Health Affairs

At the Intersection of Health, Health Care and Policy

Cite this article as:
Katherine Neuhausen, Anna C. Davis, Jack Needleman, Robert H. Brook, David Zingmond and Dylan H. Roby
Disproportionate-Share Hospital Payment Reductions May Threaten The Financial Stability Of Safety-Net Hospitals
Health Affairs, 33, no.6 (2014):988-996

doi: 10.1377/hlthaff.2013.1222

The online version of this article, along with updated information and services, is available at:
http://content.healthaffairs.org/content/33/6/988.full.html

For Reprints, Links & Permissions:
http://healthaffairs.org/1340_reprints.php
E-mail Alerts : http://content.healthaffairs.org/subscriptions/etoc.dtl
To Subscribe: http://content.healthaffairs.org/subscriptions/online.shtml

Health Affairs is published monthly by Project HOPE at 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133. Copyright © 2014 by Project HOPE - The People-to-People Health Foundation. As provided by United States copyright law (Title 17, U.S. Code), no part of *Health Affairs* may be reproduced, displayed, or transmitted in any form or by any means, electronic or mechanical, including photocopying or by information storage or retrieval systems, without prior written permission from the Publisher. All rights reserved.

Not for commercial use or unauthorized distribution

Downloaded from content.healthaffairs.org by *Health Affairs* on June 5, 2014
at ACADEMY HEALTH

By Katherine Neuhausen, Anna C. Davis, Jack Needleman, Robert H. Brook, David Zingmond, and Dylan H. Roby

DOI: 10.1377/hlthaff.2013.1222
HEALTH AFFAIRS 33,
NO. 6 (2014): 988–996
©2014 Project HOPE—
The People-to-People Health
Foundation, Inc.

Disproportionate-Share Hospital Payment Reductions May Threaten The Financial Stability Of Safety-Net Hospitals

Katherine Neuhausen (klneuhausen@vcu.edu) is director of delivery system reform in the Office of Health Innovation and a clinical assistant professor in the Department of Family Medicine and Population Health, Virginia Commonwealth University, in Richmond.

Anna C. Davis is a PhD student in the Department of Health Policy and Management, Jonathan and Karin Fielding School of Public Health, University of California, Los Angeles (UCLA).

Jack Needleman is a professor in the Department of Health Policy and Management, Jonathan and Karin Fielding School of Public Health, UCLA.

Robert H. Brook is a professor of medicine and public health in the David Geffen School of Medicine and the Jonathan and Karin Fielding School of Public Health and codirector of the Robert Wood Johnson Foundation Clinical Scholars Program, UCLA. He is also the distinguished chair in health services at RAND and a professor in the Pardee RAND Graduate School.

David Zingmond is an assistant professor in residence in the Division of General Internal Medicine and Health Services Research, David Geffen School of Medicine, UCLA.

ABSTRACT Safety-net hospitals rely on disproportionate-share hospital (DSH) payments to help cover uncompensated care costs and underpayments by Medicaid (known as Medicaid shortfalls). The Affordable Care Act (ACA) anticipates that insurance expansion will increase safety-net hospitals' revenues and will reduce DSH payments accordingly. We examined the impact of the ACA's Medicaid DSH reductions on California public hospitals' financial stability by estimating how total DSH costs (uncompensated care costs and Medicaid shortfalls) will change as a result of insurance expansion and the offsetting DSH reductions. Decreases in uncompensated care costs resulting from the ACA insurance expansion may not match the act's DSH reductions because of the high number of people who will remain uninsured, low Medicaid reimbursement rates, and medical cost inflation. Taking these three factors into account, we estimate that California public hospitals' total DSH costs will increase from $2.044 billion in 2010 to $2.363–$2.503 billion in 2019, with unmet DSH costs of $1.381–$1.537 billion.

Safety-net hospitals care for the most vulnerable patients in the US health care system. In California twenty acute care public hospitals anchor the safety net, providing a large share of statewide inpatient and outpatient hospital care to the uninsured (44 percent and 65 percent, respectively) and to Medicaid patients (18 percent of inpatient and 34 percent of outpatient care).[1] These hospitals operate more than half of California's Level I trauma centers and one-quarter of the state's burn centers, and they lead regional disaster response. All of them are teaching hospitals, collectively training thousands of doctors, nurses, and allied health professionals.

Many of these hospitals are located in low-income communities and serve few privately insured patients. Of the discharges by California acute care public hospitals, 18 percent are uninsured, and 41 percent are covered by Medicaid.[1] Many of California's public hospitals are financially vulnerable because of this heavy burden of uncompensated care and the state's historically low Medicaid reimbursement rates.[2] The rates result in Medicaid shortfalls, meaning that Medicaid payments fall short of the hospitals' actual costs for care.

One of the primary purposes of the Affordable Care Act (ACA) is to expand health insurance coverage. California is aggressively implementing provisions that allow states to expand their Medicaid programs: 1.9 million uninsured residents have already enrolled in California's expanded Medicaid program. Another 800,000 people had applications pending as of April 2014, so hundreds of thousands more Californians could also enroll in Medicaid this year.[3]

The extent to which safety-net hospitals will retain patients who have gained coverage in the

Downloaded from content.healthaffairs.org by Health Affairs on June 5, 2014
at ACADEMY HEALTH

ACA's Medicaid expansion is not known. In previous Medicaid expansions, some patients left the safety net and sought care at private hospitals instead.[4] However, after the recent insurance expansion in Massachusetts, safety-net hospitals retained inpatient volume and gained outpatient visits.[5]

To ensure that the ACA increases Medicaid patient volumes (and thus revenues) at California safety-net hospitals, the state passed legislation that does two things: It requires Medicaid managed care plans to preferentially assign patients who are newly eligible for Medicaid to county hospitals, and it increases Medicaid payments to county hospitals to cover 100 percent of costs (cost-based reimbursement) for people who are newly eligible for Medicaid under the ACA expansion.[6]

Fourteen of California's twenty acute care public hospitals are owned by counties and will receive the cost-based reimbursement. The other six hospitals are owned by the University of California and will not receive cost-based reimbursement. The fourteen county hospitals account for the vast majority of care that California's public hospitals provide to uninsured and Medicaid patients. However, public hospitals in the state will continue to receive lower reimbursement rates and experience Medicaid shortfalls for people who were previously eligible for Medicaid.

