

Chapter 2:

Analyzing Disproportionate Share Hospital Allotments to States

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Key Points

- Analyses presented in this chapter continue to show no meaningful relationship between states' disproportionate share hospital (DSH) allotments and the three factors that Congress has asked the Commission to study:
 - the number of uninsured individuals;
 - the amount and sources of hospitals' uncompensated care costs; and
 - the number of hospitals with high levels of uncompensated care that also provide access to essential community services for low-income, uninsured, and vulnerable populations.
- In updating the analyses provided in MACPAC's first DSH report to Congress, published in February 2016, we provide new information about hospital uncompensated care in 2014, after the first year of implementation of the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended), including the following:
 - Between 2013 and 2014, total hospital uncompensated care for Medicaid-enrolled and uninsured patients fell by about \$4.6 billion (9.3 percent), with the largest declines in states that expanded Medicaid.
 - In both expansion and non-expansion states, deemed DSH hospitals, which are statutorily required to receive DSH payments because they serve a high share of Medicaid-enrolled and low-income patients, continued to report negative operating margins before DSH payments.
- We project state-level DSH allotments under current law, which includes a \$2 billion reduction in federal DSH allotments in fiscal year (FY) 2018. The Commission finds that should these DSH allotment reductions take effect:
 - the wide variation in state DSH allotments is likely to persist; and
 - 20 states are projected to have FY 2018 DSH allotment reductions that are larger than the decline in hospital uncompensated care in their state between 2013 and 2014.
- If reductions in federal DSH allotments take effect as scheduled, the Centers for Medicare & Medicaid Services will need to update the methodology for distributing them among states and could use this opportunity to better align state DSH allotments with objective measures of need. Per its statutory authority, the Commission may comment on such proposed changes.
- Given the ongoing congressional debate about the future of the ACA and its many provisions, including the Medicaid expansion to the new adult group, it is difficult to evaluate the merits of pending DSH allotment reductions at this time. As this debate unfolds, the Commission will monitor how potential changes to the ACA—and Medicaid policy more generally—might affect safety-net hospitals and the patients they serve.

CHAPTER 2: Analyzing Disproportionate Share Hospital Allotments to States

State Medicaid programs are statutorily required to make disproportionate share hospital (DSH) payments to hospitals that serve a high proportion of Medicaid beneficiaries and other low-income patients. The total amount of such payments states make are limited by annual federal DSH allotments, which vary widely by state. DSH payments to hospitals are also limited by the total amount of uncompensated care that hospitals provide to Medicaid-enrolled patients and uninsured individuals.

MACPAC is statutorily required to report annually on the relationship between allotments and several potential indicators of the need for DSH funds:

- changes in the number of uninsured individuals;
- the amount and sources of hospitals' uncompensated care costs; and
- the number of hospitals with high levels of uncompensated care that also provide essential community services for low-income, uninsured, and vulnerable populations.

In this first of two chapters in this report related to DSH policy, we update the analyses provided in MACPAC's first DSH report to Congress, published in February 2016 (MACPAC 2016). As in our first DSH report, we continue to find little meaningful relationship between DSH allotments and the factors that that Congress asked the Commission to study. This is because DSH allotments are largely based on states' historical DSH spending before federal limits were established in 1992.

This year, we provide new information about hospital uncompensated care in 2014, after the first year of implementation of the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended).

Specifically, we find the following:

- Between 2013 and 2014, total hospital uncompensated care for Medicaid beneficiaries and uninsured patients fell by about \$4.6 billion (9.3 percent), with the largest declines in expansion states, that is, states that have expanded Medicaid to adults under age 65 with incomes at or below 138 percent of the federal poverty level (FPL).
- During this period, Medicaid shortfall (the difference between Medicaid payments and hospitals' costs of providing services to Medicaid-enrolled patients) increased by about \$0.9 billion (6.8 percent) due to increased Medicaid enrollment.
- At the same time, hospital uncompensated care for uninsured individuals decreased by about \$5.5 billion (15.2 percent) because of declines in the number of uninsured individuals.
- Although hospital operating margins improved for all types of hospitals in 2014, deemed DSH hospitals, which are statutorily required to receive DSH payments because they serve a particularly high share of Medicaid and low-income patients, continued to report negative operating margins before DSH payments in both expansion and non-expansion states. Total margins (which include revenue not directly related to patient care) were similar between deemed DSH hospitals and other hospital types at about 7 percent, but total margins for deemed DSH hospitals would have been 0 percent without DSH and other government appropriations in 2014.

In addition to expanding insurance coverage under Medicaid and the exchanges, the ACA also included reductions to federal DSH allotments under the assumption that increased health care coverage would lead to reductions in hospital uncompensated care, and lessen the need for DSH payments. The reductions have been delayed several times, but under current law as this report goes to press, the first round of reductions (amounting to \$2 billion or 17 percent) is scheduled to go into effect in fiscal year (FY) 2018, which begins October 1, 2017.¹ Our analysis reflects this current law scenario. We find that the wide variation among states in DSH allotments is likely to persist even after the reductions take effect. Further, we project that in 20 states DSH allotment reductions for FY 2018 will be greater than the decline in hospital uncompensated care reported in 2014.

The Commission is well aware that Congress is currently debating changes to the ACA and to Medicaid policy more generally—changes that, if implemented, would create a substantially different environment for safety net providers. At this writing, many different ideas are under discussion including changes to the ACA coverage expansions, DSH funding, and other policies affecting safety-net providers. The Commission finds it difficult to weigh in on the merits of pending DSH allotment reductions given this uncertainty and the potential for other concurrent changes to the health insurance market that would affect the level of hospital uncompensated care and the ability of these institutions to provide both inpatient and outpatient services to Medicaid beneficiaries and low-income patients. Although it is difficult to evaluate the cumulative effects of such changes while the debates are ongoing, the Commission will continue examining how policy changes might affect safety-net hospitals and will provide additional analysis and commentary as is warranted.

In the next chapter, we turn to analysis related to the Commission's observation in its 2016 report

that DSH allotments and payments should be targeted to the states and hospitals that both serve a disproportionate share of Medicaid and low-income patients and have high levels of uncompensated care, consistent with the original statutory intent. Our analysis in Chapter 3 considers approaches to improve the targeting of DSH funding within states, regardless of whether DSH allotment reductions take effect.

Current DSH Allotments and Payments

Current DSH allotments vary widely among states and reflect the evolution of federal DSH policy over time. Since 1981, state Medicaid agencies have been required to “take into account the situation of hospitals which serve a disproportionate number of low-income patients with special needs” when setting Medicaid hospital payments (§ 1902(a)(13)(A)(iv) of the Social Security Act (the Act)). In 1987, Congress began requiring states to make DSH payments to certain hospitals that serve the highest share of low-income patients, referred to as deemed DSH hospitals (§ 1923(b) of the Act). When DSH spending increased rapidly in the early 1990s, Congress enacted state-specific caps on the amount of federal funds that could be used to make DSH payments. Congress also limited the maximum amount of DSH payments a hospital could receive to the hospital's actual costs of uncompensated care for services provided to Medicaid and uninsured patients (Box 2-1). Additional background information about the history of DSH payment policy is included in Chapter 1 and Appendix A of MACPAC's first DSH report (MACPAC 2016).

BOX 2-1. Glossary of Key Medicaid Disproportionate Share Hospital Terminology

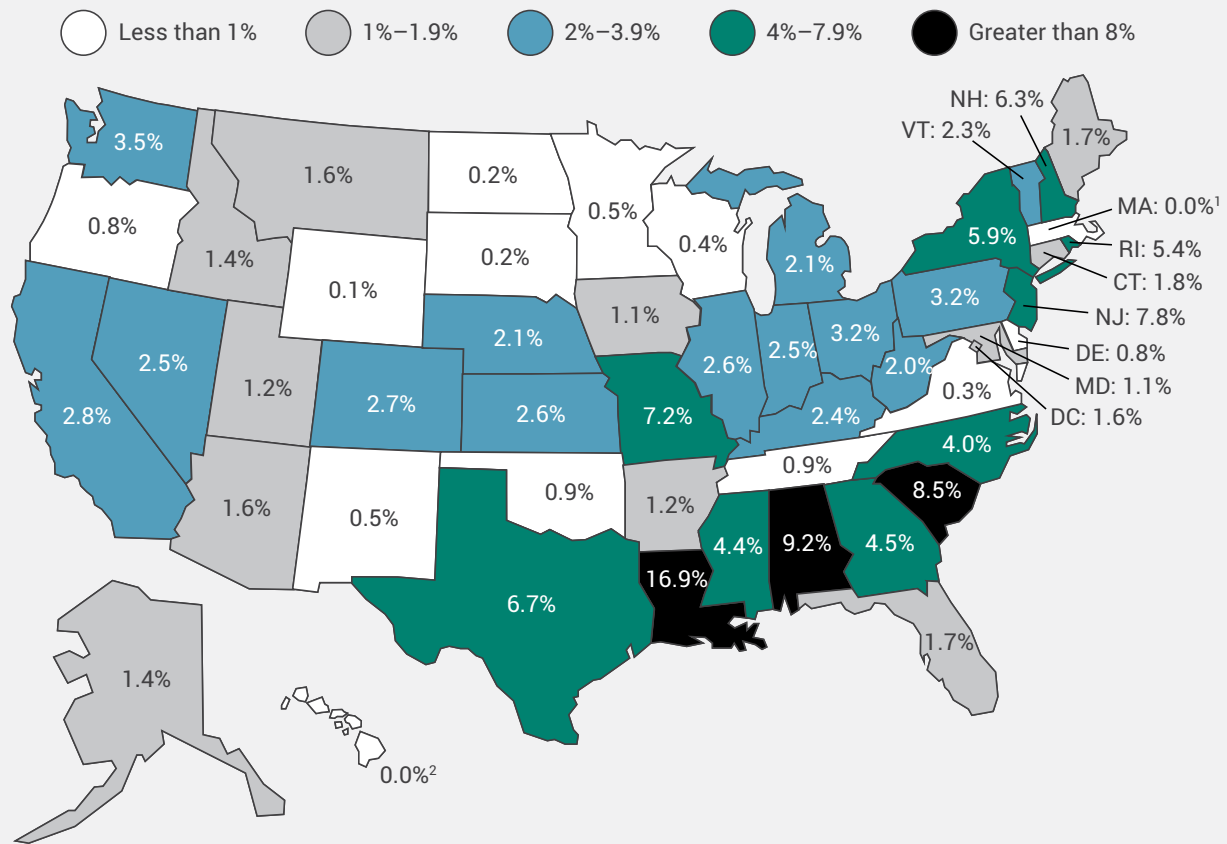
- **DSH hospital**—A hospital that receives disproportionate share hospital (DSH) payments and meets the minimum statutory requirements to be eligible for DSH payments: a Medicaid inpatient utilization rate of at least 1 percent and at least two obstetricians with staff privileges that treat Medicaid enrollees (with certain exceptions).
- **Deemed DSH hospital**—A DSH hospital with a Medicaid inpatient utilization rate of at least one standard deviation above the mean for hospitals in the state that receive Medicaid payments, or a low-income utilization rate that exceeds 25 percent. Deemed DSH hospitals are required to receive Medicaid DSH payments (§ 1923(b) of the Social Security Act (the Act)).
- **State DSH allotment**—The total amount of federal funds available to a state for Medicaid DSH payments. If a state does not spend the full amount of its allotment in a given year, the unspent portion is not paid to the state and does not carry over to future years. Allotments are determined annually and are generally equal to the prior year's allotment adjusted for inflation (§ 1923(f) of the Act).
- **Hospital-specific DSH limit**—The total amount of uncompensated care for which a hospital may receive Medicaid DSH payment, equal to the sum of Medicaid shortfall and unpaid costs of care for the uninsured for allowable inpatient and outpatient costs.

In FY 2015, a total of \$11.9 billion in federal funds was allotted to states for DSH payments, and states spent a total of \$10.6 billion in federal funds on DSH payments. (States spent \$18.7 billion in state and federal funds combined.)

Today, the distribution of allotments across states largely reflects the patterns of states' DSH spending in 1992, before federal limits were established. For example, FY 2015 DSH allotments

ranged from less than \$15 million in six states (Delaware, Hawaii, Montana, North Dakota, South Dakota, and Wyoming) to more than \$1 billion in three states (California, New York, and Texas). In 2015, state and federal DSH spending as a share of total Medicaid benefit spending ranged from less than 1 percent in 13 states to 16.9 percent in Louisiana (Figure 2-1). Nationally, DSH spending accounted for 3.5 percent of total Medicaid benefit spending in FY 2015.

FIGURE 2-1. DSH Spending as a Share of Total Medicaid Benefit Spending by State, FY 2015



Notes: DSH is disproportionate share hospital. FY is fiscal year.

¹ Massachusetts does not make DSH payments because its Section 1115 demonstration allows the state to use DSH funding for the state’s safety-net care pool instead.

² Hawaii did not report DSH spending in FY 2015, but it has reported DSH spending in prior years.

Source: MACPAC, 2016, analysis of CMS-64 Financial Management Report net expenditure data as of May 24, 2016.

In 2012, about half of U.S. hospitals received DSH payments (Table 2-1). Although public teaching hospitals in urban settings received the largest share of total DSH funding, more than half (54 percent) of rural hospitals also received DSH payments, including many critical access hospitals which receive a special payment designation from Medicare because they are small and often the only provider in their geographic area. Many states also make DSH payments to institutions

for mental diseases (IMDs), which are not eligible for Medicaid payment for services provided to individuals age 21–64 but are eligible for DSH funding. In 2012, Maine made DSH payments exclusively to IMDs, and four states (Arkansas, Maine, Maryland, and North Dakota) made more than half of their DSH payments to IMDs.

