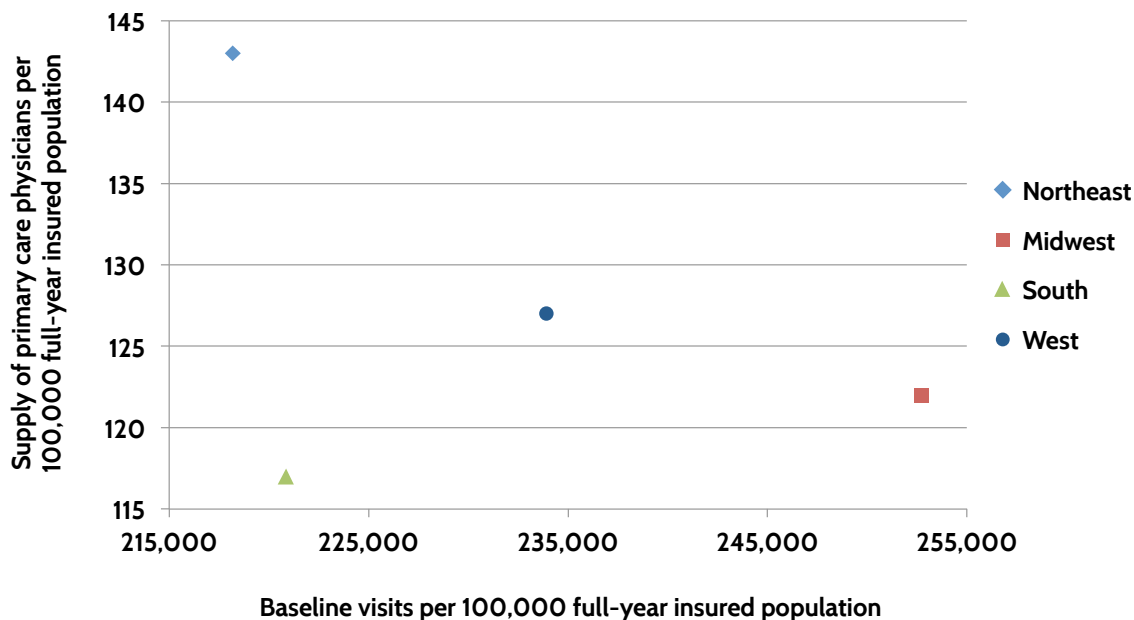
Physician Supply Does Not Predict Primary Care Access

Increases in visits per provider, such as those projected above, may not lead to worse access to care. As Exhibit 1 shows, rates of primary care visits per physician varied considerably before implementation of the ACA. Across states, however, high rates of primary care visits per physician did not always reflect low physician supply, since utilization rates depend on both the supply of doctors and the rate at which people use their services (Exhibit 2). Visits per doctor are lowest in the Northeast, both because this region has the highest supply of primary care doctors (though many may be part-time) and because insured residents of these states make the fewest visits to primary care doctors annually.

The high ratios of visits per primary care doctor observed in Midwestern states, such as Indiana, by contrast, occur both because people in this region use more primary care and because primary care supply is relatively low.