California's public safety-net hospitals depend heavily on federal Medicaid disproportionate-share hospital (DSH) payments. These supplemental payments to hospitals that treat large numbers of low-income patients are designed to offset Medicaid shortfalls and the costs of uncompensated care. The federal government disburses $11.5 billion annually in DSH payments to states, of which California receives $1.1 billion.[7] Without DSH payments and with no other actions or adjustments by public hospitals, states, or counties to offset the loss of the payments, the average operating margin of safety-net hospitals nationwide would fall from 2.3 percent to −6.1 percent.[8]

DSH payments to public hospitals in California currently meet only part of their "total DSH costs"—the uncompensated care costs (including charity care but excluding bad debt) and Medicaid shortfalls for managed care and psychiatric care delivered in inpatient and outpatient settings that the hospitals report to claim DSH funds. Other county, state, and federal funding covers the rest of the total DSH costs.

The ACA's authors assumed that the expansion of insurance coverage would generate increased revenue for safety-net hospitals, thus decreasing their need for DSH payments. To help cover the cost of the Medicaid expansion, the ACA progressively reduces DSH payments. These reductions were originally scheduled to begin in fiscal year (FY) 2014. However, Congress has delayed the DSH cuts twice, in the Bipartisan Budget Act of 2013 and in the Protecting Access to Medicare Act of 2014.

The Medicaid DSH payment reductions will now start at $1.8 billion nationwide (16 percent of current federal DSH spending) in FY 2017 and reach $4.7 billion (41 percent of current spending) for FYs 2018–20 and $5 billion by FY 2023. The cuts were extended through FY 2024, but they are slated to decrease to $4.4 billion.

A previous national analysis predicted how the ACA's DSH reductions would be distributed among states but did not evaluate how these reductions would affect safety-net hospitals specifically.[9] We examined the impact of the new policy on the financial stability of California safety-net hospitals in three ways: We modeled how many patients who are newly eligible for Medicaid will continue to use safety-net hospitals following the Medicaid expansion. We projected the hospitals' uncompensated care costs and Medicaid shortfalls in 2019 after the ACA's insurance expansion, using different Medicaid payment scenarios. And we estimated the extent to which California's DSH allocation will meet the hospitals' total DSH costs in 2019.

Dylan H. Roby is an assistant professor in the Department of Health Policy and Management and director of health economics and evaluation research at the Center for Health Policy Research, both in the Jonathan and Karin Fielding School of Public Health, UCLA.

Study Data And Methods

Our analysis focused on the twenty acute care public hospitals that received 98.5 percent of California's DSH allocation in 2010. Fourteen of these institutions are county hospitals, and six are University of California hospitals (Exhibit 1). We excluded the one public rehabilitation hospital whose patterns of use and costs are substantially different from those of California's other public hospitals.

The primary outcome was the total DSH costs. We explain in detail below how we estimated these costs in 2019.

FUTURE USE AND TOTAL DSH COSTS To project the number of 2019 encounters, we used hospital-reported counts of Medicaid and uninsured patients' discharges and outpatient visits in 2010. We applied regional estimates of insurance take-up under the ACA expansion based on the California Simulation of Insurance Markets (CalSIM) model[10] to project shifts in insurance coverage in 2019 among each hospital's current patient population. These estimates take into account behavior by people and companies in response to provisions of the ACA, including insurance expansion. We adjusted for changes in inpatient admissions that were expected to

Downloaded from content.healthaffairs.org by *Health Affairs* on June 5, 2014
at ACADEMY HEALTH

EXHIBIT 1

Characteristics Of Twenty Acute Care Public Hospitals In California, 2010

Hospital	Medicaid DSH payment ($)	Acute and rehabilitation discharges: Total	Medicaid (%)	Uninsured (%)	Outpatient visits: Total	Medicaid (%)	Uninsured (%)
Alameda County	72,534,623	10,895	53.7	30.9	344,674	42.8	31.9
Arrowhead Regional	63,713,538	20,293	54.0	22.1	206,032	49.6	33.6
Contra Costa Regional	49,716,756	8,479	41.4	32.4	463,503	32.5	22.0
Kern	51,462,718	11,878	61.4	20.6	154,343	52.2	34.4
LA County+USC	211,818,105	33,412	47.1	33.4	532,596	33.4	49.6
LA County Olive View–UCLA	69,826,356	14,414	56.2	33.1	223,950	26.4	57.3
LA County Harbor–UCLA	90,224,869	23,068	52.3	31.1	306,518	34.5	52.2
Natividad	11,269,421	7,904	59.8	9.7	134,676	52.5	20.5
Riverside County Regional	58,321,999	24,013	45.5	17.3	268,466	37.4	41.4
San Francisco General Hospital	67,987,426	14,794	38.8	16.3	472,704	39.0	27.6
San Joaquin General Hospital	30,971,675	8,601	62.0	19.1	181,943	48.9	29.4
San Mateo	25,133,524	2,822	39.7	17.7	265,725	38.4	30.5
Santa Clara Valley	105,937,912	23,433	54.6	21.7	868,366	50.8	27.3
Santa Monica–UCLA	6,759,435	16,099	14.0	4.0	94,636	9.2	7.4
UC Davis	43,853,262	27,980	31.0	8.0	927,057	7.8	2.1
UC Irvine	47,886,558	16,389	35.2	9.6	415,462	35.2	9.6
UCLA Ronald Reagan	9,377,472	24,695	21.9	2.8	703,575	7.2	1.9
UC San Diego	43,746,761	24,183	27.7	14.6	434,945	13.2	9.1
UC San Francisco	17,869,905	30,563	25.5	2.5	806,404	14.1	0.6
Ventura County	28,053,446	13,878	48.9	19.5	181,825	36.5	24.6
Total	1.106 billion	361,745	41.2	17.8	8,027,819	29.3	21.3

