Aiming Higher

Results from a State Scorecard on Health System Performance

THE COMMONWEALTH FUND COMMISSION ON A HIGH PERFORMANCE HEALTH SYSTEM

JUNE 2007

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Aiming Higher

RESULTS FROM A STATE SCORECARD ON HEALTH SYSTEM PERFORMANCE

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June 2007

ABSTRACT: Developed to follow the *National Scorecard on U.S. Health System Performance*, published in 2006, the *State Scorecard* assesses state variation across key dimensions of health system performance: access, quality, avoidable hospital use and costs, equity, and healthy lives. The findings document wide variation among states and the potential for substantial improvement—in terms of access, quality, costs, and lives—if all states approached levels achieved by the top states. Leading states outperform lagging states on multiple indicators and dimensions; yet, all states have room to improve. The report presents state performance on 32 indicators, with overall rankings as well as ranks on each dimension. The findings underscore the need for federal and state action in key areas to move all states to higher levels of performance and value.

Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff, or of The Commonwealth Fund Commission on a High Performance Health System or its members. This report, related state tables, and other Fund publications are available online at www.commonwealthfund.org. To learn about new publications when they become available, visit the Fund Web site and register to receive e-mail alerts. Commonwealth Fund pub. no. 1030.

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Preface

The Commonwealth Fund Commission on a High Performance Health System is pleased to sponsor this first *State Scorecard on Health System Performance* in the hope that it will help meet the growing need for comparative state health system performance information and contribute to positive action among the states.

In the U.S. federal system, the states maintain significant authority over many health and regulatory policies that influence health system performance and health outcomes. States organize and deliver population health services, regulate health insurance markets, provide Medicaid coverage for the poor and State Children's Health Insurance Program (SCHIP) coverage for low-income children, purchase coverage for their employees and retirees, license and monitor health care providers, and finance charity care for the uninsured. Given these activities and levers, state policymakers across the country are realizing the tremendous opportunity they have to shape and improve health care at the local level for their populations.

In 2006, the Commission published *Why Not the Best? Results from a National Scorecard on U.S. Health System Performance* to comprehensively assess how well the U.S. health system is performing across key indicators of health care outcomes, quality, access, efficiency, and equity. Findings of the *National Scorecard* indicate that America's health system falls far short of achievable benchmarks, especially given the resources the nation invests. Based on these and other data, the Commission believes that transformation of the U.S. health system is urgently needed to achieve optimal health care for all Americans while improving value for society's investment in health care. States and their health delivery systems vary and include models and centers of excellence. In many instances even top-performing states do not reach as high a level as should be achievable—and all have substantial room to improve. Nonetheless, focusing on how top-performing states and organizations achieve high levels of performance will enable the entire country to improve. The *State Scorecard* underscores the need for national as well as state action in key areas to move all states to higher levels of performance and value.

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Acknowledgments

The authors would like to thank the members of the Commonwealth Fund Commission on a High Performance Health System for their invaluable guidance. We also owe our sincere appreciation to all of the researchers who developed indicators and conducted data analyses for the *State Scorecard*. We particularly thank Katherine Hempstead, Ph.D., Rutgers University Center for State Health Policy, and Ellen Nolte, Ph.D., at the London University School of Hygiene and Tropical Medicine, for their analysis of U.S. mortality data, upon which we based our estimates of mortality amenable to health care, with variation by race, for all 50 states and the District of Columbia. Vincent Mor, Ph.D., at Brown University's Department of Community Health, provided the analysis of nursing home admission and readmission rates; Paul Fronstin, Ph.D., at the Employee Benefit Research Institute, provided analysis of uninsured rates derived from the Current Population Survey; and Gerard Anderson, Ph.D., at the Johns Hopkins University Bloomberg School of Public Health, provided analysis of data on potentially preventable hospital admissions of Medicare patients, as well as 30-day hospital readmissions.

Commission members reviewed the *State Scorecard* methodology and drafts of the report. We especially thank Alan Weil, J.D., M.P.P., executive director, National Academy for State Health Policy, and Mary Wakefield, Ph.D., associate dean, University of North Dakota School of Medicine. Additionally, we thank Trish Riley, M.S., director, Maine Governor's Office of Health Policy and Finance, and Joseph Thompson, M.D., director, Arkansas Center for Health Improvement and Surgeon General, State of Arkansas, for their review. We also thank senior staff of The Commonwealth Fund and the Commission on a High Performance Health System, including Karen Davis, Stephen Schoenbaum, and Anne Gauthier, and the Fund's communications team, including Barry Scholl, Chris Hollander, Martha Hostetter, Mary Mahon, Christine Haran, and Paul Frame, for their guidance, editorial and production support, and public dissemination efforts. Finally, we thank Margaret Koller, M.S., of the Rutgers Center for State Health Policy, for her work overseeing the production of the *State Scorecard*, and Jim Walden of Walden Creative for working with us to design and produce the final report.

List of Exhibits

Executive Summary

The rich geographical diversity of the United States is part of its appeal. The diverse performance of the health care system across the U.S., however, is not. People in the United States, regardless of where they live, deserve the best of American health care. The *State Scorecard* is intended to assist states in identifying opportunities to better meet their residents' current and future health needs and enable them to live long and healthy lives. With rising health costs squeezing the budgets of businesses, families, and public programs, there is a pressing need to improve performance and reap greater value from the health system.

The *State Scorecard* offers a framework through which policymakers and other stakeholders can gauge efforts to ensure affordable access to high-quality, efficient, and equitable care. With a goal of focusing on opportunities to improve, the analysis assesses performance relative to what is achievable, based on benchmarks drawn from the range of state health system performance.

Currently, where you live in the United States matters for quality and care experiences. The widely varying performance across states and sharp differences between top and bottom state rates on the 32 indicators included in the *State Scorecard* highlight broad opportunities to improve. If all states approached levels achieved by the top states, the cumulative result would be substantial improvement in terms of access to care, health care quality, reduced costs, and healthier lives.

The analysis of the range of state performance points to five cross-cutting findings:

- There is wide variation among states. This means that the potential exists for the country to do much better.
- Leading states consistently outperform lagging states. The patterns indicate that federal and state policies and local and regional health systems make a difference.
- Across states, better access is closely associated with better quality.
- There are significant opportunities to reduce costs as well as improve access to and quality of care. Higher quality is not associated with higher costs across states.
- All states have substantial room to improve.

HIGHLIGHTS AND KEY FINDINGS

Health care access, quality, cost, and efficiency vary widely across the United States.

The range of performance is often wide across states, with a two- to threefold or greater spread from top to bottom. The variability extends to many of the 32 indicators across five dimensions of health system performance: access; quality; potentially avoidable use of hospitals and costs of care; equity; and the ability to live long and healthy lives (referred to as "healthy lives") (Exhibit 1). Improving performance across the nation to rates achieved by the leading states could save thousands of lives, improve quality of life for millions, and enhance the value gained from our substantial investment in health care.

If all states could approach the low levels of mortality from conditions amenable to care achieved by the top state, nearly 90,000 fewer deaths before the age of 75 would occur annually. If insurance rates nationwide reached that of the top states, the uninsured population would be halved. Matching the performance of the best states on chronic care would enable close to four million more diabetics across the nation to receive basic recommended care and avoid preventable complications, such as renal failure or limb amputation. By matching levels

Note: This report summarizes results of the *State Scorecard* and presents overall state rankings and rankings on each of the five dimensions of health system performance. Appendices present state-level data for all indicators. *State Scorecard Data Tables* with data and state rankings on the 32 health system indicators and data for all equity comparisons can be downloaded from the Commonwealth Fund Web site at www.commonwealthfund.org. The Web site also provides individual state performance profiles that compare the state to the top state, top five states, and state median rates on all indicators. Also available on the Web site is an analysis of the impact on access, costs, and lives for each state if it were to achieve the top level of performance on each of 11 key indicators. State-specific profiles can be downloaded from the Web site.

EXHIBIT 1

List of 32 Indicators in State Scorecard on Health System Performance

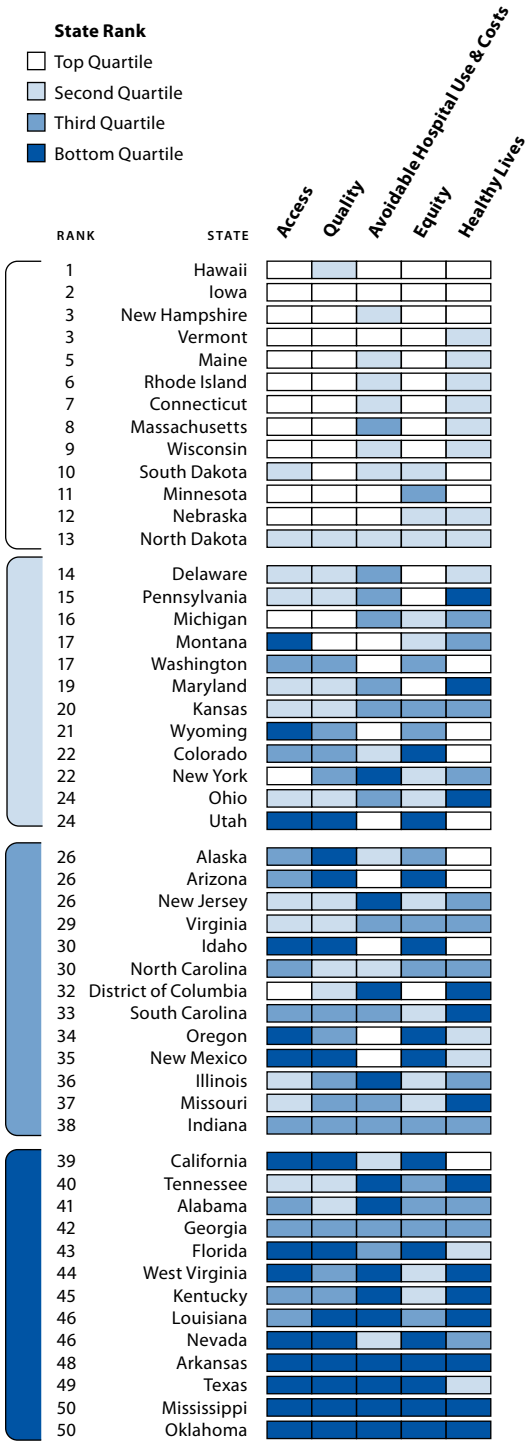
	Year	All States Median	Range of State Performance (Bottom – Top)	Top State
Access				
1. Adults under age 65 insured	2004–2005	81.5	69.6 – 89.0	MN
2. Children insured	2004–2005	91.1	79.8 – 94.9	VT
3. Adults visited a doctor in past two years	2000	83.4	73.9 – 91.5	DC
4. Adults without a time when they needed to see a doctor but could not because of cost	2004	87.2	80.1 – 96.6	HI
Quality				
5. Adults age 50 and older received recommended screening and preventive care	2004	39.7	32.6 – 50.1	MN
6. Adult diabetics received recommended preventive care	2004	42.4	28.7 – 65.4	HI
7. Children ages 19–35 months received all recommended doses of five key vaccines	2005	81.6	66.7 – 93.5	MA
8. Children with both medical and dental preventive care visits	2003	59.2	45.7 – 74.9	MA
9. Children with emotional, behavioral, or developmental problems received mental health care	2003	61.9	43.4 – 77.2	WY
10. Hospitalized patients received recommended care for acute myocardial infarction, congestive heart failure, and pneumonia	2004	83.4	79.0 – 88.4	RI
11. Surgical patients received appropriate timing of antibiotics to prevent infections	2004–2005	69.5	50.0 – 90.0	CT
12. Adults with a usual source of care	2004	81.1	66.3 – 89.4	DE
13. Children with a medical home	2003	47.6	33.8 – 61.0	NH
14. Heart failure patients given written instructions at discharge	2004–2005	49	14 – 67	NJ
15. Medicare patients whose health care provider always listens, explains, shows respect, and spends enough time with them	2003	68.7	63.1 – 74.9	VT
16. Medicare patients giving a best rating for health care received	2003	70.2	61.2 – 74.4	MT
17. High-risk nursing home residents with pressure sores	2004	13.2	19.3 – 7.6	ND
18. Nursing home residents who were physically restrained	2004	6.2	15.9 – 1.9	NE
Potentially Avoidable Use of Hospitals & Costs of Care				
19. Hospital admissions for pediatric asthma per 100,000 children	2002	176.7	314.2 – 54.9	VT
20. Asthmatics with an emergency room or urgent care visit	2001–2004	15.5	29.4 – 9.1	IA
21. Medicare hospital admissions for ambulatory care sensitive conditions per 100,000 beneficiaries	2003	7,278	11,537 – 4,069	HI
22. Medicare 30-day hospital readmission rates	2003	17.6	23.8 – 13.2	VT
23. Long-stay nursing home residents with a hospital admission	2000	16.1	24.9 – 8.3	UT
24. Nursing home residents with a hospital readmission within three months	2000	11.7	17.5 – 6.7	OR
25. Home health patients with a hospital admission	2004	26.9	46.4 – 18.3	UT
26. Total single premium per enrolled employee at private-sector establishments that offer health insurance	2004	$3,706	$4,379 – 3,034	UT
27. Total Medicare (Parts A & B) reimbursements per enrollee	2003	$6,070	$8,076 – 4,530	HI
Healthy Lives				
28. Mortality amenable to health care, deaths per 100,000 population	2002	96.9	160.0 – 70.2	MN
29. Infant mortality, deaths per 1,000 live births	2002	7.1	11.0 – 4.3	ME
30. Breast cancer deaths per 100,000 female population	2002	25.3	34.1 – 16.2	HI
31. Colorectal cancer deaths per 100,000 population	2002	20.0	24.6 – 15.3	UT
32. Adults under age 65 limited in any activities because of physical, mental, or emotional problems	2004	15.3	22.8 – 10.8	DC

Note: All values are expressed as percentages unless labeled otherwise. See Appendices B1 and B2 for data source and definition of each indicator.

SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

EXHIBIT 2

State Scorecard Summary of Health System Performance Across Dimensions



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

achieved in the best-performing states, the nation could save billions of dollars a year by reducing potentially preventable hospitalizations or readmissions, and by improving care for frail nursing home residents. If annual per-person costs for Medicare in higher-cost states came down to median rates or those achieved in the lowest quartile of states, the nation would save $22 billion to $38 billion per year. While some savings would be offset by the costs of interventions and insurance coverage expansions, there would be a net gain in value from a higher-performing health care system.

Leading states consistently outperform lagging states on multiple indicators and dimensions.

Thirteen states—Hawaii, Iowa, New Hampshire, Vermont, Maine, Rhode Island, Connecticut, Massachusetts, Wisconsin, South Dakota, Minnesota, Nebraska, and North Dakota—emerge at the top quartile of the overall performance rankings (Exhibit 2). These states generally ranked high on multiple indicators in each of the five dimensions assessed by the *State Scorecard*. Many have been leaders in reforming and improving their health systems and have among the lowest uninsured rates in the nation.

Conversely, the 13 states at the bottom quartile of the overall performance ranking—California, Tennessee, Alabama, Georgia, Florida, West Virginia, Kentucky, Louisiana, Nevada, Arkansas, Texas, Mississippi, and Oklahoma—lag well behind their peers on multiple indicators across dimensions. Uninsured rates for adults and children in these states are well above national averages and more than double those in the quartile of states with the lowest rates. The rates for receipt of recommended preventive care are generally low, and mortality rates from conditions amenable to health care often high.

Health system performance often varies regionally. Across dimensions, states in the Upper Midwest and Northeast often rank in the highest quartile of performance, with those in the lowest quartile concentrated in the South.

States can look to each other for evidence of effective policies and strategies associated with higher performance. For example, in 1974,

Hawaii became the first state to enact legislation requiring employers to provide health insurance to full-time workers; it now ranks first in terms of access to care. For the past decade, Rhode Island has provided incentive payments to Medicaid managed care plans that reach quality targets; it now ranks first on measures of the quality of care. Maine, Massachusetts, and Vermont lead in providing equitable health systems; the three states are recognized for their innovation and leadership on expanding health insurance coverage and benchmarking for quality.

The patterns indicate that federal and state policies plus local and regional health care systems make a difference. Leading states outperform lagging states on multiple indicators that span the dimensions of access, quality, cost, equity, and healthy lives.

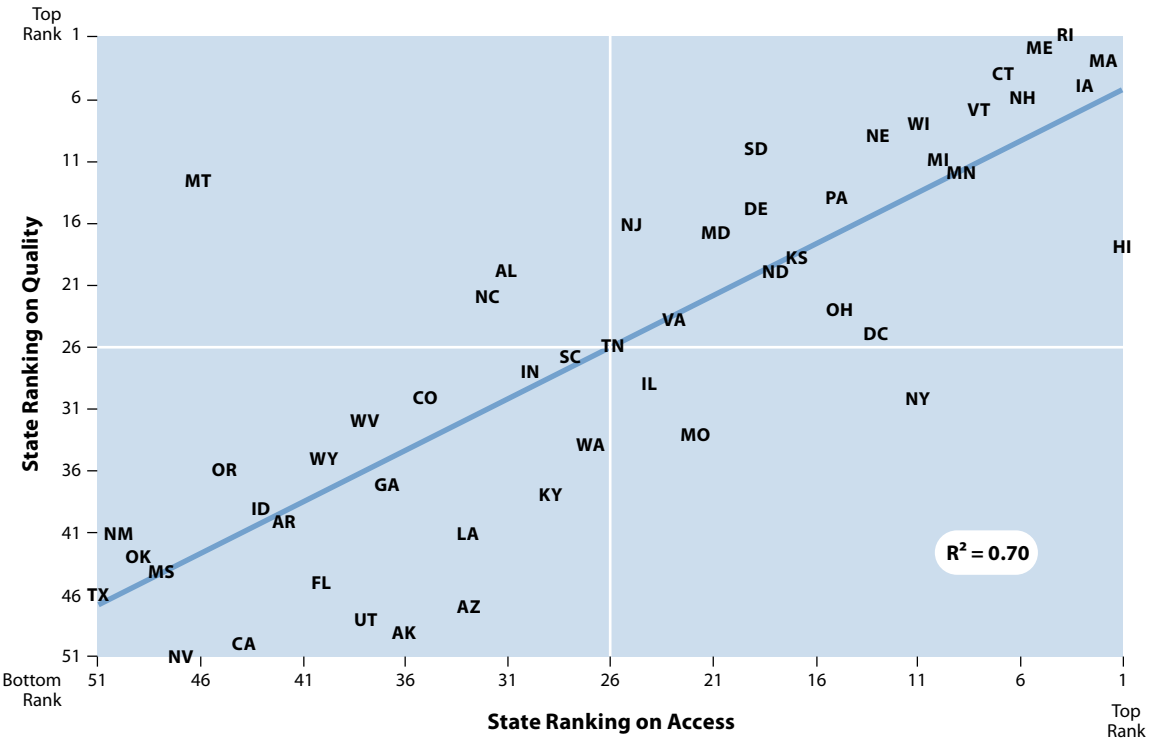
Better access is associated with better quality across states; insurance matters.

Across states, better access to care and higher rates of insurance are closely associated with better quality (Exhibit 3). States with the lowest rates of uninsured residents tend to score highest on measures of preventive and chronic disease care, as well as other quality indicators.

Four of the five leading states in the access dimension—Massachusetts, Iowa, Rhode Island, and Maine—also rank among the top five states in terms of quality. Moreover, states with low quality rankings tend to have high rates of uninsured. This cross-state pattern points to the importance of affordable access as a first step to ensure that patients obtain essential care and receive care that is well coordinated and patient-centered. In states where more people are insured, adults and children are more likely

EXHIBIT 3

State Ranking on Access and Quality Dimensions



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

to have a medical home and receive recommended preventive and chronic care. Identifying care system practices as well as state policies that promote access to care is essential to improving quality and lowering costs.

The number of uninsured children has declined following enactment of federal Medicaid and State Children's Health Insurance Program (SCHIP) expansions for children. Yet, the high and rising rates of uninsured adults put states and the nation at risk as adults lose affordable access and financial security. The deterioration in coverage and the relationship between better coverage and better care point to a pressing need for national action to expand insurance coverage and ensure access to care.

Higher quality does not mean higher costs.

Annual costs of care vary widely across states, with no systematic relationship to insurance coverage or ability to pay as measured by median incomes. Moreover, there is no systematic relationship between the cost of care and quality across states. Some states achieve high quality at lower costs.

States with higher medical costs tend to have higher rates of potentially preventable hospital use, including high rates of readmission within 30 days of discharge and high rates of admission for complications of diabetes, asthma, and other chronic conditions. Reducing the use of expensive hospital care by preventing complications, controlling chronic conditions, and providing effective transitional care following discharge has the potential to improve outcomes and lower costs.

There is room to improve in all states.

All states have substantial room to improve. On some indicators, even the top rates are well below what should be achievable. There are also substantial variations in performance within states.

Among the top-ranked states, each had some indicators in the bottom quartile or bottom half of the performance distribution. Understanding how underlying care system features and population factors contribute to performance variations will help inform efforts to improve.

STATE VARIATION: HIGHLIGHTS BY DIMENSION

Access

- The percent of adults under age 65 who were uninsured in 2004–2005 ranges from a low of 11 percent in Minnesota to a high of 30 percent in Texas. The percent of uninsured children varies fourfold, from 5 percent in Vermont to 20 percent in Texas.
- Over the past five years, the number of states with more than 16 percent of children uninsured declined from 10 to three. In contrast, the number of states with 23 percent or more of adults uninsured increased from four to 12.
- In all but six states, the percent of adults uninsured increased. Notable exceptions include Maine and New York, which have both expanded programs to insure low-income adults.
- Across states, three of four uninsured adults age 50 or older did not receive basic preventive care, including cancer screening. The percent of adults who reported going without care because of costs is up to five times greater in states with high rates of uninsured adults than in states with the lowest uninsured rates.
- The nation would insure 22 million more adults and children if all states moved to the level of coverage provided in the top-performing states.

Quality

- Even in the best states, performance falls far short of optimal standards. The percent of adults age 50 or older receiving all recommended preventive care ranges from a high of 50 percent in Minnesota to 33 percent in Idaho. The percent of diabetics receiving basic preventive care services varies from 65 percent in Hawaii to 29 percent in Mississippi.
- Childhood immunization rates range from 94 percent in Massachusetts to less than 75 percent in the bottom five states. The percent of children with a medical home that helps coordinate care ranges from a high of 61 percent in New Hampshire to less than 40 percent in the bottom 10 states.
- Discharge planning varies markedly. The percent of congestive heart failure patients receiving

complete hospital discharge instructions ranges from 33 percent or less in the bottom five states to 67 percent in New Jersey.
- If all states reached the levels achieved among the top-ranked states, almost nine million more older adults would receive recommended preventive care, and almost four million more diabetics would receive care to help prevent disease complications. Likewise, about 33 million more adults and children would have a usual source of care or medical home to help coordinate care.

Potentially Avoidable Use of Hospitals and Costs of Care

- State rates of hospital admission for childhood asthma range from a low of 55 per 100,000 children in Vermont to more than 300 per 100,000 in South Carolina.
- Rates of potentially preventable hospital admission among Medicare beneficiaries range from more than 10,000 per 100,000 beneficiaries in the five states with the highest rates to less than 5,000 per 100,000 in the five with the lowest rates (Hawaii, Utah, Washington, Alaska, and Oregon).
- Similarly, there is a twofold variation in rates of hospital readmission within 30 days among Medicare beneficiaries (from 24 percent in Louisiana and Nevada to only 13 percent in Vermont and Wyoming) and a threefold range in rates of hospital admission among nursing home residents, from 25 percent (Louisiana) to only 8 percent (Utah).
- High rates of potentially avoidable hospital use and repeat admissions are closely correlated with high costs of care. States with the highest rates of readmission have annual Medicare costs per person 38 percent higher than states with the lowest rates.
- If all states reached the low levels of potentially preventable admissions and readmissions, hospitalizations could be reduced by 30 to 47 percent and save Medicare $2 billion to $5 billion each year. Potential savings would be still greater if the interventions applied to all patients.
- Improving care and developing more efficient care systems have the potential to generate major savings. If annual per-person costs for Medicare in higher-cost states came down to median rates or the lowest quartile, the nation would save $22 billion to $38 billion per year.

Equity

- Equity gaps by income and insurance status on quality indicators exist in most states. The gaps are widest in states that perform poorly overall on quality and access indicators.
- On average, 78 percent of uninsured and 71 percent of low-income adults age 50 and older *did not* receive recommended preventive services. By comparison, 59 percent of insured adults and 54 percent of higher-income adults failed to receive such care.
- The pattern extends to diabetics. On average, 67 percent of low-income diabetics *did not* receive basic care according to guidelines for their condition.
- In some states, equity rankings were low as a result of large disparities among minority groups that comprise relatively small shares of the state population. For example, in Minnesota, indicators of health care quality were often low for a group that included Asian Americans and Native Americans. A focus on these groups would have a high return in reducing health disparities.

Healthy Lives

- There is a twofold range across states in the rate of deaths before age 75 from conditions that might have been prevented with timely and appropriate health care. Potentially preventable death rates in the states with the lowest mortality (Minnesota, Utah, Vermont, Wyoming, and Alaska) are 50 percent below rates in the District of Columbia and states with the highest rates (Tennessee, Arkansas, Louisiana, and Mississippi).
- There are wide differences in this dimension among racial groups. For example, age-standardized death rates for conditions amenable to health care are twice as high for blacks as for whites nationwide (194 versus 94 per 100,000 population). Southern states and some states in the Midwest with large black populations have the greatest racial disparities, with more

than 100 additional deaths per 100,000 black residents above the overall national average. Yet, racial disparities exist even in states with narrower gaps.

- Potentially preventable mortality rates for whites also vary significantly across states, ranging from a low of 67.6 per 100,000 population (Minnesota) to a high of 118.3 (West Virginia). In general, white rates are highest in states with high overall rates.
- If death rates in all states improved to levels achieved by the best state (Minnesota, with 70.2 deaths per 100,000), about 90,000 fewer premature deaths would occur annually.
- Health system performance is only one of many forces that shape health status and longevity. Family history and immigration status can affect state-level population health indicators. Risk factors, such as smoking and obesity, vary across states. Public health policies, including workplace and environmental regulations, are thus critical components for long and healthy lives. The indicators in this dimension are likely to be sensitive to health system performance broadly defined, modifiable through both improved care and public health policies.

SUMMARY AND IMPLICATIONS

The view of health system performance across the nation reveals startlingly wide gaps between leading and lagging states on multiple indicators. The gaps represent illnesses that could have been prevented or better managed, as well as costs that could have been saved or reinvested to improve population health. The *State Scorecard* indicates that we have much to gain as a nation by aiming higher with a coherent set of national and state policies that respond to the urgent need for action.

States play many roles in the health system—as purchasers of public coverage and coverage for their employees, regulators of providers and insurers, advocates for the public health, and, increasingly, conveners and collaborators with other stakeholders. States also can provide a source of public reports on quality and costs. These roles provide potential leverage points to promote better access and quality and to address rising costs.

The findings point to the need for action in the following key areas:

- Universal coverage: This is critical for improving quality and delivering cost-effective care, as well as ensuring access. Federal action as well as state initiatives will be essential for progress nationwide.
- More information to assess performance and identify benchmarks: It takes information to guide and drive change. We need more sophisticated information systems and better information on practices and policies that contribute to high or varying performance.
- Analyses to determine the key factors that contribute to variations: States can use such information to develop evidence-based strategies for improvement.
- National leadership and collaboration across public and private sectors: This is essential for coherent, strategic, and ultimately effective improvement efforts.

