U.S. Variations in Child Health System Performance: A State Scorecard

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ABSTRACT: This report examines variations among states' child health care systems, building on the State Scorecard published by The Commonwealth Fund Commission on a High Performance Health System. Focusing on 13 performance indicators of access, quality, costs, equity, and the potential to lead healthy lives, the authors find wide variation among states, including distinct regional patterns. Across states, better access to care is closely associated with better quality of care. Top-performing states, such as Iowa and Vermont, have adopted policies to expand children's access to care and improve the quality of care. While leading states outperform lagging states on multiple indicators, all states have opportunities to improve. National leadership and collaboration across public and private sectors are essential for coherent, strategic reforms to improve child health care in the United States.

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Executive Summary

Investing in child health is a high priority for state officials. More than one-third of children nationally receive health care funded by the federal government as well as the 50 states and the District of Columbia. Twenty-eight million children are covered by Medicaid, and 6 million are covered by the State Children's Health Insurance Program (SCHIP), which was enacted in 1997 to expand coverage of children in low-income families.[1] Yet, some states do better than others in promoting the health and development of their youngest residents, and in ensuring that all children are on course to lead healthy and productive lives.

The recent State Scorecard on Health System Performance, prepared for The Commonwealth Fund Commission on a High Performance Health System, found that access to health care, as well as health care quality, costs, outcomes, and equity, vary widely across the states.[2] This report examines performance variations among states' child health systems, building on many of the State Scorecard indicators as well as other key indicators of children's health. It finds similar variation in performance among states—and abundant opportunities for all states to improve. With a goal of focusing on opportunities to improve, this analysis assesses performance relative to what is achievable, based on benchmarks drawn from the range of state health system performance.

The analysis focuses on 13 indicators of child health system performance along the dimensions of access, quality, costs, and the "potential to lead healthy lives." In addition, for two indicators, gaps in performance by income, race/ethnicity, and insurance are used to gauge equity. Six of the 13 indicators were included in the previously published State Scorecard; others were added from government data sources. All 50 states, plus the District of Columbia, are ranked on each indicator and the five dimensions of performance—access, quality, costs, equity, and potential to lead healthy lives—using the same methodology employed in the State Scorecard. The rankings for each dimension are then summed to derive an overall ranking for child health system performance. Figure ES-1 shows the indicators included, the range in variation across states, and the highest-achieving state on each indicator. (See "Appendix: Study Methodology" for further details.)

Figure ES-1. Indicators of State Child Health System Performance

Access	Year	All States Median	Range of State Performance (Bottom–Top)	Best State
Children uninsured	2005– 2006	9.1	20.1–4.9	MI
Low-income children uninsured	2005– 2006	16.6	34.5–7.0	DC
Quality				
Children ages 19–35 months received all recommended doses of five key vaccines	2005	81.6	66.7–93.5	MA
Children with both medical and dental preventive care visits	2003	59.2	45.7–74.9	MA
Children with emotional, behavioral, or developmental problems received mental health care	2003	61.9	43.4–77.2	WY
Children with a medical home	2003	47.6	33.8–61.0	NH
Children needing specialty care, those whose personal doctor or nurse follows up after they get specialty care services	2003	57.9	49.8–68.0	WV
Children with special health care needs who needed specialist care with problems getting referrals to specialty care services	2001	22.0	33.5–13.5	SD
Hospital admissions for pediatric asthma per 100,000 children	2002	176.7	314.2–54.9	VT
Costs				
State total personal health spending	2004	$5,327	$8,295–3,972	UT
Family premium for employer-based health insurance	2005	$10,637	$8,334–11,924	ND
Potential to Lead Healthy Lives				
Young children at moderate/high risk for developmental delay	2003	23.6	32.9–16.4	VT
Infant mortality: deaths per 1,000 live births	2002	7.1	11.0–4.3	ME
Equity				
Income	2003	-11 point gap	-33.7–6.4 gap	VT
Race/Ethnicity	2003	-14.2 point gap	-29.3–13.2 gap	VT
Insurance coverage	2003	-19.2 point gap	-36.2–3.9 gap	MA

Source: State Variations in Child Health System Performance, The Commonwealth Fund, May 2008.