SOURCE Authors' analysis of data from the California Department of Health Care Services, California Office of Statewide Health Planning and Development, and hospitals' chief financial officers. **NOTES** DSH payments are Medicaid disproportionate-share hospital payments. Six of the twenty hospitals are owned by the University of California (UC): Santa Monica-UCLA, UC Davis, UC Irvine, UCLA Ronald Reagan, UC San Diego, and UC San Francisco. The remaining fourteen hospitals are owned by counties. Two hospitals owned by Los Angeles (LA) County have teaching relationships with UCLA (LA County Olive View–UCLA and LA County Harbor–UCLA). One hospital owned by LA County has a teaching relationship with the University of Southern California (LA County+USC Medical Center). The universities administer the residency training programs and pay the resident physicians and attending physicians at these hospitals. The county owns the hospitals, manages all other operations, and employs all other staff.

result from changes in insurance status, but we assumed that these changes would not affect outpatient visits. We inflated both inpatient and outpatient projected encounters to account for expected population growth.[11]

Next we established a starting point, or benchmark, for our model of patient encounters. To do this, we first estimated the number of inpatient and outpatient encounters in 2019 at each hospital, assuming that the hospitals retained all current patients regardless of changes in their insurance status as a result of the ACA. We then asked the chief financial officers (CFOs) of the twenty acute care public hospitals to estimate the percentage of their projected inpatient admissions and outpatient visits that they expected their hospital to retain in 2019 for each payer type. The CFOs were instructed to base their estimates on expected market competition, the extent of their contracting with managed care plans, and any relevant internal analysis. In the model presented here, our projections were adjusted based on their estimates.

Four hospitals did not supply retention estimates. For these institutions, we used retention estimates from a comparable public hospital, selected based on similar ownership (county or University of California) and payer mix.

To calculate the current average costs or shortfalls per inpatient and outpatient encounter, we used data on the uncompensated care costs per uninsured encounter and on the shortfalls (the difference between revenues and costs) per Medicaid encounter from audited hospital financial reports for fiscal year 2010. We adjusted these hospital-specific average costs and shortfalls per encounter for projected inflation in health care costs to generate 2019 cost estimates (assuming 3.7 percent inflation in 2011 and 4.3 percent annually for the period 2012–19).[12,13]

Finally, we multiplied our projection of each hospital's number of inpatient and outpatient encounters for 2019 by that hospital's estimated average costs and shortfalls per encounter for the same year, to estimate the 2019 total DSH costs for each hospital.

DSH REDUCTION AND FINAL DSH ALLOCATION

In September 2013 CMS released a regulation

Downloaded from content.healthaffairs.org by Health Affairs on June 5, 2014
at ACADEMY HEALTH

Total DSH costs will rise after the full implementation of the ACA, primarily because of the expected growth in health care costs due to inflation.

that would have guided the reduction of Medicaid DSH payments across states in FY 2014 and 2015.[14] As noted above, Congress has since delayed the implementation of the DSH cuts. CMS intends to revisit this regulation before the DSH cuts take effect in FY 2017. However, the regulation represents the most current information available and reflects CMS staff's extensive calculations and stakeholder engagement, including responses to eighty-seven public comments. As a result, we simulated the impact on California's DSH reduction and final DSH allocation assuming that the regulation would remain unchanged until FY 2019.

The DSH regulation divides states into two groups—seventeen "low DSH" states and thirty-three "regular DSH" ones (including California)—based on the size of each state's DSH allotment relative to its total Medicaid expenditures. For instance, to qualify as a "low DSH" state, a state had to have a DSH allotment that was less than 3 percent of the state's total Medicaid expenditures in 2000.

The regulation then specifies a method for reducing each state's initial DSH allocation by calculating how the states within each group compare on three equally weighted factors: the percentage of residents of the state who are uninsured, how well the state targets DSH payments to hospitals with high percentages of Medicaid inpatients, and how well it targets the payments to hospitals with high levels of uncompensated care. According to this formula, California will experience greater DSH reductions if other "regular DSH" states have larger percentages of their residents who are uninsured or do better at targeting their DSH payments to safety-net hospitals.

We used the planned 2014 DSH reductions from the regulation,[15] as well as other available relevant data, to simulate the size of California's DSH reductions in 2019. In 2014 California would have experienced a relatively small DSH reduction because it targets DSH payments narrowly to hospitals with heavy uncompensated care burdens (only 4 percent of the state's hospitals receive DSH payments).