Benchmarks set by leading states, as well as exemplary models within the United States and other countries, show that there are broad opportunities to improve and achieve better and more affordable health care. With health costs rising faster than incomes and straining family, business, state, and federal budgets, with access deteriorating, and with startling evidence of variable quality and inefficient care, all states and the nation have much to gain from aiming higher. All states can do better; and all should continually ask, "Why not the best?"

Introduction

Growing public and business concerns about the affordability of health care, eroding health insurance coverage, and broad evidence of variable quality and inefficient care have sparked renewed calls for state and national policy leadership. States are increasingly initiating reforms that seek to improve health care access and quality and, at the same time, address the high and rising costs of care. Highly variable performance across geographic regions of the United States attests to the potential to improve. As states confront shared challenges of how to meet their populations' health needs and achieve higher-value health systems, benchmarks drawn from the range of achieved performance across states can provide targets and focus attention on opportunities to improve.

The Commonwealth Fund *National Scorecard on U.S. Health System Performance*, published in September 2006, assessed national health system performance across core dimensions of access, quality, efficiency, equity, and long and healthy lives.[1] The findings documented striking variations across geographic regions of the United States. and highlighted the potential national gain if all areas of the country could achieve the performance levels of leading geographic areas or health care systems.

This *State Scorecard on Health System Performance* builds on the *National Scorecard* and provides a framework for assessing state health system performance that spans all core dimensions of system performance. The central goal of the state-level analysis is to inform action to ensure that residents of every state have access to high-quality and efficient care in systems that strive to improve population health. Toward this goal, the *State Scorecard* offers a tool for national and state policymakers and other stakeholders to gauge efforts to improve performance and identify targets for change.

The *State Scorecard* includes 32 key indicators, grouped into five dimensions of performance: access to care, quality, avoidable hospital use and costs of care, equity, and the ability to live long and healthy lives (referred to as "healthy lives"). The analysis examines the range of variation across states and assesses performance relative to *what has already been achieved* by individual states. The scorecard ranks all 50 states and the District of Columbia on each indicator and on each of the five dimensions of performance. The dimension rankings are then used to derive an overall ranking. (The box below explains the *State Scorecard* methodology and describes limitations on data currently available at the state level.)

Summary exhibits show indicators, the range of variation across states, and overall state rankings and ranks within dimensions. Exhibit 1 lists the indicators included in each dimension of performance and illustrates the range of performance across states. Exhibit 2 shows the overall state ranking by quartile. Exhibit 3 compares access and quality rankings.

Exhibit 4 shows overall state rankings and where each state ranks in the five dimensions. The appendix to this report provides data for all of the indicators organized by dimension. The appendix also includes demographic tables that profile states by income, incidence of poverty, and health risks.

In the sections that follow, we present the *State Scorecard* results, organized by the five dimensions of performance. The discussion focuses on key indicators and gains possible within each dimension if all states were to achieve the performance level of the top states.

Note: This report summarizes results of the *State Scorecard* and presents overall state rankings and rankings on each of the five dimensions of health system performance. Appendices present state-level data for all indicators. *State Scorecard Data Tables* with data and state rankings on the 32 health system indicators and data for all equity comparisons can be downloaded from the Commonwealth Fund Web site at www.commonwealthfund.org. The Web site also provides individual state performance profiles that compare the state to the top state, top five states, and state median rates on all indicators. Also available on the Web site is an analysis of the impact on access, costs, and lives for each state if it were to achieve the top level of performance on each of 11 key indicators. State-specific profiles can be downloaded from the Web site.

EXHIBIT 4

State Ranking on Health System Performance by Dimension

☐ = State in top quartile

Overall Rank*	State	Access Rank	Quality Rank	Avoidable Hospital Use & Costs Rank	Equity Rank	Healthy Lives Rank
41	Alabama	31	20	41	34	38
26	Alaska	36	49	19	29	4
26	Arizona	33	47	8	40	9
48	Arkansas	42	40	44	46	44
39	California	44	50	18	44	3
22	Colorado	35	30	15	43	2
7	Connecticut	7	4	25	7	17
14	Delaware	19	15	31	6	26
32	District of Columbia	13	25	47	10	48
43	Florida	40	45	26	39	25
42	Georgia	37	37	32	30	35
1	Hawaii	1	18	4	8	8
30	Idaho	43	39	3	45	12
36	Illinois	24	29	40	23	36
38	Indiana	30	28	33	34	33
2	Iowa	3	5	13	11	9
20	Kansas	17	19	26	34	27
45	Kentucky	29	38	45	19	49
46	Louisiana	33	41	51	28	50
5	Maine	5	2	21	2	20
19	Maryland	21	17	34	11	39
8	Massachusetts	2	3	35	1	20
16	Michigan	10	11	38	18	37
11	Minnesota	9	12	10	38	7
50	Mississippi	48	44	49	47	51
37	Missouri	22	33	30	26	45
17	Montana	46	13	7	23	28
12	Nebraska	13	9	14	20	23
46	Nevada	47	51	24	50	31
3	New Hampshire	6	6	20	5	6
26	New Jersey	25	16	46	22	28
35	New Mexico	50	41	5	41	14
22	New York	11	30	39	15	30
30	North Carolina	32	22	22	32	34
13	North Dakota	18	20	9	17	17
24	Ohio	15	23	37	14	41
50	Oklahoma	49	43	50	50	47
34	Oregon	45	36	2	48	19
15	Pennsylvania	15	14	36	9	39
6	Rhode Island	4	1	23	4	22
33	South Carolina	28	27	26	25	43
10	South Dakota	19	10	17	16	11
40	Tennessee	26	26	42	27	42
49	Texas	51	46	48	49	24
24	Utah	38	48	1	42	1
3	Vermont	8	7	11	3	14
29	Virginia	23	24	29	31	32
17	Washington	27	34	6	37	13
44	West Virginia	38	32	42	21	45
9	Wisconsin	11	8	16	13	16
21	Wyoming	40	35	12	32	5

** Final rank for overall health system performance across five dimensions*

SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Looking across dimensions, the summary section of the report discusses the primary, cross-cutting findings based on state patterns and variations. These include:

- There is wide variation among states. The variations attest to the potential for the country as a whole to do much better.
- Leading states consistently outperform lagging states on multiple indicators that span dimensions of health system performance. The patterns indicate that federal and state policies and local and regional health systems make a difference.
- Across states, better access is closely associated with better quality.
- Yet, higher quality is not systematically associated with higher costs. There are significant opportunities to reduce costs as well as improve access to and quality of care.
- All states have substantial room to improve.

The final sections of the report examine the potential impact of improving performance and implications for policy action. The analysis includes estimates of the cumulative gain if all states were to achieve the top level of performance within the current range of state variation on each of 11 key indicators.

The *State Scorecard*, overall, indicates that we have much to gain as a nation from national and state policies that aim higher. The concluding remarks outline key areas in which state and federal action will be critical to move forward.

WHAT THE STATE SCORECARD MEASURES

Dimensions and Indicators

The *State Scorecard* measures health system performance for all 50 states and the District of Columbia using 32 key indicators (Exhibit 1). It organizes indicators by five broad dimensions that capture critical aspects of health system performance:

- **Access** includes rates of insurance coverage for adults and children and indicators of access and affordability of care.
- **Quality** includes indicators that measure three related components: receipt of the "right care," coordinated care, and patient-centered care.
- **Potentially avoidable use of hospitals and costs of care** includes indicators of hospital care that might have been prevented with appropriate care and follow-up, as well as the annual costs of Medicare and private health insurance premiums.
- **Equity** includes differences in performance associated with patients' income level, type of insurance, or race or ethnicity.
- **Healthy lives** includes indicators that measure the degree to which a state's residents enjoy long and healthy lives.

Throughout the text, lists of states appear in order of their ranking on the indicator being discussed.

Whenever possible, indicators were selected to be equivalent to those used in the *National Scorecard on U.S. Health System Performance*. However, comparable state-level data were not available for some important topics covered by the *National Scorecard*. In particular, as a nation, we lack state-level indicators to measure how well patients and their doctors are controlling chronic diseases and how often patients experience adverse effects from their treatment, as well as other safety indicators. We also lack state-level data on duplicative services, receipt of inappropriate care, insurance administrative overhead, and information system capacity. Moreover, many quality metrics are still in the early stages of development and thus are limited in scope. Hence, *State Scorecard* indicators should be considered a "starter set" to be expanded over time. See Appendices B1 and B2 for data sources and descriptions for each of the indicators included in the *State Scorecard*.

Scorecard Ranking Methodology

The *State Scorecard* first ranks states from best to worst on each of the 32 performance indicators. We averaged rankings for those indicators within each of the five dimensions to determine a state's dimension rank and then averaged the dimension rankings to arrive at an overall ranking on health system performance. This approach gives each dimension equal weight and, within dimensions, weights indicators equally. We use average state rankings for the *State Scorecard* because we believe that this approach is easily understandable. This method follows that used by Stephen Jencks and colleagues when assessing quality of care for Medicare beneficiaries at the state level across multiple indicators.[2]

For the equity dimension, we ranked states based on the difference between the most vulnerable subgroup (i.e., low-income, uninsured, or racial/ethnic minority) and the U.S. national average on selected indicators. The gap indicates how the vulnerable subgroup fares compared with the U.S. average—an absolute standard.

Access

Access to health care is the foundation and hallmark of a high performance health system. The foremost factor in determining whether people have access to care when needed is having insurance that covers essential care. The extent to which insurance provides affordable access also depends on the design of benefits, and whether provider payment policies secure adequate networks of primary and specialized care.

States can do much to improve both affordable access and efficiency in the organization of insurance and delivery of care through their oversight of health insurance markets, purchase of insurance for state employees, and support of public insurance initiatives. States also can enhance access in low-income, rural, and other underserved communities by investing in primary care, health centers, and other safety net resources.

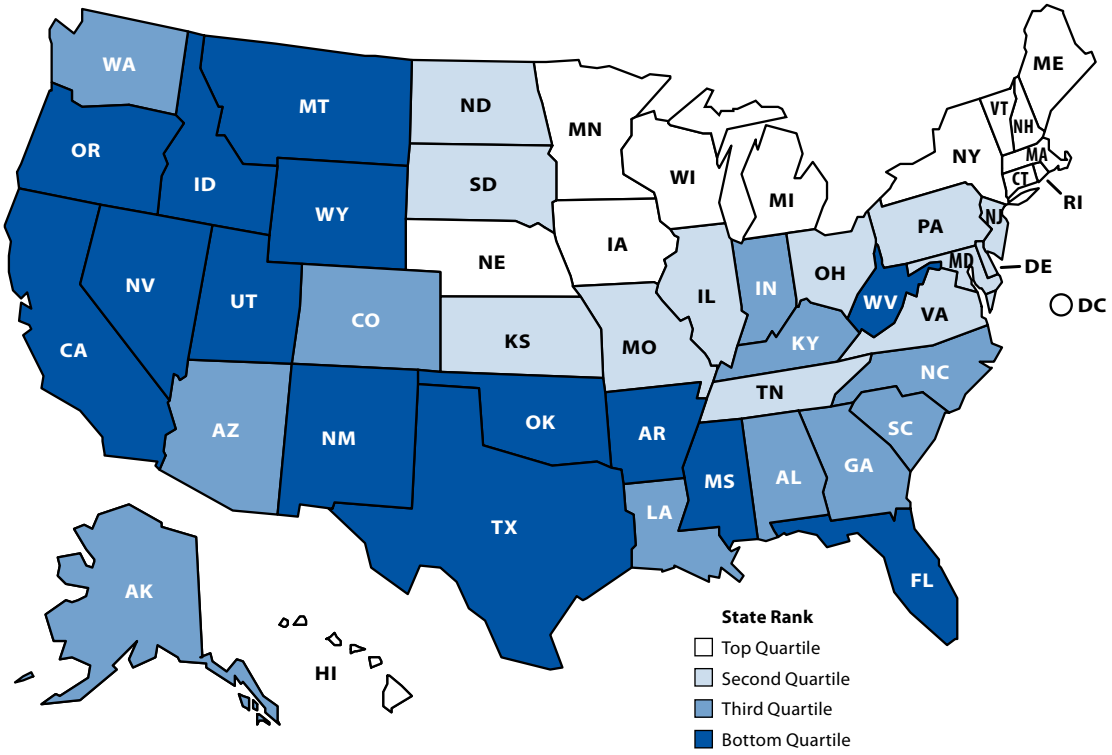
The *State Scorecard* includes four indicators of access: the percent of adults and children who are covered by health insurance, the percent of adults who have visited a doctor in the last two years, and the percent of adults who reported going without care because of costs.

These insurance coverage and access indicators vary significantly across states. With a few exceptions, states in the Upper Midwest and the Northeast, along with Hawaii, lead the nation on access, ranking in the top quartile of all states. States in the South-Central and Western United States have the largest gaps in access (Exhibit 5).

The best-performing states in the access dimension of performance are among those with the most expansive eligibility polices for public health insurance coverage. For example,

ACCESS EXHIBIT 5

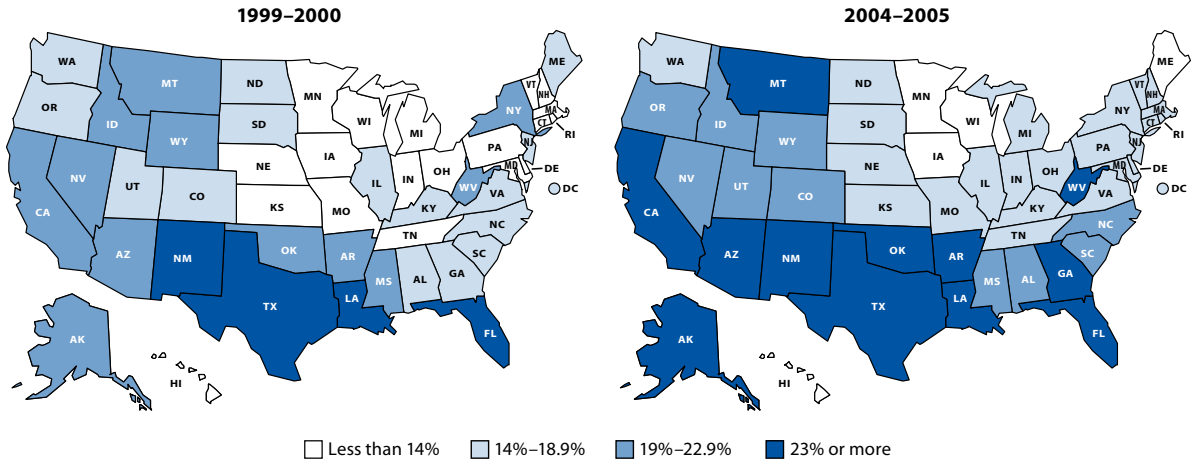
State Ranking on Access Dimension



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

ACCESS EXHIBIT 6

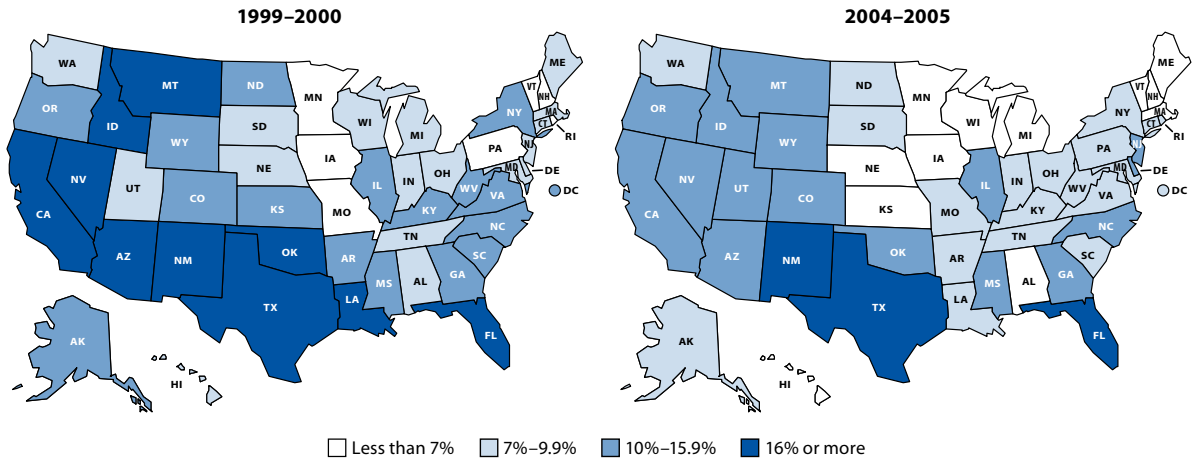
Percent of Adults Ages 18–64 Uninsured by State



DATA: Census Bureau's March 2000, 2001 and 2005, 2006 Current Population Survey
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

ACCESS EXHIBIT 7

Percent of Children Ages 0–17 Uninsured by State



DATA: Census Bureau's March 2000, 2001 and 2005, 2006 Current Population Survey
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

in Hawaii and Massachusetts, the leading states on this dimension, children in families with incomes up to three times the federal poverty level can enroll in the State Children's Health Insurance Program (SCHIP). In addition, the five top-ranked states—Hawaii, Massachusetts, Iowa, Rhode Island, and Maine—provide higher-than-average public coverage eligibility for parents. The top-ranked state, Hawaii, which in 1974 enacted legislation mandating employers to provide health coverage, has long been a leader in state health policy innovation.

UNIVERSAL PARTICIPATION

As rising premium costs squeeze workers with low or modest incomes out of private insurance

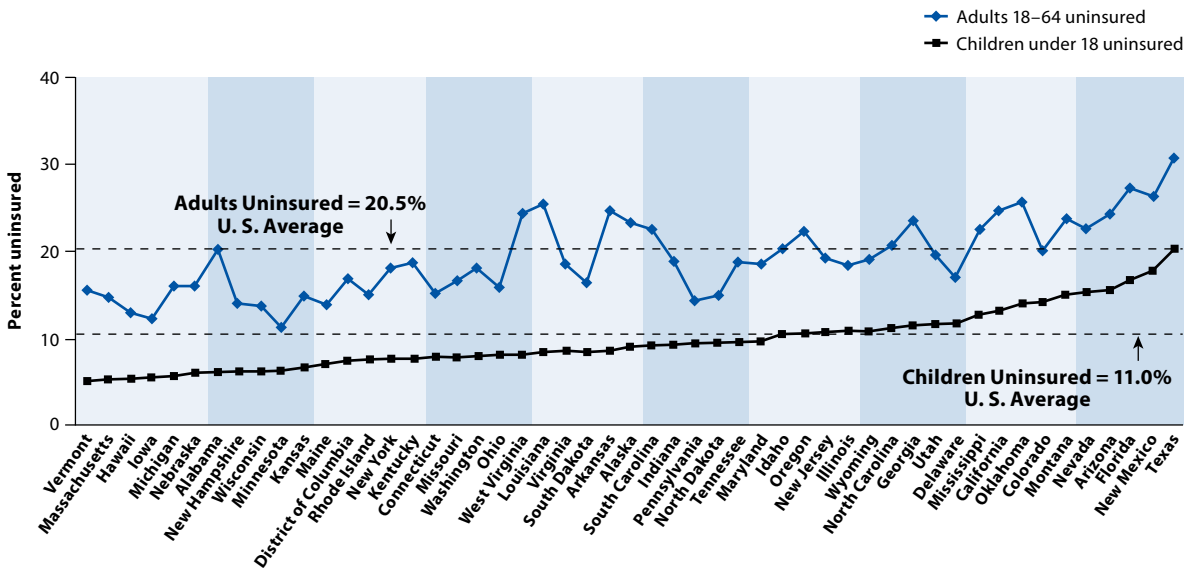
markets—average family premiums now exceed $11,000 per year[3]—the proportion of uninsured adults under age 65 has risen dramatically over the five-year period 1999–2000 to 2004–2005 (Exhibit 6). Based on annual census data, the number of states where 23 percent or more of the adult population is uninsured *tripled*, from four to 12.[4] In sharp contrast, children fared much better during the same time period (Exhibit 7). Thanks to federal support of Medicaid and state expansions through the SCHIP program, the percent of children uninsured declined in most states. In only three states were more than 16 percent of children uninsured in 2004–2005, compared with 10 states in 1999–2000.

Access for low- and modest-income families depends critically on where families live. Insurance coverage rates differ sharply across states.

- Among the states, there is a nearly threefold variation in the percent of adults under age 65 who were uninsured in 2004–2005, ranging from a low of 11 percent in Minnesota to a high of 30 percent in Texas.
- Although in all states children are more likely than nonelderly adults to have health insurance, the proportion of uninsured children varies from a low of 5 percent in Vermont to a high of 20 percent in Texas—a rate four times higher.
- Reflecting differences in state coverage policies, trends in coverage for adults and children have diverged sharply over the past five years. In all but 12 states, the uninsured rate for children has declined. In all but six states, the uninsured rate for adults under 65 has *increased*.
- Alabama stands out in the South for its particularly low uninsured rates for children. In fact, along with Vermont, Massachusetts, Hawaii, Iowa, Michigan, and Nebraska, it is one of the seven states with the lowest rates of uninsured children (Exhibit 8). Alabama's success in covering children, despite being relatively poor and having low levels of private, job-based insurance coverage, reflects its decision early on to expand SCHIP coverage for children in families with incomes up to 200 percent of the poverty level and to pursue aggressive enrollment policies.

ACCESS EXHIBIT 8

Percent of Adults and Children Uninsured by State, 2004–2005



DATA: Census Bureau's March 2005 and 2006 Current Population Survey
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Gaps in insurance coverage create substantial barriers to care and expose people to financial insecurity. If all states achieved the level of coverage in leading states, 17.2 million more adults and 4.4 million more children would have insurance. The number of uninsured across the nation would be halved.

ACCESS: USE AND COST BARRIERS

In addition to insurance, use of health care services provides another marker of access to care. In some instances, poor access to preventive and primary care can actually *increase* utilization of hospital services (see Potentially Avoidable Use of Hospitals on page 30). For most people, good access to care should include at least some regular contact with an ambulatory care provider. The proportion of adults who have visited a doctor at least once in the prior two years provides a marker of such access. Infrequent physician contact might be a red flag for access barriers, indicating possible gaps in insurance coverage, inadequate benefits, or shortages of accessible sources of care. Overall, higher rates of insurance coverage are associated with higher rates of physician contact (see Appendix Exhibit A3).

AFFORDABILITY

Insurance is critical for affordable access. The percent of adults who go without needed care because of costs is up to five times greater in states that have high rates of uninsured adults, compared with states with the lowest uninsured rates. Notably, only about 4 percent of Hawaii's adult population reported they did not see a doctor when needed because of costs. In contrast, nearly 20 percent of adults—one of five—in Mississippi, West Virginia, and Texas went without care because of costs. These states have among the highest rates of uninsured adults in the nation.

The ability to afford health care and health insurance depends on family income as well as the breadth and comprehensiveness of insurance coverage. Premiums vary narrowly across the country; often they are nearly as high, or higher, in low-income states as in high-income states. For example, Maine's average premiums for employer-sponsored insurance rival and even exceed rates in New York, based on national employer surveys ($4,116 for the average annual single premium in Maine versus $3,858 in New York; see Appendix Exhibit A8).

Affordability and coverage are at risk when insurance premiums are high relative to family income or when coverage fails to provide adequate financial protection relative to income. The average cost of employer-sponsored health plans as a percent of median state income ranges from a low of 11.8 percent in Maryland to 19.3 percent and 19.7 percent in West Virginia and New Mexico, respectively (Exhibit 9). Uninsured rates are generally higher in states where premiums are higher relative to average income: 26 percent of adults are uninsured in the five states with the least affordable premiums, while 16 percent are uninsured in the five states with the lowest premiums.

Historically, the nation has relied on employment-based insurance to cover the under-65 population. In all states, low-wage jobs are the least likely to have job-based health benefits. As a result, low-income families—those with incomes below 200 percent of poverty—are at the highest risk of being uninsured. Thus, uninsured rates tend to be highest in states with low average incomes and a high percentage of poor or "near-poor" (those with incomes under 200 percent of the federal poverty level) residents.

Yet, there are notable exceptions that serve to underscore the important role of public policy. Maine's uninsured rates are among the lowest in the country, despite insurance premiums that are high relative to incomes. In contrast, uninsured rates are relatively high in Colorado, New Jersey, and Utah, even though statewide median incomes are higher there and premiums as a percent of median income are lower than those found in Maine (Exhibit 9).

STATE AND FEDERAL POLICY

State policies can help make insurance coverage more affordable for low-income families and businesses. Several states have undertaken coverage expansions that target small businesses and individuals with moderate incomes who cannot afford to purchase private or publicly sponsored coverage without a subsidy. For example, despite

Median Income, Health Insurance Premiums as Percent of Income, and Percent Adults Uninsured by State

	Median household income		Employer-based insurance premiums as percent of median Income		Percent of adults under age 65 uninsured	
	2004–2005	Rank	2003	Rank	2004–2005	Rank
United States	**$46,071**		**14.9**		**20.5**	
Alabama	37,502	45	14.9	26	20.2	34
Alaska	56,398	6	15.5	33	23.0	40
Arizona	45,279	25	16.3	39	24.0	43
Arkansas	36,406	48	17.3	44	24.4	45
California	51,312	12	14.8	24	24.5	46
Colorado	51,518	11	13.8	13	20.1	32
Connecticut	56,889	5	12.6	6	14.9	12
Delaware	50,445	14	15.4	32	16.7	19
District of Columbia	44,949	27	16.9	42	16.7	19
Florida	42,440	36	16.2	37	26.9	50
Georgia	44,140	30	14.9	27	23.4	41
Hawaii	58,854	3	12.1	2	12.8	3
Idaho	45,009	26	15.5	34	20.1	33
Illinois	48,008	18	14.7	23	18.1	23
Indiana	43,091	34	15.0	28	18.6	27
Iowa	45,671	24	13.1	9	12.2	2
Kansas	42,233	37	14.5	19	14.8	10
Kentucky	36,750	47	16.8	40	18.4	25
Louisiana	37,442	46	17.8	47	25.3	47
Maine	43,317	31	17.7	46	13.7	5
Maryland	59,762	2	11.8	1	18.5	26
Massachusetts	54,888	8	12.4	5	14.6	8
Michigan	44,801	28	14.7	22	15.9	16
Minnesota	56,098	7	12.9	7	11.0	1
Mississippi	34,396	51	16.8	40	22.3	37
Missouri	43,266	32	14.1	16	16.5	18
Montana	36,202	49	17.8	48	23.7	42
Nebraska	46,587	20	14.4	18	15.8	15
Nevada	48,496	17	15.0	29	22.5	39
New Hampshire	57,850	4	12.3	4	14.0	6
New Jersey	60,246	1	12.2	3	18.9	29
New Mexico	39,916	42	19.7	51	26.1	49
New York	46,659	19	15.1	31	17.9	21
North Carolina	41,820	39	15.6	35	20.4	35
North Dakota	41,362	40	13.3	10	14.7	9
Ohio	44,349	29	14.5	20	15.6	14
Oklahoma	39,292	44	17.1	43	25.5	48
Oregon	43,262	33	15.1	30	22.0	36
Pennsylvania	45,941	22	13.8	12	14.2	7
Rhode Island	49,511	16	14.2	17	14.8	10
South Carolina	40,107	41	16.2	38	22.4	37
South Dakota	42,816	35	14.6	21	16.3	17
Tennessee	39,376	43	17.4	45	18.7	28
Texas	42,102	38	18.4	49	30.4	51
Utah	53,693	9	14.0	14	19.3	31
Vermont	49,808	15	14.1	15	15.5	13
Virginia	52,383	10	12.9	8	18.3	24
Washington	51,119	13	13.7	11	18.0	21
West Virginia	35,467	50	19.3	50	24.1	44
Wisconsin	45,956	21	14.8	24	13.5	4
Wyoming	45,817	23	16.0	36	19.0	29

DATA: Median income - 2005 and 2006 Current Population Survey; Premium as percent of income - 2003 Medical Expenditure Panel Survey Insurance Component (premium) and 2004 and 2005 Current Population Surveys (income); Adults uninsured - 2005 and 2006 Current Population Survey
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

being a low-income state with premiums well above the national average, Maine has among the lowest adult uninsured rates in the nation, thanks to public expansion efforts in that state.