Highlights

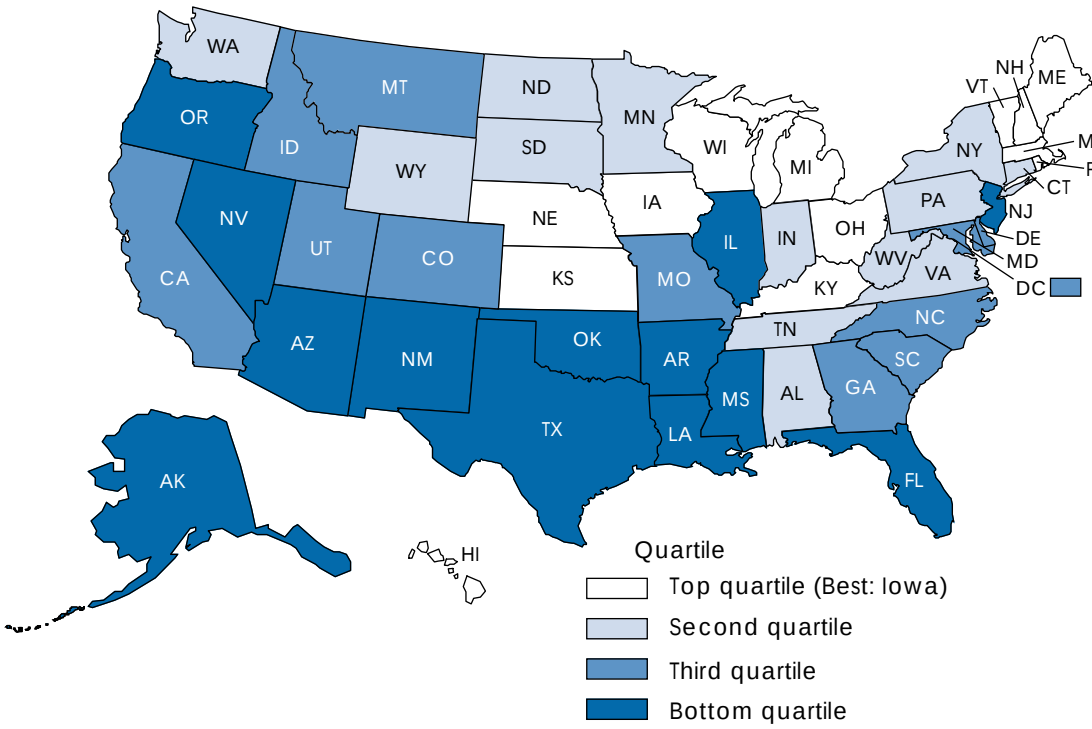
Variations in state child health system performance point to six important findings:

- **High performance is possible.** Iowa and Vermont have created children's health care systems that are accessible, equitable, and deliver high-quality care, all while controlling levels of spending and family health insurance premiums. Over the last decade, both states adopted policies to expand children's access to care and improve their quality of care. In particular, Iowa and Vermont expanded SCHIP and mandated that all child health plans and local and regional children's health systems publicly report data on the quality of care. This analysis indicates that such policies make a difference.

- **Leading states consistently outperform lagging states on multiple child health indicators and dimensions.** Thirteen states—Iowa, Vermont, Maine, Massachusetts, Ohio, Hawaii, New Hampshire, Rhode Island, Kentucky, Kansas, Wisconsin, Michigan, and Nebraska—emerge at the top quartile of the overall performance rankings. These states generally rank high on multiple indicators along each of the five dimensions assessed (Figure ES-2). Many have among the nation's lowest uninsured rates for children.

  Conversely, the 13 states at the bottom quartile of the overall performance ranking—Illinois, New Mexico, New Jersey, Alaska, Oregon, Arkansas, Nevada, Texas, Arizona, Louisiana, Mississippi, Florida, and Oklahoma—lag well behind their peers

Figure ES-2. State Ranking on Child Health System Performance



Source: The Commonwealth Fund's calculations based on state's rankings on access, quality, cost, healthy lives, and equity dimensions.

Figure ES-3 Summary of Variations in Child Health System Performance

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

Top quartile
Second quartile
Third quartile
Bottom quartile

*Final rank for overall health system performance across five dimensions.
Source: The Commonwealth Fund's calculations based on state's rankings on access, quality, cost, healthy lives, and equity dimensions.

on multiple indicators across dimensions (Figure ES-3). Uninsured rates for children in these states are well above national averages, and more than double those in the quartile of states with the lowest rates. Rates for receipt of recommended preventive care are generally low in these states, while rates of infant mortality and risk of developmental delay are often high.

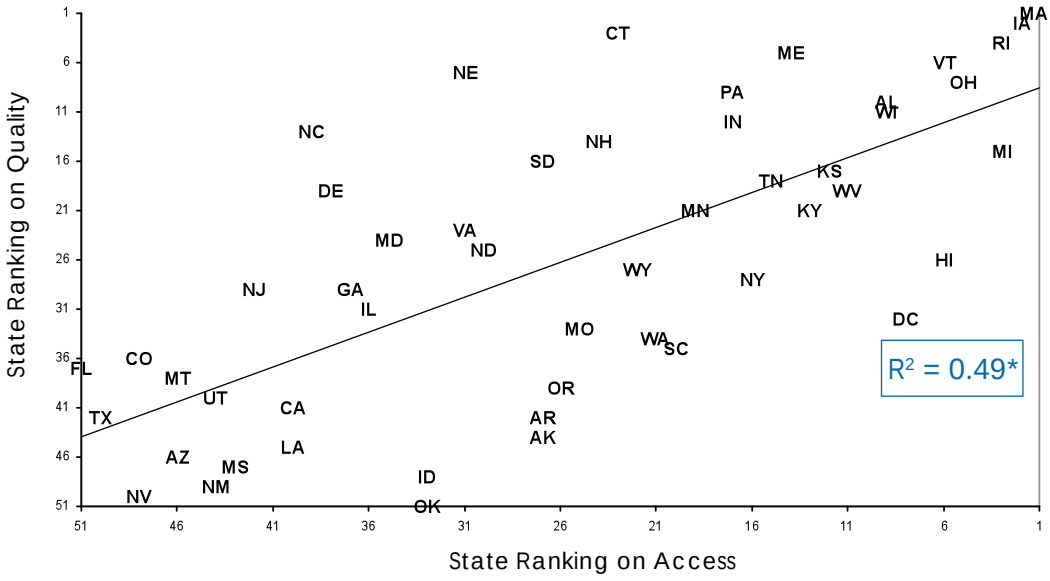
- **There is wide variation in children's access to care and health care quality across the United States.** The proportion of children who are uninsured ranges from 5 percent in Michigan to 20 percent in Texas. The proportion of children who have regular medical and dental preventive care ranges from 75 percent in Massachusetts to 46 percent in Idaho. The proportion of children hospitalized for asthma ranges from 55 per 100,000 children in Vermont to 314 per 100,000 in South Carolina (among the 33 states reporting this indicator).