We modeled two alternative scenarios for 2019 to address the uncertainty about whether other states will seek to minimize their DSH reductions by improving their DSH targeting to hospitals with high levels of uncompensated care. In one (the small-reduction scenario), we assumed that other states do not change their DSH targeting, so that California's proportion of the total national DSH reduction would remain relatively small. In the second (the large-reduction scenario), we assumed that other states improve their DSH targeting. As a result, California would experience a greater share of the total national DSH reduction. Details about how we estimated the DSH reductions for each scenario are presented in the online Appendix.[16]

Our use of patient-level data was reviewed and approved by the Institutional Review Boards of the state and of the University of California, Los Angeles.

LIMITATIONS Our study has several limitations. Our results might not be generalizable, since we focused on a single state that is likely to face relatively small DSH reductions because it already targets DSH payments narrowly to safety-net hospitals.

We used projections of future increases in health care costs from Medicare,[13] which take into account the recent slowdown in health care spending. If health care spending accelerates and inflation is greater than we assumed, based on the best available estimates, total DSH costs and residual uncompensated care costs and shortfalls could be substantially larger than we projected.

In addition, we assumed that hospitals' operations and existing cost structures would remain largely the same. If safety-net hospitals became more efficient, however, that could decrease their total DSH costs and residual DSH costs.

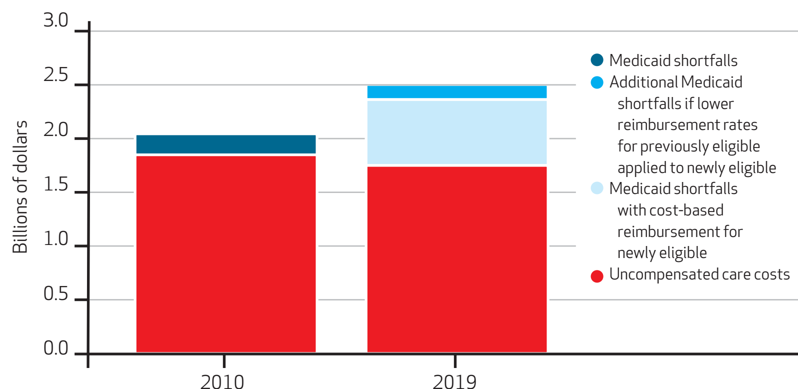
Because of limitations in our data, we also had to assume that changes in insurance status would not affect the volume of outpatient visits. Because patients who become eligible for Medicaid are likely to increase their outpatient visits, we probably underestimated outpatient costs. We do not believe that our conservative outpatient cost estimates substantially changed our total cost estimates, however, because inpatient costs account for a much greater share of total costs.

Finally, our analysis assumed that the current

Downloaded from content.healthaffairs.org by Health Affairs on June 5, 2014
at ACADEMY HEALTH

EXHIBIT 2

Total Disproportionate-Share Hospital (DSH) Costs Of Twenty Acute Care Public Hospitals In California, 2010 And 2019



SOURCE Authors' analysis of data from the California Department of Finance (Note 11 in text), California Office of Statewide Health Planning and Development, California Simulation of Insurance Markets (CalSIM) model (Note 10 in text), and hospitals' chief financial officers. **NOTES** Total DSH costs are the hospitals' costs of uncompensated care and Medicaid shortfalls, which are the difference between the hospitals' actual costs of care for Medicaid patients and Medicaid reimbursements. We estimated 2019 Medicaid shortfalls under two payment scenarios. In scenario 1, California continues its policy of "cost-based reimbursement," which pays the fourteen acute care county hospitals 100 percent of their costs for patients who are newly eligible for Medicaid under the Affordable Care Act (ACA), resulting in lower Medicaid shortfalls. In scenario 2, California changes its policy and applies to the newly eligible population the lower reimbursement rates that apply to those who were eligible before the ACA. These rates do not meet hospitals' costs of care, which results in higher total Medicaid shortfalls.

DSH regulation would be extended to 2019 unchanged. However, CMS is likely to revisit the regulation and could alter the DSH reduction formula. Our projections were based on the most current information available but will need to be revised if the formula is altered.

Study Results

TOTAL DSH COSTS California's public safety-net hospitals had total DSH costs of $2.044 billion in 2010, of which $1.106 billion was met by DSH payments. The residual DSH costs of $937 million were covered by other federal, state, and county funding sources.[17]

If the ACA had not become law, we estimated that the total DSH costs of these hospitals would have risen to $3.816 billion in 2019. This is because medical cost inflation would have increased both Medicaid shortfalls and the cost of care for the uninsured. The ACA will reduce the uncompensated care costs at California's safety-net hospitals by $1.313 billion, compared to costs in the absence of the law. We projected that total DSH costs under the ACA would still rise to $2.363–$2.503 billion in 2019 (Exhibit 2).

Under the ACA, uncompensated care costs for the uninsured are projected to decrease from $1.849 billion in 2010 to $1.750 billion in 2019 (Exhibit 2). Conversely, shortfalls in Medicaid payments will rise substantially, from $195 million in 2010 to $613 million by 2019. Because of California's recent shift to cost-based reimbursement for the newly eligible, Medicaid shortfalls for county hospitals in California will be restricted to people who were eligible for Medicaid before the ACA expansion.

However, if California changes this policy and applies to the newly eligible the lower reimbursement rates that apply to those already eligible, projected Medicaid shortfalls will reach $753 million in 2019 (Exhibit 2). This policy change becomes more likely after 2016, when the full 100 percent federal match for new Medicaid patients is reduced to 95 percent. It declines to 90 percent by 2020.