To better understand the role DSH funding plays in the operation of various types of hospitals,

TABLE 2-1. Distribution of DSH Spending by Hospital Type, SPRY 2012

Hospital characteristics	Number of hospitals			Total DSH spending (millions)
	DSH hospitals	All hospitals	DSH hospitals as percent of all hospitals	
Hospital type				
Short-term acute care hospitals	1,865	3,386	55%	\$13,495
Critical access hospitals	565	1,331	42	312
Psychiatric hospitals	129	502	26	2,123
Long-term hospitals	32	430	7	53
Rehabilitation hospitals	32	249	13	10
Children's hospitals	47	81	58	269
Urban/rural classification				
Urban	1,681	4,164	40	14,879
Rural	989	1,815	54	1,384
Hospital ownership				
For-profit	432	1,750	25	972
Non-profit	1,506	2,954	51	5,202
Public	732	1,275	57	10,089
Teaching status				
Non-teaching	1,921	4,866	39	4,632
Low-teaching hospital	392	662	59	2,172
High-teaching hospital	357	451	79	9,458
Total	2,670	5,979	45%	\$16,263

Notes: DSH is disproportionate share hospital. SPRY is state plan rate year. High-teaching hospitals have an intern/resident-to-bed ratio (IRB) greater than or equal to 0.25 and low-teaching hospitals have an IRB less than 0.25. Total DSH spending includes state and federal funds. Excludes 12 DSH hospitals that did not submit a Medicare cost report.

Source: 2017, analysis for MACPAC of 2012 Medicare cost reports and 2012 Dobson, DaVanzo, & Associates and KNG Health, Medicaid DSH audits.

MACPAC profiled seven DSH hospitals during the summer and fall of 2016 (Box 2-2). In this chapter and the one that follows, we provide qualitative information gleaned from interviews to complement our quantitative analyses.

Medicare also makes DSH payments to hospitals but its policies differ on which hospitals qualify

and how much funding they receive. In this report, references to DSH payments refer to Medicaid DSH payments only, unless otherwise specified. Changes in the Number of Uninsured Individuals

Medicaid DSH payments are intended to offset the uncompensated care costs of hospitals that serve a high proportion of low-income patients, including

BOX 2-2. Disproportionate Share Hospital Profiles

Federal policy gives states considerable discretion in determining which hospitals may receive disproportionate share hospital (DSH) payments. To complement our quantitative analyses and better understand the different types of hospitals that receive DSH payments, MACPAC contracted with the Urban Institute to profile seven DSH hospitals during the summer and fall of 2016. Interviews with DSH hospital executives focused on the role of DSH funding at the hospital, the relationship between DSH payments and other sources of hospital funding, and the role of these DSH hospitals in their communities.

For this project, we sought out a variety of hospitals located in different states to reflect the diversity of hospitals that receive Medicaid DSH payments. We profiled the following hospitals:

- Parkland Hospital in Dallas, Texas, is a 770-bed county-owned hospital that is part of the larger Parkland Health and Hospital System. It is the primary teaching hospital for the University of Texas Southwestern Medical Center.
- MetroHealth Hospital in Cleveland, Ohio, is a 397-bed county-owned hospital that is part of an integrated health system with more than 20 sites. The system serves as a teaching hospital for Case Western Reserve University.
- Santa Clara Valley Medical Center in San Jose, California, is a 574-bed county-owned hospital that is part of the Santa Clara Valley Health and Hospital System. Santa Clara Valley Medical Center is a teaching hospital that has its own residency program as well as a long-standing affiliation with Stanford University Medical School.
- Vidant Medical Center in Greenville, North Carolina, is a 909-bed non-profit hospital that is the flagship facility for Vidant Health System, a regional system that serves 29 counties in eastern North Carolina. Vidant Medical Center is the only hospital in Greenville and is the primary teaching hospital for East Carolina University's Brody School of Medicine.
- Henry Ford Hospital in Detroit, Michigan, is a 491-bed non-profit hospital that is the flagship facility of the Henry Ford Health System, which is composed of seven hospitals and one of the nation's largest group practices, the Henry Ford Medical Group. Henry Ford Hospital is also the primary teaching hospital for Wayne State University.
- Northeastern Vermont Regional Hospital in St. Johnsbury, Vermont, is a 25-bed non-profit critical access hospital in rural Vermont. Northeastern Vermont Regional Hospital is the only hospital within 40 miles of St. Johnsbury, Vermont.
- Connecticut Children's Medical Center in Hartford, Connecticut, is a 187-bed non-profit children's hospital and the primary pediatric teaching hospital for the University of Connecticut School of Medicine. It is the only freestanding children's hospital in the state.

The complete [profiles](#), which are available on MACPAC's website, illustrate the importance of DSH funds to these institutions and the different circumstances under which these hospitals operate (MACPAC 2017).

those without health insurance. Therefore, a state's uninsured rate may be a useful indicator of its need for DSH funds.

The national uninsured rate declined by 1.3 percentage points between 2014 and 2015, resulting in a total decrease of about 4 percentage points since 2013. According to the Current Population Survey, 29 million people (9.1 percent of the U.S. population) were uninsured for the entire calendar year in 2015, compared to 33 million people (10.4 percent of the U.S. population) in 2014 and 41.8 million (13.3 percent of the population) in 2013 (Barnett and Vornovitsky 2016).²

These decreases reflect increases in both private and publicly funded coverage, and are likely due to the availability of new coverage options under the ACA, including both Medicaid expansions and exchange coverage. Since 2014, the share of the U.S. population covered at some point in the year by private coverage (including individual insurance purchased through a health insurance exchange) increased 1.2 percentage points to 67.2 percent in 2015, and the share of the population covered at some point by publicly funded coverage (including Medicaid) increased 0.6 percentage points to 37.1 percent in 2015 (Barnett and Vornovitsky 2016).³

While the uninsured rate declined in all states between 2013 and 2015, states that expanded their Medicaid programs to low-income adults under the ACA had larger declines than those that did not. For states that expanded Medicaid in 2014, the decline in the number of uninsured individuals was larger between 2013 and 2014 than between 2014 and 2015 (Barnett and Vornovitsky 2016).

Hospital admissions data provide additional insight about the changes in the number of uninsured patients admitted to hospitals. In 2013, 2.1 million uninsured patients were admitted to the hospital, accounting for about 6 percent of all hospital admissions. By the second quarter of 2014, uninsured hospital stays had fallen by about half in states that had expanded Medicaid but were not

statistically different in states that did not expand Medicaid (Nikpay et al. 2016). Comparing full-year discharge data for 28 states, we found a larger reduction in uninsured hospital stays between 2013 and 2014 in states that expanded Medicaid (50 percent reduction) than in states that did not (6 percent reduction).⁴

Changes in the Amount of Hospital Uncompensated Care

The ACA coverage expansions are having different effects on the two types of hospital uncompensated care costs that Medicaid DSH payments subsidize: unpaid costs of care for uninsured individuals and Medicaid shortfall, defined as the difference between a hospital's costs of serving Medicaid-enrolled patients and the total amount of Medicaid payment received for those services. As the number of uninsured individuals declines, unpaid costs of care for uninsured individuals are declining substantially, particularly in states that have expanded Medicaid. However, as the number of Medicaid enrollees increases, Medicaid shortfall is also increasing.

Below we review the change in uncompensated care between 2013 and 2014 for both types of uncompensated care. Definitions for the various types of uncompensated care vary among data sources, complicating comparisons and our ability to fully understand how individual hospitals are being affected (Box 2-3). We estimated state-level unpaid costs of care for uninsured individuals using charity care and bad debt data reported on Medicare cost reports, which also include charity care and bad debt for patients with insurance.⁵ We estimated Medicaid shortfall using national estimates from the American Hospital Association (AHA) annual survey because timely and reliable state-level data on Medicaid shortfall were not available at the time of analysis. One limitation of the AHA annual survey is that it includes hospital

costs for provider taxes and other contributions toward the non-federal share of Medicaid payments, which are not part of the DSH definition of Medicaid shortfall (Nelb et al. 2016). In MACPAC's 2016 DSH report, the Commission commented extensively on the limitations of available data on Medicaid shortfall and recommended that the U.S. Department of Health and Human Services

collect additional data to improve transparency and accountability (MACPAC 2016).

BOX 2-3. Definitions and Data Sources for Uncompensated Care Costs

Data sources

- **American Hospital Association (AHA) annual survey**—An annual survey of hospital finances that provides aggregated national estimates of uncompensated care for community hospitals.
- **Medicare cost report**—An annual report on hospital finances that must be submitted by all hospitals that receive Medicare payments (that is, most U.S. hospitals). Medicare cost reports define hospital uncompensated care as bad debt and charity care.
- **Medicaid disproportionate share hospital (DSH) audit**—A statutorily required audit of a DSH hospital's uncompensated care to ensure that Medicaid DSH payments do not exceed the hospital-specific DSH limit, which is equal to the sum of Medicaid shortfall and the unpaid costs of care for uninsured individuals for allowable inpatient and outpatient costs. About half of U.S. hospitals were included on DSH audits in 2012, the latest year for which data are available.

Medicare cost report components of uncompensated care

- **Charity care**—Health care services for which a hospital determines the patient does not have the capacity to pay and either does not charge the patient at all or charges the patient a discounted rate below the hospital's cost of delivering the care. The amount of charity care is the difference between a hospital's cost of delivering the care and the amount initially charged to the patient.
- **Bad debt**—Expected payment amounts that a hospital is not able to collect from patients who, according to the hospital's determination, have the financial capacity to pay.

Medicaid DSH audit components of uncompensated care

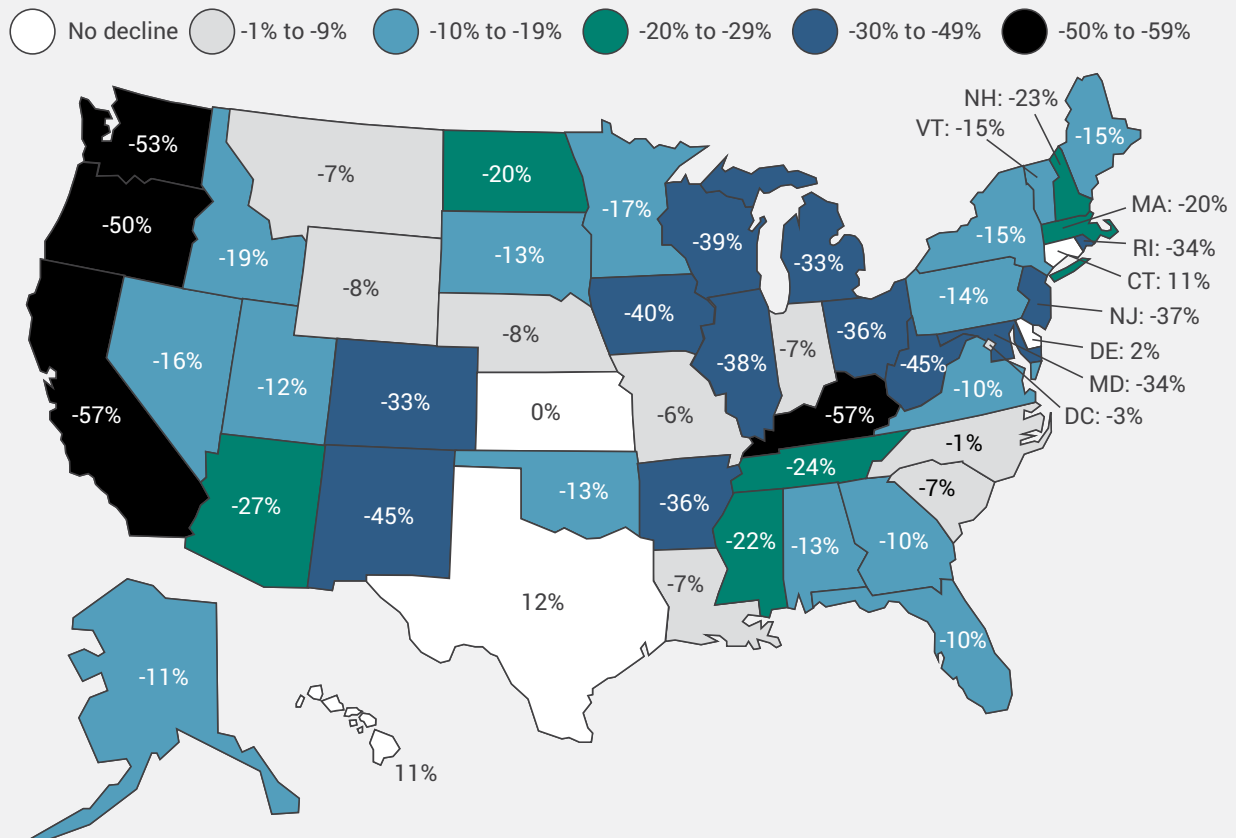
- **Unpaid costs of care for uninsured individuals**—The difference between a hospital's costs of serving individuals without health coverage and the total amount of payment received for those services. This includes charity care and bad debt for individuals without health coverage and generally excludes charity care and bad debt for individuals with health coverage.
- **Medicaid shortfall**—The difference between a hospital's costs of serving Medicaid-enrolled patients and the total amount of Medicaid payment received for those services (under both fee-for-service and managed care, excluding DSH payments but including other types of supplemental payments).

Unpaid costs of care for uninsured individuals

Between 2013 and 2014, total hospital charity care and bad debt fell by \$5.5 billion nationwide. As a share of hospital operating expenses, charity care and bad debt fell about 20 percent nationally (from 4.4 percent in 2013 to 3.5 percent in 2014).

However, the decline in uncompensated care was not evenly distributed among states: hospitals in five states reported increases in charity care and bad debt as a share of hospital operating expenses, and hospitals in four states reported declines that were greater than 50 percent (Figure 2-2).

FIGURE 2-2. Percent Decline in Uncompensated Care as a Share of Hospital Operating Expenses by State, 2013–2014



Note: Medicare cost reports define uncompensated care as charity care and bad debt.

Source: MACPAC, 2017, analysis of Medicare cost reports.

Changes in hospital uncompensated care between 2013 and 2014 were not clearly related to changes in the number of uninsured individuals in each state during that period. For example, in both California and Connecticut, the uninsured rate fell by about one quarter between 2013 and 2014, but in California, charity care and bad debt as a share of hospital operating expense fell by more than half, while in Connecticut, charity care and bad debt increased. Connecticut expanded Medicaid coverage for low-income adults in 2010, so this may explain why hospitals in the state did not report a decline in uncompensated care in 2014. In addition, Medicare cost reports do not distinguish between bad debt for uninsured individuals and for individuals with health insurance. The latter may be increasing as more individuals enroll in health plans with large copayments and deductibles (Bogarty et al. 2016).