Differences in uninsured rates for adults and children reflect eligibility criteria for public coverage as well as the extent of private coverage through employers. More than two-thirds of states extend SCHIP coverage to children with family incomes up to 200 percent of the federal poverty level or higher (up to 300%). In stark contrast, 35 states set the Medicaid eligibility threshold for parents below 100 percent of the poverty level—in 14 states a family would have to have income at a level less than 50 percent of poverty before parents would qualify.[5] Moreover, most states cover childless adults only if they are blind or disabled. This sharp contrast between adults' and children's coverage underscores how federal policy (in this case, federal funding for SCHIP) stimulates and supports state action. Other state policies and strategies are also important, such as simplifying the enrollment process for public coverage and engaging in outreach to ensure that all who qualify participate in programs intended for them.

States with high rates of uninsured adults also tend to have historically low rates of employer-based coverage. Many of the states with high rates of uninsured and low employer coverage also have a high percent of the working-age population with earnings at or below 200 percent of poverty. Given these characteristics, federal action to support expansion and raise the floor of income eligibility for public programs will likely be necessary to stimulate substantial progress nationwide.

Quality

Patients and families seeking health and medical care expect that their care providers will recommend and give them the right services, that their care will be well coordinated, and that those delivering services will be responsive to their needs. The organization and delivery of health care by public and private providers play critical roles in shaping the quality and responsiveness of health services. States can create incentives for quality and join with private and public sector leaders and other payers to promote a more responsive and effective health care delivery system in many ways, such as by:

- sponsoring public programs and initiatives (e.g., vaccine delivery programs and registries, pay-for-performance reimbursement strategies);
- promoting quality in public coverage and public employee programs through contracting and participation requirements for health plans and providers;
- collaborating with private and public providers in quality initiatives; and
- monitoring and benchmarking performance through public reporting, all-payer databases, and regulatory/licensing standards.

The *State Scorecard* includes 14 indicators in the quality dimension. These include: seven assessing the extent to which adults and children receive the "right care" (preventive care and care according to medical guidelines when hospitalized); three assessing care coordination; and four assessing patient-centered care for elderly or long-term care patients (see Exhibit 1 for indicators).

As with other dimensions in the *State Scorecard*, there are wide variations in quality performance across states, as well as variation among indicators within states. There are also distinct geographic patterns in states' overall rankings on quality (Exhibit 10). With some exceptions, states in the South, Southwest, and West ranked lowest on this dimension, while states in the Upper Midwest and Northeast ranked highest. The five highest-ranking states

on quality in rank order were Rhode Island, Maine, Massachusetts, Connecticut, and Iowa (see Appendix Exhibit A4). These states ranked in the top quartile across eight to 12 of the 14 quality indicators, with generally high performance on indicators of the right care and coordinated care. However, performance on indicators of patient-centered care, which are based on the experiences of Medicare beneficiaries, did not consistently track that of right care and coordinated care.

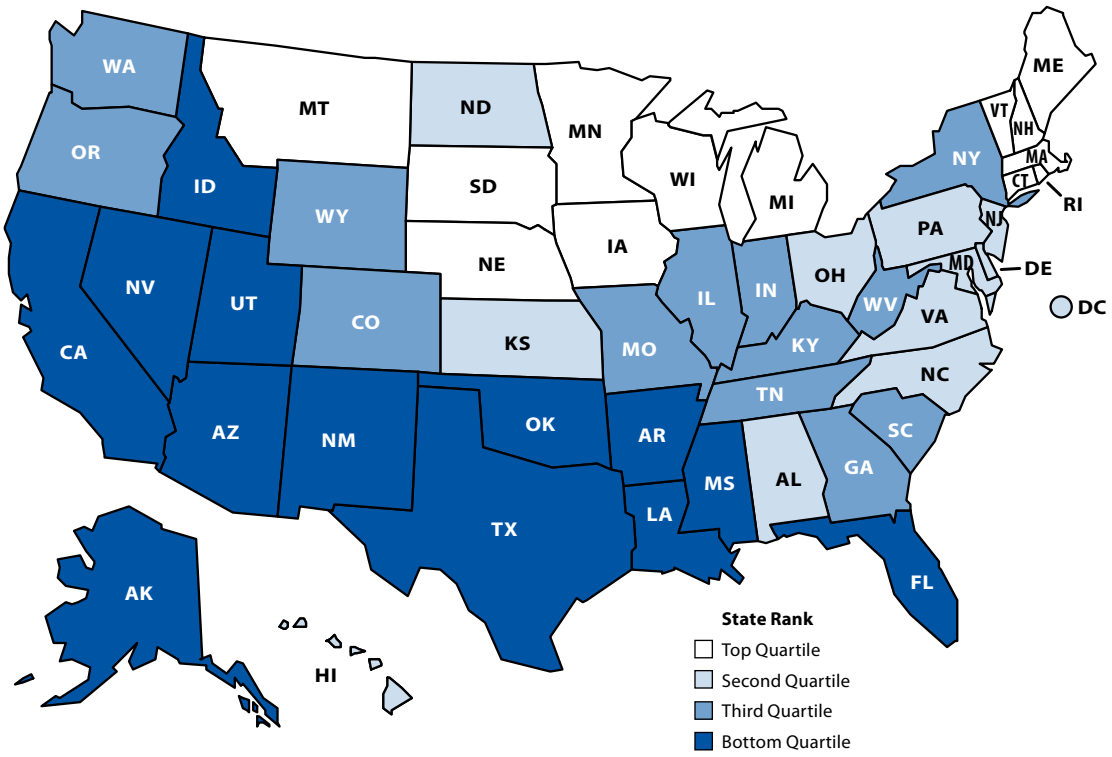
Understanding the health system and policy factors that contribute to higher rates in the leading states may offer insights for achieving higher quality, to the degree that improvement strategies are transferable across indicators and states. Yet, even leading states did not perform consistently well across all 14 indicators, demonstrating that there are opportunities for all states to improve (Appendix Exhibits A4 and A5). In cases where improvement requires strategies focused on specific conditions, populations, or care settings, states can look to peers that perform well on particular indicators.

GETTING THE RIGHT CARE

On average across seven indicators of right care, less than two-thirds of children and adults receive care consistent with established guidelines and professional recommendations, ranging from about three-quarters in the top five states (ranked separately for each indicator) to only about one-half in the bottom five states. Bottom-ranking states would need to improve their performance by about 40 percent, on average, to reach the level of the top-ranking states. Performance on these indicators varies not only by state but also by subpopulation and setting of care, with substantial room for improvement across all states on most indicators.

QUALITY EXHIBIT 10

State Ranking on Quality Dimension



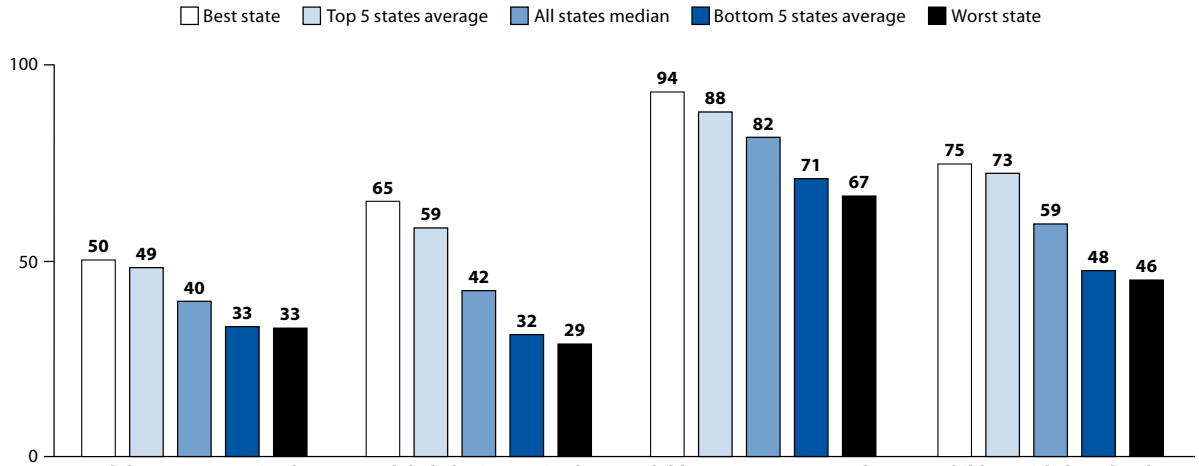
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

- Two indicators of ambulatory care quality for adults reveal especially large gaps. Among top-performing states, only one-half of adults age 50 or older receive recommended cancer screenings and vaccinations and only about two-thirds of diabetics receive three recommended services (blood screening, foot exams, and eye exams). Rates of diabetes management in the bottom five states, where only about one-third of adults receive recommended care, would have to more than double to reach the level achieved by the top states (Exhibit 11).
- Performance on indicators of ambulatory care quality is better for children than for adults, although gaps remain. Rates of five key childhood vaccinations, for instance, range from a high of 94 percent in Massachusetts to an average of 71 percent in the five lowest states (Exhibit 11). There is greater variability among states on annual preventive health and dental visits for children.
- A high proportion of hospitalized adults receive evidence-based treatment for heart attack, heart failure, and community-acquired pneumonia. On a composite of 10 quality indicators, state rates range from a high of 88 percent in Rhode Island to about 80 percent in the lowest-performing states (Exhibit 12).[6] Yet, quality indicators for pneumonia and congestive heart failure show lower average performance and greater state-to-state variation than do indicators for heart attack treatment. Moreover, states performing well on one condition do not necessary perform well on others, suggesting a need for systematic approaches to achieve consistently high performance (see Appendix Exhibit A6).[7]
- There is wide variation in performance on one measure of patient safety included in the *State Scorecard*, the provision and appropriate timing of antibiotics to prevent infections among surgical patients (Exhibit 13). Rates range across

QUALITY: THE RIGHT CARE EXHIBIT 11

State Variation: Ambulatory Care Quality Indicators

Percent



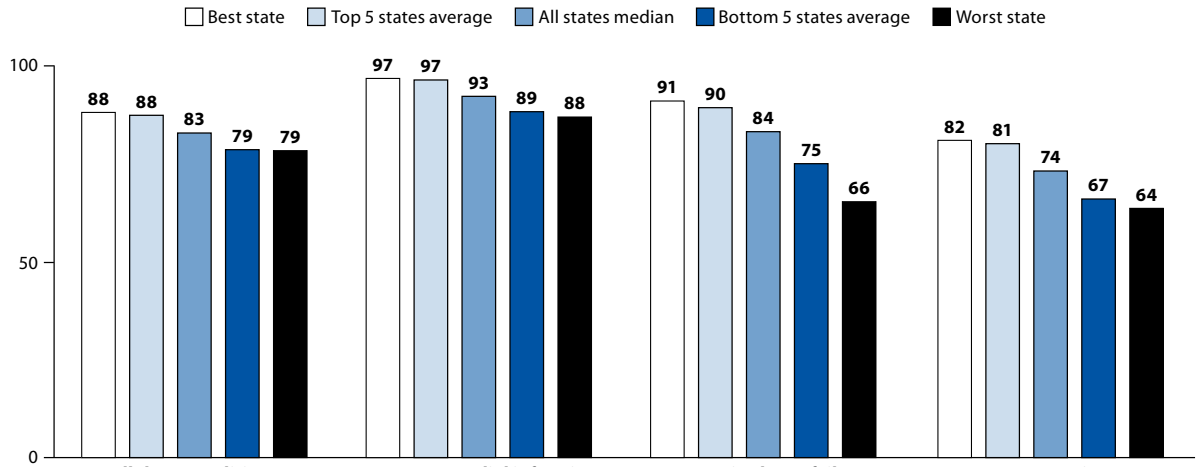
Top 5 states

Adults age 50+ received recommended preventive care	Adult diabetics received three recommended diabetes services	Children ages 19–35 months received five vaccines	Children with dental and medical preventive care visits
1. Minnesota	1. Hawaii	1. Massachusetts	1. Massachusetts
2. Maryland	2. North Dakota	2. Nebraska	2. Rhode Island
3. New Hampshire	3. Minnesota	3. South Dakota	3. New Hampshire
3. Rhode Island	4. Delaware	4. Connecticut	4. Connecticut
5. Connecticut	5. South Dakota	5. Virginia	5. Vermont

DATA: Adult preventive care – 2002/2004 BRFSS; Adult diabetic preventive care – 2002/2004 BRFSS;
Child vaccines – 2005 National Immunization Survey; Child medical and dental visits – 2003 National Survey of Children's Health
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

State Variation: Hospital Care Quality Indicators, 2004

Percent of patients who received recommended care



Top 5 states

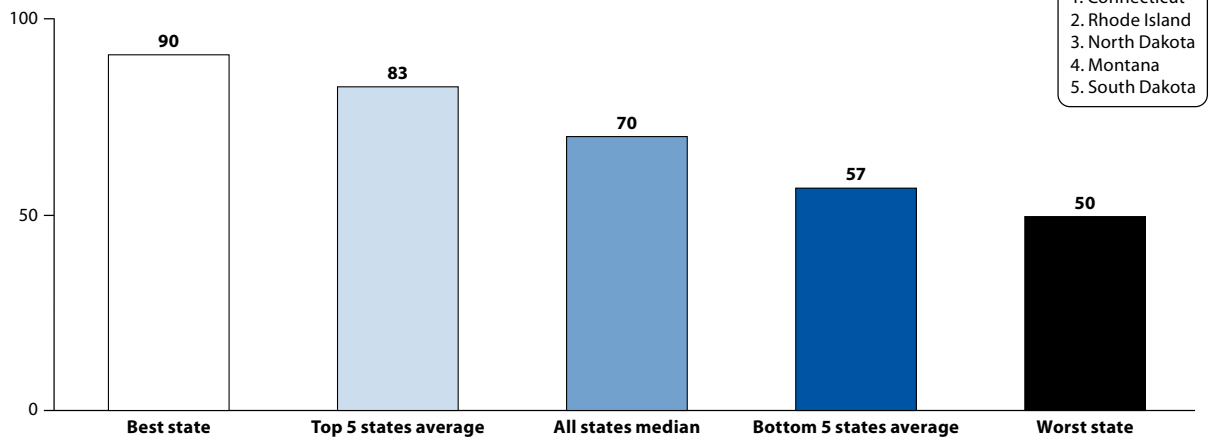
All three conditions (10 indicators)	Acute myocardial infarction (5 indicators)	Congestive heart failure (2 indicators)	Pneumonia (3 indicators)
1. Rhode Island	1. Massachusetts	1. Rhode Island	1. Iowa
2. Nebraska	2. Vermont	2. Massachusetts	2. New Jersey
3. New Jersey	3. South Dakota	3. Connecticut	3. Oklahoma
4. Iowa	4. Montana	4. New Hampshire	4. Nebraska
5. Connecticut	5. Colorado	5. Maine	5. Wyoming

DATA: 2004 CMS Hospital Compare
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

State Variation: Surgical Infection Prevention, 2005

Percent of adult surgical patients who received appropriate timing of antibiotics to prevent infections*

Top 5 states
1. Connecticut
2. Rhode Island
3. North Dakota
4. Montana
5. South Dakota



* Comprised of two indicators: before and after surgery.
DATA: 2005 CMS Hospital Compare
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

states from 50 percent in Nevada to 90 percent in Connecticut, indicating substantial opportunity for improvement in poorly performing states.

COORDINATED CARE

Errors and omissions in health care can occur because of coordination gaps that result in poor access to patient information, delays, and failures to communicate and exchange critical medical history, test results, or medication information when patients move from one health care setting to another. Poor coordination can also lead to unnecessary costs and exposure of patients to risk because of redundant and unnecessary medical testing. Data on three indicators of coordinated care reveal some of the greatest regional and interstate variation and performance gaps among all quality indicators (Exhibit 14).

- Having a "usual source of care" (a personal doctor or other provider) is one well-accepted marker of continuity and coordination of care. Most adults have a usual source, but the proportion varies from 89 percent in Pennsylvania to only 71 percent in the five bottom-ranking states (Exhibit 14).
- A more comprehensive indicator of the provider–patient relationship is available for children. For this measure, a "medical home" is defined as having an accessible primary source of care to help coordinate care and receiving all needed care, including at least one preventive care visit in the prior year.[8] Only 61 percent of children have care arrangements meeting this standard in New Hampshire, the best-performing state. The range is wide: just over one of three children in the five bottom-ranked states report having such a medical home (Exhibit 14). The lower performance on this measure of care coordination, as compared with adults having a usual source of care, probably reflects the stricter standard being measured. This underscores the need for comparable data on this important construct for the adult population.
- One marker of coordination of care for hospitalized adults—provision of written discharge instructions for patients with congestive heart failure—shows states falling seriously behind a care standard (Exhibit 14). Congestive heart failure is a complex condition that frequently requires hospitalization when care management fails. This condition is particularly sensitive to poor care coordination, as patients and their doctors often must manage multiple medications as well as complex diet and physical activity regimens. In 2004–2005, more than 50 percent of heart failure patients in over half of the states did not receive complete discharge instructions. About two-thirds of patients in the top-ranked states received discharge instructions, compared with only about one-quarter in the bottom-ranked states.

All states have substantial room for improvement on right care and coordination of care metrics. Even the best rates are often low. Yet, the gaps in quality between leading and other states point to substantial missed opportunities for primary and preventive care. For example:

- If performance in all of the states on screening rates for older adults or basic care for diabetics reached levels achieved by the top states, 8.6 million additional older adults and 3.6 million diabetics would receive basic care according to clinical guidelines.
- If adults and children were connected with usual sources of care at the rates achieved in top states, an additional 33 million would have a primary care connection.

PATIENT-CENTERED CARE

Patient-centered care takes into account patients' preferences, needs, and values. Patients' experiences can, in turn, influence the way they use and benefit from the health care system and manage their conditions.

Patients are most likely to form partnerships with their care providers when providers are responsive to concerns and explain medical information in ways patients can understand. Among Medicare fee-for-service patients, the proportion reporting that their providers always communicated well did not vary greatly across states, ranging narrowly

from 73 percent in top-ranked states (Vermont, Maine, Rhode Island, Louisiana, and Montana) to 65 percent in bottom-ranked states (Colorado, Florida, New Mexico, Utah, and Arizona). Medicare beneficiary ratings of their overall care experiences showed a similar range (see Appendix Exhibit A5). The range of performance on these measures was the narrowest among quality-of-care indicators in the *State Scorecard*.

Currently, information about patient experiences among the under-65 population at the state level is not generally available. What information exists is spotty. Although, some private health plans report CAHPS (Consumer Assessment of Healthcare Providers and Systems) patient survey data to the National Committee for Quality Assurance and some states collect information for some of their Medicaid beneficiaries, the current level of reporting is inadequate to view statewide experiences for the under-65 population. The Medicare patient reports likely represent a more positive range of experiences than would a full population survey, as all Medicare beneficiaries are insured for at least a minimum scope of benefits and elderly patients tend to give higher ratings than nonelderly adults.[9]

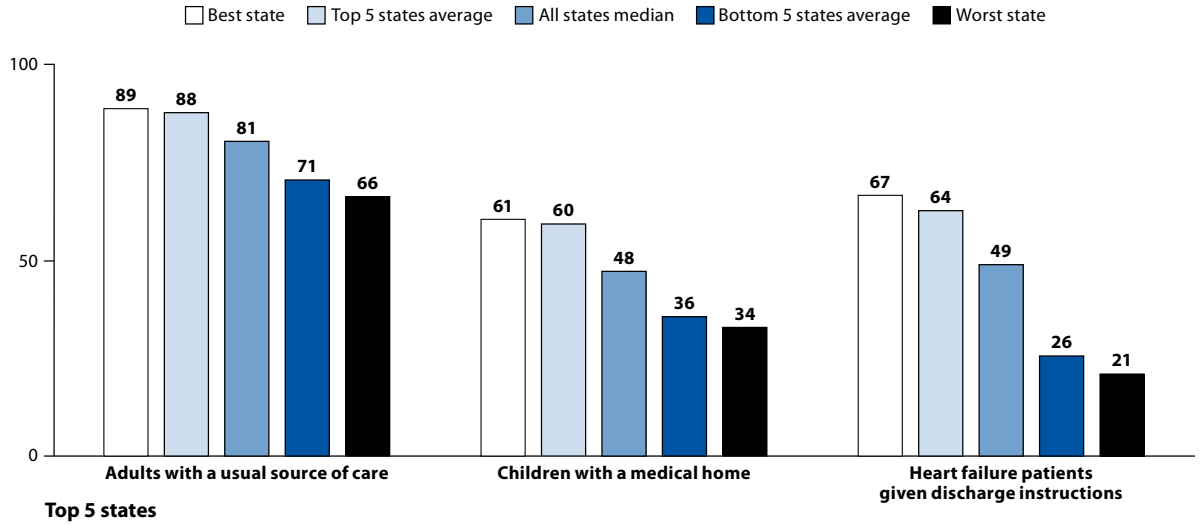
Two measures of patient-centered care for vulnerable nursing home residents show wide interstate variability.

- Pressure sores can result from inadequate care of patients who have limited ability to move (although pressure sores sometimes occur even with the best care). About 13 percent of high-risk nursing home residents (i.e., comatose residents and others who cannot move or change position on their own, as well as residents who do not get or absorb the nutrients they need) had pressure sores during 2004 across all states. The 17.7 percent pressure sore rate in the worst-performing states (Illinois, Oklahoma, Louisiana,

QUALITY: COORDINATED CARE EXHIBIT 14

State Variation: Coordination of Care Indicators

Percent



Top 5 states

Adults with a usual source of care	Children with a medical home	Heart failure patients given discharge instructions
1. Delaware	1. New Hampshire	1. New Jersey
2. Maine	2. Rhode Island	2. Rhode Island
3. Pennsylvania	3. Massachusetts	3. Maine
4. New Hampshire	4. Connecticut	4. Connecticut
5. Massachusetts	5. Vermont	4. Ohio
		4. South Dakota

DATA: Adult usual source of care – 2002/2004 BRFSS; Child medical home – 2003 National Survey of Children's Health; Heart failure discharge instructions – 2004-2005 CMS Hospital Compare
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

New Jersey, and the District of Columbia) was more than double the 8.1 percent rate achieved by states with the lowest rates (North Dakota, Montana, Maine, Idaho, and Iowa).

- Use of physical restraints on nursing home residents can contribute to increased prevalence of pressure sores and social isolation of residents. Federal regulations assert that nursing home residents have the right to be free of restraints that are not required to treat medical symptoms. Restraints are rarely used on nursing home residents in some states (e.g., only 1.9% of residents were restrained in Nebraska), suggesting that it is possible to substantially reduce their use. Physical restraints are used much more frequently (on an average of 14.1% of residents) in the five states with the worst performance on this measure (Utah, Oklahoma, Louisiana, California, and Arkansas) (Appendix Exhibit A5).

Some states that are ranked high on the overall quality dimension perform poorly on patient-centered care measures. For instance, Rhode Island, the top-ranked state on quality, is in the bottom quartile in terms of the proportion of high-risk nursing home residents with pressure sores. Conversely, some states such as Hawaii and Montana that have lower overall quality scores perform better on patient-centered care.

Potentially Avoidable Use of Hospitals and Costs of Care

Efficient health systems should ensure quality, access, and healthy outcomes while minimizing the costs of care. *State Scorecard* indicators in this dimension focus on an important measure of efficiency: rates of potentially avoidable and expensive hospital care. A comprehensive evaluation of health system efficiency would compare broader measures of inappropriate care, waste, and administrative overhead, but such measures are not currently available at the state level.

This *State Scorecard* dimension also includes two important indicators of health care cost—average private health insurance premiums and Medicare annual spending per enrollee. Higher cost is not necessarily a marker of inefficiency if the health system delivers greater access, improved quality, and better outcomes in return. Yet, the *National Scorecard* and other studies have found little systematic relationship between higher costs and higher quality within the United States. Moreover, international comparisons indicate that the U.S. health system as a whole is not delivering higher value commensurate with the much higher level of spending in the United States compared with several other nations.

Broad-based evidence from a rich array of studies of health outcome and cost variations within the United States indicates the potential for states and the nation to achieve higher-value health systems, supporting better outcomes, higher quality, improved access, and savings compared with current trends.[10] As in the *National Scorecard*, *State Scorecard* indicators in this dimension illustrate the need for policies to move toward high-value, efficient health systems that aim higher for all core dimensions of performance.

Clinicians and health systems have the capacity to achieve greater efficiency in patient care, but their efforts may not be rewarded by the payment methods in private insurance and public programs.[11] Policymakers seeking to enhance health system efficiency can use several levers, including recalibrating and aligning incentives embedded in Medicare and Medicaid payment systems, regulating the supply of health care facilities, promoting enhanced primary care capacity, and adopting policies to support better integration and coordination of care. For example, many states are exploring the potential of health information systems to improve quality and efficiency by linking care across sites and giving physicians and other providers decision-support tools. Public health initiatives can further address long-term population health trends (such as rising rates of obesity and chronic diseases) that contribute to increased use of health care resources.

Rates of potentially avoidable hospital admission from complications of chronic disease and rates of

hospital readmission are indicators of health care access and quality as well as costs. This indicator set also serves as symptoms of *failures* to get the right care, gaps in access to care, and/or poor coordination of care during transitions. Thus, low rates on these potentially preventable hospital use indicators point to systems that may be achieving better outcomes through more effective care management in primary care practices and more timely access, as well as through basic preventive and public health efforts to prevent chronic disease.

Overall, states in the Upper Midwest, Southwest, and Pacific Northwest rank high on the this dimension, while many in the South and Northeast rank near the bottom (Exhibit 15). The five top-ranked states are Utah, Oregon, Idaho, Hawaii, and New Mexico. Each of these states has relatively low rates of potentially preventable hospitalizations as well as relatively low annual Medicare spending per enrollee and average private health insurance premiums. Notably, of these five, only Hawaii is a top-ranked state across all *State Scorecard* dimensions. Although comparisons are hampered by missing data for some states, the top-ranked quartile of states generally performs well across most indicators of hospital use and costs (see Appendix Exhibits A7 and A8).[12]

Interstate variations for many of the indicators in this dimension are among the widest of all *State Scorecard* indicators, suggesting that there are opportunities to lower costs and improve patient care by reducing complications that result in emergency room use or hospital readmissions.

POTENTIALLY AVOIDABLE USE OF HOSPITALS

Some hospital admissions, readmissions, and emergency visits for ambulatory care sensitive (ACS) conditions can be averted through effective management of chronic conditions such as asthma and diabetes and timely preventive care such as vaccinations against influenza and pneumonia. Access to primary care after normal office hours through links to community-based physicians and care centers can also help to avoid hospitalizations or emergency care.

Among vulnerable populations, including nursing home residents and home health care patients, hospitalizations and re-hospitalizations often can be prevented by careful hospital discharge and transition care. Monitoring patients for signs of decline and stepping up care when needed can also help to avoid complications.

