

Variation in Health System Characteristics Across States, 2016

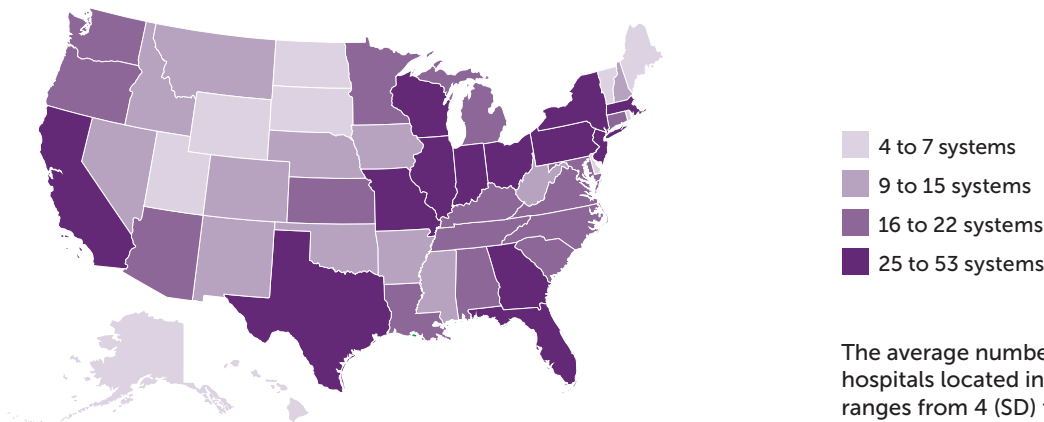
Jessica Heeringa, M.P.H., David J. Jones, Ph.D., Rachel M. Machta, Ph.D., Michael F. Furukawa, Ph.D., Daniel Miller, M.S., and Eugene C. Rich, M.D.

CHSP Data Brief, No. 3

September 2017

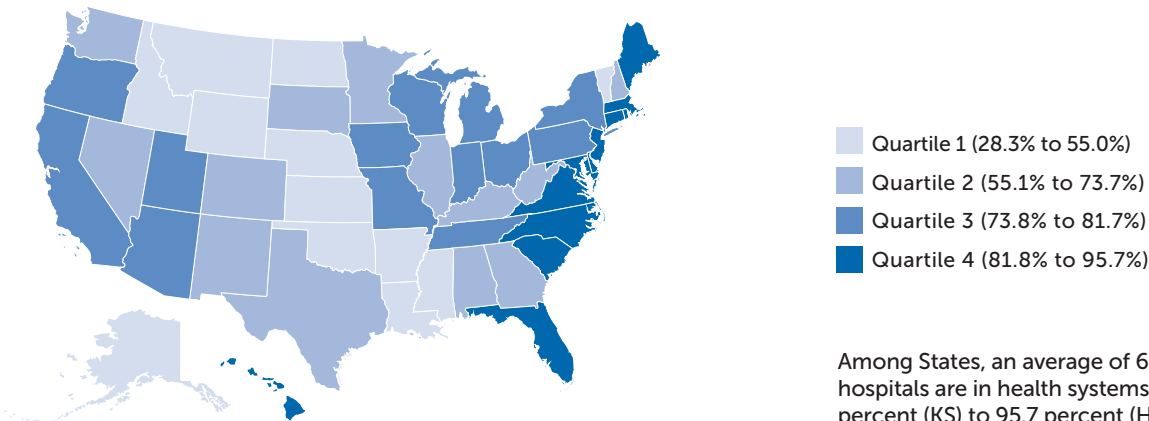
By the end of 2016, there were 626 health systems* in the United States.

Number of health systems with hospitals located in each State



The average number of health systems with hospitals located in each State is 19. The number ranges from 4 (SD) to 53 (CA).