DSH REDUCTION AND FINAL DSH ALLOCATION We estimated that California's initial 2019 DSH allocation (before the ACA reductions) would have been $1.290 billion. If the CMS regulation[14] remains unchanged, we project that California's final DSH allocation in 2019 will be $982 million under the small-reduction scenario, in which no other state changes its DSH targeting. Under the large-reduction scenario, in which other states improve their DSH targeting, California's final DSH allocation is projected to fall to $826 million.

RESIDUAL DSH COSTS In 2010 California's DSH allocation of $1.106 billion met 54 percent of the public hospitals' total DSH costs of $2.044 billion. Assuming that the state continues its new policy of reimbursing acute care county hospitals for 100 percent of the costs for the population newly eligible for Medicaid, we estimated that California's final DSH allocation in 2019 would meet 42 percent of the hospitals' total DSH costs under the small-reduction scenario and 35 percent under the large-reduction scenario (Exhibit 3).

If instead California changes its cost-based reimbursement policy and applies its lower Medicaid reimbursement rates for those eligible before the ACA to people who are newly eligible, we estimated that the state's final DSH allocation in 2019 would meet 39 percent of the hospitals' total DSH costs under the small-reduction scenario and 33 percent under the large-reduction scenario (Exhibit 4).

Discussion

Based on our analysis of current policy and trends, we estimated that safety-net hospitals in California could face $1.381–$1.537 billion in residual uncompensated care costs and Medicaid shortfalls in 2019. This assumes that the DSH reductions are implemented as currently proposed and that the state continues cost-based

Downloaded from content.healthaffairs.org by Health Affairs on June 5, 2014
at ACADEMY HEALTH

reimbursement for patients newly eligible for Medicaid under the ACA. These residual DSH costs would be substantially greater than the $937 million covered by other county, state, and federal funding sources in 2010, creating a DSH funding gap for California's safety-net hospitals.

By expanding coverage, the ACA will greatly decrease the size of the uninsured population. But because health care costs keep rising as a result of inflation, the law will have less impact than expected on the amount of uncompensated care costs at safety-net hospitals. California will further bolster safety-net hospitals' finances by implementing cost-based reimbursement to county hospitals for the newly Medicaid eligible. Despite these positive trends for safety-net hospitals, total DSH costs will rise after the full implementation of the ACA, primarily because of the expected growth in health care costs due to inflation.

In 2019, 3.1–4.0 million Californians are still likely to be uninsured.[18] Uncompensated care costs for this population will rise as a result of inflation in health care costs. In addition, approximately 2.5 million Californians were eligible for Medicaid before the ACA[18] but were not enrolled because of lack of information and other barriers. California's extensive advertising and outreach related to Medicaid expansion under the ACA have meant that many people who previously met California's Medicaid eligibility requirements have now finally enrolled in Medicaid.[3] As stated above, cost-based reimbursement applies only to people newly eligible for Medicaid under the ACA. As a result, acute care county hospitals will receive reimbursement rates that do not cover their costs for the new Medicaid enrollees who were previously eligible for the program, which will increase Medicaid shortfalls.

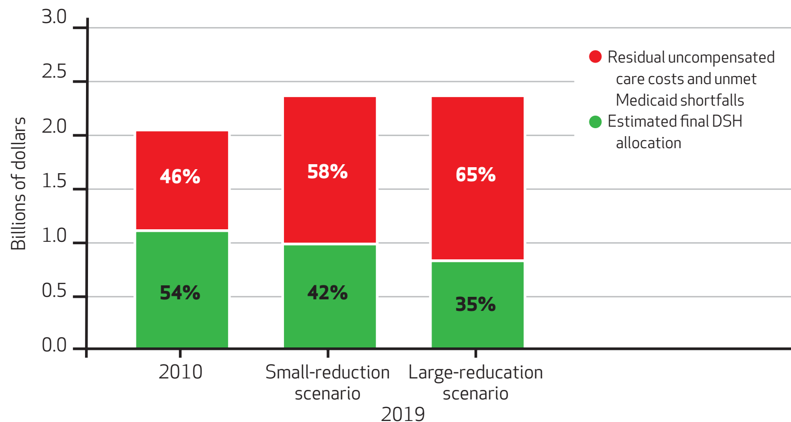
Policy Implications

During the past decade, DSH payments have lagged behind hospitals' DSH costs because the payments increased more slowly than health care costs did. The DSH reductions in the ACA greatly accelerate this trend. After full implementation of the ACA, the DSH funding gap will widen as the DSH reductions are phased in and total DSH costs rise, primarily as a result of inflation. Therefore, the rate of health care spending growth will help determine the size of the DSH funding gap for safety-net hospitals.

Economists disagree on whether the slowdown in health care spending from 2007 to the present was driven by the recession or by structural changes in health care delivery that

EXHIBIT 3

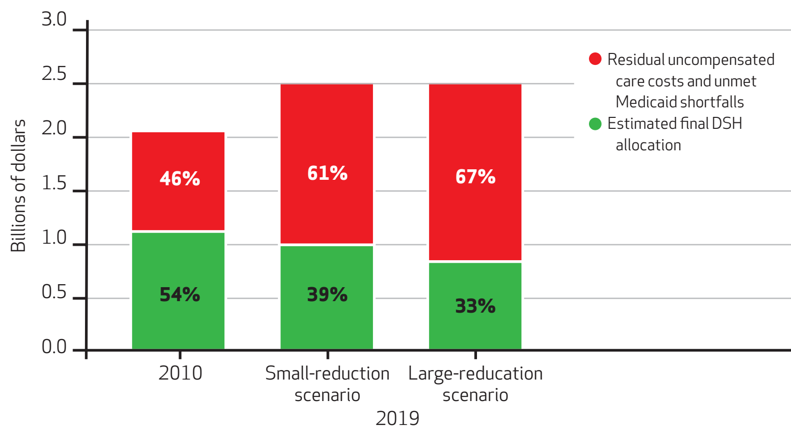
California's Estimated Final Disproportionate-Share Hospital (DSH) Allocation As A Proportion Of Total DSH Costs, Assuming Cost-Based Reimbursement For Those Newly Eligible For Medicaid, 2010 And 2019