In general, states that did not expand Medicaid to low-income adults under the ACA reported smaller declines in hospital unpaid costs of care for uninsured individuals. As a share of operating expenses, charity care and bad debt fell by 6 percent in states that did not expand Medicaid in 2014 but by 37 percent in states that did expand Medicaid.⁶

Other researchers have also found larger reductions in uncompensated care costs in states that have expanded Medicaid. For example, a substate analysis using Medicare cost report data found that hospitals located in regions within a state with larger than expected gains in Medicaid coverage reported larger declines in charity care and bad debt than those in regions of the state with lower Medicaid enrollment (Dranove et al. 2015). Another multivariate analysis intended to isolate the effects of Medicaid expansion on hospital uncompensated care found that expansion of Medicaid was associated with a decline of \$2.8 million in average charity care and bad debt per hospital (Blavin 2016).

Medicaid shortfall

According to the AHA annual survey, Medicaid shortfall for all hospitals increased by \$0.9 billion between 2013 and 2014 (from \$13.2 billion to \$14.1 billion), despite the fact that the overall Medicaid payment-to-cost ratio increased from 89.8 percent to 90.0 percent (AHA 2016a, 2016b, 2015). Because the AHA survey reports that Medicaid payment rates increased slightly, the increase in Medicaid shortfall is likely due to increases in Medicaid patient volume in states that expanded Medicaid.

State- and hospital-specific data on Medicaid shortfall in 2014 are not yet available, but interviews with DSH hospital executives in states that have expanded Medicaid suggest that increased Medicaid enrollment is increasing Medicaid shortfall (MACPAC 2017). However, these interviews also highlighted the limitations of available data on Medicaid shortfall (Box 2-4). In particular, data from Medicare cost reports do not include all Medicaid payments and costs (MACPAC 2016). Medicaid DSH audit data provide more complete information on Medicaid shortfall for DSH hospitals, but 2014 Medicaid DSH audits will not be available until 2019.⁷

According to 2012 DSH audits (the most recent available), Medicaid shortfall varies widely by state. DSH hospitals in the 10 states with the lowest Medicaid payment-to-cost ratios received total Medicaid payments before DSH payments that covered 81 percent of their costs of care for Medicaid-enrolled patients, and DSH hospitals in the 10 states with the highest Medicaid payment-to-cost ratios received Medicaid payments before DSH payments that covered 109 percent of the Medicaid costs.⁸ Estimates of Medicaid shortfall calculated using DSH audits are generally lower than those reported on the AHA annual survey because the AHA annual survey includes the cost of provider taxes and other contributions used to finance the non-federal share of Medicaid payments (Nelb et al. 2016).

BOX 2-4. Limitations of Current Measures of Medicaid Shortfall

The Commission has previously noted that costs are an imperfect measure of payment adequacy and that cost-based payments may not promote efficiency. The experience of the seven hospitals profiled by MACPAC during the summer and fall of 2016 sheds light on the limitations of current measures of Medicaid shortfall (MACPAC 2017).

For some of the DSH hospitals we profiled, the amount of Medicaid shortfall reported by hospital executives was greater than that reported on DSH audits because of differences in the accounting of provider contributions to the non-federal share of Medicaid payments, such as provider taxes or local government contributions. For example, Santa Clara Valley Medicaid Center in California reported a 91 percent Medicaid payment-to-cost ratio on its 2012 DSH audit. However, hospital executives noted that the hospital's net payment-to-cost ratio, after accounting for provider taxes and local government contributions, was less than 50 percent. Like several other California counties, Santa Clara County pays for the state share of most Medicaid services provided at its affiliated public hospital through intergovernmental transfers. Other hospitals we profiled also contributed toward the non-federal share of DSH and other supplemental payments, but did not contribute toward the non-federal share of their base Medicaid payment rates.

Executives at MetroHealth Hospital in Cleveland, Ohio, also noted that their Medicaid shortfall would be higher if the hospital were less efficient. MetroHealth executives reported that their current Medicaid payment-to-cost ratio was about 85 percent, but they estimated that it would be around 75 percent if the hospital had not adopted various efficiency strategies to reduce its costs.

Hospitals with High Levels of Uncompensated Care That Also Provide Essential Community Services

States are required to make DSH payments to deemed DSH hospitals, which serve a high share of Medicaid and low-income patients. In 2012, about 12 percent of U.S. hospitals met the deemed DSH standards and these hospitals received \$10.6 billion in DSH payments (65 percent of all DSH payments in 2012). These hospitals are particularly reliant on DSH payments to offset operating losses and maintain access to care for Medicaid and other low-income patients in their communities.

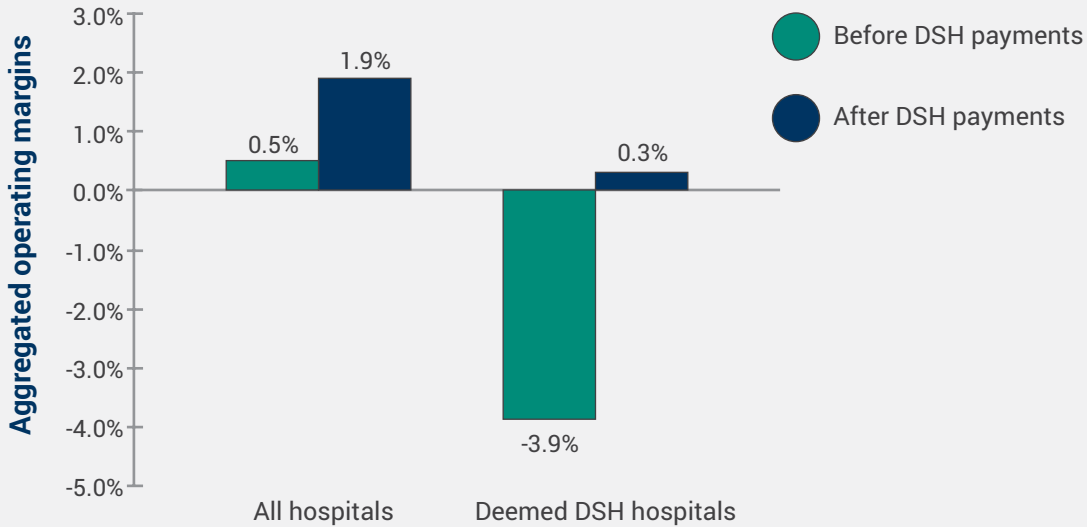
Below we examine how the ACA coverage expansions are affecting the financial status of deemed DSH hospitals. We also identify the extent

to which deemed DSH hospitals provide what the statute calling for MACPAC's study calls essential community services.

Deemed DSH hospital finances

In 2014, deemed DSH hospitals reported lower operating margins than other hospitals in the aggregate, and they reported negative operating margins before DSH payments (Figure 2-3). However, deemed DSH hospitals reported total margins after DSH payments at levels similar to all hospitals (Figure 2-4). Total margins include revenue not directly related to patient care and assess overall hospital profitability. Much of the other revenue reported by deemed DSH hospitals was non-DSH government appropriations, such as local funding used to support public hospitals. Before DSH and other government appropriations, total margins for deemed DSH hospitals were 0.0 percent in the aggregate in 2014.

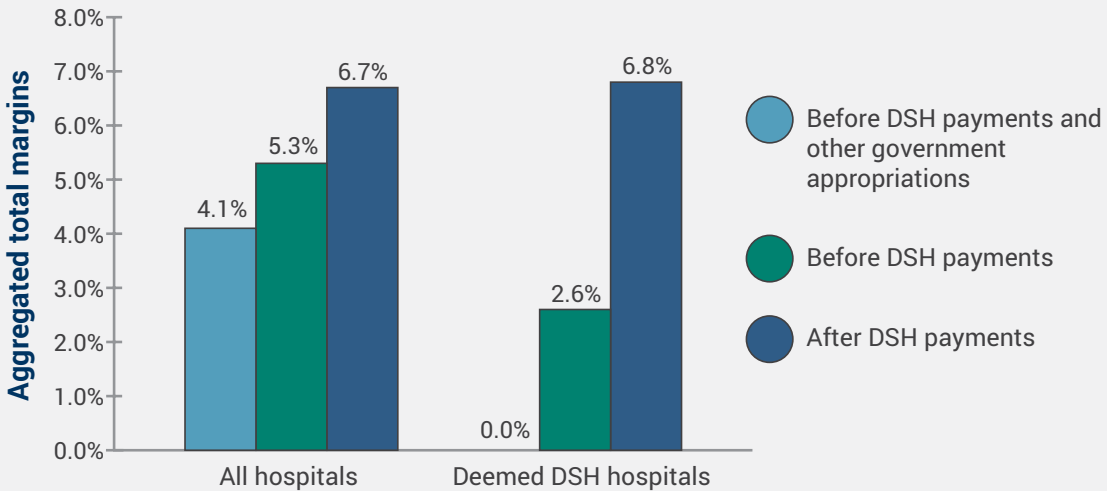
FIGURE 2-3. Aggregate Hospital Operating Margins Before and After DSH Payments, 2014



Notes: DSH is disproportionate share hospital. Operating margins measure income from patient care divided by net patient revenue. Operating margins before DSH payments in 2014 were estimated using 2012 DSH audit data. Analysis excluded outlier hospitals reporting operating margins greater than 1.5 times the interquartile range from the first and third quartiles. Deemed DSH status was estimated based on available Medicaid and low-income utilization data. For further discussion of this methodology and limitations, see Appendix 2B.

Source: MACPAC, 2017, analysis of 2014 Medicare cost reports and 2012 DSH audit data.

FIGURE 2-4. Aggregate Hospital Total Margins Before and After DSH Payments, 2014



Notes: DSH is disproportionate share hospital. Total margins include revenue not directly related to patient care, such as investment income, parking receipts, and non-DSH state and local subsidies to hospitals. Total margins before DSH payments in 2014 were estimated using 2012 DSH audit data. Other government appropriations include state or local subsidies to hospitals that are not Medicaid payments. Analysis excluded outlier hospitals reporting total margins greater than 1.5 times the interquartile range from the first and third quartiles. Deemed DSH status was estimated based on available Medicaid and low-income utilization data. For further discussion of this methodology and limitations, see Appendix 2B.

Source: MACPAC, 2017, analysis of 2014 Medicare cost reports and 2012 DSH audit data.

Between 2013 and 2014, operating margins for deemed DSH hospitals improved by 1.9 percentage points compared to the improvement in hospital operating margins for all hospitals of 1.6 percentage points. Deemed DSH hospitals in expansion states reported a larger improvement in aggregate hospital operating margins (2.2 percentage points) than deemed DSH hospitals in states that did not expand Medicaid (1.6 percentage points). Even so, deemed DSH hospitals in Medicaid expansion states reported lower aggregate operating margins in 2013, and thus reported lower aggregate operating margins in 2014 (-1.8 percent) than deemed DSH hospitals in non-expansion states (2.6 percent).⁹

Hospital margins are an imperfect measure of a hospital's financial health, and the data that are available to calculate hospital margins from Medicare cost report data have several limitations. Hospital margins are affected by many factors other than payer mix, such as hospital prestige, regional market concentration, managed care penetration, and hospital costs (Bai and Anderson 2016). Comparisons of Medicare cost report data and hospital financial statements for a subset of safety-net hospitals suggest that revenues and costs are not always reported consistently; this inconsistency results in discrepancies for individual hospitals, but when hospital data is aggregated for larger groups of hospitals, margins are more similar between these different data sources (Sommers et al. 2016).

Essential community services

Many deemed DSH hospitals provide low-income and other vulnerable patients a range of important services that are not available at most hospitals. The Protecting Access to Medicare Act of 2014 (P.L. 113-93) requires that MACPAC's DSH analyses provide data identifying hospitals with high levels of uncompensated care that also provide access to essential community services. Given that the concept of essential community services is not defined elsewhere in Medicaid statute or regulation,

MACPAC has developed a working definition based on the types of services suggested in the statute calling for MACPAC's study and the limits of available data (Box 2-5).

Among the 746 deemed DSH hospitals identified in 2012, 669 (90 percent) provided at least one of the included services. About two-thirds (489 hospitals) provided two of these services and slightly fewer than half (352 hospitals) provided three or more of these services. In comparison, a smaller share of non-deemed hospitals provided three or more of these services (30 percent).

To better understand the types of services that are directly and indirectly supported through DSH funding, we asked a number of DSH hospital executives about how they used DSH funding (Box 2-6). The diverse uses of DSH funding in different communities underscore the challenge of identifying a single list of hospital services that are essential for all low-income populations across the country.

Consistent with trends in the hospital industry at large, many of the hospitals we profiled were part of larger health systems that provided extensive outpatient services.¹⁰ According to MACPAC's analysis of 2012 community benefit reports for non-profit hospitals submitted to the Internal Revenue Service (IRS), 31 percent of non-profit DSH hospitals were part of multihospital organizations, which is similar to the share of non-DSH hospitals that were part of multihospital organizations in 2012 (34 percent). However, under current DSH rules, the maximum amount of DSH funding hospitals are eligible to receive is based on care provided within the hospital setting and does not take into account costs and revenue from the health systems that DSH hospitals are part of.

BOX 2-5. Identifying Hospitals with High Levels of Uncompensated Care that Provide Essential Community Services for Low-Income, Uninsured, and Other Vulnerable Populations

The statute requires that MACPAC provide data identifying hospitals with high levels of uncompensated care that also provide low-income, uninsured, and vulnerable populations access to essential community services, such as graduate medical education and the continuum of primary through quaternary care, including the provision of trauma care and public health services. Based on the types of services suggested in the statute and the limits of available data, we included the following services in our working definition of essential community services:

- burn services;
- dental services;
- graduate medical education;
- HIV/AIDS care;
- inpatient psychiatric services (through a psychiatric subunit or stand-alone psychiatric hospital);
- neonatal intensive care units;
- obstetrics and gynecology services;
- substance use disorder services; and
- trauma services.

We also included deemed DSH hospitals that were designated as critical access hospitals and those that were the only children's hospital within a 15-mile radius (measured by driving distance). See Appendix 2B for further discussion of this methodology and its limitations.