Percentage of hospitals in health systems

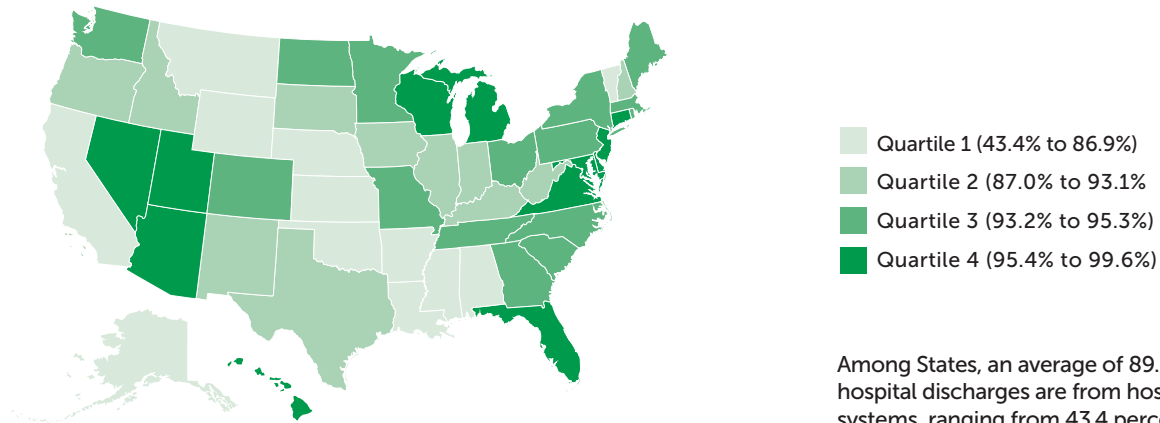


Among States, an average of 69.4 percent of hospitals are in health systems, ranging from 28.3 percent (KS) to 95.7 percent (HI).

Note: Figures represent all non-Federal general acute care hospitals in the United States.

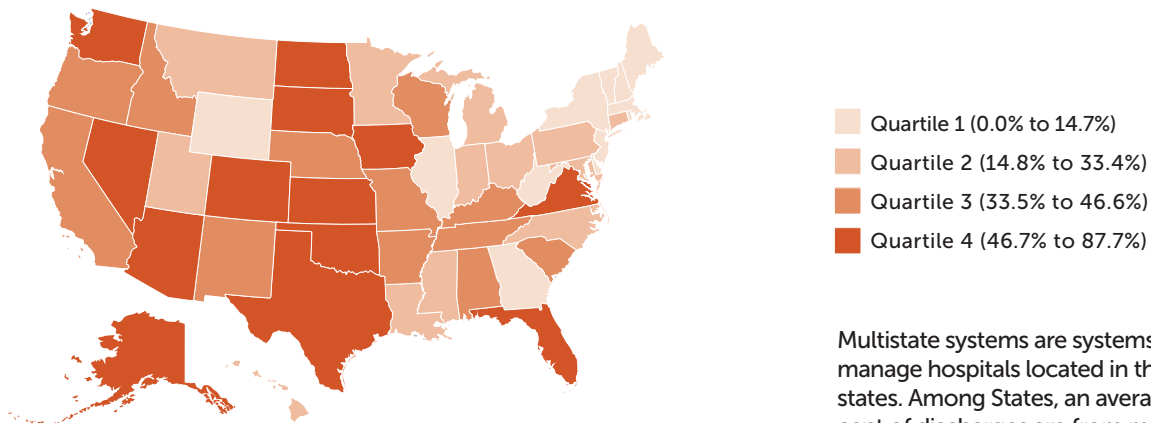
*This analysis is based on AHRQ's Compendium of U.S. Health Systems, 2016. Developed as part of the Comparative Health System Performance (CHSP) Initiative, the Compendium is a resource for data and research on health systems. For the purposes of the Compendium, **health systems include at least one hospital and at least one group of physicians that provide comprehensive care (including primary and specialty care) and are connected with each other through common ownership or joint management.** The CHSP Initiative includes a robust set of research activities that draw on several other definitions of health systems. For more information about these definitions, see <https://www.ahrq.gov/chsp/chsp-reports/resources-for-understanding-health-systems/defining-health-systems.html>.