SOURCE Authors' analysis of data from the California Department of Finance (Note 11 in text), California Office of Statewide Health Planning and Development, California Simulation of Insurance Markets (CalSIM) model (Note 10 in text), Centers for Medicare and Medicaid Services (Note 14 in text), and acute care public hospitals' chief financial officers. **NOTES** Total DSH costs are explained in the notes to Exhibit 2. These costs are divided here into the amount of the DSH allocation and the residual DSH costs after the DSH allocation is applied. The small-reduction scenario, in which no state changes its DSH targeting, and the large-reduction scenario, in which states improve their DSH targeting, are explained in greater detail in the text. This analysis assumed that California continued its policy of "cost-based reimbursement," explained in the notes to Exhibit 2.

EXHIBIT 4

California's Estimated Final Disproportionate-Share Hospital (DSH) Allocation As A Proportion Of Total DSH Costs, Assuming Lower Reimbursement Rates For Those Newly Eligible For Medicaid, 2010 And 2019



SOURCE Authors' analysis of data from the California Department of Finance (Note 11 in text), California Simulation of Insurance Markets (CalSIM) model (Note 10 in text), Centers for Medicare and Medicaid Services (Note 14 in text), and acute care public hospitals' chief financial officers. **NOTES** Total DSH costs are explained in the notes to Exhibit 2. These costs are divided here into the amount of the DSH allocation and the residual DSH costs after the DSH allocation is applied. The small-reduction scenario, in which no states change their DSH targeting, and the large-reduction scenario, in which states improve their DSH targeting, are explained in greater detail in the text. This analysis assumed that California changed its policy of "cost-based reimbursement," explained in the notes to Exhibit 2, and instead applied to people newly eligible for Medicaid under the Affordable Care Act (ACA) the lower reimbursement rates applied to those who were eligible before the ACA.

Downloaded from content.healthaffairs.org by *Health Affairs* on June 5, 2014
at ACADEMY HEALTH

will continue to contain costs after the recession.[19,20] David Cutler and Nikhil Sahni contend that factors such as decreases in prescription drug expenditures; fewer developments in imaging technology; and improved provider efficiency driven in part by ACA provisions, such as penalties for high readmission rates and hospital-acquired infections, contributed to the slowdown.[21] The ACA also launched a multitude of demonstrations and pilot programs, including accountable care organizations and bundled payment approaches, that could generate cost savings.

To improve quality and contain costs, California also created a Delivery System Reform Incentive Pool for its acute care public hospitals under its most recent section 1115 Medicaid waiver.[22] The incentive pool provides up to $3.3 billion over five years in matching federal funds to public hospitals in California that implement projects in all of the following four categories: infrastructure development, innovation and redesign, population-focused improvement, and urgently needed improvements in care. Many of these projects aim to decrease readmissions and reduce hospital-acquired infections. By using incentive pool funds to become more efficient, these hospitals may decrease their total DSH costs.

Health care spending may accelerate in spite of these initiatives as the economy recovers. In that case, federal and state policy makers may need to consider additional comprehensive legislation to control health care costs.

ADEQUACY OF FUNDING Safety-net hospitals in California may be better positioned to absorb the DSH reductions than hospitals in other states. This is because the California institutions rely on a patchwork of county, state, and federal funding sources in addition to DSH payments.[23] California counties have a legal obligation to provide health care to their indigent populations, which strengthens the safety net.[24] The state allocates sales tax revenues and vehicle license fees directly to the counties to fund care for the indigent and help the counties meet this obligation.[23] Some counties also allocate a portion of county tax revenues for this purpose.

However, this funding has not kept pace with inflation, and the state is implementing steep cuts in the sales tax revenues and fees that it will distribute to counties for indigent care in the next few years.[6] As local and state funding has decreased, California has obtained additional federal funding, including $6 billion in Medicaid supplemental payments for inpatients to hospitals other than those included in this study from July 2011 to the end of 2013.[25] State policy makers could close the DSH funding gap by increasing state or county subsidies or working with CMS to restructure other federal supplemental payments.

California's safety-net hospitals face challenges. However, the situation may be much worse in states that do not expand Medicaid.

Finally, the size of California's future DSH funding gap will depend on what, if any, revisions CMS makes to the DSH reduction formula when it revisits the regulation.[14] If CMS increases the weight of a state's percentage of uninsured people in the formula, then California would experience a greater DSH reduction and a larger DSH funding gap. Conversely, if CMS increases the weight of a state's effectiveness in directing its DSH payments, then California is likely to absorb a smaller DSH reduction and face a smaller DSH funding gap.