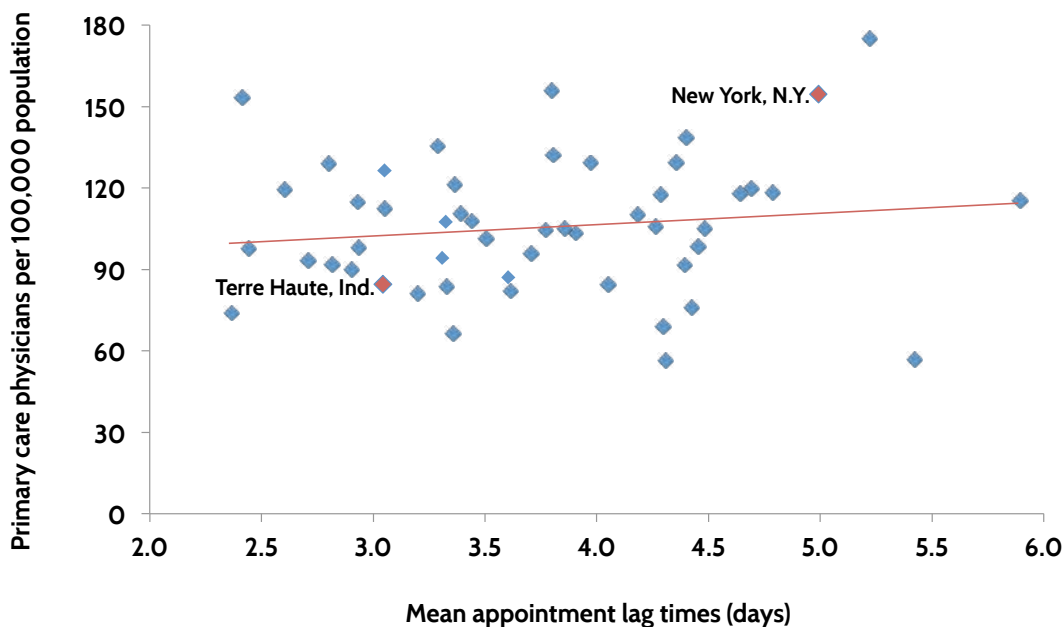
Visits per primary care physician, in turn, do not translate directly into variations in access to care, because of differences in utilization patterns and in the organization of medical practice. Paradoxically, delays in gaining access to primary care are systematically greater, not fewer, in areas with more primary care doctors. The delay between seeking care and getting an appointment is generally shorter in the South than in the Northeast or West, and substantially shorter in Indiana than in New York (Exhibit 3). These results, drawn from a large dataset in 2003, are consistent with a more recent study examining waiting times and physician supply in 2012.¹²

Exhibit 2. Regional Variation Pre-Affordable Care Act in the Ratio of Baseline Visits per Primary Care Physician and the Per Capita Supply of Primary Care Physicians, 2010



Source: 2010 Medical Expenditure Panel Survey (MEPS); AHRQ "Number of Practicing Primary Care Physicians in the United States."

Exhibit 3. Variation in Mean Appointment Lag Times and the Supply of Primary Care Physicians per 100,000 Population, 2003



Notes: Analysis at the county level. Wait-time data are truncated at 21 days.
 Source: The 2003 Community Tracking Study's Household Survey, Physicians Characteristics and Distribution in the United States.

POLICY IMPLICATIONS

One of the principal reasons for extending health insurance coverage is to increase people's access to needed health services. Although analysts have expressed concern that greater access to care will strain the service delivery system, our projections suggest that increased use of health services by the newly insured will be relatively modest for most services. The greatest increases will be in primary care, followed by inpatient and outpatient care.

The U.S. health system is likely to be able to absorb these increases. Use of primary, emergency, inpatient, and outpatient care varies substantially across the country, and these variations do not appear to be correlated with delays in access to care. The variation in use patterns supports the idea that anticipated increases in doctor's visits by the newly insured can be accommodated through organizational changes and changes in practice patterns.¹³ Plausible structural changes, some of which have already occurred, include physician pooling and greater use of nonphysician health professionals, such as nurses and physician assistants, as part of a team-based approach.¹⁴ In addition, technological advances are also likely to play an important role in improving the efficiency of health care delivery. Notably, the use of telemedicine—the exchange of medical information via electronic communication—has already shown promising results in managing common chronic illnesses at home and reducing time spent at physician offices to manage these diseases.¹⁵

It is critical that the expansion of health insurance coverage leads to improved access to care for those who were previously uninsured and does not limit access for those who already have coverage. Our results suggest that the current supply of primary care physicians and physicians in most specialties is sufficient to ensure this result will hold.

APPENDIX. STUDY METHODOLOGY IN DETAIL

Overview

We used the Medical Expenditure Panel Survey (MEPS) to estimate current utilization rates of specific health services at the national and regional level. We allocated this utilization to states within each region.

Next, we used MEPS to project additional use of health services under the Affordable Care Act (ACA) by income eligibility group. Projected increases in service utilization were calculated by taking the number of projected additional visits and dividing it by the baseline current utilization rates. We then estimated the current supply of specific health service resources such as physicians and hospital beds by state. We combined these sources to calculate the number of current and additional visits per provider.