DSH Allotment Projections

MACPAC is required to project future DSH allotments and compare them to the measures that Congress asked us to study. Below we describe projected DSH allotments for FY 2018 and compare pending DSH allotment reductions to changes in state levels of hospital uncompensated care. Under current law, DSH allotments are scheduled to be reduced beginning in FY 2018 in the following annual amounts:

- \$2.0 billion in FY 2018;
- \$3.0 billion in FY 2019;
- \$4.0 billion in FY 2020;
- \$5.0 billion in FY 2021;
- \$6.0 billion in FY 2022;
- \$7.0 billion in FY 2023;
- \$8.0 billion in FY 2024; and
- \$8.0 billion in FY 2025.

DSH allotment reductions will be applied against unreduced DSH allotments, which, as noted at the beginning of this chapter, vary widely by state and are largely based on states' historical DSH spending in 1992, before federal limits were established. For example, unreduced FY 2018 federal DSH allotments average \$408 per uninsured individual, but vary by state from less than \$100 per uninsured individual in five states to more than \$1,000 per

uninsured individual in nine states.¹¹ Much of this variation is projected to persist even if DSH allotment reductions take effect as scheduled in FY 2018, because only one-third of DSH allotment reductions are based on the number of uninsured in a state. Compared on a per capita basis, reduced DSH allotments range from less than \$100 per uninsured individual in nine states to more than \$1,000 per uninsured individual in six states.

BOX 2-6. Services Supported by Disproportionate Share Hospital Payments

Because disproportionate share hospital (DSH) funding is fungible, executives at the seven hospitals MACPAC profiled reported using DSH funds directly and indirectly for different purposes, including the following:

- offsetting hospital uncompensated care costs for Medicaid-enrolled patients and uninsured individuals;
- supporting the development of particular programs for low-income patients, such as programs to address infant mortality, substance use disorders, and social determinants of health; and
- supporting the financial stability of their overall health system, including a hospital's ability to employ physicians and maintain access to care in the outpatient setting.

State policies appeared to affect the types of uncompensated care that DSH funding was used to support. For example, executives from hospitals in states that had not expanded Medicaid reported higher levels of unpaid costs of care for the uninsured, and those from hospitals in states with lower base Medicaid payment rates reported higher levels of Medicaid shortfall.

Market contexts also appeared to shape some hospital executives' views about the role of DSH funding for their institutions. Executives from the two profiled hospitals that were the sole provider in their region noted that DSH funds enabled their institutions to support their capacity to provide services that they felt would otherwise not be financially viable in their region (e.g., birthing services at Northeastern Vermont Regional and trauma services at Vidant Medical Center). Hospital executives in profiled hospitals that were not the only hospital in their urban market noted that DSH allowed them to support services to low-income patients that other hospitals in their markets did not provide.

All but one of the DSH hospitals that we profiled were part of larger health systems that provided extensive outpatient care and other services in their community. In 2016, for example, Parkland Hospital provided 20 times as many outpatient clinic visits as inpatient hospital stays. Northeastern Vermont Regional Medical Center is not part of a health system and provides fewer outpatient visits itself, but it recently partnered with rural health clinics, federally qualified health centers, a designated mental health agency, and various social service providers to form the Caledonia Southern Essex Accountable Health Community (MACPAC 2017).

BOX 2-7. Factors Used in Disproportionate Share Hospital Health Reform Reduction Methodology

The Centers for Medicare & Medicaid Services (CMS) Disproportionate Share Hospital Health Reform Reduction Methodology (DHRM) applies five factors to calculate state disproportionate share hospital (DSH) allotment reductions. The total amount by which allotments must be reduced is specified in statute (\$2 billion in FY 2018), and the DHRM provides a model for how these reductions may be distributed across states.

- The **low-DSH factor** allocates a smaller proportion of the total DSH allotment reductions to low-DSH states based on the size of these states' DSH allotments relative to their total Medicaid expenditures.
- The **uninsured percentage factor** imposes larger DSH allotment reductions on states with lower uninsured rates relative to other states. One-third of DSH reductions are based on this factor.
- The **high volume of Medicaid inpatients factor** imposes larger DSH allotment reductions on states that do not target DSH payments to hospitals with high Medicaid volume. The proportion of state DSH payments made to hospitals with Medicaid inpatient utilization that is one standard deviation above the mean (the same qualifying criteria used for deemed DSH hospitals) is compared among states. One-third of DSH reductions are based on this factor.
- The **high level of uncompensated care factor** imposes larger reductions on states that do not target DSH payments to hospitals with high levels of uncompensated care. The proportion of DSH payments made to hospitals with above-average uncompensated care as a proportion of costs for Medicaid beneficiaries and uninsured individuals is compared among states. This factor is calculated using DSH audit data, which defines uncompensated care costs as the sum of Medicaid shortfall and unpaid costs of care for uninsured individuals. One-third of DSH reductions are based on this factor.
- The **budget neutrality factor** is an adjustment to the high Medicaid and high uncompensated care factors that accounts for DSH allotments that were used as part of the budget neutrality calculations for coverage expansions under Section 1115 waivers in four states and the District of Columbia (see note). Specifically, funding for these coverage expansions is excluded from the calculation of whether DSH payments were targeted to high Medicaid or high uncompensated care hospitals.

Note: Four states—Indiana, Maine, Massachusetts, and Wisconsin—and the District of Columbia meet the statutory criteria for the budget neutrality factor.

Complete state-by-state estimates of DSH allotments and their relationship to the state-by-state data that Congress requested are provided in Appendix 2A.

Reduced DSH allotments

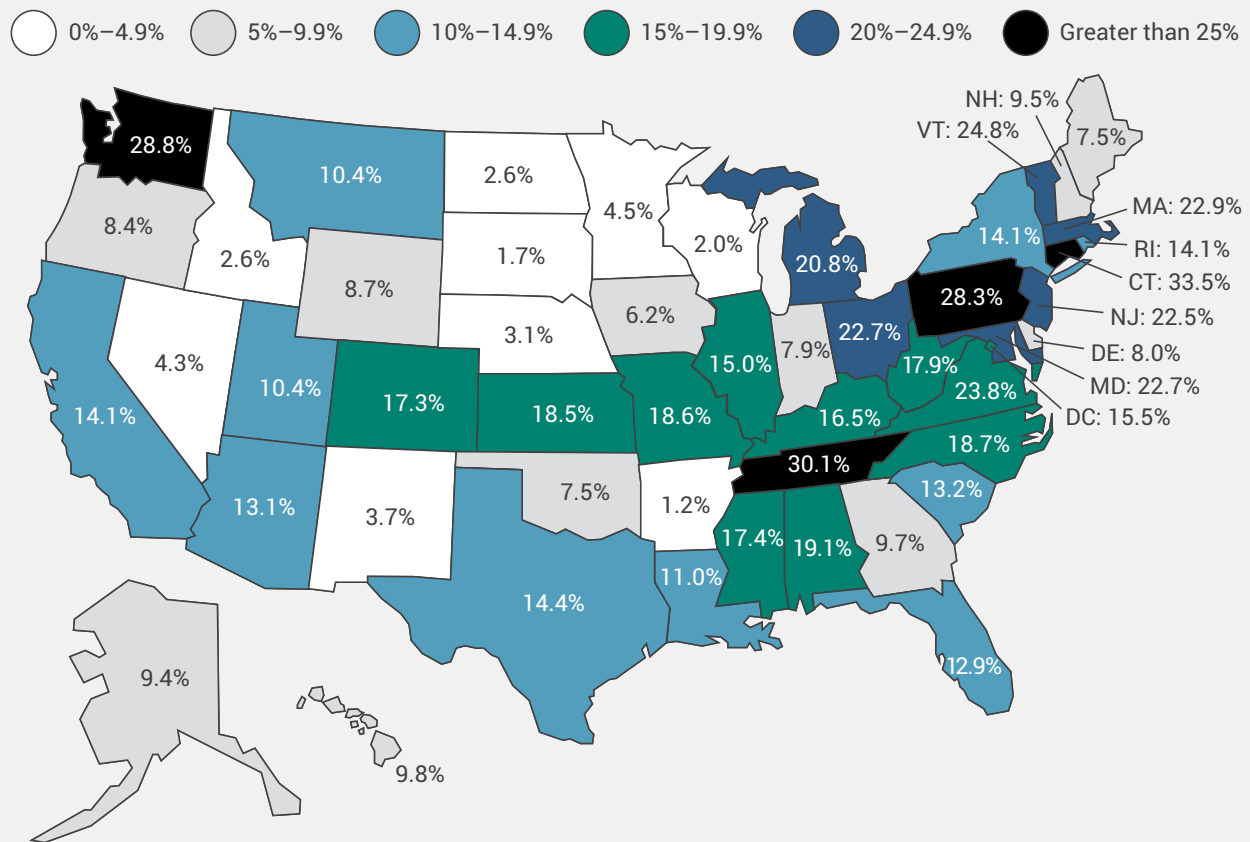
To estimate reduced DSH allotments for FY 2018, we modeled the DSH Health Reform Methodology (DHRM) that was developed by the Centers for

Medicare & Medicaid Services (CMS) to implement allotment reductions originally scheduled to go into effect in FYs 2014 and 2015, before the reductions in DSH allotments were delayed to FY 2018 (CMS 2013). This methodology uses five factors to implement the statutory requirements, which require CMS to apply greater DSH reductions to states with lower uninsured rates and states that do not target their DSH payments to high-need hospitals, among other criteria (Box 2-7). Although CMS may modify this reduction methodology in future years, the DHRM incorporates all of the statutory requirements for DSH allotment reductions and is thus a reasonable starting point for estimating future DSH allotment reductions.¹² We used the same methodology to

project FY 2018 DSH allotments in our 2016 DSH report, but our projections in this report differ slightly because more current data are available.

We estimate that the \$2 billion in federal DSH allotment reductions currently scheduled for implementation in FY 2018 will have widely varying effects on individual state allotments, with state allotment reductions ranging from 1.2 percent to 33.5 percent (Figure 2-5).¹³ Because the reduction methodology is only partially based on the current size of state allotments, the states with the largest allotments today are not necessarily the ones that will see their allotments reduced by the greatest percentage.

FIGURE 2-5. Projected Decrease in State DSH Allotments as a Percentage of Unreduced Allotments by State, FY 2018



Notes: DSH is disproportionate share hospital. FY is fiscal year.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of Medicare cost reports, Medicaid DSH audits, and the U.S. Census Bureau 2015 American Community Survey.

Comparison of DSH allotment reductions to changes in levels of uncompensated care

Pending DSH allotment reductions are premised on the assumption that increased health coverage would lead to reductions in uncompensated care. The amount of pending FY 2018 DSH allotment reductions (\$2.0 billion federal, \$3.6 billion state and federal) is smaller than the national reduction in uncompensated care between 2013 and 2014 (\$5.5 billion reduction in charity care and bad debt; \$4.6 billion reduction after accounting for the increase in Medicaid shortfall). However, because the levels of uncompensated care and DSH allotment reductions are not distributed evenly among states, the projected allotment reduction in some states is greater than the state's decline in uncompensated care. In 20 states, the projected FY 2018 DSH allotment reduction (including state and federal funds) is greater than the state's decline in

charity care and bad debt between 2013 and 2014 (Table 2-2).¹⁴ Among these states are 11 states that did not expand Medicaid, where the decline in hospital uncompensated care was lower than expected, and 17 states with historically large DSH allotments, which receive larger reductions under the low-DSH factor of the allotment reduction formula initially proposed by CMS.

Non-expansion states are more likely to have DSH allotment reductions greater than the decline in their states' total level of hospital uncompensated care. Although the DSH allotment reduction methodology initially proposed by CMS applies smaller reductions to states that did not expand Medicaid (because they have higher uninsured rates), hospitals in these states experienced little change in uncompensated care between 2013 and 2014.

In states where DSH allotment reductions are larger than the decline in hospital uncompensated

TABLE 2-2. States with Projected DSH Allotment Reductions for FY 2018 Greater than Declines in Uncompensated Care between 2013 and 2014

State characteristics	Total	Projected FY 2018 DSH allotment reductions that are greater than the decline in hospital uncompensated care between 2013 and 2014	
		Number of states	Percentage of total states
Expansion status as of December 31, 2014			
Medicaid expansion states	27	9	33%
Non-Medicaid expansion states	24	11	46
Low-DSH status			
Low-DSH states	17	3	18
Non-low-DSH states	34	17	50
All states and the District of Columbia	51	20	39%

Notes: DSH is disproportionate share hospital. FY is fiscal year. Low-DSH states are defined in statute as states with FY 2000 DSH expenditures that were less than 3 percent of total state Medicaid medical assistance expenditures for FY 2000. Projected DSH allotment reductions include state and federal funds. Uncompensated care is based on Medicare cost reports, which define uncompensated care as charity care and bad debt.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of Medicare cost reports, Medicaid DSH audits, and the U.S. Census Bureau 2015 American Community Survey.

care, DSH allotment reductions will likely result in a net loss of overall funding for hospitals. We do not know how states will distribute DSH funding reductions among their hospitals, and we do not

know how DSH hospitals will respond to reduced funding (Box 2-8).¹⁵

BOX 2-8. Responses to Previous Reductions in Medicaid Disproportionate Share Hospital Funding

Some hospitals that MACPAC profiled experienced recent reductions in disproportionate share hospital (DSH) payments as a result of changes to state DSH policies and responded in different ways.

At Parkland Hospital in Dallas, a public hospital, DSH payments fell by 14 percent between 2015 and 2016 as a result of a change in Texas's DSH policy, which resulted in the distribution of more DSH funding to privately owned hospitals. Parkland executives reported that they were seeking additional non-DSH supplemental payments through Texas's Section 1115 demonstration to help make up for the loss of DSH funding.

At MetroHealth Hospital in Cleveland, DSH payments fell from \$33 million in 2012 to \$11.7 million in 2015 (a 60 percent decline) because of a change in Ohio's formula for distributing DSH payments and also because MetroHealth's total amount of uncompensated care fell as a result of Ohio's Medicaid expansion. Between 2012 and 2015, MetroHealth reported a \$5 million increase in non-DSH supplemental payments because increased Medicaid enrollment increased the payments that the hospital was eligible to receive under Ohio's upper payment limit program. However, hospital executives also reported that they may need to consider strategies to offset lost revenue by increasing their share of commercially insured patients.

Executives at both hospitals said that they might need to cut services or staff if DSH funding is further reduced (MACPAC 2017).