- **Children's access to medical homes—primary care providers who deliver health care services that are easily accessible, family-centered, continuous, comprehensive, coordinated, and culturally competent—varies widely across states.** Sixty-one percent of children in New Hampshire, and over half of all children in all the New England states, have a medical home, compared with only one-third in Mississippi. Research shows that medical homes are an effective way to improve health care quality and reduce disparities by race, insurance status, and income.[3] In this report, having a medical home is defined as having at least one preventive medical care visit in the past year; being able to access needed specialist care and services; and having 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.

- **Across states, better access to care is closely associated with better quality of care.** Seven states—Massachusetts, Iowa, Rhode Island, Ohio, Vermont, Alabama, and Wisconsin—are national leaders in giving children access to care and ensuring high-quality care (Figure ES-4).

- **There are strong regional patterns in child health system performance.** New England and the North-Central states perform well on indicators of health care access, quality, and equity, while many western and southern states have lower health care costs. New England, Upper Midwest, East North-Central, and West North-Central states perform well on indicators measuring the potential for children to lead healthy lives. Yet, within any region, there are exceptions. Alabama is in the top quartile of states in terms of both access and quality. Texas and New Mexico perform well on child health outcomes, while Kentucky and West Virginia perform well on measures of health system equity. Learning more about such exceptions to regional patterns may provide insights into effective policies to support children's health. For example, Alabama was an early implementer of SCHIP and provides additional coverage through Alabama Blue Cross Blue Shield for children in families with income just above SCHIP's eligibility threshold.

Figure ES-4. State Ranking on Access and Quality Dimensions



*p<.05
Source: The Commonwealth Fund's calculations based on state's rankings on access dimension and quality dimension.

Benchmarks set by leading states show there are opportunities to improve health system performance to benefit children. If all states achieved top levels on each dimension of performance, 4.7 million more children would be insured and nearly 12 million more children would receive at least one medical and dental preventive care visit per year (Figure ES-5). More than 750,000 more children ages 19 to 35 months would be up-to-date on all recommended doses of five key vaccines, and more than 412,000 fewer children with special health care needs who needed specialist care would have problems getting referrals to specialty care services. Likewise, nearly 11 million additional children would have a medical home to help coordinate care, and 1.6 million fewer children ages 1 to 5 would be at moderate-to-high risk for developmental delays later in life.

This report reveals critical areas in which state and federal policies are needed to improve child health system performance for all U.S. families. States that invest in children's health reap the benefits of having children who are able to learn in school and become healthy, productive adults. Other states can learn from models of high

performance to shape policies that ensure all children are given the opportunity to lead long, healthy lives and realize their potential.

Further, investment in children's health care measurement and data collection at the state level could enrich understanding of variations in child health system performance. For many dimensions, only a limited set of indicators is available. In the case of costs, measures used in this report are for the total population and not specific to children. The indicators of child health care quality presented here are largely parent-reported; however, data on clinical quality are necessary to paint a clear picture of state child health quality. Thus, the collection of clinical data for children's health care quality is integral to future state and federal child health policy reform and could modify the state rankings provided in this report. Work currently under way should lay a firmer foundation for public and private action.

Figure ES-5. 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:
Children uninsured	4,691,326 more children would be covered by health insurance (public or private), and therefore would be more likely to receive health care when needed
Children ages 19–35 months received all recommended doses of five key vaccines	756,942 more children (ages 19 to 35 months) would be up-to-date on all recommended doses of five key vaccines
Children with both medical and dental preventive care visits	11,775,795 more children (ages 0–17) would have both a medical and dental preventive care visit each year
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
Children with special health care needs who needed specialist care with problems getting referrals to specialty care services	412,895 fewer children with special health care needs (ages 0–17) who needed specialist care would have problems getting referrals to specialty care services
Children at risk for developmental delays	1,613,347 fewer children (ages 1–5) would be at risk for developmental delays

Source: The Commonwealth Fund's calculations based on summation of differences between highest-achieving state and all other states for each indicator.