Current Annual Health Service Utilization

The 2010 MEPS data were used to estimate the total number of medically related visits made by the entire population in 2010 by geographic region for the following provider or service categories: internal medicine, family practice, pediatrics, all primary care, obstetrics and gynecology, psychiatric, medical specialties, surgical specialties, emergency room, outpatient services, and prescription drugs. The MEPS data include both visits to clinics and community health centers in their office-based visit calculation; thus, these types of visits are included in our estimates of increases in office visit demand.

We allocated regional health services to each state according to that state's population (from the U.S. Census Bureau) as a proportion of the region's total population.

Projected Health Service Utilization

To determine utilization patterns of individuals who will gain insurance under the ACA, we combined yearly data from MEPS for 2006 to 2010. We selected a sample of individuals who were uninsured for the first year they were in the sample. We divided this sample according to income eligibility for Medicaid or the health care marketplaces. We then examined the service use of these populations in the second year of the sample, when some of them had gained insurance. For each of these subsamples, we ran negative binomial regression to predict utilization patterns for each category of service or provider. To predict utilization patterns of the newly insured, we turned to two reports released by the PricewaterhouseCoopers Health Research Institute, *Medicaid Expansion: New Patients, New Challenges*¹⁶ and *Health Insurance Exchanges: Long on Options, Short on Time*,¹⁷ which report the predicted demographic makeup of the newly insured Medicaid and marketplace-eligible populations. Results from the regression were then multiplied by each state's projected newly insured Medicaid and marketplace-eligible population size to obtain projected additional visits under the ACA by state. Projected expansions in insurance coverage by state were taken from the reports *Health Reform Across the States: Increase Insurance Coverage and Federal Spending on the Exchanges and Medicaid*¹⁸ and *A Profile of Health Insurance Exchange Enrollees*.¹⁹ All regression analyses were conducted using STATA (version 12).

Number of Primary Care Physicians

The 2010 supply of primary care, internal medicine, family practice, general practice, and pediatric physicians were obtained from the Agency for Healthcare Research and Quality (AHRQ) publication, *The Number of Practicing Primary Care Physicians in the United States*.²⁰ The supply of active primary care physicians by state were taken from the Association of American Medical Colleges (AAMC) publication, *2011 State Physician Workforce Data Book*.²¹ We calculated the number of active primary care physicians in each state as a proportion of the nation's total supply of active primary care physicians. State-level estimates of physician supply were computed for each primary care category by taking each state's calculated proportion and multiplying this by the nation's total supply of physicians reported by AHRQ. Our supply estimates for primary care providers include physician assistants and nurse practitioners. The number of physician assistants and nurse practitioners working in primary care was obtained from AHRQ's "The Number of Nurse

Practitioners and Physician Assistants Practicing Primary Care in the United States,”²² and is included to supplement our primary care visits to clinics and community health centers. Likewise, psychologists were included with physicians in our supply estimates of mental health. Using AAMC’s *2012 Physician Specialty Data Book*,²³ the supply of medical and surgical specialty physicians, as well as the supply of physicians specializing in psychiatry and obstetrics/gynecology, was obtained at the national level and state level estimates were calculated using similar methods described above. It is important to note that all physician supply estimates indicate the number of all physicians, both full-time and part-time, and do not report the number of full-time-equivalent physicians.

Last, the existing supply for inpatient, outpatient, and emergency room services were calculated using data from the 2010 Area Resource File.²⁴ Inpatient values reflect the supply of inpatient beds in each state; emergency room and outpatient estimates reflect the number of hospitals with emergency departments or outpatient services in each state.

Number of Visits per Physician

We first took the current number of visits for each service category and divided the number of these visits by the current supply in each state. The same method was repeated using projected additional visits and total visits (current visits + projected additional visits) to obtain state averages of the number of visits per doctor annually.