Conclusion

Early evidence suggests that the ACA coverage expansions are reducing the number of uninsured individuals and levels of uncompensated care, especially in states that have expanded Medicaid. However, even in Medicaid expansion states, deemed DSH hospitals, which serve a particularly high share of Medicaid beneficiaries and low-income patients, report negative operating margins before DSH payments.

Although the Commission cannot evaluate the merits of pending DSH allotment reductions at this

time, the analyses in this chapter raise concerns about the appropriate distribution of reductions among states. Not only do current DSH allotments vary widely based on states' historical spending, but declines in hospital uncompensated care are also not evenly distributed among states and hospitals. The DSH allotment reduction methodology initially proposed by CMS in 2013 does not fully account for this state-by-state variation. However, if reductions take effect in FY 2018 as scheduled, CMS will need to update this methodology and could use this opportunity to better align state DSH allotments with objective measures of need. In the Commission's view,

Medicaid DSH payments should be better targeted to the states and hospitals that serve a disproportionate share of Medicaid beneficiaries and low-income patients and that have higher levels of uncompensated care, consistent with the original statutory intent. The next chapter in this report presents the Commission's analyses of various approaches to improve the targeting of DSH payments within states, regardless of whether DSH allotment reductions take effect.

Endnotes

¹ The DSH allotment reductions included in the ACA were initially scheduled to take effect in FY 2014, but they have been delayed several times.

² The national estimates of the number of uninsured individuals that we provide in Chapter 2 do not match the state-level estimates of the number of uninsured provided in Appendix 2A because of different data sources used. National estimates of the number of uninsured come from the Current Population Survey, a monthly survey of households by the U.S. Census Bureau that is the preferred source for national analyses. State-level data come from the American Community Survey, which has a larger sample size and is the preferred source for subnational analyses (Census 2016). There are a variety of ways to count the number of uninsured individuals. Estimates in this chapter reflect the number of people without health insurance for the entire calendar year.

³ In the Current Population Survey, a monthly survey of households conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics, estimates of health insurance coverage are not mutually exclusive. People can be covered by more than one type of health insurance during the year.

⁴ Hospitalization statistics for 2014 are based on MACPAC's analysis of state inpatient databases for the following 28 states that submitted complete information to the Healthcare Cost and Utilization Project: Arizona, California, Colorado, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri,

Nebraska, Nevada, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Washington, West Virginia, and Wisconsin.

⁵ According to MACPAC's analysis of 2012 Medicare cost reports and DSH audits for hospitals with matching data, approximately 81 percent of charity care and bad debt reported on 2012 Medicare cost reports for DSH hospitals was reported as unpaid costs of care for uninsured individuals on 2012 Medicaid DSH audits. The remaining 19 percent of uncompensated care reported on Medicare cost reports is likely due to charity care and bad debt provided to patients with health insurance.

⁶ For our analyses of 2014 Medicare cost report data, Medicaid expansion states are those that expanded Medicaid to low-income adults with family incomes at or below 138 percent of the FPL before December 31, 2014. States that expanded Medicaid after 2014 are considered non-expansion states in these analyses.

⁷ Centers for Medicare & Medicaid Services (CMS) regulations permit states to submit DSH audits approximately three years after a state plan rate year ends so that all claims can be included and audits can be completed; CMS posts DSH audit data on its website after its review, typically about five years after the state plan rate year ends.

⁸ Analysis of Medicaid payment-to-cost ratios is limited to DSH hospitals with complete DSH audit data and excludes institutions for mental diseases (IMDs). Total Medicaid payments include base Medicaid payments for services and non-DSH supplemental payments.

⁹ One potential reason hospitals in states that expanded Medicaid had lower operating margins than hospitals in states that did not expand Medicaid is the substantial regional variation in hospital margins, which predates the ACA coverage expansions. For example, in 2013, the median hospital in northeastern states reported a net loss of \$236 per adjusted discharge in 2013, while the median hospital in western states reported a net profit of \$45 per adjusted discharge (Bai and Anderson 2016).

¹⁰ For example, between 2002 and 2008, the share of physician practices owned by hospitals grew from about 20 percent to more than 50 percent (Kocher and Sahni 2011).

¹¹ In this example, unreduced FY 2018 DSH allotments are compared to the number of uninsured individuals in 2015, the year from which the latest data is available. Complete state-by-state data on the relationship between DSH allotments and the number of uninsured for 2013–2015 are provided in Appendix 2A.

¹² According to the fall 2016 publication of the Unified Agenda of Regulatory and Deregulatory Actions, CMS was expected to release a proposed rule to update the DSH allotment reduction methodology in January 2017, but this proposed rule has not yet been published (OIRA 2016).

¹³ For states that currently are not spending their full DSH allotment, DSH allotment reductions will have a smaller effect on DSH spending.

¹⁴ Excluding state funds, 17 states have projected federal DSH allotment reductions for FY 2018 greater than the state's decline in charity care and bad debt between 2013 and 2014. This analysis does not include Medicaid shortfall, which increased between 2013 and 2014.

¹⁵ In MACPAC's February 2016 *Report to Congress on Medicaid Disproportionate Share Hospital Payments*, we modeled two scenarios for how states might respond to pending DSH allotment reductions: (1) a proportional reduction model that assumed states would apply a proportional reduction in DSH payments to each hospital, and (2) a strategic model that assumed states would redistribute DSH payments to minimize future reductions under the DSH allotment reduction methodology initially proposed by CMS. We found that the incentives created by the reduction methodology would encourage states to distribute remaining DSH funds to deemed DSH hospitals, which are required to receive DSH payments because they serve a high share of Medicaid and low-income patients. However, CMS may change the reduction methodology in the future, and it remains to be seen whether the incentives created by the reduction methodology are powerful enough to overcome the state-level factors that currently affect DSH payment decisions.

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APPENDIX 2A: State-Level Data

TABLE 2A-1. Current and Projected State DSH Allotments, FYs 2017–2018 (millions)

State	Fiscal year 2017		Fiscal year 2018 unreduced allotment		Fiscal year 2018 reduced allotment		Difference (unreduced less reduced)		
	Total (state and federal)	Federal	Total (state and federal)	Federal	Total (state and federal)	Federal	Total (state and federal)	Federal	Percent reduction
Total	\$21,408.4	\$12,026.9	\$21,614.6	\$12,141.9	\$18,015.9	\$10,141.9	\$3,598.7	\$2,000.0	-16.6%
Alabama	481.2	337.6	486.1	341.1	393.2	275.9	92.9	65.2	-19.1
Alaska	44.7	22.4	45.2	22.6	40.9	20.5	4.3	2.1	-9.4
Arizona	160.5	111.2	162.2	112.3	140.9	97.6	21.3	14.7	-13.1
Arkansas	68.0	47.4	68.7	47.8	67.8	47.2	0.9	0.6	-1.2
California	2,407.1	1,203.6	2,431.8	1,215.9	2,088.9	1,044.5	342.8	171.4	-14.1
Colorado	203.0	101.6	205.1	102.6	169.5	84.8	35.6	17.8	-17.3
Connecticut	439.2	219.6	443.6	221.8	294.8	147.4	148.8	74.4	-33.5
Delaware	18.3	9.9	18.5	10.0	17.0	9.2	1.5	0.8	-8.0
District of Columbia	96.1	67.2	97.0	67.9	82.0	57.4	15.0	10.5	-15.5
Florida	359.4	219.6	363.1	221.8	316.1	193.1	47.0	28.7	-12.9
Georgia	434.6	295.1	439.1	298.1	396.5	269.2	42.6	28.9	-9.7
Hawaii	19.5	10.7	19.7	10.8	17.8	9.8	1.9	1.1	-9.8
Idaho	25.2	18.0	25.5	18.2	24.8	17.8	0.7	0.5	-2.6
Illinois	460.1	236.0	464.8	238.5	394.9	202.6	69.9	35.9	-15.0
Indiana	351.6	234.7	355.2	237.1	327.1	218.3	28.1	18.7	-7.9
Iowa	76.2	43.2	77.0	43.7	72.2	41.0	4.8	2.7	-6.2
Kansas	80.6	45.3	81.4	45.8	66.4	37.3	15.0	8.4	-18.5
Kentucky	225.9	159.2	228.2	160.8	190.6	134.3	37.6	26.5	-16.5
Louisiana	1,175.3	732.0	1,175.3	732.0	1,045.4	651.1	129.8	80.9	-11.0
Maine	179.1	115.3	180.9	116.5	167.3	107.7	13.6	8.8	-7.5
Maryland	167.4	83.7	169.1	84.6	130.8	65.4	38.3	19.2	-22.7
Massachusetts	669.7	334.9	676.6	338.3	521.6	260.8	154.9	77.5	-22.9
Michigan	446.6	290.9	451.1	293.9	357.4	232.9	93.7	61.0	-20.8
Minnesota	164.0	82.0	165.7	82.8	158.3	79.1	7.4	3.7	-4.5
Mississippi	224.3	167.4	226.6	169.1	187.3	139.8	39.3	29.4	-17.4
Missouri	822.9	520.1	831.3	525.4	676.5	427.6	154.8	97.8	-18.6

TABLE 2A-1. (continued)

State	Fiscal year 2017			Fiscal year 2018 unreduced allotment			Fiscal year 2018 reduced allotment			Difference (unreduced less reduced)		
	Total (state and federal)	Federal	Total (state and federal)	Total (state and federal)	Federal	Total (state and federal)	Total (state and federal)	Federal	Total (state and federal)	Total (state and federal)	Federal	Percent reduction
Montana	\$19.0	\$12.5	\$19.2	\$12.6	\$11.3	\$17.2	\$11.3	\$2.0	\$1.3	\$2.0	\$1.3	-10.4%
Nebraska	59.9	31.1	60.5	31.4	30.4	58.6	30.4	1.9	1.0	1.9	1.0	-3.1
Nevada	78.5	50.8	79.3	51.3	49.1	75.9	49.1	3.4	2.2	3.4	2.2	-4.3
New Hampshire	351.5	175.8	355.1	177.6	160.7	321.3	160.7	33.8	16.9	33.8	16.9	-9.5
New Jersey	1,413.5	706.8	1,428.0	714.0	553.5	1,107.0	553.5	321.0	160.5	321.0	160.5	-22.5
New Mexico	31.4	22.4	31.8	22.6	21.8	30.6	21.8	1.2	0.8	1.2	0.8	-3.7
New York	3,527.0	1,763.5	3,563.1	1,781.5	1,531.1	3,062.3	1,531.1	500.8	250.4	500.8	250.4	-14.1
North Carolina	484.3	323.9	489.2	327.2	266.1	397.8	266.1	91.4	61.1	91.4	61.1	-18.7
North Dakota	21.0	10.5	21.2	10.6	10.3	20.6	10.3	0.6	0.3	0.6	0.3	-2.6
Ohio	715.7	446.0	723.0	450.6	348.4	559.1	348.4	163.9	102.2	163.9	102.2	-22.7
Oklahoma	66.3	39.8	67.0	40.2	37.2	62.0	37.2	5.0	3.0	5.0	3.0	-7.5
Oregon	77.1	49.7	77.9	50.2	46.0	71.4	46.0	6.5	4.2	6.5	4.2	-8.4
Pennsylvania	1,190.0	616.2	1,202.2	622.5	446.5	862.3	446.5	339.9	176.0	339.9	176.0	-28.3
Rhode Island	139.9	71.4	141.3	72.1	62.0	121.4	62.0	19.9	10.1	19.9	10.1	-14.1
South Carolina	504.3	359.6	509.4	363.2	315.2	442.0	315.2	67.4	48.1	67.4	48.1	-13.2
South Dakota	22.1	12.1	22.3	12.2	12.0	21.9	12.0	0.4	0.2	0.4	0.2	-1.7
Tennessee	81.7	53.1	81.7	53.1	37.1	57.2	37.1	24.6	16.0	24.6	16.0	-30.1
Texas	1,868.7	1,049.9	1,887.9	1,060.6	908.4	1,616.9	908.4	270.9	152.2	270.9	152.2	-14.4
Utah	30.8	21.5	31.1	21.8	19.5	27.9	19.5	3.2	2.3	3.2	2.3	-10.4
Vermont	45.4	24.7	45.8	25.0	18.8	34.5	18.8	11.3	6.2	11.3	6.2	-24.8
Virginia	192.4	96.2	194.3	97.2	74.0	148.1	74.0	46.3	23.1	46.3	23.1	-23.8
Washington	406.2	203.1	410.4	205.2	146.0	292.0	146.0	118.4	59.2	118.4	59.2	-28.8
West Virginia	103.2	74.1	104.3	74.9	61.4	85.6	61.4	18.7	13.4	18.7	13.4	-17.9
Wisconsin	177.4	103.8	179.2	104.8	102.8	175.7	102.8	3.5	2.1	3.5	2.1	-2.0
Wyoming	0.5	0.2	0.5	0.3	0.2	0.5	0.2	0.0	0.0	0.0	0.0	-8.7

Notes: DSH is disproportionate share hospital. FY is fiscal year. Unreduced allotments for FY 2017 and FY 2018 are projected from FY 2016 allotments. Projected allotment reductions assume that federal DSH allotments are reduced by \$2 billion in FY 2018 as specified under current law and are calculated based on the DSH Health Reform Methodology that the Centers for Medicare & Medicaid Services initially developed to apply reductions to FY 2014 DSH allotments.

0.0 indicates a non-zero amount less than \$0.05 million.

Source: Dobson DaVanzo & Associates and KING Health, 2017, analysis for MACPAC of FY 2016 DSH allotments, Congressional Budget Office projections of the Consumer Price Index for All Urban Consumers, 2012 Medicaid DSH audits, 2012 Medicare cost reports, and the U.S. Census Bureau 2015 American Community Survey.