Percentage of hospital discharges from health systems



Among States, an average of 89.9 percent of hospital discharges are from hospitals in health systems, ranging from 43.4 percent (WY) to 99.6 percent (DE).

Percentage of hospital discharges from multistate systems



Multistate systems are systems that own or manage hospitals located in three or more states. Among States, an average of 33.6 percent of discharges are from multistate health systems. The percentage of discharges from multistate systems ranges from 0.0 percent (ME and VT) to 87.7 percent (SD).

A smaller percentage of discharges are from multistate systems in New England and Mid-Atlantic States, while a larger percentage of discharges from multistate systems are concentrated in States in the Midwest, West, and Southwest.

Note: Figures represent all non-Federal general acute care hospitals in the United States.

HEALTH SYSTEM CHARACTERISTICS BY STATE, 2016

State	Number of health systems with hospitals located in the State	Percentage of hospitals in health systems	Percentage of hospital discharges from health systems	Percentage of hospital discharges from multistate health systems
Alabama	17	55.1	79.9	33.5
Alaska	5	45.0	67.5	67.5
Arizona	16	75.3	97.3	68.1
Arkansas	13	51.9	79.8	39.0
California	53	73.9	83.6	41.9
Colorado	15	60.3	94.9	61.5
Connecticut	16	94.1	97.6	19.7
Delaware	6	87.5	99.6	5.0
Florida	37	86.5	95.9	56.1
Georgia	34	68.1	93.4	13.8
Hawaii	7	95.7	98.4	26.3
Idaho	10	48.8	91.7	42.1
Illinois	39	69.8	87.0	13.3
Indiana	26	77.5	93.1	24.7
Iowa	14	74.8	88.9	63.6
Kansas	16	28.3	79.7	47.4
Kentucky	17	68.3	88.6	39.2
Louisiana	20	51.9	76.7	20.8
Maine	7	82.9	93.2	0.0
Maryland	18	84.0	95.5	26.8
Massachusetts	25	85.4	95.1	5.3
Michigan	22	78.3	96.5	31.6
Minnesota	19	71.1	93.5	21.3
Mississippi	15	53.6	80.7	27.3
Missouri	26	73.8	95.7	39.3
Montana	9	39.7	85.0	31.0
Nebraska	13	40.9	83.3	37.8

HEALTH SYSTEM CHARACTERISTICS BY STATE, 2016 *(continued)*

State	Number of health systems with hospitals located in the State	Percentage of hospitals in health systems	Percentage of hospital discharges from health systems	Percentage of hospital discharges from multistate health systems
Nevada	10	67.6	97.8	72.0
New Hampshire	11	69.2	92.8	9.0
New Jersey	25	91.5	95.8	6.6
New Mexico	9	67.5	90.1	39.3
New York	51	80.5	93.6	5.9
North Carolina	22	85.2	94.9	28.9
North Dakota	5	45.2	94.2	67.6
Ohio	37	78.5	94.6	25.7
Oklahoma	12	49.6	84.1	55.8
Oregon	17	77.4	92.8	42.4
Pennsylvania	41	78.8	94.6	14.8
Rhode Island	5	90.9	94.3	5.7
South Carolina	18	82.8	94.9	40.4
South Dakota	4	73.2	87.7	87.7
Tennessee	21	79.1	93.9	43.5
Texas	44	63.1	92.5	49.2
Utah	6	78.7	97.0	25.9
Vermont	5	42.9	78.2	0.0
Virginia	19	94.5	95.4	46.7
Washington	18	60.6	93.2	50.6
Washington, D.C.	6	81.8	92.2	34.2
West Virginia	13	57.4	87.3	12.6
Wisconsin	27	80.9	96.2	34.0
Wyoming	7	40.7	43.4	11.0

Note: Figures represent all non-Federal general acute care hospitals in the United States.