Wait Times and Physicians per 100,000 People

We compared the average appointment wait times for primary care visits to the ratio of the local supply of primary care physicians per 100,000 people in 2003 and 2012 at the county, city, and state levels. Select wait-time data were obtained from three data sources: the 2003 Community Tracking Study (CTS) Household Survey,²⁵ the 2013 Merritt Hawkins Physician Appointment Wait Times Study,²⁶ and a 2012 simulated patient study conducted by Rhodes et al.²⁷ The 2003 county data from the CTS were supplemented by physician supply data from the Physicians Characteristics and Distribution in the U.S. and population data from the U.S. Census Bureau. The CTS data capture wait-time data for sick visits to primary care physicians by adult insured patients. The 2013 mean wait-time data for primary care conducted at the city level were supplemented with 2011 county physician supply data and population counts from the Area Resource File. The 2012 median wait-time data for primary care conducted at the state level were supplemented with 2012 supply figures of primary care physicians from AAMC’s *State Physician Workforce Data Book*. All physician supply ratios were calculated by taking the supply of physicians at the city or county level and dividing by the population per 100,000 people.

NOTES

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Table D. Average Additional Weekly Visits per Doctor by the Newly Insured

State	All primary care	Internal medicine	Family practice	Pediatrics	Ob/Gyn	Psychiatry	Medical	Surgical	Emergency room	Outpatient	Inpatient
Northeast	0.76	0.08	0.95	0.02	0.49	0.02	0.18	0.28	5.88	4.23	0.02
Connecticut	0.86	0.08	1.04	0.02	0.49	0.02	0.18	0.28	7.95	5.24	0.03
Maine	0.64	0.07	0.83	0.02	0.53	0.02	0.20	0.31	1.91	1.44	0.02
Massachusetts	0.30	0.04	0.42	0.01	0.23	0.01	0.09	0.13	3.22	2.28	0.01
New Hampshire	0.79	0.08	0.98	0.02	0.54	0.02	0.20	0.31	2.96	2.17	0.03
New Jersey	0.99	0.09	1.15	0.02	0.57	0.02	0.21	0.33	9.13	6.66	0.02
New York	0.65	0.07	0.86	0.02	0.43	0.01	0.17	0.25	6.40	4.37	0.02
Pennsylvania	1.10	0.10	1.31	0.03	0.67	0.02	0.25	0.39	6.47	4.92	0.02
Rhode Island	0.86	0.08	1.06	0.02	0.57	0.02	0.22	0.33	6.40	4.20	0.03
Vermont	0.46	0.07	0.70	0.01	0.44	0.01	0.17	0.26	1.98	1.44	0.02
Midwest	2.06	0.11	1.43	0.03	0.81	0.03	0.30	0.47	3.92	3.25	0.02
Illinois	1.89	0.10	1.30	0.03	0.78	0.03	0.29	0.45	5.50	4.28	0.02
Indiana	2.65	0.11	1.69	0.04	0.85	0.03	0.31	0.49	5.37	4.26	0.03
Iowa	1.75	0.11	1.33	0.02	0.86	0.03	0.33	0.50	1.37	1.16	0.02
Kansas	2.37	0.13	1.66	0.03	1.01	0.04	0.38	0.58	1.68	1.71	0.02
Michigan	1.82	0.10	1.29	0.02	0.73	0.03	0.27	0.42	5.20	3.85	0.03
Minnesota	1.29	0.09	1.01	0.02	0.60	0.02	0.23	0.35	2.80	2.38	0.02