- There is a twofold spread across states in the rates of potentially preventable admission for ambulatory care sensitive conditions among Medicare beneficiaries, ranging from more than 10,000 per 100,000 beneficiaries in the highest-rate states (all in the South) to less than 5,000 in the lowest-rate states (Hawaii, Utah, Washington, Alaska, and Oregon) (Exhibit 16).
- Among 33 states that collect all-payer hospital data, admission rates for pediatric asthma varied from 55 per 100,000 children in Vermont to 314 per 100,000 in South Carolina—nearly six times higher. Likewise, the proportion of asthmatic adults that used emergency care in a year varied among 36 states, from 9 percent in Iowa to 29 percent in Mississippi.

The extent of patient "churning" in and out of hospitals also varies by state. Among Medicare beneficiaries, there is a twofold variation across states in rates of hospital readmission within 30 days. There is a threefold variation in rates of hospital admission and 90-day readmission among long-stay nursing home residents (Exhibit 17).

- Nearly one of four Medicare patients (24%) discharged from the hospital is readmitted within 30 days in Louisiana and Nevada, compared with only 13 percent in Vermont and Wyoming, the two states with the lowest rates.
- Among long-stay nursing home residents, hospital admissions range from a low of 8 percent in Utah to a high of 25 percent in Louisiana. Readmission rates within 90 days for nursing home residents range from a low of less than 7 percent in Oregon to 18 percent in Mississippi.
- Home health patients are admitted to the hospital at even higher rates, with similar interstate variation.

If all states could achieve the level of the lowest rates of admissions for ACS conditions and lowest rates of hospital readmission, the cumulative effect would be to reduce these hospitalizations by 30 to 47 percent and save Medicare $2 billion to $5 billion each year. Potential savings would be still greater if similar reductions extended to all patients insured by private payers and Medicaid.

The variations add up to substantially different outcomes in terms of access to and quality of care, as well as costs. Some states, such as Utah, Oregon, Washington, and Idaho, have notably low rates of potentially preventable hospital use, suggesting that underlying health system factors provide efficiencies and quality of care. Indeed, if these indicators were included in the quality dimension, each of these states would move up a quartile—rising 17 to 18 places in rank.

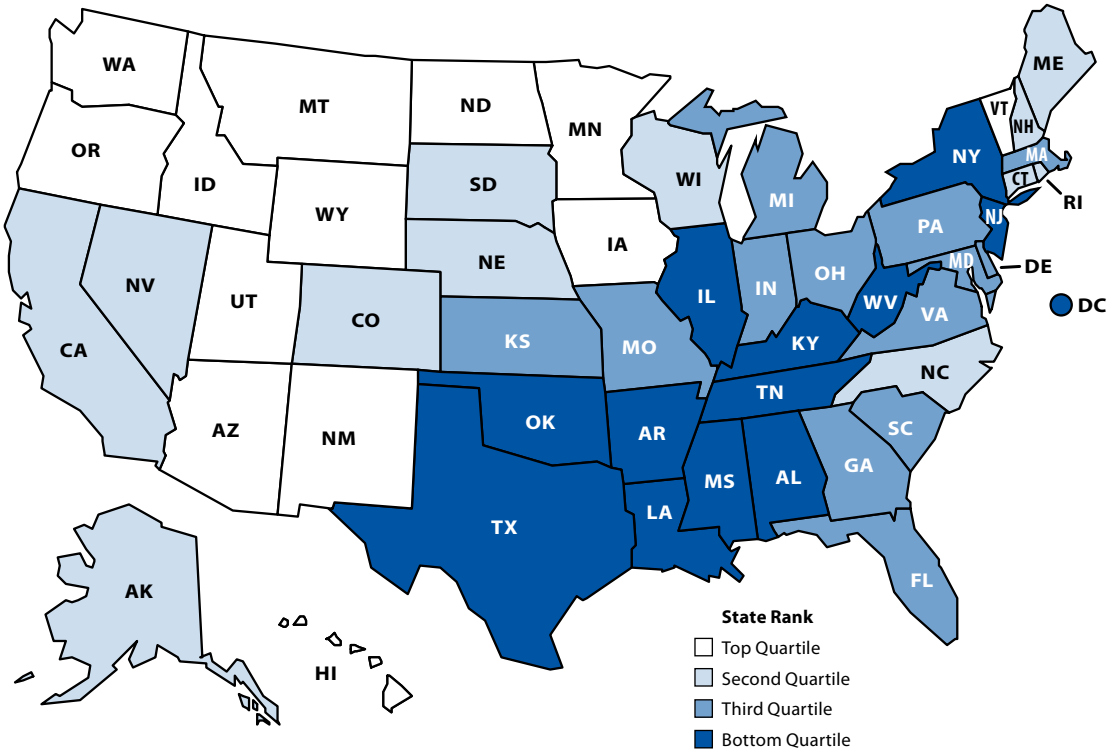
As discussed in the Healthy Lives section below, a better understanding of how the organization of care systems, population health policies, and underlying population health risks interact and affect cost and care outcomes for diabetes, asthma, and other conditions could inform strategic efforts to improve.

COSTS OF CARE

The costs of health care also vary widely by state. Some factors beyond the direct control of policymakers, such as prevailing wage rates, certainly affect service costs and insurance premiums. However, other contributing factors are amenable to public and private policies, including the degree to which the health system emphasizes primary care, population health improvement, and care coordination, and the extent to which payment

AVOIDABLE HOSPITAL USE AND COSTS EXHIBIT 15

State Ranking on Potentially Avoidable Use of Hospitals and Costs of Care Dimension



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

methods and incentives support and reward more efficient care systems.

There is substantial variation in total costs of care across states, as measured by Medicare annual costs per beneficiary, with no systematic relationship between the cost and quality of care. Some states with high rankings for access to care and high quality have low relative costs. Iowa, Minnesota, and Wisconsin, for example, have low annual Medicare spending per person and are also among the leading states for access and quality. The wide variation in Medicare costs, adjusted for the health and age mix of beneficiaries, points to opportunities for net national gains from provision of more efficient care.

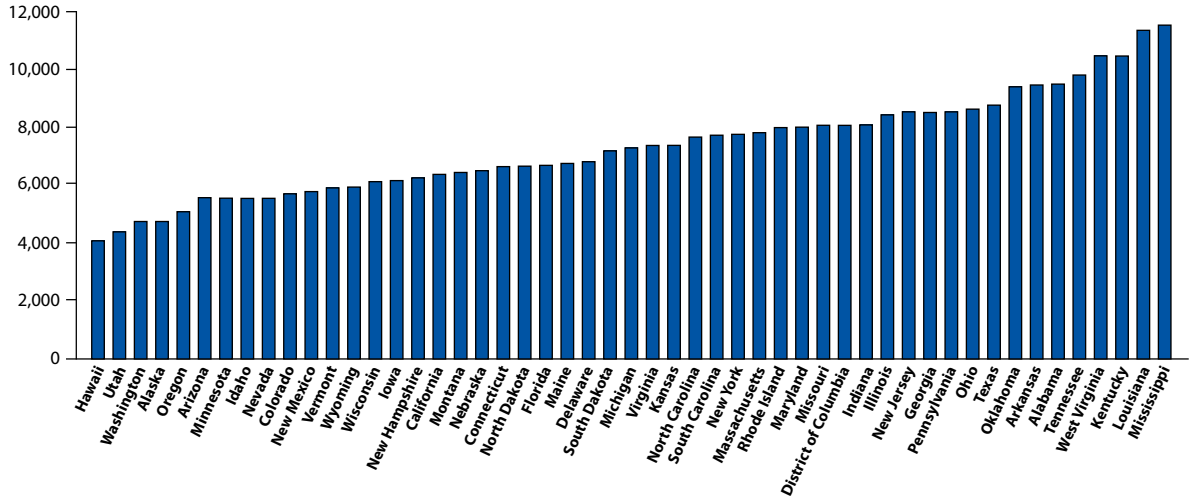
There is a close correlation between high overall costs and high rates of potentially preventable hospital use—indicating that there are opportunities to improve care experiences and lower costs by focusing policies on symptoms of inefficiency.

- Medicare—which has a uniform benefit structure and payment methodology across the country—provides a good basis for comparing health costs across states. Medicare fee-for-service adjusted annual spending per enrollee ranged twofold among states in 2003, from a low of about $4,500 in Hawaii to a high of just over $8,000 in New Jersey.[13]
- Analyses of the factors contributing to these variations find a strong association between health care costs and the mix of primary and specialized care services as well as efficient hospital use.[14]
- Moreover, analysis in the *National Scorecard* of Medicare beneficiary survival rates one year after hospitalization for heart attack, colorectal cancer, or hip fracture finds that cost and health outcomes vary widely, with little association. Some regions of the country achieve superior outcomes at lower costs and some regions have both high costs and poor outcomes.[15]
- The costs for private health insurance premiums for adults under 65 also vary across states, but more narrowly than Medicare annual costs per enrollee. In 2004, average annual premiums for individual employer-sponsored policies were about $3,700. The cost of such premiums ranged from 13 percent below average, or $3,200, in the five lowest-cost states (Utah, Hawaii, Arkansas, Georgia, and North Dakota) to 15 percent above average, or $4,200, in the highest-cost states

AVOIDABLE HOSPITAL USE AND COSTS EXHIBIT 16

State Rates of Ambulatory Care Sensitive Hospital Admissions Among Medicare Beneficiaries, 2003

Admissions per 100,000 beneficiaries

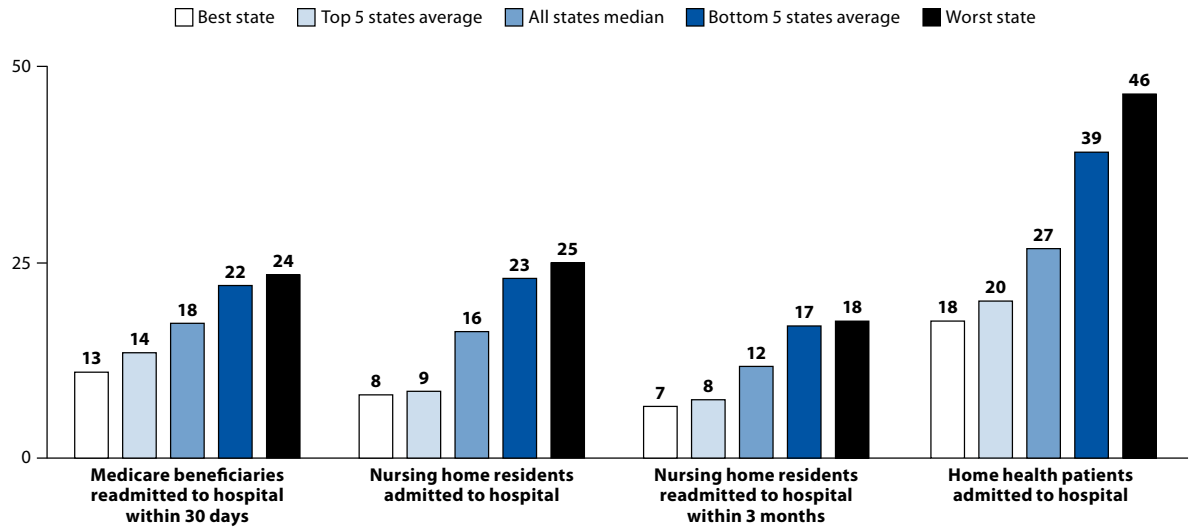


DATA: 2003 Medicare SAF 5% Inpatient Data
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

AVOIDABLE HOSPITAL USE AND COSTS EXHIBIT 17

State Variation: Hospital Admissions Indicators

Percent



Top 5 states

Medicare beneficiaries readmitted to hospital within 30 days	Nursing home residents admitted to hospital	Nursing home residents readmitted to hospital within 3 months	Home health patients admitted to hospital
1. Vermont	1. Utah	1. Oregon	1. Utah
2. Wyoming	2. New Mexico	2. Arizona	2. Arizona
3. Iowa	3. Maine	3. California	3. Oregon
4. Oregon	4. New Hampshire	4. Utah	4. Washington
5. Nebraska	5. Oregon	5. Washington	5. Florida

DATA: Medicare readmissions – 2003 Medicare SAF 5% Inpatient Data; Nursing home admission and readmissions – 2000 Medicare enrollment records and MedPAR file; Home health admissions – 2004 Outcome and Assessment Information Set
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

(Maine, Massachusetts, the District of Columbia, Rhode Island, and Alaska).

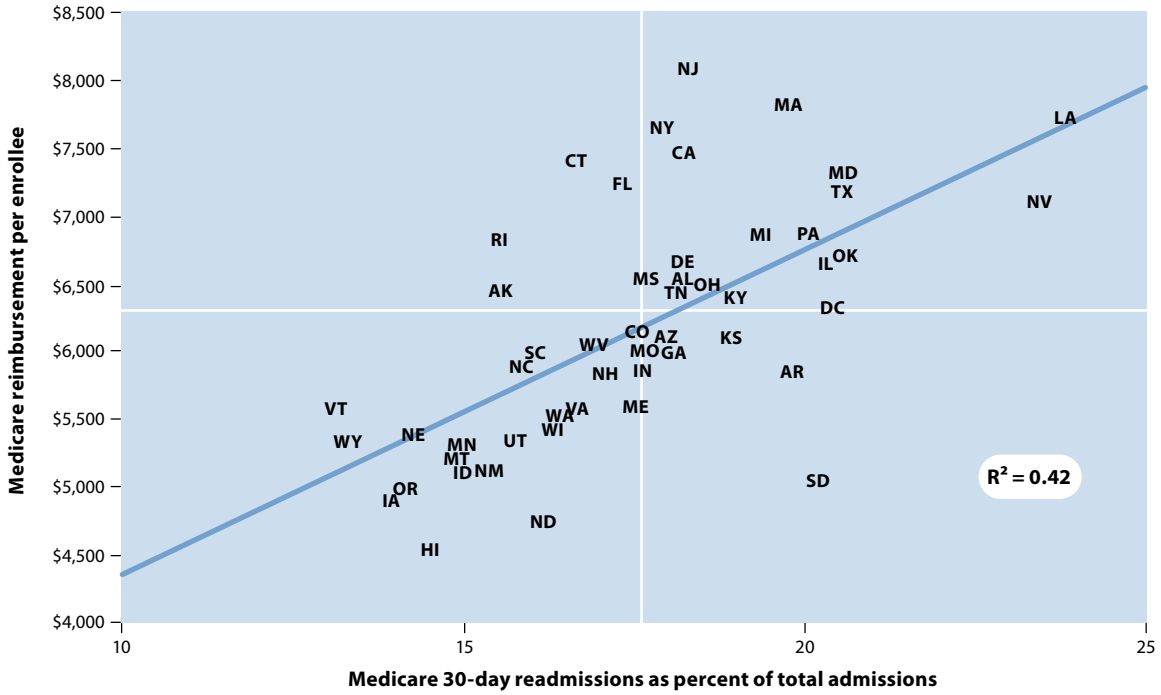
- Notably, the average cost of premiums for private group coverage varies much less than do state incomes. For example, median incomes in Maine and West Virginia are below the U.S. average, yet the states have above-average premiums. Conversely, in several states with relatively high median incomes, including Maryland, Connecticut, Colorado, and Massachusetts, the average cost of health insurance premiums is near the national average. Available data on private insurance premiums do not adjust for patient cost-sharing or scope of benefits. Thus, adjustment for differences in the extent of coverage could reduce or widen variability in premium costs across states.[16]

EFFICIENT CARE SYSTEMS AND TOTAL COSTS OF CARE

The close association of Medicare costs and hospital utilization suggests potential targets for strategies to improve the efficiency of care. As illustrated in Exhibit 18, states with high rates of "churning" in and out of hospitals have higher overall total annual costs of care for beneficiaries than states with lower rates of repeat hospitalizations. The relationship between more intensive and potentially avoidable use of hospitals and high costs also holds for two other indicators: rates of admission for ambulatory care sensitive conditions and rates of hospital admission and readmission among nursing home residents. The patterns suggest that effective transitions across care settings and links between primary care and hospital-based providers could improve efficiency of care and reduce costs.[17]

AVOIDABLE HOSPITAL USE AND COSTS EXHIBIT 18

Medicare Reimbursement and 30-Day Readmissions by State, 2003



DATA: Medicare reimbursement – 2003 Dartmouth Atlas of Health Care; Medicare readmissions – 2003 Medicare SAF 5% Inpatient Data
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

- States with the highest proportion of Medicare patients readmitted to the hospital within 30 days (Maryland, Texas, Nevada, and Louisiana) are also among the 10 states with the highest per-beneficiary costs (Exhibit 18).
- The 30-day readmission rate could be a key indicator of underlying care patterns that increase costs. Average total Medicare costs per year are 38 percent higher in the five states with the highest 30-day readmissions, compared with the five states with the lowest rates of readmissions ($7,200 vs. $5,200).
- Rates of admission and readmission to hospitals among nursing home residents are relatively high in Georgia, Kentucky, Texas, Oklahoma, New Jersey, West Virginia, Arkansas, Louisiana, and Mississippi. Most of these states have relatively higher costs overall, and fall in the bottom half of the ranking on Medicare costs.

These findings suggest that efforts to improve primary care and care transitions could improve population health and achieve savings through more efficient use of specialized and expensive resources.

Equity

A state's health system should be judged by how well it performs for its most vulnerable residents. Through programs such as Medicaid and SCHIP, all states devote considerable resources to providing care for low-income residents and other vulnerable groups. Policy strategies such as raising eligibility thresholds for public coverage and eliminating barriers to enrollment and retention can contribute substantially to improved access to care for such groups. Building health system capacity and promoting

quality of care through safety net providers can further reduce disparities in access and quality between the insured and uninsured.

The *State Scorecard* assesses equity by comparing gaps in performance among subgroups of patients by income level, insurance coverage, and race/ethnicity. The analysis compares performance levels among each state's most vulnerable populations to the national average for selected scorecard indicators for which data are available.

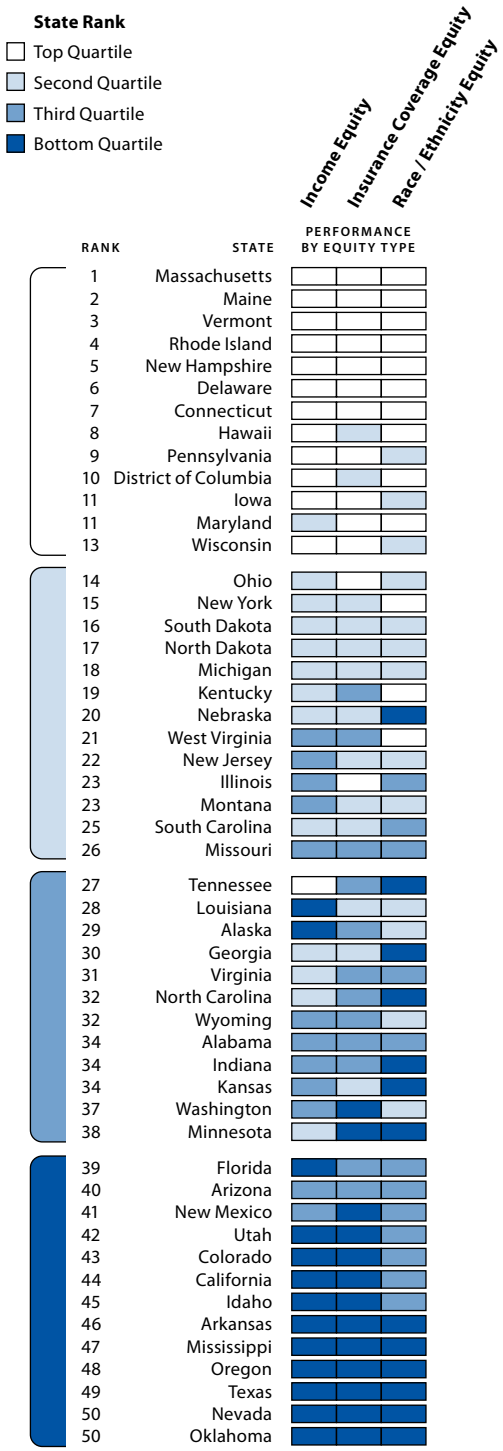
States ranked at the top of the equity dimension overall tend to have the smallest gaps in performance between national averages and low-income, uninsured, and minority groups (Exhibit 19). Five New England states—Massachusetts, Maine, Vermont, Rhode Island, and New Hampshire—score in the top quartile on this dimension for all three vulnerable population groups. Conversely, 10 of the 13 states in the bottom quartile of the overall equity ranking are also in the bottom quartile for at least two of the three subgroups (race/ethnicity, income level, and insurance coverage). Six states are in the bottom quartile for all three subgroups.

The lowest-ranking states on the equity dimension are in the South and West. Yet other states in these regions, including Alaska, Montana, and West Virginia, rank in the top half of the equity rating. This pattern suggests that states facing similar regional circumstances and challenges can still effectively tackle disparities in care.

There are wide equity gaps in *State Scorecard* measures for vulnerable populations, with the extent of disparities varying across the states. States that perform well in general on overall statewide rankings tend to have smaller equity gaps among vulnerable populations. Some high-performing states provide care to traditionally disadvantaged groups that, by some indicators, is better than the national average. For example, the percent of low-income diabetics receiving basic recommended services was higher in Minnesota (63%) and North Dakota (60%) than the average among all diabetics across

EQUITY EXHIBIT 19

Equity Dimension and Equity Type Ranking



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

the nation (39%). States with large gaps in asthma care might learn lessons from the ambulatory care management strategies in these four states.

Conversely, in states that rank low on overall performance across all five dimensions, low performance extends even to high-income, insured, and non-minority groups.

The following section examines gaps in terms of access to and quality of care, focusing on disparities by income level and insurance status. The Healthy Lives section, below, examines how well state health systems support their residents' ability to live long and healthy lives and explores disparities by race or ethnicity.

INCOME AND INSURANCE

In most states, the quality of care varies by income and insurance, with lower income and lack of insurance linked to lower quality. But such gaps are widest in states that perform poorly on indicators of quality and access overall. Gaps are particularly wide in terms of receipt of preventive care (Exhibit 20). On average across the nation, 78 percent of uninsured and 71 percent of low-income adults age 50 and older did not receive recommended preventive services, compared with 59 percent of insured and 54 percent of higher-income adults. A similar pattern exists among diabetics. On average, 67 percent of low-income diabetics did not receive basic care according to guidelines for their condition.

The extent to which children have a medical home also depends on their family's income and their insurance status. Top-ranked states on equity generally performed well for all children, including those in low-income families or without health insurance (Exhibit 21).

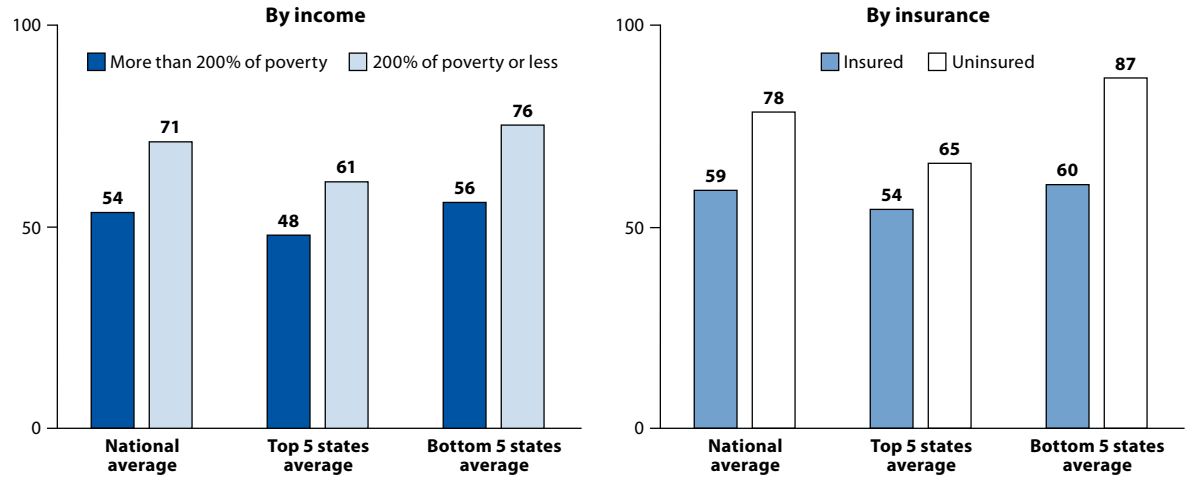
In most states, variation on many indicators is much greater among uninsured than insured populations. For instance:

- The proportion of insured adults who reported not seeing a doctor because of cost was under 14 percent in all states. Among the uninsured, the proportion reporting this ranged from a low of about one of four uninsured residents in North Dakota and Hawaii to a high of 52 percent in the five states with the largest gap for this indicator.

EQUITY EXHIBIT 20

Lack of Recommended Preventive Care by Income and Insurance

Percent of adults age 50+ who *did not* receive recommended preventive care

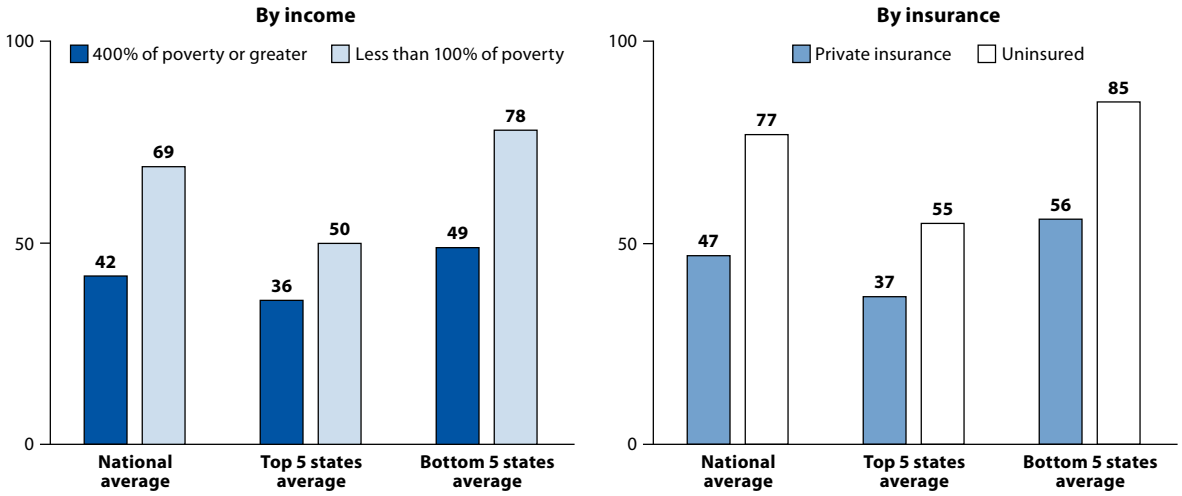


Note: Top 5 states refer to states with smallest gap between national average and low income/uninsured.
Bottom 5 states refer to states with largest gap between national average and low income/uninsured.
DATA: 2002/2004 BRFSS
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

EQUITY EXHIBIT 21

Absence of a Medical Home by Income and Insurance

Percent of children *without* a medical home



Note: Top 5 states refer to states with smallest gap between national average and low income/uninsured.
Bottom 5 states refer to states with largest gap between national average and low income/uninsured.
DATA: 2003 National Survey of Children's Health
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

- Across the nation, on average only 14 percent of adults with insurance coverage reported not having a usual source of care. Among the uninsured, proportions without a usual source of care ranged from 38 percent in the states with the smallest disparities to 70 percent in the states with the largest disparities.

ACCESS AND QUALITY: RACE AND ETHNICITY

The *State Scorecard* compares health care access and quality experiences by racial and ethnic groups, focusing on states with substantial minority populations. Because minorities often have lower incomes and are more likely to be uninsured than whites, the disparities observed among minorities also reflect differences related to income and insurance status.