TABLE 2A-2. Number of Uninsured and Uninsured Rate by State, 2013–2015

State	2013			2014			2015			Difference (2015 less 2013)	
	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	
Total	45,181	14.5%	36,670	11.7%	29,758	9.4%	-15,423	-5.1%			
Alabama	645	13.6	579	12.1	484	10.1	-161	-3.5			
Alaska	132	18.5	122	17.2	106	14.9	-26	-3.6			
Arizona	1,118	17.1	903	13.6	728	10.8	-390	-6.3			
Arkansas	465	16.0	343	11.8	278	9.5	-187	-6.5			
California	6,500	17.2	4,767	12.4	3,317	8.6	-3,183	-8.6			
Colorado	729	14.1	543	10.3	433	8.1	-296	-6.0			
Connecticut	333	9.4	245	6.9	211	6.0	-122	-3.4			
Delaware	83	9.1	72	7.8	54	5.9	-29	-3.2			
District of Columbia	42	6.7	34	5.3	25	3.8	-17	-2.9			
Florida	3,853	20.0	3,245	16.6	2,662	13.3	-1,191	-6.7			
Georgia	1,846	18.8	1,568	15.8	1,388	13.9	-458	-4.9			
Hawaii	91	6.7	72	5.3	55	4.0	-36	-2.7			
Idaho	257	16.2	219	13.6	180	11.0	-77	-5.2			
Illinois	1,618	12.7	1,238	9.7	900	7.1	-718	-5.6			
Indiana	903	14.0	776	11.9	628	9.6	-275	-4.4			
Iowa	248	8.1	189	6.2	155	5.0	-93	-3.1			
Kansas	348	12.3	291	10.2	261	9.1	-87	-3.2			
Kentucky	616	14.3	366	8.5	261	6.0	-355	-8.3			
Louisiana	751	16.6	672	14.8	546	11.9	-205	-4.7			
Maine	147	11.2	134	10.1	111	8.4	-36	-2.8			
Maryland	593	10.2	463	7.9	389	6.6	-204	-3.6			
Massachusetts	247	3.7	219	3.3	189	2.8	-58	-0.9			
Michigan	1,072	11.0	837	8.5	597	6.1	-475	-4.9			
Minnesota	440	8.2	317	5.9	245	4.5	-195	-3.7			
Mississippi	500	17.1	424	14.5	372	12.7	-128	-4.4			
Missouri	773	13.0	694	11.7	583	9.8	-190	-3.2			

TABLE 2A-2. (continued)

State	2013			2014			2015			Difference (2015 less 2013)	
	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population	Number (thousands)	Percentage of state population (percentage point change)	
Montana	165	16.5%	143	14.2%	119	11.6%	-46	-4.9%			
Nebraska	209	11.3	179	9.7	154	8.2	-55	-3.1			
Nevada	570	20.7	427	15.2	351	12.3	-219	-8.4			
New Hampshire	140	10.7	120	9.2	83	6.3	-57	-4.4			
New Jersey	1,160	13.2	965	10.9	771	8.7	-389	-4.5			
New Mexico	382	18.6	298	14.5	224	10.9	-158	-7.7			
New York	2,070	10.7	1,697	8.7	1,381	7.1	-689	3.6			
North Carolina	1,509	15.6	1,276	13.1	1,103	11.2	-406	-4.4			
North Dakota	73	10.4	57	7.9	57	7.8	-16	-2.6			
Ohio	1,258	11.0	955	8.4	746	6.5	-512	-4.5			
Oklahoma	666	17.7	584	15.4	533	13.9	-133	-3.8			
Oregon	571	14.7	383	9.7	280	7.0	-291	-7.7			
Pennsylvania	1,222	9.7	1,065	8.5	802	6.4	-420	-3.3			
Rhode Island	120	11.6	77	7.4	59	5.7	-61	-5.9			
South Carolina	739	15.8	642	13.6	523	10.9	-216	-4.9			
South Dakota	93	11.3	82	9.8	86	10.2	-7	-1.1			
Tennessee	887	13.9	776	12.0	667	10.3	-220	-3.6			
Texas	5,748	22.1	5,047	19.1	4,615	17.1	-1,133	-5.0			
Utah	402	14.0	366	12.5	311	10.5	-91	-3.5			
Vermont	45	7.2	31	5.0	24	3.8	-21	-3.4			
Virginia	991	12.3	884	10.9	746	9.1	-245	-3.2			
Washington	960	14.0	643	9.2	468	6.6	-492	-7.4			
West Virginia	255	14.0	156	8.6	108	6.0	-147	-8.0			
Wisconsin	518	9.1	418	7.3	323	5.7	-195	-3.4			
Wyoming	77	13.4	69	12.0	66	11.5	-11	-1.9			

Source: Barnett, J.C., and M.S. Vormovitsky, 2016, *Health insurance coverage in the United States: 2015*, Current Population Reports, P60-257(RV), Washington, DC: U.S. Census Bureau, <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-257.pdf>.

TABLE 2A-3. State Levels of Uncompensated Care, 2013–2014, and Projected FY 2018 DSH Allotment Reductions by State

State	Total hospital uncompensated care costs, 2013		Total hospital uncompensated care costs, 2014		Difference in total hospital uncompensated care costs (2014 less 2013)		Projected FY 2018 DSH allotment reductions (millions)	
	Total (millions)	Share of hospital operating expenses	Total (millions)	Share of hospital operating expenses	Total (millions)	Share of hospital operating expenses (percentage point change)	Total (state and federal)	Federal
	\$36,428	4.4%	\$30,901	3.5%	\$-5,527	-0.9%	\$3,598.7	\$2,000.0
Alabama	579	5.9	568	5.1	-11	-0.8	92.9	65.2
Alaska	102	4.2	94	3.7	-8	-0.5	4.3	2.1
Arizona	738	4.8	541	3.5	-197	-1.3	21.3	14.7
Arkansas	346	5.3	226	3.4	-120	-1.9	0.9	0.6
California	3,756	3.9	1,708	1.6	-2,048	-2.2	342.8	171.4
Colorado	411	3.3	288	2.2	-123	-1.1	35.6	17.8
Connecticut	158	1.8	223	2.0	65	0.2	148.8	74.4
Delaware	76	2.4	82	2.5	5	0.0	1.5	0.8
District of Columbia	67	1.8	68	1.8	1	0.0	15.0	10.5
Florida	2,747	6.5	2,668	5.9	-80	-0.6	47.0	28.7
Georgia	1,413	7.2	1,443	6.4	30	-0.7	42.6	28.9
Hawaii	39	1.2	45	1.3	7	0.1	1.9	1.1
Idaho	144	3.7	125	3.0	-19	-0.7	0.7	0.5
Illinois	1,681	4.9	1,116	3.0	-565	-1.9	69.9	35.9
Indiana	1,026	5.1	963	4.7	-63	-0.4	28.1	18.7
Iowa	302	3.9	187	2.3	-115	-1.6	4.8	2.7
Kansas	242	3.3	257	3.3	15	0.0	15.0	8.4
Kentucky	550	4.5	241	1.9	-309	-2.6	37.6	26.5
Louisiana	742	6.0	718	5.5	-23	-0.4	129.8	80.9
Maine	188	3.9	170	3.3	-18	-0.6	13.6	8.8
Maryland	769	5.2	526	3.4	-243	-1.7	38.3	19.2
Massachusetts	608	2.4	501	1.9	-107	-0.5	154.9	77.5
Michigan	958	3.4	662	2.3	-296	-1.1	93.7	61.0
Minnesota	278	1.7	247	1.4	-31	-0.3	7.4	3.7
Mississippi	468	6.0	396	4.7	-72	-1.3	39.3	29.4
Missouri	889	4.6	870	4.3	-19	-0.3	154.8	97.8
Montana	159	4.6	155	4.2	-4	-0.3	2.0	1.3
Nebraska	210	3.7	199	3.4	-11	-0.3	1.9	1.0
Nevada	174	3.7	172	3.1	-2	-0.6	3.4	2.2

TABLE 2A-3. (continued)

State	Total hospital uncompensated care costs, 2013		Total hospital uncompensated care costs, 2014		Difference in total hospital uncompensated care costs (2014 less 2013)		Projected FY 2018 DSH allotment reductions (millions)	
	Total (millions)	Share of hospital operating expenses	Total (millions)	Share of hospital operating expenses	Total (millions)	Share of hospital operating expenses (percentage point change)	Total (state and federal)	Federal
New Hampshire	\$ 187	4.6%	\$ 150	3.5%	\$ -38	-1.0%	\$ 33.8	\$ 16.9
New Jersey	1,127	6.4	911	4.0	-216	-2.4	321.0	160.5
New Mexico	291	6.0	170	3.3	-121	-2.7	1.2	0.8
New York	2,102	3.3	1,869	2.8	-233	-0.5	500.8	250.4
North Carolina	1,416	6.1	1,453	6.0	36	-0.1	91.4	61.1
North Dakota	104	3.1	88	2.5	-16	-0.6	0.6	0.3
Ohio	1,388	3.5	915	2.3	-473	-1.3	163.9	102.2
Oklahoma	480	5.1	454	4.5	-27	-0.7	5.0	3.0
Oregon	414	4.8	237	2.4	-177	-2.4	6.5	4.2
Pennsylvania	793	1.9	709	1.7	-83	-0.3	339.9	176.0
Rhode Island	165	4.8	110	3.2	-56	-1.6	19.9	10.1
South Carolina	735	6.6	721	6.2	-14	-0.4	67.4	48.1
South Dakota	104	3.0	97	2.6	-7	-0.4	0.4	0.2
Tennessee	472	3.8	521	2.9	49	-0.9	24.6	16.0
Texas	4,133	7.1	4,998	8.0	864	0.9	270.9	152.2
Utah	295	5.1	275	4.5	-19	-0.6	3.2	2.3
Vermont	48	2.2	42	1.9	-6	-0.3	11.3	6.2
Virginia	898	5.1	846	4.6	-52	-0.5	46.3	23.1
Washington	593	3.4	306	1.6	-286	-1.8	118.4	59.2
West Virginia	294	5.2	169	2.9	-125	-2.4	18.7	13.4
Wisconsin	492	2.7	315	1.6	-177	-1.0	3.5	2.1
Wyoming	80	5.9	88	5.5	9	-0.5	0.0	0.0

Notes: FY is fiscal year. DSH is disproportionate share hospital. Uncompensated care is calculated using Medicare cost reports, which define uncompensated care as charity care and bad debt. Projected allotment reductions for FY 2018 assume that federal DSH allotments are reduced by \$2 billion in FY 2018 as specified under current law and are calculated based on the DSH Health Reform Methodology that the Centers for Medicare & Medicaid Services initially developed to apply reductions to FY 2014 DSH allotments. 0.0 indicates a non-zero amount less than \$0.05 million or 0.05 percent.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of FY 2016 DSH allotments, Congressional Budget Office projections of the Consumer Price Index for All Urban Consumers, 2012 Medicaid DSH audits, Medicare cost reports, and the U.S. Census Bureau 2015 American Community Survey.

TABLE 2A-4. Deemed DSH Hospitals Providing at Least One Essential Community Service by State, 2012

State	Number of hospitals (all)	DSH hospitals		Deemed DSH hospitals		Deemed DSH hospitals that provide at least one essential community service	
		Number	Percent	Number	Percent	Number	Percent
Total	5,979	2,670	45%	746	12%	669	11%
Alabama	115	84	73	7	6	7	6
Alaska	25	4	16	1	4	1	4
Arizona	107	37	35	37	35	33	31
Arkansas	97	4	4	1	1	1	1
California	401	46	11	43	11	37	9
Colorado	97	72	74	14	14	14	14
Connecticut	41	33	80	5	12	4	10
Delaware	12	2	17	2	17	2	17
District of Columbia	13	8	62	6	46	6	46
Florida	249	70	28	39	16	34	14
Georgia	166	130	78	27	16	16	10
Hawaii	25	17	68	3	12	3	12
Idaho	51	22	43	6	12	4	8
Illinois	203	52	26	43	21	36	18
Indiana	168	49	29	11	7	10	6
Iowa	123	7	6	3	2	3	2
Kansas	151	57	38	12	8	10	7
Kentucky	116	104	90	28	24	24	21
Louisiana	215	77	36	34	16	26	12
Maine	39	1	3	0	0	0	0
Maryland	58	13	22	7	12	7	12
Massachusetts	104	0	0	0	0	0	0
Michigan	167	113	68	12	7	11	7
Minnesota	144	50	35	16	11	16	11
Mississippi	113	48	42	14	12	13	12
Missouri	148	91	61	23	16	22	15
Montana	64	49	77	5	8	5	8
Nebraska	99	29	29	14	14	12	12
Nevada	53	23	43	4	8	3	6
New Hampshire	30	16	53	2	7	2	7
New Jersey	97	72	74	24	25	23	24
New Mexico	53	19	36	13	25	12	23
New York	192	174	91	22	11	21	11
North Carolina	133	54	41	18	14	18	14
North Dakota	49	3	6	1	2	1	2
Ohio	225	177	79	14	6	13	6
Oklahoma	150	51	34	13	9	13	9
Oregon	60	57	95	9	15	9	15
Pennsylvania	228	200	88	37	16	34	15

TABLE 2A-4. (continued)

State	Number of hospitals (all)	DSH hospitals		Deemed DSH hospitals		Deemed DSH hospitals that provide at least one essential community service	
		Number	Percent	Number	Percent	Number	Percent
Rhode Island	15	13	87%	2	13%	1	7%
South Carolina	84	62	74	11	13	10	12
South Dakota	62	24	39	18	29	18	29
Tennessee	143	67	47	19	13	16	11
Texas	573	178	31	83	14	81	14
Utah	57	38	67	2	4	2	4
Vermont	16	13	81	1	6	1	6
Virginia	111	28	25	8	7	6	5
Washington	100	50	50	10	10	10	10
West Virginia	63	52	83	13	21	11	17
Wisconsin	144	13	9	5	3	4	3
Wyoming	30	17	57	4	13	3	10

Notes: DSH is disproportionate share hospital. Excludes DSH hospitals that did not submit a Medicare cost report (n = 12). Deemed DSH hospitals are statutorily required to receive DSH payments because they serve a high share of Medicaid and low-income patients. Deemed DSH status was estimated based on available Medicaid and low-income utilization data. Our working definition of essential community services includes the following services: burn services, dental services, graduate medical education, HIV/AIDS care, inpatient psychiatric services (through psychiatric subunit or stand-alone psychiatric hospital), neonatal intensive care units, obstetrics and gynecology services, substance use disorder services, and trauma services. For further discussion of the methodology and limitations, see Appendix 2B.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of 2012 DSH audits, 2012 and 2014 Medicare cost reports, and the American Hospital Association annual survey.