Missouri	2.71	0.13	1.84	0.04	0.94	0.03	0.35	0.54	4.39	3.57	0.03
Nebraska	2.29	0.13	1.67	0.03	1.00	0.03	0.38	0.58	2.86	2.64	0.02
North Dakota	2.11	0.14	1.62	0.03	0.94	0.03	0.36	0.55	2.10	1.96	0.01
Ohio	2.33	0.11	1.57	0.03	0.85	0.03	0.31	0.49	6.85	5.25	0.03
South Dakota	2.49	0.14	1.77	0.03	1.04	0.04	0.39	0.60	1.56	1.67	0.01
Wisconsin	1.89	0.10	1.31	0.03	0.73	0.03	0.27	0.42	3.13	2.48	0.03
South	1.38	0.12	1.75	0.04	0.89	0.03	0.33	0.51	6.01	5.67	0.03
Alabama	1.35	0.11	1.69	0.04	0.88	0.03	0.32	0.50	3.62	3.61	0.02
Arkansas	1.61	0.14	2.02	0.04	1.26	0.05	0.46	0.72	3.77	3.77	0.03
Delaware	0.75	0.08	0.99	0.02	0.51	0.02	0.20	0.30	6.88	4.90	0.02
Dist. of Columbia	0.33	0.04	0.44	0.01	0.23	0.01	0.09	0.13	5.43	4.04	0.01
Florida	1.43	0.13	1.81	0.04	0.84	0.03	0.31	0.48	12.92	10.70	0.03
Georgia	1.53	0.12	1.91	0.04	1.01	0.04	0.37	0.58	7.48	6.70	0.03
Kentucky	1.48	0.13	1.86	0.04	0.96	0.04	0.35	0.55	4.35	3.93	0.02
Louisiana	1.68	0.13	2.09	0.05	1.00	0.04	0.36	0.58	6.00	5.81	0.03
Maryland	0.69	0.07	0.90	0.02	0.49	0.02	0.18	0.28	7.00	5.08	0.02
Mississippi	1.90	0.16	2.38	0.05	1.19	0.05	0.43	0.69	2.96	4.55	0.02
North Carolina	1.26	0.11	1.60	0.03	0.85	0.03	0.31	0.49	7.09	5.61	0.03
Oklahoma	1.22	0.12	1.57	0.03	0.87	0.03	0.32	0.50	2.52	2.61	0.02
South Carolina	1.46	0.12	1.83	0.04	0.92	0.04	0.33	0.53	6.55	5.78	0.03
Tennessee	1.18	0.10	1.49	0.03	0.78	0.03	0.29	0.45	5.88	5.62	0.02
Texas	1.87	0.16	2.35	0.05	1.17	0.05	0.43	0.67	6.24	6.44	0.04
Virginia	0.89	0.09	1.15	0.02	0.61	0.02	0.23	0.35	5.79	4.48	0.02
West Virginia	1.05	0.08	1.30	0.03	0.85	0.04	0.30	0.49	2.64	2.43	0.02
West	1.12	0.12	1.57	0.03	0.84	0.03	0.32	0.49	8.26	7.26	0.04
Alaska	1.03	0.11	1.42	0.03	0.90	0.03	0.33	0.52	6.00	5.36	0.03
Arizona	0.95	0.11	1.37	0.03	0.69	0.02	0.26	0.40	7.61	6.70	0.03
California	1.16	0.12	1.63	0.03	0.88	0.03	0.33	0.51	13.04	11.00	0.04
Colorado	1.04	0.12	1.48	0.03	0.75	0.03	0.29	0.44	5.63	5.07	0.04
Hawaii	0.58	0.06	0.78	0.02	0.47	0.02	0.17	0.27	5.01	5.36	0.02
Idaho	1.73	0.19	2.45	0.05	1.18	0.04	0.44	0.68	4.68	4.10	0.04
Montana	1.42	0.16	2.01	0.04	0.99	0.03	0.37	0.57	2.08	2.04	0.02
Nevada	1.32	0.13	1.81	0.04	0.91	0.03	0.34	0.52	10.15	8.93	0.03
New Mexico	1.50	0.13	1.99	0.04	1.33	0.05	0.48	0.77	7.75	6.79	0.05
Oregon	1.22	0.11	1.64	0.03	0.94	0.04	0.34	0.54	6.07	5.21	0.05
Utah	1.48	0.16	2.09	0.04	0.97	0.03	0.36	0.56	7.53	6.67	0.04
Washington	0.75	0.09	1.09	0.02	0.62	0.02	0.24	0.36	5.65	4.63	0.03
Wyoming	1.31	0.16	1.90	0.03	1.09	0.03	0.41	0.63	1.72	2.04	0.02
U.S. average	1.34	0.11	1.46	0.03	0.77	0.03	0.29	0.45	5.72	4.93	0.03

Source: 2006–2010 Medical Expenditure Panel Survey (MEPS); PricewaterhouseCoopers, "Medicaid Expansion: New Patients, New Challenges" and "Health Insurance Exchanges: Long on Options, Short on Time."

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