STATES NOT EXPANDING MEDICAID California's safety-net hospitals face challenges. However, the situation may be much worse in states that do not expand Medicaid. The ACA's DSH reductions were based on the premise that all states would expand Medicaid, so that an additional seventeen million low-income Americans would gain coverage.[26] The Supreme Court's decision that Medicaid expansion is optional for states[27] is expected to result in at least six million fewer people's obtaining Medicaid coverage.[26] If Texas, Louisiana, and other states with many DSH-dependent safety-net hospitals continue to opt out of the Medicaid expansion, their hospitals may experience DSH reductions similar to those in California without the counterbalancing increase in Medicaid revenue and decrease in uncompensated care costs.[28]

STRATEGIES FOR CLOSING FUNDING GAPS Safety-net hospital leaders and state policy makers could consider several strategies to close their DSH funding gaps. First, hospital leaders in states that distribute DSH funds widely could work with policy makers to target DSH payments more effectively to safety-net hospitals, with the goals of minimizing their state's DSH reductions

Downloaded from content.healthaffairs.org by Health Affairs on June 5, 2014
at ACADEMY HEALTH

and protecting these hospitals.

Second, states that expand Medicaid under the ACA could adopt California's policy of paying higher reimbursement rates to safety-net hospitals for people who are newly eligible for Medicaid. This policy is politically attractive because it would take advantage of the 100 percent federal funding in the first three years of full ACA implementation and thus would not require any state funds in that period. States seeking to pursue this approach would need to obtain approval from CMS. After 2016 states would need to cover a small proportion of the cost, as federal funding for the newly eligible slowly phases down to 90 percent in 2020.

Finally, safety-net hospital leaders in states opting out of the Medicaid expansion may need to seek additional county and state subsidies or federal Medicaid supplemental payments to fill their DSH funding gaps. For example, Georgia's governor is considering a "state bailout" for safety-net and rural hospitals that would replace all or part of the federal DSH funds that the state will lose under the ACA.[29]

Conclusion

The Affordable Care Act will reduce the number of uninsured people and expand access to health care. However, the DSH reductions included in the act, combined with ongoing inflation in the cost of health care, will create funding gaps that must be filled to ensure the financial stability of safety-net hospitals. To close the gaps, leaders of these hospitals will need to develop strategies that take into account local political environments, financial conditions, geography, and payer mix. ■

This research was funded by the Robert Wood Johnson Foundation's Clinical Scholars Program. Anna Davis was supported by the National Institutes of Health's National Center for Advancing Translational Science grant to the University of California, Los Angeles (UCLA), Clinical and Translational Science Institute (Grant No. TL1TR000121). Jack Needleman and Dylan Roby received support for the creation of the UC Berkeley and UCLA California Simulation of Insurance Markets (CalSIM) model from the California Endowment and Covered California. Needleman also received support from the Robert Wood Johnson Foundation's Investigator Awards in Health Policy Research program. David Zingmond was supported by the American Cancer Society (Grant No. RSGI-11-005-01-CPHPS). The authors thank the chief financial officers, reimbursement directors, and other staff of California's public hospitals for providing data and completing surveys. The authors are grateful to Arthur Kellermann and Mitchell Katz for helpful advice on study design and comments on earlier versions of this article. The authors thank Kim Belshe, Andrew Bindman, David Carlisle, Patrick Dowling, and Allan Wecker for their contributions to the study design. The authors gratefully acknowledge assistance with data analysis from Xiao Chen, Greg Watson, and Rachel Louie.

NOTES

1 Authors' analysis of data from California Office of Statewide Health Planning and Development. Healthcare Information Division: annual financial data [Internet]. Sacramento (CA): OSHPD; [last revised 2013 Sep 18; cited 2014 Apr 16]. 34th and 35th years. Available from: http://www.oshpd.ca.gov/HID/Products/Hospitals/AnnFinanData/CmplteDataSet/index.asp

2 Zuckerman S, Williams AF, Stockley KE. Trends in Medicaid physician fees, 2003–2008. Health Aff (Millwood). 2009;28(3):w510–9. DOI: 10.1377/htlhaff.28.3.w510.

3 Covered California. Covered California's historic first open enrollment finishes with projections exceeded; agents, counselors, community organizations and county workers credtied as reason for high enrollment in California [Internet]. Sacramento (CA): Covered California; 2014 Apr 17 [cited 2014 Apr 23]. Available from: http://news.coveredca.com/2014/04/covered-californias-historic-first-open.html

4 Gaskin DJ, Hadley J, Freeman VG. Are urban safety-net hospitals losing low-risk Medicaid maternity patients? Health Serv Res. 2001; 36(36 Pt 1):25–51.

5 Ku L, Jones E, Shin P, Byrne FR, Long SK. Safety-net providers after health care reform: lessons from Massachusetts. Arch Intern Med. 2011;171(15):1379–84.

6 California Assembly Bill (AB) 85; 2013. Article 6.6, Medicaid expansion under the federal Affordable Care Act.

7 Centers for Medicare and Medicaid Services. Medicaid program; disproportionate share hospital allotments and institutions for mental diseases disproportionate share hospital limits for FY 2012, and preliminary FY 2013 disproportionate share hospital allotments and limits. Federal Register [serial on the Internet]. 2013 Jul 26 [cited 2014 Apr 16]. Available from: https://www.federalregister.gov/articles/2013/07/26/2013-17965/medicaid-program-disproportionate-share-hospital-allotments-and-institutions-for-mental-diseases

8 Zaman O, Cummings LC, Laycox S. America's safety net hospitals and health systems, 2010: results of the annual NAPH hospital characteristics survey [Internet]. Washington (DC): National Association of Public Hospitals and Health Systems; 2012 May [cited 2014 Apr 16]. Available from: http://essentialhospitals.org/wp-content/uploads/2013/12/NPH214.pdf