TABLE 2A-5. Share of Hospital Beds and Medicaid Days Provided by Deemed DSH Hospitals by State, 2012

State	Number of hospital beds						Number of Medicaid days (thousands)					
	All hospitals		DSH hospitals		Deemed DSH hospitals		All hospitals		DSH hospitals		Deemed DSH hospitals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	663,575		377,901	57%	126,977	19%	21,656		13,535	62%	6,971	32%
Alabama	11,607		10,163	88	941	8	645		628	97	121	19
Alaska	1,264		503	40	278	22	85		32	38	24	29
Arizona	12,967		5,890	45	5,890	45	719		495	69	495	69
Arkansas	7,837		840	11	354	5	223		32	14	26	12
California	60,940		7,115	12	6,058	10	2,433		529	22	442	18
Colorado	8,428		6,721	80	1,952	23	451		414	92	187	41
Connecticut	7,339		6,754	92	1,185	16	454		383	84	90	20
Delaware	2,057		269	13	269	13	123		1	1	1	1
District of Columbia	2,528		1,732	69	1,071	42	139		96	69	57	41
Florida	46,134		18,239	40	11,464	25	1,481		905	61	702	47
Georgia	18,264		15,480	85	3,854	21	568		552	97	231	41
Hawaii	2,126		2,056	97	292	14	75		75	100	19	26
Idaho	2,715		1,709	63	790	29	101		71	70	41	41
Illinois	26,465		9,784	37	7,247	27	1,346		659	49	461	34
Indiana	14,902		5,167	35	2,505	17	372		160	43	109	29
Iowa	6,896		1,120	16	562	8	288		95	33	60	21
Kansas	7,423		3,791	51	1,923	26	74		61	82	51	69
Kentucky	12,348		11,790	95	4,163	34	90		88	98	32	35
Louisiana	14,983		6,949	46	3,017	20	355		182	51	96	27
Maine	2,771		51	2	0	0	124		1	1	0	0
Maryland	10,930		2,299	21	1,504	14	338		72	21	45	13
Massachusetts	17,173		0	0	0	0	1,024		0	0	0	0
Michigan	20,719		17,127	83	2,884	14	373		319	86	87	23
Minnesota	9,549		5,591	59	2,086	22	335		261	78	162	48
Mississippi	9,948		5,570	56	1,875	19	435		275	63	152	35
Missouri	15,495		11,374	73	2,346	15	600		409	68	145	24
Montana	2,516		2,104	84	170	7	69		69	99	8	12
Nebraska	4,848		3,202	66	1,894	39	125		116	93	83	66

TABLE 2A-5. (continued)

State	Number of hospital beds						Number of Medicaid days (thousands)					
	All hospitals		DSH hospitals		Deemed DSH hospitals		All hospitals		DSH hospitals		Deemed DSH hospitals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Nevada	5,131	57%	2,946	57%	984	19%	251	84%	210	84%	96	38%
New Hampshire	2,303	34	793	34	352	15	32	31	10	31	6	18
New Jersey	19,178	90	17,201	90	5,503	29	382	89	341	89	142	37
New Mexico	3,848	54	2,069	54	1,023	27	72	60	43	60	25	35
New York	38,276	95	36,511	95	5,880	15	1,208	89	1,080	89	363	30
North Carolina	18,559	64	11,907	64	5,046	27	942	74	701	74	342	36
North Dakota	2,295	21	477	21	25	1	81	32	26	32	0	0
Ohio	26,734	90	24,166	90	4,478	17	578	93	535	93	192	33
Oklahoma	9,976	54	5,389	54	1,702	17	464	64	299	64	107	23
Oregon	5,330	95	5,066	95	1,337	25	270	100	270	100	99	36
Pennsylvania	32,001	95	30,360	95	5,548	17	522	98	514	98	206	39
Rhode Island	2,626	79	2,081	79	642	24	64	70	44	70	27	42
South Carolina	10,420	88	9,203	88	2,276	22	180	97	175	97	72	40
South Dakota	2,562	67	1,727	67	986	38	78	93	73	93	48	62
Tennessee	15,878	73	11,652	73	3,709	23	432	86	372	86	244	57
Texas	58,493	49	28,643	49	14,086	24	1,270	75	947	75	703	55
Utah	4,543	76	3,448	76	185	4	132	94	124	94	13	10
Vermont	940	84	791	84	343	36	39	96	37	96	20	51
Virginia	14,758	45	6,582	45	1,822	12	382	65	247	65	127	33
Washington	10,247	56	5,749	56	1,499	15	333	63	209	63	48	14
West Virginia	5,735	93	5,319	93	2,121	37	208	99	206	99	111	54
Wisconsin	11,275	14	1,539	14	657	6	268	27	72	27	43	16
Wyoming	1,295	69	892	69	199	15	26	73	19	73	4	16

Notes: DSH is disproportionate share hospital. Excludes DSH hospitals that did not submit a Medicare cost report (n = 12). Deemed DSH status was estimated based on available Medicaid and low-income utilization data. For further discussion of the methodology and limitations, see Appendix 2B.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of 2012 DSH audits and 2012 Medicare cost reports.

TABLE 2A-6. FY 2018 Reduced and Unreduced DSH Allotment per Uninsured Individual by State, 2013–2015

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment per uninsured individual					
	Unreduced	Reduced	Unreduced			Reduced		
			2013	2014	2015	2013	2014	2015
Total	\$12,141.9	\$10,141.9	\$ 268.7	\$ 331.1	\$ 408.0	\$ 224.5	\$ 276.6	\$ 340.8
Alabama	341.1	275.9	528.8	588.9	704.3	427.7	476.3	569.7
Alaska	22.6	20.5	171.2	184.5	213.2	155.0	167.1	193.1
Arizona	112.3	97.6	100.4	124.3	154.3	87.3	108.0	134.0
Arkansas	47.8	47.2	102.9	139.4	172.4	101.6	137.7	170.2
California	1,215.9	1,044.5	187.1	255.1	366.5	160.7	219.1	314.9
Colorado	102.6	84.8	140.7	189.1	237.1	116.3	156.3	196.0
Connecticut	221.8	147.4	666.1	903.9	1,053.7	442.7	600.7	700.3
Delaware	10.0	9.2	121.0	140.2	184.2	111.3	129.0	169.5
District of Columbia	67.9	57.4	1,617.5	1,987.1	2,719.5	1,366.8	1,679.1	2,298.0
Florida	221.8	193.1	57.6	68.4	83.3	50.1	59.5	72.6
Georgia	298.1	269.2	161.5	190.1	214.7	145.8	171.6	193.9
Hawaii	10.8	9.8	118.8	149.9	198.2	107.2	135.2	178.8
Idaho	18.2	17.8	70.9	83.4	101.1	69.1	81.2	98.5
Illinois	238.5	202.6	147.4	192.6	264.9	125.2	163.7	225.0
Indiana	237.1	218.3	262.5	305.6	377.7	241.8	281.4	347.8
Iowa	43.7	41.0	176.1	231.2	281.9	165.1	216.8	264.3
Kansas	45.8	37.3	131.5	157.0	175.6	107.2	128.0	143.2
Kentucky	160.8	134.3	261.1	439.3	615.1	218.1	366.9	513.7
Louisiana	732.0	651.1	974.6	1,089.6	1,341.5	867.0	969.2	1,193.3
Maine	116.5	107.7	792.2	872.1	1,053.8	732.6	806.5	974.5
Maryland	84.6	65.4	142.6	182.6	217.3	110.3	141.2	168.0
Massachusetts	338.3	260.8	1,369.6	1,546.6	1,787.3	1,055.9	1,192.5	1,378.0
Michigan	293.9	232.9	274.2	351.3	492.6	217.2	278.3	390.3
Minnesota	82.8	79.1	188.3	261.1	338.0	179.8	249.4	322.8
Mississippi	169.1	139.8	338.3	398.8	455.2	279.6	329.6	376.2
Missouri	525.4	427.6	679.8	757.3	901.1	553.2	616.3	733.3
Montana	12.6	11.3	76.3	87.8	106.2	68.4	78.7	95.2

TABLE 2A-6. (continued)

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment per uninsured individual					
	Unreduced		Unreduced			Reduced		
	Unreduced	Reduced	2013	2014	2015	2013	2014	2015
Nebraska	\$ 31.4	\$ 30.4	\$ 150.2	\$ 175.1	\$ 204.1	\$ 145.5	\$ 169.6	\$ 197.7
Nevada	51.3	49.1	90.0	120.2	146.3	86.1	115.1	140.0
New Hampshire	177.6	160.7	1,268.3	1,474.1	2,129.4	1,147.6	1,333.7	1,926.6
New Jersey	714.0	553.5	615.5	739.6	925.8	477.1	573.3	717.7
New Mexico	22.6	21.8	59.1	75.9	100.8	57.0	73.1	97.1
New York	1,781.5	1,531.1	860.6	1,050.1	1,290.5	739.7	902.5	1,109.1
North Carolina	327.2	266.1	216.8	256.4	296.7	176.3	208.5	241.3
North Dakota	10.6	10.3	145.1	186.2	184.4	141.3	181.3	179.6
Ohio	450.6	348.4	358.2	471.7	603.8	277.0	364.8	466.9
Oklahoma	40.2	37.2	60.3	68.8	75.4	55.8	63.7	69.8
Oregon	50.2	46.0	87.9	131.2	179.1	80.6	120.2	164.1
Pennsylvania	622.5	446.5	509.4	584.7	776.2	365.4	419.4	556.8
Rhode Island	72.1	62.0	600.8	934.8	1,213.5	516.3	803.4	1,042.9
South Carolina	363.2	315.2	491.5	566.2	694.2	426.5	491.2	602.3
South Dakota	12.2	12.0	131.7	149.5	142.6	129.5	147.0	140.2
Tennessee	53.1	37.1	59.9	68.4	79.6	41.9	47.8	55.6
Texas	1,060.6	908.4	184.5	210.1	229.8	158.0	180.0	196.8
Utah	21.8	19.5	54.1	59.5	69.9	48.5	53.3	62.6
Vermont	25.0	18.8	554.6	812.5	1,054.0	417.2	611.2	793.0
Virginia	97.2	74.0	98.1	110.0	130.2	74.7	83.8	99.2
Washington	205.2	146.0	213.7	319.3	438.5	152.1	227.2	312.0
West Virginia	74.9	61.4	293.6	479.6	692.7	240.9	393.6	568.4
Wisconsin	104.8	102.8	202.4	251.0	325.0	198.4	246.1	318.6
Wyoming	0.3	0.2	3.3	3.7	3.8	3.0	3.3	3.4

Notes: FY is fiscal year. DSH is disproportionate share hospital. Projected allotment reductions for FY 2018 assume that federal DSH allotments are reduced by \$2 billion in FY 2018 as specified under current law and are calculated based on the DSH Health Reform Methodology that the Centers for Medicare & Medicaid Services initially developed to apply reductions to FY 2014 DSH allotments. Excludes DSH hospitals that did not submit a Medicare cost report (n = 12).

Sources: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of 2012 DSH audits, 2012 and 2014 Medicare cost reports, and the American Hospital Association annual survey. Barnett, J.C., and M.S. Vornovitsky, 2016, *Health insurance coverage in the United States: 2015*, Current Population Reports, P60-257(RV), Washington, DC: U.S. Census Bureau, <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-257.pdf>.

TABLE 2A-7. FY 2018 Reduced and Unreduced DSH Allotment as a Percentage of Hospital Uncompensated Care by State, 2014–2015

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment as a percentage of hospital uncompensated care in the state			
	Unreduced	Reduced	Unreduced		Reduced	
			2013	2014	2013	2014
Total	\$12,141.9	\$10,141.9	33%	39%	28%	33%
Alabama	341.1	275.9	59	60	48	49
Alaska	22.6	20.5	22	24	20	22
Arizona	112.3	97.6	15	21	13	18
Arkansas	47.8	47.2	14	21	14	21
California	1,215.9	1,044.5	32	71	28	61
Colorado	102.6	84.8	25	36	21	29
Connecticut	221.8	147.4	141	99	93	66
Delaware	10.0	9.2	13	12	12	11
District of Columbia	67.9	57.4	102	100	86	85
Florida	221.8	193.1	8	8	7	7
Georgia	298.1	269.2	21	21	19	19
Hawaii	10.8	9.8	28	24	25	21
Idaho	18.2	17.8	13	15	12	14
Illinois	238.5	202.6	14	21	12	18
Indiana	237.1	218.3	23	25	21	23
Iowa	43.7	41.0	14	23	14	22
Kansas	45.8	37.3	19	18	15	15
Kentucky	160.8	134.3	29	67	24	56
Louisiana	732.0	651.1	99	102	88	91
Maine	116.5	107.7	62	68	57	63
Maryland	84.6	65.4	11	16	9	12
Massachusetts	338.3	260.8	56	67	43	52
Michigan	293.9	232.9	31	44	24	35
Minnesota	82.8	79.1	30	34	28	32
Mississippi	169.1	139.8	36	43	30	35
Missouri	525.4	427.6	59	60	48	49
Montana	12.6	11.3	8	8	7	7

TABLE 2A-7. (continued)

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment as a percentage of hospital uncompensated care in the state			
	Unreduced	Reduced	Unreduced		Reduced	
			2013	2014	2013	2014
Nebraska	\$ 31.4	\$ 30.4	15%	16%	14%	15%
Nevada	51.3	49.1	29	30	28	29
New Hampshire	177.6	160.7	95	119	86	107
New Jersey	714.0	553.5	63	78	49	61
New Mexico	22.6	21.8	8	13	7	13
New York	1,781.5	1,531.1	85	95	73	82
North Carolina	327.2	266.1	23	23	19	18
North Dakota	10.6	10.3	10	12	10	12
Ohio	450.6	348.4	32	49	25	38
Oklahoma	40.2	37.2	8	9	8	8
Oregon	50.2	46.0	12	21	11	19
Pennsylvania	622.5	446.5	79	88	56	63
Rhode Island	72.1	62.0	44	66	37	56
South Carolina	363.2	315.2	49	50	43	44
South Dakota	12.2	12.0	12	13	12	12
Tennessee	53.1	37.1	11	10	8	7
Texas	1,060.6	908.4	26	21	22	18
Utah	21.8	19.5	7	8	7	7
Vermont	25.0	18.8	52	60	39	45
Virginia	97.2	74.0	11	11	8	9
Washington	205.2	146.0	35	67	25	48
West Virginia	74.9	61.4	25	44	21	36
Wisconsin	104.8	102.8	21	33	21	33
Wyoming	0.3	0.2	0	0	0	0

Notes: FY is fiscal year. DSH is disproportionate share hospital. Projected allotment reductions for FY 2018 assume that federal DSH allotments are reduced by \$2 billion in FY 2018 as specified under current law and are calculated based on the DSH Health Reform Methodology that the Centers for Medicare & Medicaid Services initially developed to apply reductions to FY 2014 DSH allotments. Excludes DSH hospitals that did not submit a Medicare cost report (n = 12).