METHODS

This analysis is based on the Compendium of U.S. Health Systems, 2016, which presents a list of U.S. health systems that meet the Compendium's definition described above. To operationalize the definition of health systems described above, we identified systems using the following data sources:

- American Hospital Association (AHA) annual survey of hospitals data, 2015
- SK&A integrated health system database, 2016
- QuintilesIMS™ Healthcare Organization Services (OneKey Organizations [HCOS]), 2016

In addition to being identified in one of the data sources, systems had to meet these three criteria to be included in the final list: have at least one non-Federal general acute care hospital; have 50 or more total physicians; and have 10 or more primary care physicians.

Total physician and primary care physician counts come from HCOS. Systems' hospital counts and hospital locations come from combining the AHA, HCOS, and SK&A data. Health system attributes, such as number of beds and discharges, were calculated from Centers for Medicare & Medicaid Services' Healthcare Cost Report Information System (HCRIS) and reflect all U.S. non-Federal general acute care hospitals.

CAVEATS AND LIMITATIONS

Because the list largely relies on the definitions of systems in the three data sources and systems' members specified in the data, systems may be included in this analysis that may not precisely align with the working definition. Similarly, we approximate delivery of comprehensive care using the hospital and physician type and count information, which may lead to inclusion of systems that do not provide comprehensive care in the manner that is intended by the definition. Further, we rely on hospital reporting in the HCRIS data for the system types and attributes, for which information about some hospitals is missing. In addition, we identified discrepancies in systems' attributes reported in the three data sources, including fairly substantial discrepancies in counts of physicians for some systems appearing in HCOS, SK&A, and AHA. To help address this issue, we present counts of physicians from HCOS, which includes hospital staff physicians and most often had the highest count of physicians. These counts of physicians should be interpreted with the understanding that estimates vary across data sources depending on the data collection methods and types of physicians included. Finally, the list reflects health systems in the United States at the end of 2016; however, there is a lag in the data, at times, as a result of updating changes to systems, such as mergers, acquisitions, and name changes. These cases were updated as they were identified throughout the analysis.

For more information about the methodology to construct and analyze the national list of health systems and a more detailed summary of caveats and limitations, see: <https://www.ahrq.gov/chsp/data-resources/compendium/technical-documentation.html>.

About the Comparative Health System Performance Initiative

The Agency for Healthcare Research and Quality (AHRQ) created the Comparative Health System Performance (CHSP) Initiative to study the characteristics of high-performing health systems and to understand how health systems use evidence-based practices, including patient-centered outcomes research (PCOR). The effective adoption and use of PCOR evidence holds promise as a way to improve clinical outcomes and reduce costs. However, little is known about the characteristics of high-performing health systems and the role of PCOR evidence in health system performance. The CHSP Initiative aims to address these knowledge gaps and accelerate the diffusion of PCOR evidence among health systems. Specifically, the objectives of the CHSP Initiative are to:

- Classify and characterize types of health systems and compare their performance on clinical and cost outcomes
- Identify characteristics of high-performing health systems
- Evaluate the role of PCOR in health system performance
- Promote the diffusion of PCOR evidence across health systems nationally

The Compendium of U.S. Health Systems, which presents a list of health systems in the United States, is a step toward classifying and characterizing health systems and is a data resource to help advance research on health systems. The Compendium is intended to be a resource for researchers, policymakers, health system leaders, and others who seek to study health systems and will be updated over the course of the 5-year initiative to reflect the evolving health care delivery environment.

For more information about the CHSP initiative, see <https://www.ahrq.gov/chsp/index.html>.

Suggested Citation

Heeringa J, Jones DJ, Machta RM, Furukawa MF, Miller D, Rich EC. Variation in Health System Characteristics Across States, 2016. CHSP Data Brief #3. September 2017. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.ahrq.gov/sites/default/files/wysiwyg/variation-in-health-system-characteristics-across-states-2016.pdf>

Acknowledgments

The authors would like to acknowledge the contributions of Linda Bergofsky (AHRQ), Jing Guo (AHRQ), Jan DeLaMare (AHRQ), Zeynal Karaca (AHRQ), Herb Wong (AHRQ), Laura Sarnoski (Mathematica), Linda Molinari (Mathematica), and Charles Bush (Mathematica).