Across states, equity gaps vary by minority group. Hispanics tend to have the highest uninsured rates and are the least likely to report a regular source of care among U.S. race/ethnic population groups. Both black and Hispanic children are at high risk of lacking a medical home: rates of children lacking medical homes were 14 percentage points higher among black children and 23 percentage points higher among Hispanic children than white children (Exhibit 22). Minority adults, too, are at great risk of missing recommended preventive care. In some states, as many 75 percent to 80 percent of black and Hispanic adults age 50 and over did not receive all preventive care recommended for this age group, including cancer screening. The gaps were generally widest in states with the highest uninsured rates.

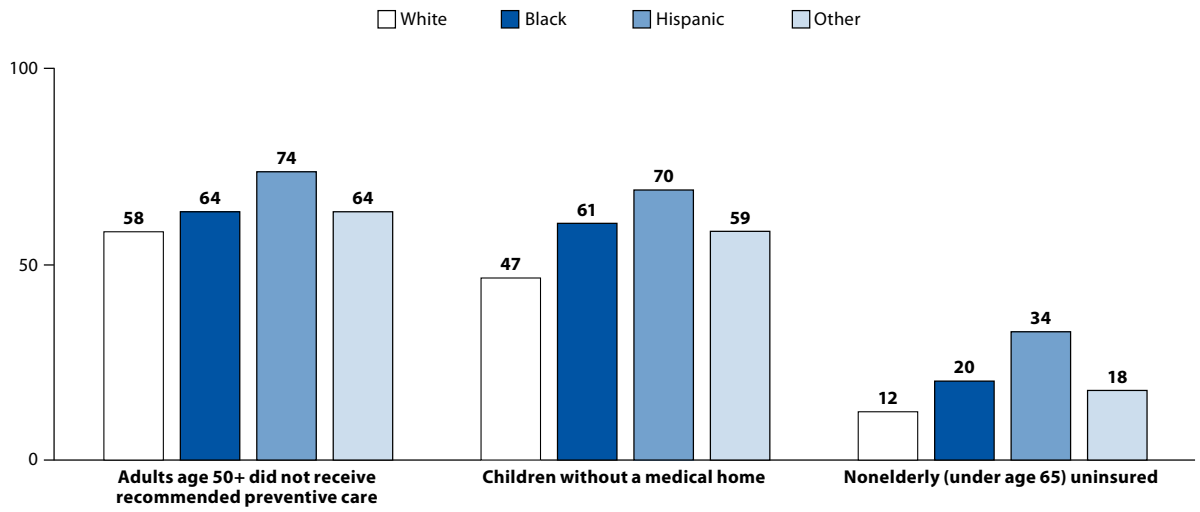
Some states ranked low on measures of equitable care for racial/ethnic minorities as a result of large shortfalls for selected minority groups that comprise relatively small shares of their total populations. For example, Minnesota's scores were often low for a group that included Asian Americans and Native Americans. For these states, improvement efforts focused on these groups could substantially reduce health disparities.

This analysis of racial and ethnic disparities focuses on subgroups for which there were sufficient data for comparisons. As a result, small states with relatively homogeneous populations, such as Maine,

EQUITY EXHIBIT 22

Quality and Access Indicators by Race/Ethnicity, National Averages

Percent



DATA: Adult preventive care – 2002/2004 BRFSS; Child medical home – 2003 National Survey of Children's Health; Uninsured – 2005 and 2006 Current Population Survey
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Vermont, and Wyoming, often had few subgroups for ranking.

However, the absence of race/ethnicity data for some states appears to have little impact on equity rankings. Overall, the rankings for racial and ethnic disparities closely follow rankings observed in the income and insurance analyses. States in which low-income and uninsured groups fared better also tended to have the smallest gaps for minority subgroups. As a result, the equity rankings remain similar regardless of whether racial and ethnic disparities are considered.

Using the national average is only one possible benchmark with which to assess equity. In separate analyses, we also assessed equity by comparing experiences among low-income, uninsured, and racial/ethnic minorities to experiences among their counterparts—higher-income, insured, and white populations within each state. With a few exceptions, this alternative method yielded results similar to the equity rankings using the national average as the benchmark.[18]

Healthy Lives

An overarching goal of the health care system is to contribute to long and healthy lives. This can be accomplished through public health initiatives, preventive care, care for sickness or injury, management of chronic conditions, and compassionate care at the end of life. Following the *National Scorecard*, the *State Scorecard* assesses how well states support their residents' healthy lives through indicators of mortality amenable to health care and health-related limitations faced by adults. The analysis found a wide range of health outcomes across states on multiple indicators. Improving health outcomes is a challenge for health care and public health systems, as states grapple with underlying population risks such as rising rates of obesity or high levels of poverty that put individuals' health and quality of life at risk.

No indicators are currently available across states that measure the quality of life from conditions amenable to health care, rates of chronic disease under control, or the ability to participate in work

or community life as a result of timely, appropriate care for potentially disabling conditions. Yet, rates of chronic disease have been rising among adults and children across the United States, necessitating public health and health care system responses. Notably, three conditions—heart disease, diabetes, and cancer—account for most of the variation among states in rates of mortality amenable to care. States are increasingly looking to policy initiatives to reverse rising rates of obesity, reduce smoking, and promote earlier detection of breast and colon cancer. Actions taken now to address risks to population health and provide timely, effective health care are instrumental to improving health outcomes in the future.

Health system performance is one of many forces that shape health status and longevity. Whether people live long and healthy lives depends on many factors, including family history, health-related behaviors, poverty, and environmental and workplace hazards. Education levels and cultural beliefs influence health outcomes and patients' interactions with the health system. While the pathways through which individuals achieve optimal health are complex, measures of health outcomes provide targets for improvement.[19]

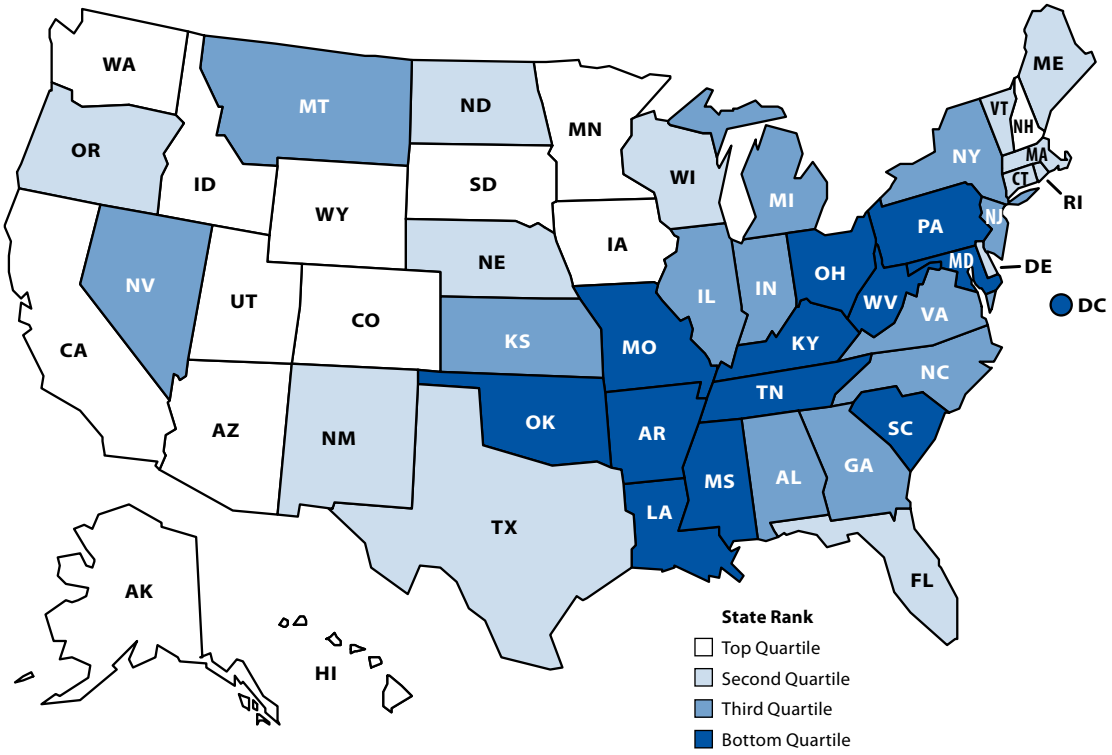
Overall, states in the Upper Midwest, Mountain region, and California had the highest average rankings on the health outcome measures included in the scorecard (Exhibit 23). New Hampshire also ranked among the top quartile of states.

POTENTIALLY PREVENTABLE MORTALITY

Among the measures in this dimension, mortality amenable to health care represents the best overall summary indicator of health outcome variations among states. This measure includes age-standardized death rates before age 75 from

HEALTHY LIVES EXHIBIT 23

State Ranking on Healthy Lives Dimension



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

conditions for which timely and effective medical care can potentially delay or prevent mortality.[20] Internationally, the United States performs poorly on aggregate mortality amenable to health care, ranking 15th out of 19 nations (including 18 European countries) as of 1998.[21]

New analyses prepared for the *State Scorecard* reveal startlingly wide variation in potentially preventable death rates among states (Exhibit 24).

- There is a twofold range across states in the rate of deaths amenable to health care. In the leading, lowest-rate states (Minnesota, Utah, Vermont, Wyoming, and Alaska), death rates were half the rates in the District of Columbia and the states at the bottom of the distribution (Tennessee, Arkansas, Louisiana, and Mississippi). Average death rates were 74.1 per 100,000 persons in the top five states, compared with 141.7 per 100,000 persons in the bottom five states.
- States in the Northwest, Upper Midwest, and New England generally had the lowest rates of mortality amenable to health care and states in the South had the highest.
- The gaps translate into thousands of lives. If all states improved to levels achieved by the best state (Minnesota, with 70.2 deaths per 100,000), about 90,000 fewer premature deaths would occur each year.

Wide differences exist between mortality rates for conditions amenable to care for black and white populations (Exhibit 25). In at least half the states, rates of age-standardized mortality amenable to health care among blacks were twice the rates among whites (median rates across states were 184 deaths per 100,000 blacks, compared with 89 deaths per 100,000 whites). The gap between black and white populations narrows but remains substantial in the five states with the smallest equity gap (Hawaii, Oregon, New Mexico, Washington, and Massachusetts): 123 deaths per 100,000 blacks, compared with 84 per 100,000 whites.

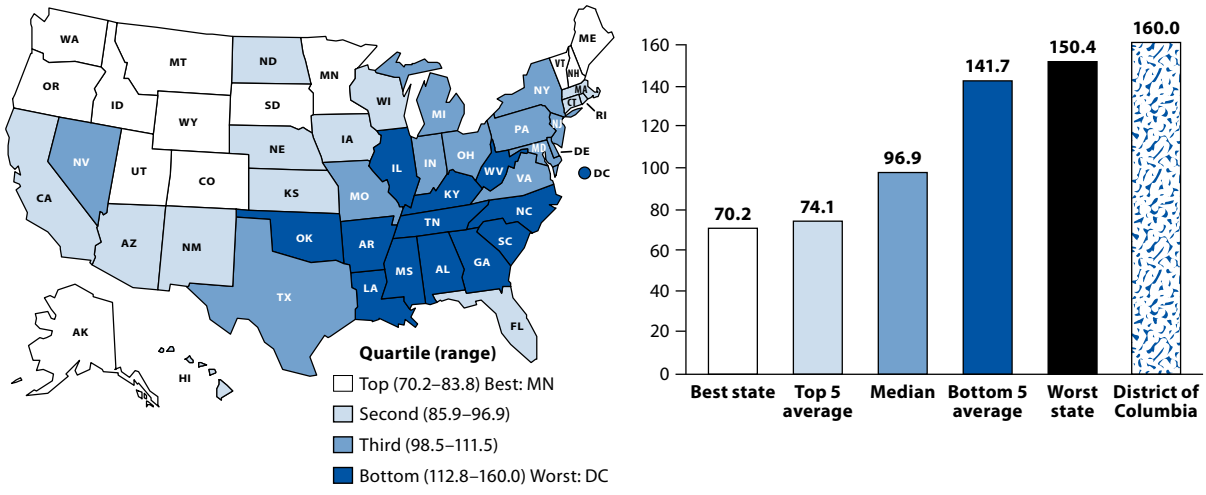
In the District of Columbia, reflecting its population mix, the very high black mortality rate pulls up the average rate (see Appendix Exhibit A11). As a result, it has the highest average amenable death rate in the country in addition to the widest white and black mortality disparity. After the

HEALTHY LIVES EXHIBIT 24

Mortality Amenable to Health Care by State, 2002

Deaths* per 100,000 Population

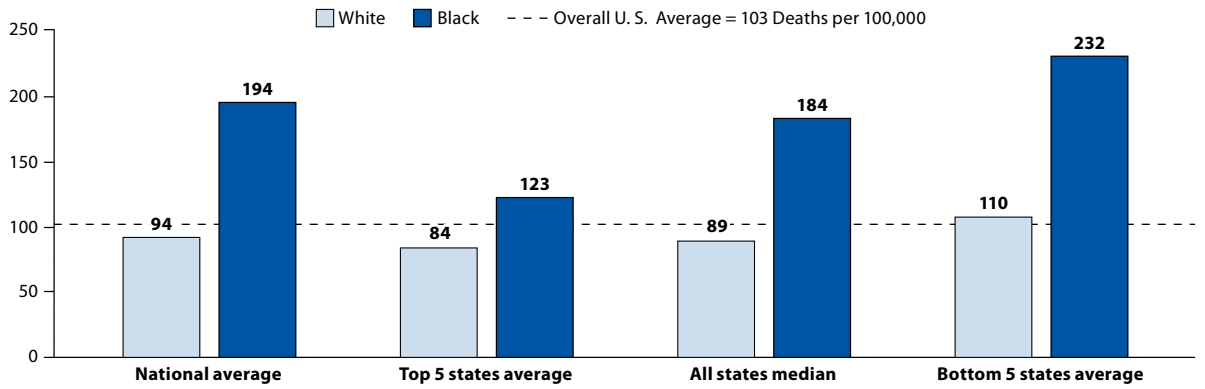
U. S. Average = 103 Deaths per 100,000



* Age-standardized deaths before age 75 from select causes; includes ischemic heart disease
DATA: Analysis of 2002 CDC Multiple Cause-of-Death data files using Nolte and McKee methodology, *BMJ* 2003.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Mortality Amenable to Health Care by Race, National Average and State Variation

Deaths* per 100,000 Population



* Age-standardized deaths before age 75 from select causes; includes ischemic heart disease
Note: Top 5 states refer to states with smallest gap between national average and black.
Bottom 5 states refer to states with largest gap between national average and black.
DATA: Analysis of 2002 CDC Multiple Cause-of-Death data files using Nolte and McKee methodology, *BMJ* 2003.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

District of Columbia, southern states and some states in the Midwest with large black populations have the greatest gaps in mortality amenable to health care, with more than 100 additional deaths per 100,000 black residents in excess of the overall national average rate.

Notably, potentially preventable mortality rates for whites also varied significantly across states, ranging from a low of 67.6 per 100,000 population (Minnesota) to a high of 118.3 (West Virginia). In general, white rates were highest in states with high overall rates.

REGIONAL PATTERNS

Like the measure of potentially preventable mortality overall, rates of mortality from breast cancer and colon cancer are related to health system performance and follow geographic patterns. Age-standardized rates of death from breast cancer in the state with the lowest rate (Hawaii, with 16.2 per 100,000 women) are half that of the rate in Louisiana (29.7 per 100,000) and the District of Columbia (34.1 per 100,000). Variation among colon cancer mortality rates (age-standardized) is nearly as wide, with a low of 15.3 per 100,000 people in Utah to a high of 23.9 per 100,000 in Kentucky and 24.6 per 100,000 in the District of Columbia (see Appendix Exhibit A10). States can promote lower mortality for these conditions by ensuring access to early detection services and providing timely, effective, well-coordinated treatment.

For the most part, measures in the health outcomes dimension, including disability rates, follow similar geographic patterns. States in the West and Upper Midwest tend to rank highest (i.e., have better health outcomes), while the southern states fare the worst. There is also a pattern of worse health outcomes among some northern industrial states, including Michigan, Ohio, and Pennsylvania.

The clustering of poor health outcomes in states with high poverty rates, such as Louisiana, Mississippi, and West Virginia, places a heavy burden of illness on their populations and raises serious challenges for care systems and public health policies. For example, there is more than twofold variation in infant mortality (from a low of 4.3 deaths per 1,000 live births in Maine to a high of 10 per 1,000 live births in Louisiana and Mississippi and 11 per 1,000 in the District of Columbia). Infant mortality rates tend to be highest among African American families across states.

Population characteristics, including rates of poverty and chronic disease and risk factors such as smoking and obesity, contribute to variations in state health outcomes. States vary widely in terms of the percent of poor and low-income residents, as well as the incidence of cancer and other population health risk factors (see Appendix Exhibit A12). Heart disease, diabetes, asthma, and cancer rates are particularly high among low-income populations and in impoverished geographic communities. As a result, states with high rates of poverty and income inequality tend to also have higher rates of mortality from conditions amenable to health care.

Yet, while underlying poverty levels and demographics matter, strategic state policies—including public health initiatives—can make a difference. Rhode Island, for example, reduced infant mortality rates among low-income families by providing a combination of timely access to care and coverage of family planning services, plus counseling and a public health approach to support healthy births.[22] New statewide initiatives, such as one under way in Arkansas, are tackling health risks related to obesity and sedentary lifestyles with programs to provide healthy foods in schools and regular exercise.[23]

Failing to provide access to appropriate care carries particularly high risks among poor populations. For example, infant mortality rates in Mississippi—already among the highest in the nation—jumped in 2005, following cutbacks to the Medicaid program and community health clinics. Infant mortality rates were highest in communities that had little access to community clinics or Medicaid coverage for prenatal counseling or family counseling.[24]

Cross-Cutting Findings

The *State Scorecard* indicates that, by aiming higher, we can do much better as a nation and respond to the increasingly urgent need for action. Overall, five cross-cutting findings emerge.

- There is wide variation among states that attests to the potential for the country to do much better.
- Leading states consistently outperform lagging states across multiple indicators and dimensions. The patterns indicate that policies and health system variations make a difference.
- Better access to care is closely associated with better quality of care across states.
- Higher-quality care is not systematically associated with higher costs. Cost variations point to significant opportunities to reduce costs as well as improve access to and quality of care.
- All states have substantial room to improve.

HEALTH CARE ACCESS, QUALITY, COST, AND EFFICIENCY VARY WIDELY ACROSS THE UNITED STATES.

Currently, where one lives in the United States affects access to care, the quality of care received, and the cost of that care. There is often a two- to threefold or greater range in performance across key indicators of access, quality, and potentially avoidable hospital use. These wide variations in *State Scorecard* indicators mirror those found in other studies, indicating that where one lives affects the amount and kind of health care one receives.

Improving state health system performance to levels achieved by the leading states could bring higher-quality care to millions of Americans and help to prevent thousands of premature deaths. As discussed in the Impact section, below, there are also billions of dollars at stake from potential gains through more efficient use of hospitals, stronger primary and preventive care, and more effective management of chronic disease.

LEADING STATES CONSISTENTLY OUTPERFORM LAGGING STATES ON MULTIPLE INDICATORS AND DIMENSIONS.

Thirteen states—Hawaii, Iowa, New Hampshire, Vermont, Maine, Rhode Island, Connecticut, Massachusetts, Wisconsin, South Dakota, Minnesota, Nebraska, and North Dakota—emerge at the top of the overall performance ranking (Exhibit 2). These states generally ranked high on multiple indicators in each of the five dimensions assessed by the *State Scorecard*. As illustrated in Exhibit 2, states in the top quartile of one dimension were often in the top quartile or top half of the

distribution in all dimensions. Many of these states have been leaders in reforming and improving their health systems and have among the lowest rates of uninsured residents in the nation.

Conversely, the 13 states at the bottom of the overall performance ranking—California, Tennessee, Alabama, Georgia, Florida, West Virginia, Kentucky, Louisiana, Nevada, Arkansas, Texas, Mississippi, and Oklahoma—tend to lag well behind their peers on multiple indicators across multiple dimensions and have high rates of uninsured residents. The results pull these states down to the bottom quartile of the national distribution.

Health system performance often varies by region. Across all dimensions, states in the Upper Midwest and Northeast often rank in the highest quartile, with those in the lowest quartile concentrated in the South. Within regions, some states perform relatively well compared with neighboring states and national leaders, with rates varying by dimension and indicator. Colorado, Montana, Utah, and Washington, for example, do better than other western states, while North Carolina and Virginia outrank other southern states. These findings suggest that regional forces alone do not determine performance and that benchmarking within regions as well as across states could provide insights as well as opportunities for collaboration and improvement.

Understanding how particular policies and health system attributes shape these patterns of health care access, quality, hospital use, and costs could inform national and state policy. Leading states may provide models for other states. For example, in 1974, Hawaii became the first state to enact legislation requiring employers to provide health insurance to full-time workers; it now ranks first on access to care. For the past decade, Rhode Island has provided incentive payments to Medicaid managed care plans that reach quality targets; it now ranks first on quality. Maine, Massachusetts, and Vermont lead on equity, and are recognized for innovation and leadership on expanding health insurance coverage and benchmarking for quality.

BETTER ACCESS IS ASSOCIATED WITH BETTER QUALITY ACROSS STATES.

Across the country, the same states consistently rank low or high on indicators of both health care access and quality (Exhibit 3). Four of the five leading states in terms of access to care—Massachusetts, Iowa, Rhode Island, and Maine—also rank among the top five states in terms of quality. Moreover, states with low performance on quality indicators tend to have high rates of uninsured. This pattern across states points to the importance of affordable access to care as an important first step for obtaining essential health care, and a prerequisite for care that is effective, well coordinated, and patient-centered. In states where more people are insured, adults and children are more likely to have a medical home and receive recommended preventive and chronic care. Identifying care systems, as well as state policies that support superior access and quality and lower costs, will be critical to improving systemwide performance.

The proportion of uninsured children has declined following federal and state action to expand coverage to low-income children. Yet, the proportion of uninsured working-age adults across the nation is high and rising, jeopardizing the health of millions of working adults and putting states and the nation at risk as we lose access and financial security for the nation's workforce. A healthy economy and society require a healthy, productive workforce.

THERE ARE OPPORTUNITIES TO REDUCE HEALTH CARE COSTS, AS WELL AS TO IMPROVE ACCESS TO CARE AND QUALITY.

Annual health care costs vary widely across states, with no systematic relationship between costs, levels of insurance coverage, or residents' ability to pay as measured by state median or average incomes. Moreover, there is no systematic relationship between costs and measures of health care quality. In the *State Scorecard* analysis, states with the highest medical care costs during the year also tend to have the highest rates of potentially preventable hospital use, including high rates of

hospital readmission within 30 days and high rates of admission for complications of diabetes, asthma, and other chronic conditions. High rates of readmission and admission for chronic disease provide evidence of access and quality problems (i.e, not getting the right care), as well as missed opportunities to prevent the onset of disease complications. Reducing the use of high-cost, specialized care by preventing complications has the potential to provide net gains for all states—better care outcomes at lower costs.

ALL STATES HAVE ROOM TO IMPROVE.

Despite clear differences in performance among the states, the *State Scorecard* points to substantial room for improvement in *every* state. No single state or group of states performs at the top of the range on all indicators or dimensions. The five to 10 top-ranked states, for instance, each had some indicators in the bottom quartile of performance rankings (see Appendix Exhibit A1). Moreover, on some measures of quality, even the top rate falls well below recommended care and levels known to be achievable by top-performing delivery systems that provide accessible, well-organized, patient-centered care.

These findings indicate the need to improve performance in all states while narrowing the variation in performance across states. Among hospitals and managed care plans across the nation, this goal has been achieved for selected quality indicators, such as heart attack treatment in the hospital.[25] There are gaps in performance between even the top-ranked states and levels known to be achievable. It is therefore crucial to identify successful strategies and emulate exemplary results achieved at the local level by organizations, providers, and communities.

The *State Scorecard* findings point to opportunities to improve health system performance by learning from state and regional variations. The following section explores the potential gains in terms of healthy lives, enhanced access, and reduced costs—gains in overall greater value—if all states were able to raise their performance to levels achieved by the top states on key indicators.

Impact of Improved Performance

There are many ways to improve performance, involving stakeholders at all levels of the health care system. This section illustrates the potential gains in terms of healthy lives, access, and dollars if all states were able to meet the levels of performance achieved by top states for selected indicators. It concludes with a discussion of policy implications for federal and state governments.

AIMING HIGHER: IMPACT OF IMPROVING PERFORMANCE

Exhibit 26 shows the estimated impact if all states were to improve their performance to the rate of the best-performing state for 11 key scorecard indicators.[26] If all states could approach the low levels of mortality from conditions amenable to health care achieved by the top state in 2002, nearly 90,000 fewer deaths before the age of 75 would occur annually. There also could be potentially fewer disease complications and activity limitations through improved access and timely delivery of care.

The nation would cover 22 million more adults and children if all states' coverage rates reached those of the top states, reducing the numbers of uninsured by half. If adults age 50 and older or diabetics in all states receive preventive care at the rates achieved in the top states, almost nine million older adults would receive recommended preventive care, including cancer screenings, and almost four million diabetics would receive basic recommended care. In addition, 33 million adults and children would have a usual source to provide primary care and help coordinate care.

The Medicare program could potentially save $2 billion to $5 billion a year by reducing potentially preventable hospitalizations for chronically ill

Exhibit 26 analysis of potential gains if states achieved the rate of the top state on the 11 indicators is also available for each state on the Commonwealth Fund Web site at www.commonwealthfund.org. The table is available for online viewing and also to download along with state-specific profiles.

EXHIBIT 26

National Cumulative Impact if All States Achieved Top State Rates

Indicator	If all states improved their performance to the level of the best-performing state for this indicator, then:	
Insured Adults	17,207,746	more adults (ages 18–64) would be covered by health insurance (public or private), and therefore would be more likely to receive health care when needed.
Insured Children	4,391,891	more children (ages 0–17) would be covered by health insurance (public or private), and therefore would be more likely to receive health care when needed.
Adult Preventive Care	8,587,664	more adults (age 50 and older) would receive recommended preventive care, such as colon cancer screenings, mammograms, pap smears, and flu shots at appropriate ages.
Diabetes Care	3,611,284	more adults (age 18 and older) with diabetes would receive three recommended services (eye exam, foot exam, and hemoglobin A1c test) to help prevent or delay disease complications.
Childhood Vaccinations	756,942	more children (ages 19–35 months) would be up-to-date on all recommended doses of five key vaccines.
Adults with a Usual Source of Care	22,071,293	more adults (age 18 and older) would have a usual source of care to help ensure that care is coordinated and accessible when needed.
Children with a Medical Home	10,858,812	more children (ages 0–17) would have a medical home to help ensure that care is coordinated and accessible when needed.
Preventable Hospital Admissions	981,775	fewer hospitalizations for ambulatory care sensitive conditions would occur among Medicare beneficiaries (age 65 and older) and
	$5.0 billion	dollars would be saved from the reduction in hospitalizations.
Hospital Readmissions	197,798	fewer hospital readmissions would occur among Medicare beneficiaries (age 65 and older) and
	$2.3 billion	dollars would be saved from the reduction in readmissions.
Hospitalization of Nursing Home Residents	125,024	fewer long-stay nursing home residents would be hospitalized and
	$1.2 billion	dollars would be saved from the reduction in hospitalizations.
Mortality Amenable to Health Care	88,780	fewer premature deaths (before age 75) might occur from causes that are potentially treatable or preventable with timely and appropriate health care.

SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Medicare patients or by reducing the number of readmissions by improving transition care. These savings would be even greater if these improvements extended to all patients. Over $1 billion dollars could potentially be saved by providing the standard of care for frail nursing home residents reached in the best-performing state. Savings would be contingent on identification of effective interventions, and some savings might be offset by the costs of the intervention. More generally, the nation would save $22 billion to $38 billion per year if higher-cost states achieved access, care, and efficiency improvements sufficient to bring costs down to the national median or rates achieved by the lowest-cost quartile of states.

These examples illustrate only a few of the many important opportunities for improvement. Because some indicators would affect the same individuals, some of these numbers cannot be combined. Yet, across states over the course of several years, the numbers add up to substantial gains in value for the nation.

Moving Forward: The Need for Action to Improve Performance

The overall picture that emerges from the *State Scorecard* is that there is potential for improvement on all key dimensions of performance. Our national values emphasize that we are one nation, yet where adults and children live affects their access to care, care quality, care experiences, and the affordability of care. The view across states reveals startlingly wide gaps between leading and lagging states on multiple indicators. Gaps between actual and achievable levels of performance represent illnesses that could

have been prevented or better managed, as well as dollars that could have been saved or reinvested to improve population health. The variation in multiple dimensions provides compelling evidence of the need for coherent, concerted action to aim for improved health system performance across all key dimensions. Benchmark levels achieved by top-performing states are within the reach of all states. Moreover, initiatives by the top performers or by models of excellence within states set the pace for change.

The *State Scorecard* points to the need for action in the following key areas:

- Universal coverage: Moving toward universal coverage is critical for improving quality and delivering more cost-effective care, as well as ensuring access to care.
- Better information to assess performance and identify benchmarks: It takes information to guide and drive change. We need more sophisticated information systems and better information on practices and policies that underlie high or varying performance.
- Analyses to determine key factors that contribute to improved outcomes and performance: States and public and private delivery systems can use such information to develop evidence-based strategies to improve.
- National leadership and collaboration across public and private sectors: Working together toward shared goals is essential for coherent, strategic, and effective improvement efforts.

UNIVERSAL COVERAGE WITH MEANINGFUL ACCESS: FOUNDATION FOR QUALITY AND EFFICIENT CARE

Universal coverage that provides meaningful access to essential care and financial protection is the critical foundation upon which to improve quality and enable more cost-effective care. States that have achieved the highest rates of coverage for adults and children consistently have higher rates of preventive care, care for chronic disease, and continuity of care.

Access variations across states also indicate the need to expand coverage to low-wage workers and small employers—reaching beyond narrow boundaries that divide public and private insurance coverage to connect the workforce with sources of continuous, affordable insurance. Maine and New York, for example, have both succeeded in lowering the percent of adults uninsured over the past five years through creative strategies that offer publicly sponsored options with premium assistance and in the case of New York, provide reinsurance for small, low-wage firms. The combination of public coverage expansions to low-income workers and families and innovative public–private group health insurance options offers a potential foundation to build on for the future.[27]

Federal action as well as state initiatives will be essential for substantial progress nationwide. The contrasting insurance coverage trends between adults and children over the last five years are a testament to the potential of, and need for, federal action to stimulate and support state efforts. Federal support of Medicaid expansion for children, followed by creation of the State Children's Health Insurance Program, sparked broad expansion across states in children's coverage—reversing the declines that followed the erosion of private coverage in the 1990's.

WIDE VARIATIONS POINT TO OPPORTUNITIES TO LEARN

It is important to understand the key factors that contribute to improved outcomes and performance. States and public and private delivery systems can then develop evidence-based strategies to improve. States can look to each other as well as to models of excellence within their own borders for evidence of effective policies. On many scorecard indicators, a few states outperform all states or nearby states that have similar economic and demographic conditions, providing important examples of achievable targets. Understanding how policy variations and features of underlying care delivery systems—including primary care, specialized care, hospital care, and long-term care, health insurance coverage, and provider payment incentives—contribute to systemic performance variations could inform efforts to improve.

Benchmarks can help policymakers and other stakeholders set priorities and focus approaches to achieve higher performance. All states have room for improvement. The *State Scorecard* suggests that strategic approaches focusing on key performance gaps can yield significant improvement.

INFORMATION SYSTEMS AND BETTER INFORMATION ARE CRITICAL FOR IMPROVEMENT

Comparative information on health outcomes and the costs and quality of care are essential to move toward more efficient, higher-value care systems. The *State Scorecard* highlights the need for better sources of data and collaborative efforts at the national and state levels to develop information systems capable of supporting more appropriate, integrated, and coordinated care.

Performance data are increasingly becoming available, thanks to federal, state, private, and public–private efforts, including the federal Agency for Healthcare Research and Quality and the Centers for Medicare and Medicaid Services initiatives to develop hospital quality and safety indicators. Yet, major gaps remain.

- There are no indicators of patient safety, such as hospital infection rates or adverse drug events, across all states.
- Cross-state or regional indicators of potential overuse or duplication of services also are not available. Nor are there insurance administrative costs by state.
- Only 33 states collect and report multi-payer hospital data, and of these states only a handful can identify rates of readmissions.
- The Medicare program is often the only viable data source for national and regional analyses of care patterns and patient experiences. Although Medicare provides a critical view on geographic patterns of health system performance, comparable information for the under-65 population is typically not available.

Moreover, states and the nation lack advanced electronic information systems with the capacity for exchange across sites of care and the ability to provide doctors and other providers with tools to assess, compare, and improve care. Information systems have the capacity to improve health outcomes and safety, reduce duplication, and focus care on patients and outcomes. This capacity is vital for improving outcomes for the 10 percent of patients with multiple chronic conditions or serious illnesses that account for two-thirds of all health care expenditures each year. Accelerating the pace of adoption and spread of electronic information technology with the capacity for exchange will enable public and private policy leaders to identify gaps, set targets, and develop payment systems to reward and support higher-value, accountable care systems.[28]

It takes information to guide and drive change. State as well as federal government actions are needed to move forward.

NATIONAL LEADERSHIP AND PUBLIC AND PRIVATE COLLABORATIVE IMPROVEMENT INITIATIVES

States play key roles in the health system as regulators, insurers, and sources of financing for care. They are also one group of several key stakeholders with a vital interest in more accessible, higher-quality, and more efficient health systems. Currently, in some states, collaborative efforts involving both public and private leaders are beginning to build a foundation for improved performance. For example:

- The state of Wisconsin is contributing data and funding to the Wisconsin Health Information Organization, a coalition of employer groups, health plans, and health care providers that is creating a repository of health insurance data with the goal of reporting on the cost and, eventually, the quality of care in the state.[29]
- Community Care of North Carolina is a collaboration among the state, counties, hospitals, and physicians to create accountable, community-based systems of care that increase access to primary care and enhance care management for Medicaid-insured patients.[30] Also, the Fund's Assuring Better Child Health and Development initiative is integrating developmental screening into well-child care visits.[31]

- Value-based purchasing collaborations led by or involving state governments in Massachusetts, Minnesota, Washington, and Wisconsin are seeking to improve the quality and efficiency of care by establishing uniform quality measures, promoting transparency, and adopting incentives for improved performance.[32]
- In another approach, hospitals and clinicians in northern New England states (Maine, New Hampshire, and Vermont) have collaborated for many years to benchmark heart surgery outcomes and share best practices, achieving results comparable to those of public reporting initiatives.[33] And Massachusetts Health Quality Partners—a coalition of physicians, hospitals, health plans, government agencies, purchasers and consumers—is providing comparative data on clinical quality and patient ratings to stimulate and inform statewide improvement in the quality of health care.[34]

THERE IS AN URGENT NEED FOR ACTION THAT TAKES A WHOLE-POPULATION PERSPECTIVE

The aging of the U.S. population, technological advances, and rising rates of chronic disease place upward pressure on health costs, which are already rising faster than incomes and straining family, business, state, and federal budgets. Access to care is deteriorating amid startling evidence of variable quality and inefficient care. Leadership at the state and national level is urgently needed to bring together all stakeholders—including private employers, insurers, health care providers, households, and federal and state governments—for concerted action. Moving forward is a matter of great urgency: all states across the nation have much to gain from aiming higher. All states can do better, and all should continually ask, "Why not the best?"

Notes

1 Commonwealth Fund Commission on a High Performance Health System, *Why Not the Best? Results from a National Scorecard on U.S. Health System Performance* (New York: The Commonwealth Fund, Sept. 2006); and C. Schoen, K. Davis, S. How, and S. C. Schoenbaum, "U.S. Health System Performance: A National Scorecard," *Health Affairs* Web Exclusive (Sept. 20, 2006):w457–w475.

2 S. F. Jencks, T. Cuerdon, D. R. Burwen et al., "Quality of Medical Care Delivered to Medicare Beneficiaries: A Profile at State and National Levels," *Journal of the American Medical Association,* Oct. 4, 2000 284(13):1670–76; and S. F. Jencks, E. D. Huff, and T. Cuerdon, "Change in the Quality of Care Delivered to Medicare Beneficiaries, 1998–1999 to 2000–2001," *Journal of the American Medical Association,* Jan. 15, 2003 289(3):305–12.

3 Henry J. Kaiser Family Foundation/Health Research and Educational Trust, Employer Health Benefits 2006 Annual Survey.

4 These data are the most recent state data currently available. The U.S. Census department recently announced it will be reissuing insurance data and decreasing the national uninsured count by about 1.8 million. The department noted the trends remain up. Adjusted state data and trends are not yet available.

5 D. C. Ross, L. Cox, and C. Marks, *Resuming the Path to Health Coverage for Children and Parents: A 50-State Update on Eligibility Rules, Enrollment and Renewal Procedures, and Cost-Sharing Practices in Medicaid and SCHIP in 2006* (Washington D.C.: Kaiser Commission on Medicaid and the Uninsured, Jan. 2007).

6 The hospital quality composite is based on an "opportunities" model, which measures the percentage of appropriate care that is delivered to patients in aggregate. In contrast, ambulatory care composites are based on an "all-or-nothing" model that measures the percentage of patients who received all recommended services. Hospital performance has improved since these data were compiled for the *State Scorecard*.

7 For an example of how one institution achieved high performance across all three conditions, see S. Crute, "Case Study: Achieving High-Quality Care at Reid Hospital & Health Care Services," *Quality Matters,* The Commonwealth Fund, Dec. 2005.

8 The medical home indicator is scored to reflect the American Academy of Pediatrics definition of a medical home. See Medical Home Initiatives for Children with Special Needs Project Advisory Committee, American Academy of Pediatrics, "The Medical Home," *Pediatrics*, July 2002 110(1 Pt. 1):184–86. See also S. J. Blumberg, L. Olson, M. R. Frankel et al, *Design and Operation of the National Survey of Children's Health, 2003* (Atlanta, Ga.: National Center for Health Statistics, 2005).

9 S. Leatherman and D. McCarthy, *Quality of Health Care in the United States: A Chartbook* (New York: The Commonwealth Fund, Apr. 2002).

10 K. Davis, C. Schoen, S. Guterman, T. Shih, S. C. Schoenbaum, and I. Weinbaum, *Slowing the Growth of U.S. Health Care Expenditures: What Are the Options?* (New York: The Commonwealth Fund, Jan. 2007); C. Angrisano, D. Farrell, B. Kocher et al., *Accounting for the Cost of Health Care in the United States* (San Francisco: McKinsey Global Institute, Jan. 2007); and E. S. Fisher, D. O. Staiger, J. P. W. Bynum et al., "Creating Accountable Care Organizations: The Extended Hospital Medical Staff," *Health Affairs* Web Exclusive (Dec. 5, 2006):w44–w57.

11 S. Leatherman, D. Berwick, D. Iles et al., "The Business Case for Quality: Case Studies and an Analysis," *Health Affairs*, Mar./Apr. 2003 22(2):17–30.

12 Although some indicators were missing for several states, state efficiency rankings remain basically the same if ranked on only data available in all states. Appendix tables indicate which states do not currently report to the federal–state all-payer hospital data system known as Healthcare Cost and Utilization Project (HCUP) or are missing questions on the annual Behavioral Risk Factor Surveillance System (BRFSS) population surveys.

13 Medicare annual reimbursement rates come from the Dartmouth Atlas. The state level costs were indirectly adjusted for sex, race and age, and were further adjusted for illness and regional differences in price. See indicator definition in appendix.

14 E. S. Fisher, D. E. Wennberg, T. A. Stukel et al., "The Implications of Regional Variations in Medicare Spending. Part 1: The Content, Quality, and Accessibility of Care," *Annals of Internal Medicine*, Feb. 18, 2003 138(4):273–87; and K. Baicker and A. Chandra, "Medicare Spending, the Physician Workforce, and Beneficiaries' Quality of Care," *Health Affairs* Web Exclusive (Apr. 7, 2004):w4-184–w4-197.

15 For cost and quality variations by hospital regions, see *Why Not the Best? Results from a National Scorecard on U.S. Health System Performance,* p. 25.

16 For analysis of variation in the value of insurance—the scope of benefits and protection they offer—see J. Gabel, R. McDevitt, L. Gandolfo et al., "Generosity and Adjusted Premiums in Job-Based Insurance: Hawaii Is Up, Wyoming Is Down," *Health Affairs,* May/June 2006 25(3):832–43.

17 For an illustration of an intervention that reduced hospital readmissions through more effective care transitions, see E. Coleman, C. Parry, S. Chalmers et al., "The Care Transitions Intervention: Results of a Randomized Controlled Trial," *Archives of Internal Medicine*, Sept. 25, 2006 166(17):1822–28. Also see D. McCarthy and C. Beck, "Using a Local Care Coordination Network to Improve Patient Transitions," *Quality Matters,* The Commonwealth Fund, May/June 2007.

18 Results from the multiple equity analyses are available from the authors.

19 To assess the relative effects of health system and health outcomes on state rankings, we examined the effect of excluding the healthy lives dimension from overall state rankings. Although 14 states changed quartiles, all states in the top quartile remained in the top quartile (results are available from the authors).

20 Appendix B1 describes mortality amenable death rates and age ranges included in the analysis.

21 E. Nolte and M. McKee, "Measuring the Health of Nations: Analysis of Mortality Amenable to Health Care," *British Medical Journal*, Nov. 15, 2003, 327 (7424):1129–33. See also Schoen, Davis, How, Schoenbaum, "U.S. Health System Performance," 2006.

22 S. Silow-Carroll, *Building Quality into RIte Care: How Rhode Island Is Improving Health Care for Its Low-Income Populations* (New York: The Commonwealth Fund, Jan. 2003).

23 For a description of the Arkansas Initiative, see the Healthy Arkansas Web site at www.arkansas.gov/ha/home.html.

24 E. Eckholm, "In Turnabout, Infant Deaths Climb in South," *New York Times*, Apr. 22, 2007.

25 S. C. Schoenbaum, D. McCarthy, and C. Schoen, *The Agency for Healthcare Research and Quality's 2006 National Healthcare Quality Report* (New York: The Commonwealth Fund, Mar. 2007); and S. C. Schoenbaum and A. L. Holmgren, *The National Committee for Quality Assurance's The State of Health Care Quality 2006* (New York: The Commonwealth Fund, Nov. 2006).

26 See the State Performance Impact Calculator Methodology on the Commonwealth Fund Web site (www.commonwealthfund.org).

27 J. Rosenthal and C. Pernice, *Dirigo Health Reform Act: Addressing Health Care Costs, Quality, and Access in Maine* (New York: The Commonwealth Fund, June 2004); and J. Rosenthal and C. Pernice, *Designing Maine's DirigoChoice Benefit Plan* (New York: The Commonwealth Fund, Dec. 2004).

28 Medicare Payment Advisory Commission, *Report to Congress, Assessing Alternatives to the Sustainable Growth Rate System, Chapter 3: Using Medicare's Physician and Other Payment Systems to Improve Value* (Washington, D.C.: MedPAC, Mar. 2007).

29 S. Silow-Carroll and F. Pervez, "Wisconsin: Private and Public Sectors Partner to Promote Transparency," *States in Action: A Quarterly Look at Innovations in Health Policy* (The Commonwealth Fund, vol. 5, July 2006).

30 "Improving Access to Primary Care: Community Care of North Carolina" (New York: The Commonwealth Fund, Aug. 2004); L. A. Dobson, "Improving Medicaid Quality and Controlling Costs by Building Community Systems of Care" (Raleigh, N.C.: Community Care of North Carolina, 2004).

31 H. Pelletier and M. Abrams, *ABCD: Lessons from a Four-State Consortium* (New York: The Commonwealth Fund, Dec. 2003); and "Providing Developmental Services in Primary Care: The North Carolina ABCD Project" (New York: The Commonwealth Fund, Aug. 2004).

32 S. Silow-Carroll and T. Alteras, "Value-Driven Health Care Involving States and Public-Private Coalitions: Ahead of the Curve?" (New York: The Commonwealth Fund, forthcoming).

33 G. T. O'Connor, S. K. Plume, E. M. Olmstead et al., "A Regional Intervention to Improve the Hospital Mortality Associated with Coronary Artery Bypass Graft Surgery. The Northern New England Cardiovascular Disease Study Group," *Journal of the American Medical Association,* Mar. 20, 1996 275(11):841–46. See also D. McCarthy and S. Leatherman, "Improving Outcomes of Heart Bypass Surgery Through Regional Collaboration," *Performance Snapshots* (New York: The Commonwealth Fund, Dec. 2006).

34 See www.mhqp.org for a description of Massachusetts Health Quality Partners.

Appendices

EXHIBIT A1

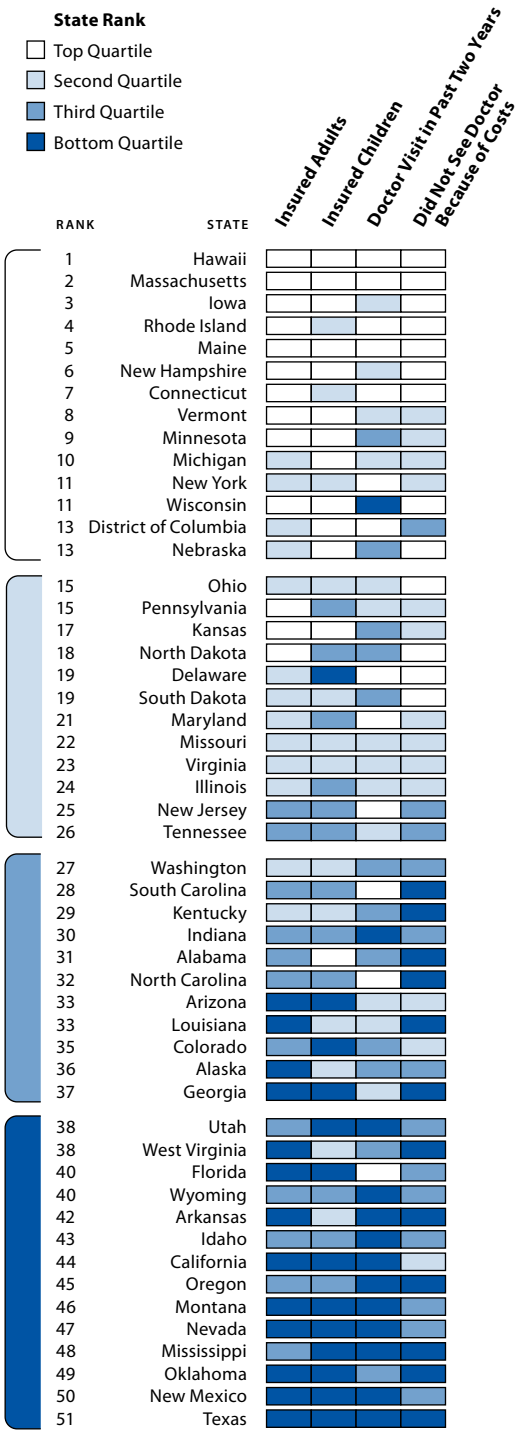
Summary of Indicator Rankings by State

Overall Rank*	State	No. of main indicators	Top 5 States	Top Quartile	2nd Quartile	3rd Quartile	Bottom Quartile	Bottom 5 States
41	Alabama	30	0	4	9	9	8	0
26	Alaska	29	3	8	2	9	10	5
26	Arizona	32	3	8	7	7	10	5
48	Arkansas	30	1	2	7	2	19	10
39	California	32	3	6	5	7	14	6
22	Colorado	31	0	11	8	8	4	2
7	Connecticut	31	8	14	10	4	3	0
14	Delaware	31	3	9	7	10	5	0
32	District of Columbia	27	3	7	3	7	10	8
43	Florida	31	1	4	6	8	13	4
42	Georgia	32	1	2	7	11	12	1
1	Hawaii	29	11	16	6	3	4	2
30	Idaho	31	5	11	6	6	8	5
36	Illinois	30	1	2	10	11	7	1
38	Indiana	31	0	1	12	10	8	0
2	Iowa	32	11	17	11	3	1	0
20	Kansas	31	0	6	12	12	1	1
45	Kentucky	32	0	1	6	8	17	5
46	Louisiana	31	1	4	3	2	22	15
5	Maine	31	7	18	9	2	2	1
19	Maryland	32	2	7	7	13	5	2
8	Massachusetts	32	8	17	6	5	4	2
16	Michigan	30	1	5	14	4	7	0
11	Minnesota	32	6	15	10	5	2	0
50	Mississippi	31	0	2	3	6	20	16
37	Missouri	32	0	0	12	15	5	0
17	Montana	31	5	14	5	4	8	1
12	Nebraska	31	6	12	13	5	1	0
46	Nevada	31	0	2	6	4	19	11
3	New Hampshire	31	6	16	9	5	1	0
26	New Jersey	32	2	8	5	10	9	5
35	New Mexico	31	3	9	6	8	8	6
22	New York	32	0	5	7	12	8	3
30	North Carolina	32	0	3	13	11	5	1
13	North Dakota	30	8	12	6	9	3	1
24	Ohio	32	1	5	6	19	2	1
50	Oklahoma	31	0	1	5	6	19	9
34	Oregon	30	6	12	5	5	8	4
15	Pennsylvania	32	3	6	8	10	8	1
6	Rhode Island	32	9	19	6	4	3	1
33	South Carolina	31	0	3	8	14	6	2
10	South Dakota	31	6	15	10	3	3	0
40	Tennessee	31	0	0	13	11	7	3
49	Texas	32	0	0	8	7	17	7
24	Utah	32	9	12	4	6	10	5
3	Vermont	32	8	18	8	3	3	0
29	Virginia	32	1	2	13	12	5	1
17	Washington	32	5	11	11	4	6	1
44	West Virginia	31	0	4	6	8	13	5
9	Wisconsin	32	2	13	16	1	2	0
21	Wyoming	30	4	7	8	9	6	2

** Final rank for overall health system performance across five dimensions*

SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Access: Dimension and Indicator Ranking



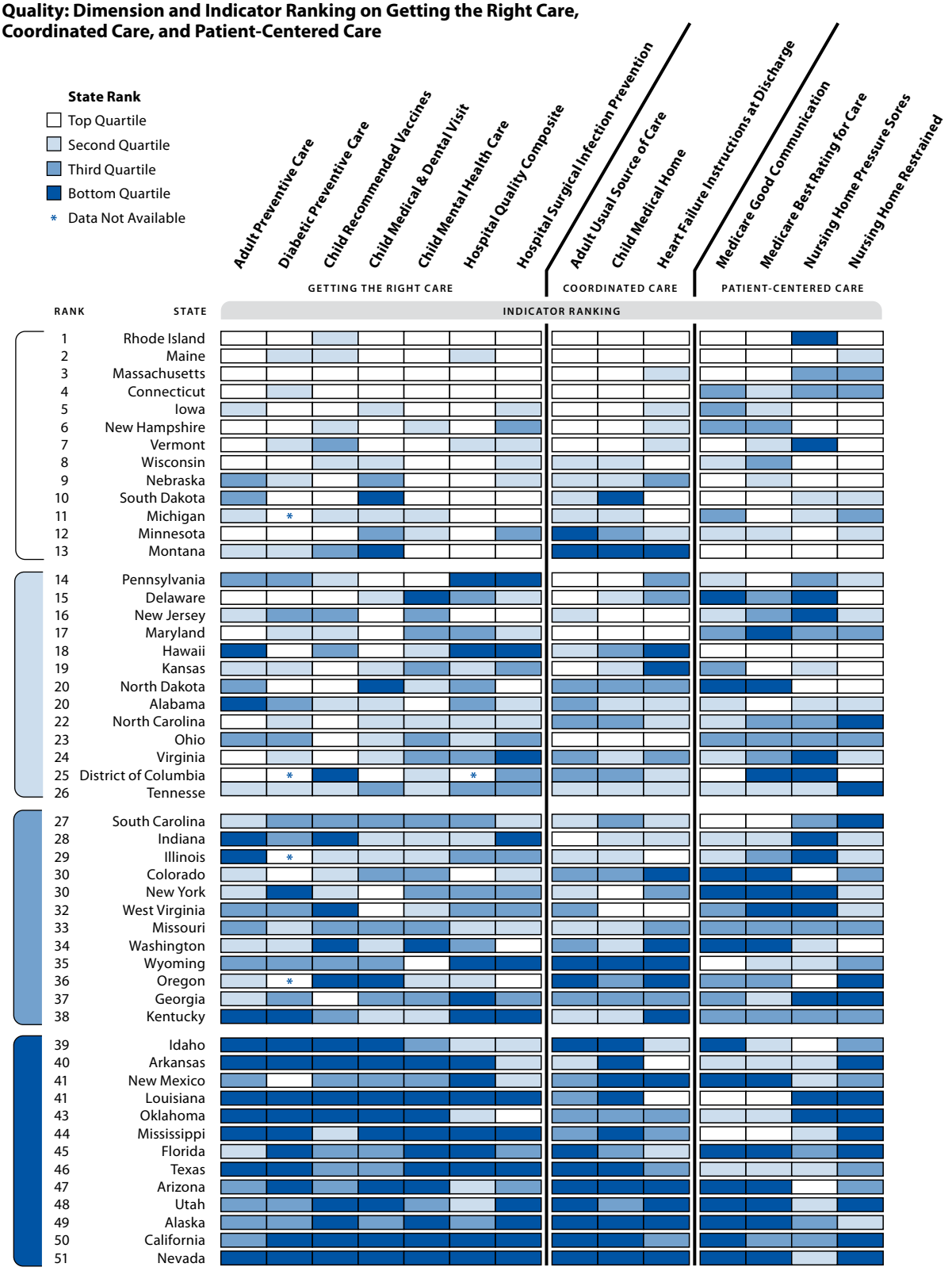
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Access: Dimension Ranking and Performance on Indicators