0 indicates a non-zero amount less than 0.5 percent.

Source: Dobson DeVanzo & Associates and KNG Health, 2017, analysis for MACPAC of 2012 DSH audits, Medicare cost reports, and the American Hospital Association annual survey.

TABLE 2A-8. FY 2018 Reduced and Unreduced DSH Allotment per Deemed DSH Hospital Providing at Least One Essential Community Service by State, 2012

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment per deemed DSH hospital (millions)		FY 2018 federal DSH allotment per deemed DSH hospital providing at least one essential community service (millions)	
	Unreduced	Reduced	Unreduced	Reduced	Unreduced	Reduced
Total	\$12,141.9	\$10,141.9	\$16.3	\$13.6	\$18.1	\$15.2
Alabama	341.1	275.9	48.7	39.4	48.7	39.4
Alaska	22.6	20.5	22.6	20.5	22.6	20.5
Arizona	112.3	97.6	3.0	2.6	3.4	3.0
Arkansas	47.8	47.2	47.8	47.2	47.8	47.2
California	1,215.9	1,044.5	28.3	24.3	32.9	28.2
Colorado	102.6	84.8	7.3	6.1	7.3	6.1
Connecticut	221.8	147.4	44.4	29.5	55.5	36.9
Delaware	10.0	9.2	5.0	4.6	5.0	4.6
District of Columbia	67.9	57.4	11.3	9.6	11.3	9.6
Florida	221.8	193.1	5.7	5.0	6.5	5.7
Georgia	298.1	269.2	11.0	10.0	18.6	16.8
Hawaii	10.8	9.8	3.6	3.3	3.6	3.3
Idaho	18.2	17.8	3.0	3.0	4.6	4.4
Illinois	238.5	202.6	5.5	4.7	6.6	5.6
Indiana	237.1	218.3	21.6	19.8	23.7	21.8
Iowa	43.7	41.0	14.6	13.7	14.6	13.7
Kansas	45.8	37.3	3.8	3.1	4.6	3.7
Kentucky	160.8	134.3	5.7	4.8	6.7	5.6
Louisiana	732.0	651.1	21.5	19.1	28.2	25.0
Maine	116.5	107.7	N/A	N/A	N/A	N/A
Maryland	84.6	65.4	12.1	9.3	12.1	9.3
Massachusetts	338.3	260.8	N/A	N/A	N/A	N/A
Michigan	293.9	232.9	24.5	19.4	26.7	21.2
Minnesota	82.8	79.1	5.2	4.9	5.2	4.9
Mississippi	169.1	139.8	12.1	10.0	13.0	10.8
Missouri	525.4	427.6	22.8	18.6	23.9	19.4
Montana	12.6	11.3	2.5	2.3	2.5	2.3
Nebraska	31.4	30.4	2.2	2.2	2.6	2.5

TABLE 2A-8. (continued)

State	FY 2018 federal DSH allotment (millions)		FY 2018 federal DSH allotment per deemed DSH hospital (millions)		FY 2018 federal DSH allotment per deemed DSH hospital providing at least one essential community service (millions)	
	Unreduced	Reduced	Unreduced	Reduced	Unreduced	Reduced
Nevada	\$ 51.3	\$ 49.1	\$12.8	\$12.3	\$17.1	\$16.4
New Hampshire	177.6	160.7	88.8	80.3	88.8	80.3
New Jersey	714.0	553.5	29.7	23.1	31.0	24.1
New Mexico	22.6	21.8	1.7	1.7	1.9	1.8
New York	1,781.5	1,531.1	81.0	69.6	84.8	72.9
North Carolina	327.2	266.1	18.2	14.8	18.2	14.8
North Dakota	10.6	10.3	10.6	10.3	10.6	10.3
Ohio	450.6	348.4	32.2	24.9	34.7	26.8
Oklahoma	40.2	37.2	3.1	2.9	3.1	2.9
Oregon	50.2	46.0	5.6	5.1	5.6	5.1
Pennsylvania	622.5	446.5	16.8	12.1	18.3	13.1
Rhode Island	72.1	62.0	36.0	31.0	72.1	62.0
South Carolina	363.2	315.2	33.0	28.7	36.3	31.5
South Dakota	12.2	12.0	0.7	0.7	0.7	0.7
Tennessee	53.1	37.1	2.8	2.0	3.3	2.3
Texas	1,060.6	908.4	12.8	10.9	13.1	11.2
Utah	21.8	19.5	10.9	9.7	10.9	9.7
Vermont	25.0	18.8	25.0	18.8	25.0	18.8
Virginia	97.2	74.0	12.1	9.3	16.2	12.3
Washington	205.2	146.0	20.5	14.6	20.5	14.6
West Virginia	74.9	61.4	5.8	4.7	6.8	5.6
Wisconsin	104.8	102.8	21.0	20.6	26.2	25.7
Wyoming	0.3	0.2	0.1	0.1	0.1	0.1

Notes: FY is fiscal year. DSH is disproportionate share hospital. N/A is not applicable. Projected allotment reductions for FY 2018 assume that federal DSH allotments are reduced by \$2 billion in FY 2018 as specified under current law and are calculated based on the DSH Health Reform Methodology that the Centers for Medicare & Medicaid Services initially developed to apply reductions to FY 2014 DSH allotments. Excludes DSH hospitals that did not submit a Medicare cost report (n = 12). Deemed DSH status was estimated based on available Medicaid and low-income utilization data. Our working definition of essential community services includes the following services: burn services, dental services, graduate medical education, HIV/AIDS care, inpatient psychiatric services (through psychiatric subunit or stand-alone psychiatric hospital), neonatal intensive care units, obstetrics and gynecology services, substance use disorder services, and trauma services. For further discussion of the methodology and limitations, see Appendix 2B.

Source: Dobson DaVanzo & Associates and KNG Health, 2017, analysis for MACPAC of 2012 DSH audits, 2012 and 2014 Medicare cost reports, and the American Hospital Association annual survey.

APPENDIX 2B: Methodology and Data Limitations

MACPAC used data from several different sources to analyze and describe Medicaid disproportionate share hospital (DSH) payments and their relationship to factors such as uninsured rates, uncompensated care, and DSH hospitals with high levels of uncompensated care that provide access to essential services. We also modeled DSH allotment reductions and simulated DSH payments under a variety of scenarios. Below we describe the data sources used in this analysis and the limitations associated with each one, and we review the modeling assumptions we made for our projections of DSH allotments and payments.

Primary Data Sources

DSH audit data

We used 2012 DSH audit reports, the most recent data available, to examine historic DSH spending and the distribution of DSH spending among a variety of hospital types. These data were provided by the Centers for Medicare & Medicaid Services (CMS) on an as-filed basis and may be subject to change as CMS completes its internal review of state DSH audit reports.

Overall, 2,682 hospitals receiving DSH payments are represented in our analyses of DSH audit data. We did not include DSH audit data provided by states for hospitals that did not receive DSH payments (30 hospitals were excluded under this criterion). Some hospitals received DSH payments from multiple states; we combined the data for duplicate hospitals so that each hospital would only appear once in the dataset.

Medicare cost reports

We used Medicare cost report data to examine uncompensated care for all hospitals in each state. A hospital that receives Medicare payments must file an annual Medicare cost report, which includes a range of financial and non-financial data about hospital performance and services provided. We excluded hospitals in U.S. territories, religious non-medical health care institutions, and hospitals participating in special Medicare demonstration projects (87 hospitals were excluded under these criteria). These facilities submit Medicare cost reports but do not receive Medicare DSH payments.

We linked DSH audit data and Medicare cost report data to create descriptive analyses of DSH hospitals and to identify deemed DSH hospitals. Hospitals were matched based on their CMS certification number (CCN). A total of 2,670 DSH hospitals were included in these analyses. We excluded 12 DSH hospitals without matching Medicare cost reports.

When using Medicare cost reports to analyze hospital operating margins, we excluded hospitals with operating margins that were more than 1.5 times the interquartile range above the highest quartile or below the lowest quartile (677 hospitals were excluded under this criterion). Operating margins are calculated by subtracting operating expenses (OE) from net patient revenue (NPR) and dividing the result by net patient revenue: $(NPR - OE) / NPR$. Total margins, in contrast, include additional types of hospital revenue, such as state or local subsidies and revenue from other facets of hospital operations (e.g., parking lot receipts).

Working Definition of Essential Community Services

The statute requires that MACPAC's analysis include data identifying hospitals with high levels of uncompensated care that also provide access to essential community services for low-income, uninsured, and vulnerable populations, such as graduate medical education and the continuum of primary through quaternary care, including the provision of trauma care and public health services.

In this report, we use the same working definition to identify such hospitals that was used in MACPAC's February 2016 *Report to Congress on Medicaid Disproportionate Share Hospital Payments*. This working definition is based on a two part test:

- Is the hospital a deemed DSH hospital?
- Does the hospital provide at least one essential service?

Deemed DSH hospital status

According to the Social Security Act (the Act), hospitals must meet one of two criteria to qualify as a deemed DSH hospital: (1) a Medicaid inpatient utilization rate greater than one standard deviation above the mean for hospitals in the state or (2) a low-income utilization rate greater than 25 percent (§ 1923(b)(1) of the Act). Because deemed DSH hospitals are statutorily required to receive DSH payments, we excluded from our analysis hospitals that did not receive DSH payments in 2012.

Calculation of the Medicaid inpatient utilization rate threshold for each state requires data from all hospitals in that state, and we relied on Medicare cost reports to make those calculations and to determine which hospitals exceeded this threshold. A major limitation of this approach is that Medicaid inpatient utilization reported on

Medicare cost reports does not include services provided to Medicaid enrollees that were not paid for by Medicaid (e.g., Medicare-funded services for individuals who are dually eligible for Medicare and Medicaid). However, the Medicaid DSH definition of Medicaid inpatient utilization includes services provided to anyone who is eligible for Medicaid, even if Medicaid is not the primary payer. Thus, our identification of deemed DSH hospitals may omit some hospitals with high utilization by dually eligible beneficiaries and overstate the extent to which hospitals with low utilization by dually eligible beneficiaries (e.g., children's hospitals) exceed the threshold.

The low-income utilization rate threshold for deemed DSH hospitals is the same for all states (25 percent), so we were able to use Medicaid DSH audit data to determine whether hospitals met this criterion. However, about one-quarter of DSH hospitals did not provide data on the rate of low-income utilization on their DSH audits, and these omissions limited our ability to identify all deemed DSH hospitals.

Provision of essential services

Because the term essential community services is not otherwise defined in statute or regulation, we identified a number of services that could be considered essential community services using available data from 2014 Medicare cost reports and the 2014 American Hospital Association (AHA) annual survey (Table 2B-1). Services were selected for inclusion if they were directly mentioned in the statute requiring this report or if they were related services mentioned in the cost reports or the AHA annual survey.

TABLE 2B-1. Essential Community Services by Data Source

Service type	Data source
Burn services	Medicare cost reports
Dental services	American Hospital Association annual survey
Graduate medical education	Medicare cost reports
HIV/AIDS care	American Hospital Association annual survey
Inpatient psychiatric services (through psychiatric subunit or stand-alone psychiatric hospital)	Medicare cost reports
Neonatal intensive care units	American Hospital Association annual survey
Obstetrics and gynecology services	American Hospital Association annual survey
Substance use disorder services	American Hospital Association annual survey
Trauma services	American Hospital Association annual survey

For this report, for the sake of inclusiveness, any deemed DSH hospital providing at least one essential community service was included in our analysis. We also included certain hospital types if they were the only hospital in their geographic area to provide certain types of services. These hospital types included critical access hospitals because they are often the only hospital within a 25-mile radius. In addition, we included children's hospitals that were the only hospital within a 15-mile radius (measured by driving distance).

Projections of DSH Allotments and DSH Spending

Unreduced DSH allotments

Preliminary DSH allotments for fiscal year (FY) 2016 were provided by CMS, and unreduced DSH allotments for subsequent years were estimated based on projections of the Consumer Price Index for All Urban Consumers (CPI-U) in the Congressional Budget Office's August economic baseline (CBO 2016). Unreduced allotments increase each year based on the CPI-U for all states except Tennessee, whose DSH allotment is specified in statute (§ 1923(f)(6)(A)(vi) of the Act).

DSH allotment reductions

MACPAC contracted with Dobson DaVanzo & Associates and KNG Health to develop a model for estimating DSH allotment reductions. The model uses the DSH Health Reform Methodology that CMS initially developed to apply reductions to FY 2014 DSH allotments (CMS 2013). Although CMS may apply a different reduction methodology for future year DSH reductions, the methodology developed for this report reflects the current statutory requirements and is therefore a reasonable starting point for estimating FY 2018 DSH allotment reductions.

We used a variety of data sources to estimate the factors used in CMS's methodology (Table 2B-2). Our current estimates of DSH allotment reductions do not fully represent the effects of the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) because 2014 data are not available for every factor. Specifically, we used 2012 data for the uncompensated care factor because hospital-specific Medicaid shortfall data are not yet available for 2014.

TABLE 2B-2. Data Sources for Factors Used in the DSH Allotment Reduction Model

DSH allotment reduction factor	Data source (year)
Low DSH	Specified in statute (N/A)
Uninsured percentage	American Community Survey (2014)
High volume of Medicaid inpatients	Medicare cost reports (2014)
High level of uncompensated care	DSH audits (2012)
Budget neutrality	Financial Management Group, CMS (2014)

Notes: DSH is disproportionate share hospital. N/A is not applicable. CMS is the Centers for Medicare & Medicaid Services.

References

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2013. Medicaid program: State disproportionate share hospital allotment reductions. Final rule. *Federal Register* 78, no. 181 (September 18): 57293–57313. <https://federalregister.gov/a/2013-22686>.

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