9 Graves JA. Medicaid expansion opt-outs and uncompensated care. N Engl J Med. 2012;367(25):2365–7.

10 UC Berkeley Center for Labor Research and Education, UCLA Center for Health Policy Research. California Simulation of Insurance Markets (CalSIM) version 1.8: methodology and assumptions [Internet]. Berkeley (CA): University of California; 2013 Mar [cited 2014 Apr 16]. Available from: http://healthpolicy.ucla.edu/publications/Documents/PDF/calsim1.8methods.pdf

11 California Department of Finance. Report P-2: population projections by race/ethnicity and 5-year age groups, 2010–2060 [Internet]. Sacramento (CA): DOF; 2013 Jan [cited 2014 Apr 16]. Available from: http://www.dof.ca.gov/research/demographic/reports/projections/P-2/

12 Hartman M, Martin AB, Benson J, Catlin A, National Health Expenditure Accounts Team. National health

Downloaded from content.healthaffairs.org by *Health Affairs* on June 5, 2014 at ACADEMY HEALTH

spending in 2011: overall growth remains low, but some payers and services show signs of acceleration. Health Aff (Millwood). 2013;32(1): 87–99.

13 Boards of Trustees. 2013 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds [Internet]. Baltimore (MD): Centers for Medicare and Medicaid; 2013 May 31 [cited 2014 Apr 16]. Available from: http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2013.pdf

14 Centers for Medicare and Medicaid Services. Medicaid program; state disproportionate share hospital allotment reductions: final rule. Federal Register [serial on the Internet]. 2013 Sep 18 [cited 2014 Apr 16]. Available from: https://www.federalregister.gov/articles/2013/09/18/2013-22686/medicaid-program-state-disproportionate-share-hospital-allotment-reductions

15 Centers for Medicare and Medicaid Services. Medicaid program; state disproportionate share hospital allotment reductions; proposed rule. Federal Register [serial on the Internet]. 2013 May 15 [cited 2014 Apr 16]. Available from: https://www.federalregister.gov/articles/2013/05/15/2013-11550/medicaid-program-state-disproportionate-share-hospital-allotment-reductions

16 To access the Appendix, click on the Appendix link in the box to the right of the article online.

17 California HealthCare Foundation. California's health care safety net: a complex web [Internet]. Oakland (CA): CHCF; 2013 Apr [cited 2014 Apr 16]. Available from: http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/C/PDF%20CAHealthCareSafetyNetComplexWeb.pdf

18 Lucia L, Jacobs K, Dietz M, Graham-Squire D, Pourat N, Roby DH. After millions of Californians gain health coverage under the Affordable Care Act, who will remain uninsured [Internet]? Berkeley (CA): UC Berkeley Center for Labor Research and Education, UCLA Center for Health Policy Research; 2012 Sep [cited 2014 Apr 16]. Available from: http://laborcenter.berkeley.edu/healthcare/aca_uninsured12.pdf

19 Martin A, Lassman D, Whittle L, Catlin A, National Health Expenditure Accounts Team. Recession contributes to slowest annual rate of increase in health spending in five decades. Health Aff (Millwood). 2011;30(1):11–22.

20 Levine M, Buntin M. Why has growth in spending for fee-for-service Medicare slowed? [Internet]. Washington (DC): Congressional Budget Office; 2013 Aug [cited 2014 Apr 16]. (Working Paper No. 2016-06). Available from: http://www.appam.org/assets/1/7/Why_Has_Growth_in_Spending_for_Fee_for_Service_Medicare_Slowed.pdf

21 Cutler DM, Sahni NR. If slow rate of health care spending growth persists, projections may be off by $770 billion. Health Aff (Millwood). 2013;32(5):841–50.

22 Harbage P, King ML. A bridge to reform: California's Medicaid section 1115 waiver [Internet]. Sacramento (CA): California HealthCare Foundation; 2012 Oct [cited 2014 Apr 16]. Available from: http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/B/PDF%20BridgeToReform1115Waiver.pdf

23 Belshé K, McConville S. Rethinking the state-local relationship: health care [Internet]. San Francisco (CA): Public Policy Institute of California; 2013 Feb [cited 2014 Apr 16]. Available from: http://www.ppic.org/content/pubs/report/R_213KBR.pdf

24 California HealthCare Foundation. California's safety net: the role of counties in overseeing care [Internet]. Oakland (CA): CHCF; 2009 Dec [cited 2014 Apr 16]. Available from: http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/C/PDF%20CASafetyNetRoleCountiesInCare.pdf

25 California State Senate Bill (SB) 335; 2011. Medi-Cal: hospitals: quality assurance fee.

26 Congressional Budget Office. Estimates for the insurance coverage provisions of the Affordable Care Act updated for the recent Supreme Court decision [Internet]. Washington (DC): CBO; 2012 Jul [cited 2014 Apr 16]. Available from: http://www.cbo.gov/sites/default/files/cbofiles/attachments/43472-07-24-2012-CoverageEstimates.pdf

27 National Federation of Independent Business v. Sebelius, 567 U.S., 2012 WL 2427810 (2012 Jun 28).

28 Price CC, Eibner C. For states that opt out of Medicaid expansion: 3.6 million fewer insured and $8.4 billion less in federal payments. Health Aff (Millwood). 2013;32(6): 1030–36.

29 Jones WC. Hospitals could get state bailout. Times-Herald.com [serial on the Internet]. 2014 Jan 22 [cited 2014 Apr 16]. Available from: http://www.times-herald.com/local/20140115-hospital-bailout

Downloaded from content.healthaffairs.org by *Health Affairs* on June 5, 2014
at ACADEMY HEALTH