State	Dimension Rank	Indicator Performance: Percent adults under age 65 insured	Percent children insured	Percent adults visited doctor in past two years	Percent adults without time when could not see doctor because of cost
United States		**79.5**	**89.0**	**83.3**	**86.6**
Alabama	31	79.8	94.0	81.4	83.4
Alaska	36	77.0	91.1	81.3	86.6
Arizona	33	76.0	84.5	85.7	87.3
Arkansas	42	75.6	91.5	80.5	83.8
California	44	75.5	87.0	76.7	87.7
Colorado	35	79.9	85.9	81.8	87.2
Connecticut	7	85.1	92.2	88.4	90.0
Delaware	19	83.3	88.3	87.9	90.3
District of Columbia	13	83.3	92.8	91.5	86.7
Florida	40	73.1	83.4	86.0	85.0
Georgia	37	76.6	88.7	83.6	84.2
Hawaii	1	87.2	94.7	88.9	96.6
Idaho	43	79.9	89.7	75.2	85.2
Illinois	24	81.9	89.3	84.9	88.4
Indiana	30	81.4	90.8	81.2	87.1
Iowa	3	87.8	94.6	84.1	91.6
Kansas	17	85.2	93.3	83.1	88.1
Kentucky	29	81.6	92.4	82.4	82.3
Louisiana	33	74.7	91.8	85.5	82.8
Maine	5	86.3	93.1	86.3	89.5
Maryland	21	81.5	90.6	88.9	88.3
Massachusetts	2	85.4	94.8	90.3	92.3
Michigan	10	84.1	94.4	85.3	88.1
Minnesota	9	89.0	93.7	82.8	89.0
Mississippi	48	77.7	87.5	80.0	80.1
Missouri	22	83.5	92.1	83.4	87.6
Montana	46	76.3	85.0	78.4	86.8
Nebraska	13	84.2	94.1	81.7	90.2
Nevada	47	77.5	84.8	77.0	85.3
New Hampshire	6	86.0	93.9	85.6	89.4
New Jersey	25	81.1	89.4	88.3	86.9
New Mexico	50	73.9	82.5	80.2	85.0
New York	11	82.1	92.5	88.8	87.8
North Carolina	32	79.6	88.9	86.0	83.1
North Dakota	18	85.3	90.7	82.3	93.3
Ohio	15	84.4	92.0	85.2	89.3
Oklahoma	49	74.5	86.1	81.7	82.0
Oregon	45	78.0	89.6	78.4	81.8
Pennsylvania	15	85.8	90.7	85.5	89.2
Rhode Island	4	85.2	92.5	89.7	90.9
South Carolina	28	77.6	90.8	86.9	84.8
South Dakota	19	83.7	91.6	82.3	91.2
Tennessee	26	81.3	90.6	85.9	85.8
Texas	51	69.6	79.8	78.2	80.9
Utah	38	80.7	88.5	76.6	87.1
Vermont	8	84.5	94.9	84.2	89.2
Virginia	23	81.7	91.7	84.0	87.5
Washington	27	82.0	92.1	81.6	85.9
West Virginia	38	75.9	92.0	81.7	80.7
Wisconsin	11	86.5	93.8	78.0	91.6
Wyoming	40	81.0	89.3	73.9	86.3

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Quality: Dimension and Indicator Ranking on Getting the Right Care, Coordinated Care, and Patient-Centered Care



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Quality: Dimension Ranking and Performance on Indicators

State	Dimension Rank	Indicator Performance: Percent adults age 50+ received recommended preventive care	Percent adult diabetics received recommended preventive care	Percent children ages 19–35 months received five vaccines	Percent children with medical and dental preventive care visits	Percent children with emotional, behavioral, or developmental problems received mental health care	Percent hospitalized patients received recommended care for AMI, CHF, and pneumonia	Percent surgical patients received appropriate timing of antibiotics to prevent infections
		Getting the Right Care						
United States		**39.7**	**39.4**	**80.8**	**58.8**	**58.7**	**84.1**	**69.5**
Alabama	20	35.7	42.0	83.3	59.2	67.0	82.5	71.0
Alaska	49	38.5	41.3	75.4	54.5	52.2	82.9	57.5
Arizona	47	39.4	33.8	79.2	51.9	55.0	83.4	67.0
Arkansas	40	32.7	31.8	67.8	49.0	47.7	79.1	70.5
California	50	37.4	36.6	77.9	53.2	54.0	79.4	60.0
Colorado	30	41.2	50.2	83.4	57.7	56.9	86.1	69.5
Connecticut	4	47.3	42.4	86.1	71.6	74.1	87.5	90.0
Delaware	15	46.3	54.4	84.2	63.2	56.7	82.7	73.5
District of Columbia	25	45.6	*	73.5	65.7	66.1	*	65.5
Florida	45	40.9	37.1	79.3	54.2	54.7	80.3	68.0
Georgia	37	41.4	40.6	84.7	57.9	60.8	79.5	64.5
Hawaii	18	36.6	65.4	80.1	63.7	66.1	79.9	57.5
Idaho	39	32.6	33.1	78.1	45.7	56.9	85.2	72.5
Illinois	29	35.7	*	83.5	60.6	63.0	82.9	66.0
Indiana	28	36.3	39.8	78.1	61.2	66.1	84.5	62.0
Iowa	5	42.1	48.9	84.9	61.6	67.6	87.5	71.5
Kansas	19	39.7	43.2	83.8	60.7	61.3	84.0	65.5
Kentucky	38	35.0	35.6	79.7	60.5	62.5	81.7	62.0
Louisiana	41	37.2	38.6	76.0	51.3	44.2	80.6	59.0
Maine	2	46.8	45.7	83.3	66.4	67.6	85.3	74.5
Maryland	17	49.2	47.5	82.3	65.5	58.9	83.4	69.5
Massachusetts	3	46.7	48.9	93.5	74.9	67.6	85.8	75.5
Michigan	11	42.8	*	82.7	61.0	63.8	86.0	77.5
Minnesota	12	50.1	58.9	85.2	55.0	64.6	86.2	65.5
Mississippi	44	33.0	28.7	83.6	47.2	50.1	79.2	60.5
Missouri	33	38.5	42.6	79.3	56.1	60.2	83.5	72.5
Montana	13	41.1	47.8	79.6	48.9	68.4	86.0	79.5
Nebraska	9	37.3	46.6	89.1	58.5	72.8	87.8	71.5
Nevada	51	34.3	31.3	66.7	46.8	53.2	79.8	50.0
New Hampshire	6	48.6	51.0	82.8	71.8	63.5	86.6	69.0
New Jersey	16	42.5	42.0	78.2	68.3	58.7	87.7	75.0
New Mexico	41	38.7	50.3	78.4	55.3	58.3	79.0	71.5
New York	30	41.9	37.4	81.6	68.6	57.1	83.2	69.0
North Carolina	22	45.7	46.3	85.2	59.3	63.6	83.4	73.0
North Dakota	20	38.8	61.3	85.0	49.0	66.1	83.2	80.0
Ohio	23	38.1	39.2	84.1	61.2	61.2	84.9	64.5
Oklahoma	43	34.2	36.8	75.7	49.2	48.2	84.6	79.0
Oregon	36	40.0	*	72.9	52.2	62.7	83.9	75.0
Pennsylvania	14	38.4	40.6	83.2	66.6	75.8	81.6	62.5
Rhode Island	1	48.6	50.7	83.1	73.9	67.5	88.4	85.0
South Carolina	27	41.7	40.1	78.5	56.8	59.8	82.9	73.5
South Dakota	10	39.5	52.7	86.9	49.1	71.0	85.8	79.5
Tennessee	26	40.0	45.4	82.9	58.5	61.9	82.3	68.0
Texas	46	34.9	34.5	78.4	54.4	43.4	79.9	62.0
Utah	48	37.5	40.1	74.1	51.8	59.2	83.7	60.0
Vermont	7	44.4	47.2	81.5	70.7	70.0	85.3	73.5
Virginia	24	45.1	45.0	85.8	60.8	61.8	83.0	64.0
Washington	34	42.0	48.5	77.8	60.5	56.4	82.2	74.5
West Virginia	32	37.5	41.8	74.9	63.7	63.3	83.0	66.5
Wisconsin	8	43.8	50.5	82.2	61.3	66.8	85.9	71.5
Wyoming	35	37.3	40.0	78.6	56.9	77.2	80.3	58.5

** Indicates data value is missing.*
AMI = Acute myocardial infarction, CHF = Congestive heart failure

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Quality: Dimension Ranking and Performance on Indicators (continued)

State	Dimension Rank	Indicator Performance: Percent adults with a usual source of care	Percent children with a medical home	Percent heart failure patients given instructions at discharge	Percent Medicare patients experienced good communication with provider	Percent Medicare patients giving best rating for care received	Percent high-risk nursing home residents with pressure sores	Percent nursing home residents were physically restrained
		Coordinated Care			Patient-Centered Care			
United States		**79.3**	**46.1**	**48.0**	*	*	**13.4**	**7.4**
Alabama	20	80.1	49.0	49	69.3	71.9	11.7	4.9
Alaska	49	70.5	37.7	37	67.6	65.4	13.3	5.5
Arizona	47	74.1	36.2	37	63.1	64.3	11.0	9.1
Arkansas	40	81.1	40.8	56	69.5	71.2	12.7	15.9
California	50	71.1	37.5	43	66.6	67.9	13.6	15.4
Colorado	30	79.7	45.8	33	65.9	62.4	9.7	6.4
Connecticut	4	86.5	59.1	61	68.6	71.1	13.2	7.3
Delaware	15	89.4	51.7	46	66.9	68.7	14.6	2.6
District of Columbia	25	77.7	45.2	53	71.0	67.5	19.3	2.5
Florida	45	75.4	43.0	49	65.1	67.0	14.2	9.4
Georgia	37	78.3	43.1	44	68.2	70.6	15.1	10.2
Hawaii	18	81.8	45.3	32	71.8	74.3	9.0	3.5
Idaho	39	73.4	37.9	50	67.2	70.3	8.3	6.2
Illinois	29	83.2	48.2	54	69.3	69.4	16.4	4.7
Indiana	28	84.4	51.0	51	68.9	70.5	14.4	5.8
Iowa	5	84.5	52.1	51	68.5	70.5	8.9	2.5
Kansas	19	84.2	49.8	31	68.3	71.5	12.2	3.6
Kentucky	38	82.8	50.5	41	68.7	68.5	13.7	6.9
Louisiana	41	77.6	39.2	54	72.4	71.8	18.1	14.2
Maine	2	88.9	56.6	62	73.4	73.4	10.5	4.7
Maryland	17	84.1	55.0	59	68.2	67.7	14.1	6.6
Massachusetts	3	87.1	60.3	51	71.6	71.8	13.3	6.7
Michigan	11	83.9	48.4	58	68.7	71.3	12.7	6.6
Minnesota	12	74.3	44.1	50	69.2	70.7	9.0	4.5
Mississippi	44	76.8	33.8	45	70.4	71.6	12.2	11.9
Missouri	33	82.8	47.7	45	68.4	69.1	13.5	7.1
Montana	13	74.9	40.9	33	72.2	74.4	7.8	3.0
Nebraska	9	83.3	49.0	44	71.2	71.2	8.1	1.9
Nevada	51	66.3	34.5	22	66.0	65.9	13.2	11.3
New Hampshire	6	87.4	61.0	53	68.5	69.8	11.1	3.3
New Jersey	16	83.0	52.7	67	69.1	68.3	18.4	5.2
New Mexico	41	76.4	39.0	14	64.4	61.2	11.5	8.2
New York	30	82.9	54.2	43	67.4	67.3	14.5	4.8
North Carolina	22	78.2	46.5	52	69.0	69.5	14.0	9.9
North Dakota	20	76.4	41.7	47	67.4	67.2	7.6	2.6
Ohio	23	84.1	52.3	61	68.6	70.0	13.3	7.1
Oklahoma	43	78.0	41.5	43	68.7	70.2	16.4	12.7
Oregon	36	75.7	43.4	31	67.7	69.0	10.7	9.2
Pennsylvania	14	88.6	54.0	47	70.3	72.5	13.7	4.7
Rhode Island	1	85.6	60.4	67	73.2	74.1	15.3	4.0
South Carolina	27	81.8	44.5	52	71.0	71.7	13.3	9.8
South Dakota	10	82.5	38.8	61	70.3	72.2	12.1	4.8
Tennessee	26	82.7	49.7	50	69.7	70.7	13.1	10.5
Texas	46	72.3	39.9	46	69.5	70.4	12.3	7.9
Utah	48	74.1	43.7	42	64.3	65.2	12.4	12.3
Vermont	7	85.5	57.8	51	74.9	71.2	15.7	3.6
Virginia	24	81.0	47.6	47	70.1	69.8	15.8	4.5
Washington	34	77.8	48.5	34	66.4	65.8	12.2	3.8
West Virginia	32	77.1	54.3	55	68.6	66.6	14.9	4.6
Wisconsin	8	83.7	51.2	59	70.0	70.1	10.6	3.2
Wyoming	35	74.9	40.5	36	71.6	70.9	11.6	6.2

** Indicates data value is missing.*
AMI=Acute myocardial infarction, CHF=Congestive heart failure

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Hospital Quality Indicator Composite Percent and Rank: Hospitalized Patients Who Received Recommended Care for Acute Myocardial Infarction, Congestive Heart Failure, and Pneumonia

	Percent				Rank			
State	Composite	AMI	CHF	Pneumonia	Composite	AMI	CHF	Pneumonia
Alabama	82.5	90.2	82.8	74.5	35	42	34	23
Alaska	82.9	92.8	84.4	71.4	33	27	24	33
Arizona	83.4	91.4	85.2	73.7	24	37	17	26
Arkansas	79.1	88.3	76.4	72.6	49	49	49	32
California	79.4	91.9	82.0	64.2	47	34	36	50
Colorado	86.1	96.1	87.2	74.9	8	5	10	17
Connecticut	87.5	94.7	89.9	77.8	5	14	3	11
Delaware	82.7	93.4	84.8	70.0	34	21	19	41
District of Columbia	*	*	*	*	*	*	*	*
Florida	80.3	89.3	83.6	68.1	41	46	28	46
Georgia	79.5	89.3	81.3	68.0	46	47	39	47
Hawaii	79.9	87.9	78.5	73.4	44	50	46	29
Idaho	85.2	94.8	82.9	78.0	16	12	31	9
Illinois	82.9	92.4	85.6	70.8	31	31	16	38
Indiana	84.5	92.8	82.9	77.8	19	26	33	12
Iowa	87.5	94.7	86.2	81.6	4	13	12	1
Kansas	84.0	93.3	80.7	78.0	20	23	41	8
Kentucky	81.7	91.2	79.2	74.6	38	39	45	20
Louisiana	80.6	90.2	80.4	71.2	40	43	43	37
Maine	85.3	96.0	89.4	70.5	15	7	5	40
Maryland	83.4	91.8	87.0	71.3	26	35	11	36
Massachusetts	85.8	97.1	90.4	69.8	13	1	2	42
Michigan	86.0	94.2	88.7	74.9	10	17	7	18
Minnesota	86.2	95.8	86.1	76.5	7	9	13	14
Mississippi	79.2	89.7	77.4	70.6	48	45	48	39
Missouri	83.5	92.2	83.6	74.8	23	33	27	19
Montana	86.0	96.1	82.9	78.9	9	4	32	7
Nebraska	87.8	95.2	87.8	80.4	2	10	8	4
Nevada	79.8	88.6	84.7	66.2	45	48	20	49
New Hampshire	86.6	95.8	89.7	74.3	6	8	4	24
New Jersey	87.7	93.3	89.0	80.6	3	22	6	2
New Mexico	79.0	92.5	78.3	66.3	50	30	47	48
New York	83.2	92.6	85.7	71.4	27	29	15	34
North Carolina	83.4	93.0	84.4	72.7	25	25	23	31
North Dakota	83.2	95.2	79.9	74.5	28	11	44	22
Ohio	84.9	93.9	87.4	73.4	17	19	9	28
Oklahoma	84.6	92.6	80.6	80.4	18	28	42	3
Oregon	83.9	93.7	84.6	73.3	21	20	21	30
Pennsylvania	81.6	91.8	84.2	68.8	39	36	25	45
Rhode Island	88.4	96.1	91.2	77.8	1	6	1	10
South Carolina	82.9	91.1	84.0	73.5	32	40	26	27
South Dakota	85.8	96.3	82.0	79.2	12	3	37	6
Tennessee	82.3	90.9	81.4	74.6	36	41	38	20
Texas	79.9	89.8	80.7	69.3	43	44	40	43
Utah	83.7	92.3	84.9	74.0	22	32	18	25
Vermont	85.3	96.8	83.2	76.1	14	2	30	15
Virginia	83.0	93.2	84.5	71.3	29	24	22	35
Washington	82.2	94.0	83.5	69.0	37	18	29	44
West Virginia	83.0	91.3	82.4	75.2	30	38	35	16
Wisconsin	85.9	94.5	85.9	77.3	11	15	14	13
Wyoming	80.3	94.3	66.1	80.4	42	16	50	5

** Indicates data value is missing.*
AMI = Acute myocardial infarction, CHF = Congestive heart failure

DATA: 2004 CMS Hospital Compare data. See Appendix B1 for description of indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Avoidable Hospital Use and Costs: Dimension and Indicator Ranking

ACS=Ambulatory care sensitive

SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Avoidable Hospital Use and Costs: Dimension Ranking and Performance on Indicators

State	Dimension Rank	Hospital admissions for pediatric asthma per 100,000 children	Percent asthmatics with emergency room or ugent care visit	Medicare admissions for ACS conditions per 100,000 beneficiaries	Medicare 30-day hospital readmission rates	Percent long-stay nursing home residents with hospital admission	Percent nursing home residents with readmission within three months	Percent home health patients with hospital admission
		Indicator Performance						
		Avoidable Hospital Use						
United States		**187.6**	**17.4**	**7,712**	**18.4**	*	*	**28**
Alabama	41	*	*	9,432	18.2	18.8	14.3	33.7
Alaska	19	*	13.1	4,726	15.7	*	*	24.2
Arizona	8	141.9	15.5	5,565	18.0	12.3	7.2	20.0
Arkansas	44	*	*	9,429	19.9	20.9	17.2	35.5
California	18	154.4	16.2	6,383	18.2	16.2	7.5	21.9
Colorado	15	174.9	*	5,729	17.5	11.3	9.6	22.5
Connecticut	25	*	16.6	6,647	16.6	12.6	9.4	30.4
Delaware	31	*	18.6	6,851	18.2	14.6	12.7	26.4
District of Columbia	47	*	25.8	8,101	20.4	*	*	27.3
Florida	26	238.5	*	6,680	17.4	19.7	10.5	21.2
Georgia	32	184.2	19.8	8,531	18.1	20.1	14.0	28.8
Hawaii	4	160.7	13.1	4,069	14.5	*	*	24.7
Idaho	3	*	11.0	5,591	14.8	9.2	8.9	22.8
Illinois	40	179.5	*	8,480	20.3	20.0	12.3	28.0
Indiana	33	*	20.3	8,113	17.6	16.9	12.6	30.3
Iowa	13	93.8	9.1	6,199	14.0	16.3	11.8	31.4
Kansas	26	162.8	*	7,328	18.9	14.2	13.1	27.2
Kentucky	45	273.3	19.2	10,452	19.0	21.2	14.2	36.1
Louisiana	51	*	17.4	11,368	23.8	24.9	17.3	46.4
Maine	21	111.5	*	6,798	17.5	8.7	11.0	27.1
Maryland	34	176.7	14.3	8,031	20.6	18.3	13.7	22.6
Massachusetts	35	154.4	13.7	7,830	19.8	16.0	10.1	29.0
Michigan	38	*	19.4	7,278	19.4	16.6	11.6	25.8
Minnesota	10	125.3	10.2	5,588	15.0	13.7	9.6	26.9
Mississippi	49	*	29.4	11,537	17.7	23.9	17.5	40.0
Missouri	30	220.7	18.7	8,084	17.8	19.4	12.9	26.6
Montana	7	*	15.1	6,468	14.9	10.1	9.1	22.9
Nebraska	14	91.0	*	6,492	14.3	14.0	10.6	24.8
Nevada	24	141.7	*	5,594	23.5	14.9	11.0	24.6
New Hampshire	20	*	12.8	6,246	17.1	8.9	9.9	29.8
New Jersey	46	225.6	18.7	8,526	18.3	23.2	16.0	26.5
New Mexico	5	*	13.6	5,811	15.3	8.5	9.5	24.3
New York	39	303.9	21.2	7,767	17.9	16.5	8.5	30.5
North Carolina	22	196.1	27.1	7,680	15.9	15.6	12.5	27.4
North Dakota	9	*	*	6,662	16.2	10.4	12.3	23.7
Ohio	37	177.3	15.1	8,689	18.6	17.7	12.0	29.3
Oklahoma	50	*	18.8	9,392	20.5	21.5	15.4	37.1
Oregon	2	75.2	*	5,116	14.1	9.1	6.7	20.2
Pennsylvania	36	244.3	15.1	8,541	20.1	17.3	12.1	26.0
Rhode Island	23	212.4	16.2	8,025	15.5	14.9	9.5	26.4
South Carolina	26	314.2	*	7,766	16.0	15.5	12.3	28.8
South Dakota	17	*	12.5	7,225	20.2	16.3	11.3	22.5
Tennessee	42	221.6	*	9,764	18.2	18.7	13.2	34.7
Texas	48	210.4	15.5	8,794	20.6	21.3	14.9	34.5
Utah	1	91.8	11.9	4,432	15.8	8.3	7.9	18.3
Vermont	11	54.9	12.7	5,932	13.2	9.5	9.0	30.2
Virginia	29	187.2	21.7	7,328	16.7	16.1	12.8	27.5
Washington	6	149.2	11.9	4,706	16.5	10.8	8.4	20.9
West Virginia	42	197.8	*	10,424	17.0	20.7	16.1	34.9
Wisconsin	16	118.0	13.8	6,145	16.3	12.3	10.1	26.7
Wyoming	12	*	*	6,016	13.3	13.4	10.3	25.6

** Indicates data value is missing. ACS = Ambulatory care sensitive*

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Avoidable Hospital Use and Costs: Dimension Ranking and Performance on Indicators (continued)

State	Dimension Rank	Indicator Performance: Total single health insurance premium per enrolled employee	Indicator Performance: Total Medicare reimbursements per enrollee
		Annual Costs	
United States		**$3,705**	**$6,611**
Alabama	41	3,414	6,492
Alaska	19	4,379	6,431
Arizona	8	3,438	6,077
Arkansas	44	3,250	5,845
California	18	3,534	7,424
Colorado	15	3,684	6,114
Connecticut	25	3,864	7,384
Delaware	31	3,830	6,637
District of Columbia	47	4,218	6,312
Florida	26	3,807	7,225
Georgia	32	3,335	5,979
Hawaii	4	3,119	4,530
Idaho	3	3,429	5,126
Illinois	40	3,768	6,625
Indiana	33	3,586	5,851
Iowa	13	3,561	4,888
Kansas	26	3,711	6,070
Kentucky	45	3,542	6,384
Louisiana	51	3,485	7,716
Maine	21	4,116	5,581
Maryland	34	3,721	7,305
Massachusetts	35	4,141	7,804
Michigan	38	3,918	6,841
Minnesota	10	3,809	5,287
Mississippi	49	3,607	6,525
Missouri	30	3,559	5,990
Montana	7	3,680	5,178
Nebraska	14	3,725	5,370
Nevada	24	3,874	7,109
New Hampshire	20	4,084	5,842
New Jersey	46	3,882	8,076
New Mexico	5	3,401	5,120
New York	39	3,858	7,663
North Carolina	22	3,551	5,873
North Dakota	9	3,342	4,766
Ohio	37	3,782	6,470
Oklahoma	50	3,644	6,675
Oregon	2	3,706	4,933
Pennsylvania	36	3,671	6,860
Rhode Island	23	4,368	6,824
South Carolina	26	3,773	5,975
South Dakota	17	3,449	5,024
Tennessee	42	3,634	6,411
Texas	48	3,781	7,192
Utah	1	3,034	5,333
Vermont	11	4,074	5,580
Virginia	29	3,865	5,568
Washington	6	3,608	5,523
West Virginia	42	3,692	6,041
Wisconsin	16	3,927	5,407
Wyoming	12	3,761	5,323

** Indicates data value is missing. ACS = Ambulatory care sensitive*

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

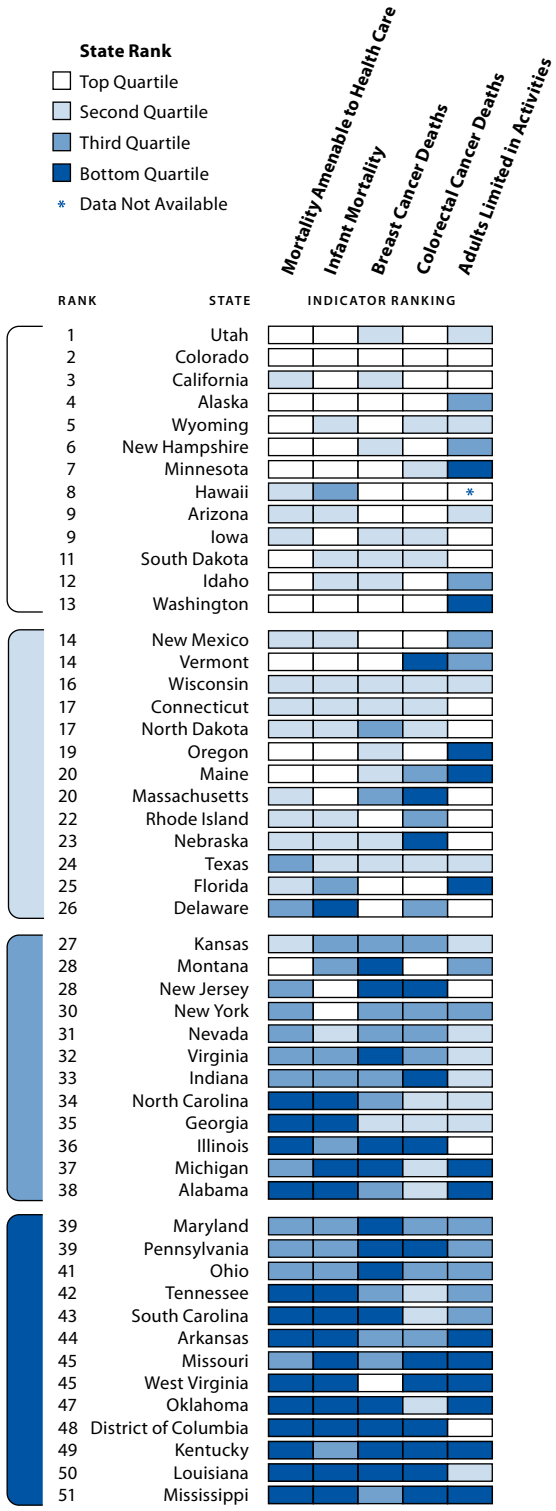
PHOTO: ROGER CARR

HEALTHY LIVES EXHIBIT A9

Dimension and Indicator Ranking

State Rank

- Top Quartile
- Second Quartile
- Third Quartile
- Bottom Quartile
- * Data Not Available



SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Healthy Lives: Dimension Ranking and Performance on Indicators

State	Dimension Rank	Indicator Performance: Mortality amenable to health care, deaths per 100,000 population	Infant mortality, deaths per 1,000 live births	Breast cancer deaths per 100,000 female population	Colorectal cancer deaths per 100,000 population	Percent adults under age 65 limited in activities because of physical, mental, or emotional problems
United States		**103.3**	**7.0**	**25.6**	**19.7**	**14.1**
Alabama	38	120.7	9.1	25.5	18.7	17.1
Alaska	4	78.2	5.6	20.5	17.9	16.8
Arizona	9	93.6	6.4	22.6	16.6	14.9
Arkansas	44	132.0	8.4	25.4	20.6	17.2
California	3	92.7	5.4	23.9	17.1	10.9
Colorado	2	79.0	6.0	22.7	18.1	12.6
Connecticut	17	86.7	6.5	25.3	19.3	13.0
Delaware	26	105.2	8.6	23.5	20.4	12.9
District of Columbia	48	160.0	11.0	34.1	24.6	10.8
Florida	25	96.9	7.5	23.7	18.2	17.1
Georgia	35	121.5	9.0	25.2	19.4	15.1
Hawaii	8	87.0	7.4	16.2	17.3	*
Idaho	12	82.5	6.1	25.2	15.4	15.8
Illinois	36	112.8	7.4	27.1	22.0	12.5
Indiana	33	107.0	7.8	25.7	21.4	13.9
Iowa	9	86.8	5.3	24.8	20.0	11.9
Kansas	27	91.0	7.2	26.4	20.2	13.8
Kentucky	49	118.2	7.2	27.4	23.9	20.0
Louisiana	50	138.3	10.0	29.7	23.3	15.2
Maine	20	80.3	4.3	24.0	20.9	17.5
Maryland	39	110.8	7.6	29.4	20.8	15.4
Massachusetts	20	86.0	4.8	26.2	21.3	13.7
Michigan	37	109.2	8.1	26.8	19.3	17.5
Minnesota	7	70.2	5.3	22.7	18.5	17.4
Mississippi	51	150.4	10.0	26.6	22.5	19.9
Missouri	45	111.0	8.5	26.1	21.3	17.8
Montana	28	81.2	7.5	27.5	18.3	16.4
Nebraska	23	85.9	7.0	24.2	21.7	13.6
Nevada	31	111.5	6.1	25.9	21.2	14.3
New Hampshire	6	79.9	5.0	24.2	17.5	16.2
New Jersey	28	98.5	5.7	28.3	21.5	12.8
New Mexico	14	89.1	6.1	21.9	18.2	16.6
New York	30	103.6	6.0	26.1	20.5	16.0
North Carolina	34	114.4	8.1	26.4	19.6	14.3
North Dakota	17	86.2	6.3	26.0	20.0	11.4
Ohio	41	111.0	7.9	28.0	21.1	15.5
Oklahoma	47	120.1	8.2	27.0	20.0	18.4
Oregon	19	83.8	5.7	24.8	17.9	19.0
Pennsylvania	39	104.7	7.6	27.9	21.3	15.6
Rhode Island	22	96.6	7.1	23.4	21.1	13.3
South Carolina	43	126.3	9.3	26.9	20.0	15.9
South Dakota	11	80.4	6.7	23.9	19.0	13.7
Tennessee	42	128.0	9.3	25.8	19.9	16.5
Texas	24	111.2	6.3	24.3	18.8	14.5
Utah	1	71.1	5.6	23.9	15.3	14.2
Vermont	14	74.7	4.4	21.4	22.3	16.4
Virginia	32	104.1	7.4	26.9	20.2	15.1
Washington	13	80.3	5.8	23.8	16.9	18.6
West Virginia	45	119.0	8.9	22.8	23.1	22.8
Wisconsin	16	86.4	6.8	24.6	18.4	14.2
Wyoming	5	76.2	6.7	19.4	19.2	14.5

** Indicates data value is missing.*

DATA: See Appendices B1 and B2 for data source of each indicator.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Mortality Amenable to Health Care by Race, Deaths per 100,000 Population, 2002

	Total		White		Black	
	2002	Rank	2002	Rank	2002	Rank
United States	**103.3**	**NA**	**93.6**	**NA**	**194.1**	**NA**
Alabama	120.7	44	100.6	39	195.5	27
Alaska	78.2	5	70.2	3	*	*
Arizona	93.6	24	91.5	29	139.9	6
Arkansas	132.0	48	117.7	50	241.5	42
California	92.7	23	90.3	27	183.0	19
Colorado	79.0	6	77.1	8	141.4	7
Connecticut	86.7	18	81.5	15	150.4	8
Delaware	105.2	31	94.6	31	164.6	14
District of Columbia	160.0	51	61.1	1	216.0	35
Florida	96.9	26	86.2	23	183.3	20
Georgia	121.5	45	98.7	37	197.3	29
Hawaii	87.0	20	84.5	19	106.0	1
Idaho	82.5	12	82.5	17	*	*
Illinois	112.8	39	96.9	36	224.4	38
Indiana	107.0	32	100.8	40	192.0	24
Iowa	86.8	19	85.9	22	163.0	12
Kansas	91.0	22	85.5	21	201.1	32
Kentucky	118.2	41	113.8	47	196.1	28
Louisiana	138.3	49	106.1	44	225.1	39
Maine	80.3	8	80.5	11	*	*
Maryland	110.8	34	91.2	28	176.7	17
Massachusetts	86.0	15	84.6	20	137.3	5
Michigan	109.2	33	94.0	30	220.3	37
Minnesota	70.2	1	67.6	2	164.9	15
Mississippi	150.4	50	116.5	49	232.4	40
Missouri	111.0	35	101.0	41	210.5	34
Montana	81.2	11	79.0	9	*	*
Nebraska	85.9	14	81.0	13	193.4	25
Nevada	111.5	38	107.5	45	176.8	18
New Hampshire	79.9	7	80.5	11	*	*
New Jersey	98.5	27	88.9	26	183.8	22
New Mexico	89.1	21	87.6	24	120.3	3
New York	103.6	28	96.5	35	157.1	11
North Carolina	114.4	40	95.9	33	195.2	26
North Dakota	86.2	16	81.3	14	156.1	10
Ohio	111.0	35	101.5	43	197.5	30
Oklahoma	120.1	43	115.6	48	185.2	23
Oregon	83.8	13	84.0	18	120.0	2
Pennsylvania	104.7	30	96.4	34	199.1	31
Rhode Island	96.6	25	94.6	31	152.7	9
South Carolina	126.3	46	99.2	38	208.1	33
South Dakota	80.4	10	72.8	5	*	*
Tennessee	128.0	47	111.8	46	237.1	41
Texas	111.2	37	101.2	42	218.4	36
Utah	71.1	2	70.3	4	*	*
Vermont	74.7	3	74.7	6	*	*
Virginia	104.1	29	88.5	25	183.4	21
Washington	80.3	8	79.7	10	133.6	4
West Virginia	119.0	42	118.3	51	163.4	13
Wisconsin	86.4	17	82.1	16	166.2	16
Wyoming	76.2	4	76.0	7	*	*

** Indicates data value is missing.*
NA = Not applicable

DATA: Analysis of 2002 CDC Multiple Cause-of-Death data files using Nolte and McKee methodology, *BMJ* 2003.
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

State Demographics: Income and Health Status

	Mortality amenable to health care, deaths per 100,000 population		Percent of population with incomes less than 200% of federal poverty level		Median household income		Cancer incidence rate per 100,000 population	
	2002	Rank	2004-2005	Rank	2004-2005	Rank	2002	Rank
United States	**103.3**		**36**		**$46,071**		**462.2**	
Alabama	120.7	44	41	42	37,502	45	437.7	8
Alaska	78.2	5	30	8	56,398	6	425.9	6
Arizona	93.6	24	40	37	45,279	25	391.6	1
Arkansas	132.0	48	43	47	36,406	48	*	*
California	92.7	23	40	37	51,312	12	441.0	11
Colorado	79.0	6	30	8	51,518	11	440.4	9
Connecticut	86.7	18	27	3	56,889	5	494.6	38
Delaware	105.2	31	31	11	50,445	14	486.8	34
District of Columbia	160.0	51	42	45	44,949	27	482.9	33
Florida	96.9	26	37	32	42,440	36	457.8	17
Georgia	121.5	45	38	34	44,140	30	467.3	24
Hawaii	87.0	20	33	18	58,854	3	408.6	4
Idaho	82.5	12	36	30	45,009	26	454.4	15
Illinois	112.8	39	33	18	48,008	18	482.6	30
Indiana	107.0	32	34	22	43,091	34	462.0	19
Iowa	86.8	19	31	11	45,671	24	469.4	27
Kansas	91.0	22	34	22	42,233	37	440.6	10
Kentucky	118.2	41	41	42	36,750	47	498.2	41
Louisiana	138.3	49	45	50	37,442	46	482.6	30
Maine	80.3	8	35	28	43,317	31	508.9	43
Maryland	110.8	34	29	6	59,762	2	488.0	35
Massachusetts	86.0	15	29	6	54,888	8	505.8	42
Michigan	109.2	33	34	22	44,801	28	488.8	36
Minnesota	70.2	1	24	2	56,098	7	475.3	29
Mississippi	150.4	50	48	51	34,396	51	*	*
Missouri	111.0	35	35	28	43,266	32	447.8	13
Montana	81.2	11	41	42	36,202	49	462.3	20
Nebraska	85.9	14	31	11	46,587	20	459.9	18
Nevada	111.5	38	36	30	48,496	17	482.6	30
New Hampshire	79.9	7	23	1	57,850	4	495.1	39
New Jersey	98.5	27	27	3	60,246	1	516.5	45
New Mexico	89.1	21	44	49	39,916	42	402.6	2
New York	103.6	28	38	34	46,659	19	469.3	26
North Carolina	114.4	40	38	34	41,820	39	416.9	5
North Dakota	86.2	16	32	16	41,362	40	444.4	12
Ohio	111.0	35	33	18	44,349	29	453.0	14
Oklahoma	120.1	43	40	37	39,292	44	456.7	16
Oregon	83.8	13	37	32	43,262	33	465.9	23
Pennsylvania	104.7	30	34	22	45,941	22	496.2	40
Rhode Island	96.6	25	33	18	49,511	16	514.6	44
South Carolina	126.3	46	40	37	40,107	41	467.8	25
South Dakota	80.4	10	34	22	42,816	35	*	*
Tennessee	128.0	47	40	37	39,376	43	*	*
Texas	111.2	37	43	47	42,102	38	427.0	7
Utah	71.1	2	34	22	53,693	9	405.7	3
Vermont	74.7	3	28	5	49,808	15	463.4	21
Virginia	104.1	29	30	8	52,383	10	*	*
Washington	80.3	8	31	11	51,119	13	491.2	37
West Virginia	119.0	42	42	45	35,467	50	472.1	28
Wisconsin	86.4	17	32	16	45,956	21	465.1	22
Wyoming	76.2	4	31	11	45,817	23	*	*

** Indicates data value is missing.*

DATA: Mortality amenable - 2002 CDC Multiple Cause-of-Death data files using Nolte and McKee methodology (Nolte and McKee, *BMJ* 2003); Income less than 200% of poverty - Kaiser statehealthfacts.org (2005 and 2006 Current Population Survey); Median income - 2005 and 2006 Current Population Survey; Cancer - Kaiser statehealthfacts.org (National Cancer Institute); Overweight, Asthma, Diabetes, and Smoking - Kaiser statehealthfacts.org (2005 BRFSS)
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

State Demographics: Income and Health Status (continued)

	Percent of adults who are overweight or obese		Percent of adults who have been told they have asthma		Percent of adults who have ever been told by a doctor that they have diabetes		Percent of adults who smoke	
	2005	Rank	2005	Rank	2005	Rank	2005	Rank
United States	**58.5**		**12.6**		**7.3**		**20.6**	
Alabama	62.3	44	11.2	9	9.8	48	24.8	45
Alaska	62.4	47	12.5	24	4.4	1	25.0	46
Arizona	53.5	5	12.2	21	7.5	28	20.3	22
Arkansas	61.9	42	11.4	13	8.1	35	23.5	42
California	57.9	18	13.2	33	7.1	21	15.1	2
Colorado	52.3	3	13.3	34	4.8	2	19.8	15
Connecticut	55.2	9	12.4	23	6.5	11	16.5	3
Delaware	60.5	37	12.6	25	8.6	42	20.7	27
District of Columbia	52.1	2	15.3	49	7.1	21	20.1	20
Florida	58.2	20	11.7	17	8.8	43	21.7	33
Georgia	60.5	37	11.5	14	8.3	39	22.2	35
Hawaii	51.4	1	14.1	40	7.3	25	17.0	4
Idaho	58.3	24	11.7	17	6.8	17	17.9	7
Illinois	58.2	20	10.6	3	7.9	33	19.9	17
Indiana	59.5	32	12.7	29	8.3	39	27.2	50
Iowa	60.2	34	11.6	15	6.8	17	20.4	23
Kansas	58.0	19	10.8	4	6.9	19	17.8	6
Kentucky	62.5	49	13.3	34	8.9	44	28.7	51
Louisiana	62.3	44	10.8	4	9.2	47	22.5	37
Maine	56.9	16	15.0	48	7.5	28	20.8	28
Maryland	58.2	20	13.1	31	7.2	24	18.9	11
Massachusetts	52.9	4	14.2	41	6.4	8	18.1	9
Michigan	60.5	37	13.9	39	8.1	35	22.1	34
Minnesota	59.4	30	11.8	20	5.8	5	20.0	18
Mississippi	64.9	51	11.1	7	9.8	48	23.7	44
Missouri	62.4	47	14.2	41	7.7	30	23.4	41
Montana	54.7	8	12.6	25	5.7	4	19.2	12
Nebraska	60.2	34	10.8	4	7.3	25	21.3	30
Nevada	56.2	12	12.6	25	7.1	21	23.1	40
New Hampshire	57.4	17	14.7	46	6.5	11	20.4	23
New Jersey	55.3	10	11.7	17	7.7	30	18.0	8
New Mexico	58.2	20	14.5	44	7.3	25	21.5	32
New York	56.8	15	13.8	38	8.1	35	20.5	25
North Carolina	59.4	30	10.1	1	8.5	41	22.6	39
North Dakota	62.0	43	11.1	7	6.7	15	20.2	21
Ohio	60.3	36	11.3	12	7.7	30	22.4	36
Oklahoma	60.6	40	13.3	34	8.9	44	25.0	46
Oregon	56.5	13	15.3	49	6.7	15	18.5	10
Pennsylvania	59.2	28	12.3	22	8.1	35	23.6	43
Rhode Island	55.8	11	15.3	49	6.4	8	19.7	14
South Carolina	62.3	44	11.2	9	10.3	50	22.5	37
South Dakota	60.7	41	10.5	2	6.4	8	19.8	15
Tennessee	59.3	29	11.6	15	9.1	46	26.7	48
Texas	58.8	25	11.2	9	7.9	33	20.0	18
Utah	54.3	7	13.0	30	5.5	3	11.5	1
Vermont	54.2	6	14.9	47	6.0	6	19.3	13
Virginia	58.9	26	14.2	41	6.9	19	20.6	26
Washington	56.5	13	14.6	45	6.3	7	17.5	5
West Virginia	63.6	50	13.4	37	10.4	51	26.7	48
Wisconsin	59.1	27	13.1	31	6.6	14	20.8	28
Wyoming	59.6	33	12.6	25	6.5	11	21.4	31

** Indicates data value is missing.*

DATA: Mortality amenable - 2002 CDC Multiple Cause-of-Death data files using Nolte and McKee methodology (Nolte and McKee, *BMJ* 2003); Income less than 200% of poverty - Kaiser statehealthfacts.org (2005 and 2006 Current Population Survey); Median income - 2005 and 2006 Current Population Survey; Cancer - Kaiser statehealthfacts.org (National Cancer Institute); Overweight, Asthma, Diabetes, and Smoking - Kaiser statehealthfacts.org (2005 BRFSS)
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

EXHIBIT A13

State Demographics: Race and Ethnic Groups, U.S. (2005) and States (2004-2005)

	White	Black	Hispanic	Other
United States	**67**	**12**	**15**	**6**
Alabama	69	26	2	3
Alaska	69	3	5	23
Arizona	58	3	31	7
Arkansas	77	16	4	3
California	44	6	35	14
Colorado	72	4	20	4
Connecticut	77	9	10	4
Delaware	69	20	7	4
District of Columbia	31	56	9	4
Florida	62	15	20	3
Georgia	59	29	8	4
Hawaii	19	2	7	72
Idaho	85	0	10	4
Illinois	68	15	12	6
Indiana	85	9	4	2
Iowa	90	2	5	3
Kansas	83	5	6	5
Kentucky	89	7	1	2
Louisiana	63	32	2	3
Maine	95	1	1	3
Maryland	58	28	7	6
Massachusetts	80	5	8	6
Michigan	78	14	4	4
Minnesota	86	4	4	6
Mississippi	58	37	3	2
Missouri	83	11	3	3
Montana	90	0	2	7
Nebraska	83	4	9	4
Nevada	60	7	22	10
New Hampshire	94	1	1	3
New Jersey	64	13	16	7
New Mexico	44	2	44	11
New York	61	15	16	8
North Carolina	67	21	7	5
North Dakota	89	1	2	9
Ohio	83	12	3	3
Oklahoma	73	7	5	15
Oregon	82	2	9	8
Pennsylvania	83	10	4	3
Rhode Island	80	6	10	4
South Carolina	66	29	3	2
South Dakota	87	1	3	10
Tennessee	77	17	4	2
Texas	48	11	37	4
Utah	84	1	10	5
Vermont	95	1	1	3
Virginia	68	19	7	6
Washington	78	3	7	12
West Virginia	95	3	0	1
Wisconsin	86	6	5	4
Wyoming	89	1	7	3

DATA: Kaiser statehealthfacts.org (2005 and 2006 Current Population Survey)
SOURCE: Commonwealth Fund State Scorecard on Health System Performance, 2007

Appendix B.1. State Scorecard Indicator Descriptions and Data Sources

Complete references for data sources are provided in Appendix B.2.

Indicator	Description
1	Adults under age 65 insured: Employee Benefits Research Institute (EBRI) analysis of 2005 and 2006 U.S. Census Bureau Current Population Survey (CPS) March Supplement (U.S. Census Bureau, 2005, 2006).
2	Children insured: EBRI analysis of 2005 and 2006 U.S. Census Bureau CPS March Supplement (U.S. Census Bureau, 2005, 2006).
3	Adults visited a doctor in past two years: Rutgers Center for State Health Policy (CSHP) analysis of 2000 Behavioral Risk Factor Surveillance System (BRFSS) (NCCDPHP, BRFSS 2000).
4	Adults with a time in past year when they needed to see a doctor but could not because of cost: Rutgers CSHP analysis of 2002 and 2004 BRFSS (NCCDPHP, BRFSS 2002, 2004). 2002 data was imputed for one state.
5	Adult age 50 and older received recommended preventive care: Percent of adults age 50 and older who have received: sigmoidoscopy or colonoscopy in the last ten years or a fecal occult blood test in the last two years; a mammogram in the last two years (women only); a pap smear in the last three years (women only); and a flu shot in the past year and a pneumonia vaccine ever (age 65 and older only). Rutgers CSHP analysis of 2002 and 2004 BRFSS (NCCDPHP, BRFSS 2002, 2004). 2002 data were imputed for one state.
6	Adult diabetics received recommended preventive care: Percent of adults age 18 and older who were told by a doctor that they had diabetes and have received: hemoglobin A1c test, dilated eye exam, and foot exam in the past year. Rutgers CSHP analysis of 2002 and 2004 BRFSS (NCCDPHP, BRFSS 2002, 2004). 2002 data were imputed for six states.
7	Children ages 19–35 months received all recommended doses of five key vaccines: Percent of children ages 19 to 35 months who have received at least 4 doses of diphtheria-tetanus-acellular pertussis (DTaP), at least 3 doses of polio, at least 1 dose of measles-mumps-rubella (MMR), at least 3 doses of Haemophilus influenzae B (Hib), and at least 3 doses of hepatitis B antigens. Data from the 2005 National Immunization Survey (NCHS, NIS 2005).
8	Children with both medical and dental preventive care visits: Percent of children ages 0–17 with one or more medical and dental preventive care visits during the past 12 months. Child and Adolescent Health Measurement Initiative (CAHMI) analysis of the 2003 National Survey of Children's Health (CAHMI 2005).
9	Children with emotional, behavioral, or developmental problems received mental health care: Percent of children ages 1–17 with current emotional, developmental, or behavioral problems requiring treatment or counseling who received some type of mental health care during the past 12 months. CAHMI analysis of 2003 National Survey of Children's Health (CAHMI 2005).
10	Hospitalized patients received recommended care for acute myocardial infarction, congestive heart failure, and pneumonia: Proportion of cases where a hospital provided the recommended process of care for patients with acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia for 10 indicators. The composite includes 5 clinical services for AMI (aspirin within 24 hours before or after arrival at the hospital and at discharge; beta-blocker within 24 hours after arrival and at discharge; and angiotensin-converting enzyme (ACE) inhibitor for left ventricular systolic dysfunction), 2 for CHF (assessment of left ventricular function and the use of an ACE inhibitor for left ventricular dysfunction), and 3 for pneumonia (initial antibiotic therapy received within four hours of hospital arrival, pneumococcal vaccination, and assessment of oxygenation). Analysis of 2004 CMS Hospital Compare data conducted by A. Jha and A. Epstein at the Harvard School of Public Health (DHHS n.d.).
11	Surgical patients received appropriate timing of antibiotics to prevent infections: Proportion of cases where a hospital provided prophylactic antibiotics within 1 hour prior to surgery and discontinued within 24 hours after surgery. Data from 2005 CMS Hospital Compare (DHHS n.d.), reported in AHRQ 2006 National Healthcare Quality Report (AHRQ 2006).
12	Adults with a usual source of care: Percent of adults age 18 and older who have one (or more) person they think of as their personal doctor or health care provider. Rutgers CSHP analysis of 2002 and 2004 BRFSS (NCCDPHP, BRFSS 2002, 2004). 2002 data were imputed for one state.
13	Children with a medical home: Percent of children ages 0–17 who have at least one preventive medical care visit in the past year; are able to access needed specialist care and services; and have a personal doctor/nurse who usually/always spends enough time and communicates clearly, provides telephone advice and urgent care when needed, and follows up after specialist care. CAHMI analysis of 2003 National Survey of Children's Health (CAHMI 2005).

Appendix B.1. State Scorecard Indicator Descriptions and Data Sources (continued)

Complete references for data sources are provided in Appendix B.2.

Indicator	Description
14	Heart failure patients given written instructions at discharge: Percent of heart failure patients with documentation that they or their caregivers were given written instructions or other educational materials at discharge. Data retrieved from CMS Hospital Compare database on January 25, 2006 (DHHS n.d.).
15	Medicare fee-for-service patients whose health provider always listens, explains, shows respect, and spends enough time with them: Data from 2003 National Consumer Assessment Healthcare Providers and Systems (CAHPS) Benchmarking Database (AHRQ, CAHPS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
16	Medicare fee-for-service patients giving a best rating for health care received: Percent of Medicare fee-for-service patients who reported a doctor's visit in the last 12 months and gave a best rating for health care received. Data from 2003 National CAHPS Benchmarking Database (AHRQ, CAHPS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
17	High-risk nursing home residents with pressure sores: Data from 2004 CMS Minimum Data Set (CMS, MDS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
18	Long-stay nursing home residents who were physically restrained: Data from 2004 CMS Minimum Data Set (CMS, MDS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
19	Hospital admissions for pediatric asthma per 100,000 population: Data from 2002 Healthcare Cost and Utilization Project State Inpatient Databases (AHRQ, HCUP-SID 2002), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
20	Asthmatics with an emergency room or urgent care visit: Percent of adults age 18 and older who were told by a doctor that they had asthma and had an emergency room or urgent care visit in the past 12 months. Rutgers CSHP analysis of 2001, 2002, 2003 and 2004 BRFSS (NCCDPHP, BRFSS 2001, 2002, 2003, 2004).
21	Medicare hospital admissions for ambulatory sensitive conditions per 100,000 beneficiaries: Hospital admissions of fee-for-service Medicare beneficiaries age 65 and older for one of 11 ambulatory care sensitive conditions (AHRQ Indicators): short-term diabetes complications, long-term diabetes complications, lower extremity amputation among patients with diabetes, asthma, chronic obstructive pulmonary disease, hypertension, congestive heart failure, angina (without a procedure), dehydration, bacterial pneumonia, and urinary tract infection. Analysis of 2003 Medicare Standard Analytical Files (SAF) 5% Inpatient Data conducted by G. Anderson and R. Herbert at Johns Hopkins Bloomberg School of Public Health (CMS, SAF 2003).
22	Medicare 30-day hospital readmission rates: Fee-for-service Medicare beneficiaries age 65 and older with initial admissions due to one of 31 select conditions who are readmitted within 30 days following discharge for the initial admission. Analysis of 2003 Medicare SAF 5% Inpatient Data conducted by G. Anderson and R. Herbert at Johns Hopkins (CMS, SAF 2003).
23	Long-stay nursing home residents with a hospital admission: Analysis of 2000 Medicare enrollment data and MedPAR file conducted by V. Mor at Brown University, under a grant funded by the National Institute of Aging (#AG20557, State Policies and Hospitalizations from Nursing Homes).
24	Nursing home residents with a hospital readmission within three months: Percent of long-stay residents hospitalized within three months of being discharged from a hospital to a nursing home. Analysis of 2000 Medicare enrollment data and MedPAR file conducted by V. Mor at Brown University, under a grant funded by the National Institute of Aging (#AG20557).
25	Home health patients with a hospital admission: Percent of acute care hospitalization for home health episodes. Data from 2004 Outcome and Assessment Information Set (CMS, OASIS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).
26	Total single premium per enrolled employee at private-sector establishments that offer health insurance: Data from 2004 Medical Expenditure Panel Survey – Insurance Component (AHRQ, MEPS-IC 2004).

Appendix B.1. State Scorecard Indicator Descriptions and Data Sources (continued)

Complete references for data sources are provided in Appendix B.2.

Indicator **Description**

27 Total Medicare reimbursements per enrollee: 2003 data from Dartmouth Atlas of Health Care (Dartmouth Atlas Project 2003). Total Medicare fee-for-service reimbursements include payments for both Part A and Part B (exclude capitated payments). Reimbursement rates were indirectly adjusted for sex, race, and age, and were further adjusted for illness, and regional differences in price.

28 Mortality amenable to health care: Number of deaths before age 75 per 100,000 population that resulted from causes considered at least partially treatable or preventable with timely and appropriate medical care (see list), as described in Nolte and McKee (Nolte and McKee, BMJ 2003). Analysis conducted by K. Hempstead at Rutgers CSHP using 2002 mortality data from CDC Multiple Cause-of-Death file and U.S. Census Bureau population data (NCHS, MCD n.d.).

Cause of deaths	Age
Intestinal infections	0–14
Tuberculosis	0–74
Other infections (diphtheria, Tetanus, septicaemia, poliomyelitis)	0–74
Whooping cough	0–14
Measles	1–14
Malignant neoplasm of colon and rectum	0–74
Malignant neoplasm of skin	0–74
Malignant neoplasm of breast	0–74
Malignant neoplasm of cervix uteri	0–74
Malignant neoplasm of cervix uteri and body of uterus	0–44
Malignant neoplasm of testis	0–74
Hodgkin's disease	0–74
Leukaemia	0–44
Diseases of the thyroid	0–74
Diabetes mellitus	0–49
Epilepsy	0–74
Chronic rheumatic heart disease	0–74
Hypertensive disease	0–74
Cerebrovascular disease	0–74
All respiratory diseases (excluding pneumonia and influenza)	1–14
Influenza	0–74
Pneumonia	0–74
Peptic ulcer	0–74
Appendicitis	0–74
Abdominal hernia	0–74
Cholelithiasis and cholecystitis	0–74
Nephritis and nephrosis	0–74
Benign prostatic hyperplasia	0–74
Maternal death	All
Congenital cardiovascular anomalies	0–74
Perinatal deaths, all causes, excluding stillbirths	All
Misadventures to patients during surgical and medical care	All
Ischaemic heart disease: 50% of mortality rates included	0–74

Indicator **Description**

29 Infant mortality, deaths per 1,000 live births: Data from 2002 National Vital Statistics System (NVSS) (NCHS, NVSS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).

30 Breast cancer deaths per 100,000 female population: Age-adjusted to US 2000 standard population. Data from 2002 NVSS (NCHS, NVSS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).

31 Colorectal cancer deaths per 100,000 population: Age-adjusted to US 2000 standard population. Data from 2002 NVSS (NCHS, NVSS n.d.), reported in AHRQ 2005 National Healthcare Quality Report (AHRQ 2005).

32 Adults under age 65 limited in any activities because of physical, mental, or emotional problems: Rutgers CSHP analysis of 2004 BRFSS (NCCDPHP, BRFSS 2004).

Appendix B.2. Complete References for Data Sources

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Further Reading

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