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Distribution of Disproportionate Share Hospital Payments to Rural and Critical Access Hospitals

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Purpose

This policy brief provides data assessing effects of Medicaid Disproportionate Share Hospital (DSH) payment on rural hospitals in 47 states. While the allocation of DSH funds to the state is determined by federal legislation utilizing a formula developed by the Centers for Medicare & Medicaid Services (CMS), each state determines distribution to hospitals using an approved State Plan Amendment (SPA) that meets minimum federal requirements. Our findings suggest that distribution to rural hospitals, and critical access hospitals (CAHs) in particular, varies considerably across states. Data presented in this document helps ground any changes to either federal requirements or to SPAs by showing the impact of DSH payment from the most recent data available.

Key Findings

- Medicaid DSH payment methodology and distribution to hospitals varies considerably across states.
- The percentage of rural hospitals in a state receiving any Medicaid DSH payment ranged from 0 percent to 100 percent.
- For rural hospitals receiving Medicaid DSH payments, the impact on total patient revenue ranged from less than 0.5 percent to 8.8 percent*.

Background

In 1981 the Social Security Act was amended to allot funds to states for distribution to hospitals serving a disproportionate volume of individuals covered by Medicaid with payments that would take into consideration the cost of "low-income patients with special needs" (§ 1902(a)(13)(A)(iv) of the Act).[1] A 1987 amendment required additional payments to be made to those hospitals that served a disproportionately large share of low-income patients, known as "deemed-DSH" (low-income inpatient utilization rate that exceeds 25 percent, or Medicaid inpatient utilization one standard deviation or greater above the mean of hospitals in the state receiving Medicaid payment).[2] As a result of the DSH and deemed-DSH designations, DSH spending increased quickly in the early 1990s; however Congress passed state-specific limits on Federal funds used to make DSH payments in 1992.[2] Additionally, Congress placed a limit on the amount of DSH payments an individual hospital could receive, based on the actual cost of uncompensated care provided.[2]

*Because of individual state rules, the impact of DSH Medicaid payments in urban hospitals is much more variable than in rural hospitals. Impact in urban hospitals ranges from 0.0 percent to 62.4 percent where that higher number reflects the payment to the single urban hospital in Indiana that receives DSH payment.

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Currently, states are allowed to make DSH payments to any hospital that has a Medicaid inpatient utilization rate greater than one percent, which makes most hospitals in the U.S. eligible.[2] The distribution of state funds to hospitals mirrors the patterns seen in DSH spending before the federal limits were created in 1992.[2] Due to the flexibility of the disbursement of DSH funds, there is large variation across states in terms of which hospitals receive DSH funds and how much they might receive.[2] These decisions are thought to be related to hospital ownership status, the type of hospital, and rurality of the hospital.[2] In addition, some states have created low-income and Medicaid thresholds that are less than the deemed-DSH criteria but more than the Federal minimum.[2] Medicare also distributes funds to hospitals in the form of DSH payments, however different mechanisms are utilized to determine which hospitals receive Medicare DSH funds.[2]

As a result of the passage of the Patient Protection and Affordable Care Act (ACA) in 2010, states were given the option to expand their Medicaid programs and open insurance exchanges to allow individuals and small businesses the ability to purchase insurance coverage.[2] Both of these options resulted in a decrease in the uninsured rate nationally; however, states that expanded their Medicaid programs saw larger declines compared to those who did not.[2] The ACA effected two primary aspects of uncompensated costs for hospitals: the Medicaid shortfall (i.e. the difference between a hospital's costs of providing service to Medicaid patients and the total payment actually received for those services); and the unpaid costs for treating uninsured patients. It is important to note that as the proportion of uninsured individuals decreases, their associated uncompensated care costs will also decrease. This will be particularly evident in Medicaid expansion states. However, if Medicaid reimbursement remains the same, the Medicaid shortfall will increase as the number of individuals covered by Medicaid increases. The implications of changes to the proportion of uninsured individuals will alter the federal allocation formula for DSH payments to states, which will effect both expansion and non-expansion states, although the effect will be smaller in non-expansion states.[2]

In this policy brief, we consider the distribution of DSH payment to rural hospitals. Rural hospitals are of particular concern because they operate on thin margins and could be vulnerable to even modest reductions in revenue. After a delay in implementing the DSH payment reduction provision of the ACA, these reductions are scheduled to begin in fiscal year 2018.[3]. Additionally, states could change allocation rules for special reasons for a limited time (as Wisconsin did in 2009-2012). Because states still exercise some discretion within those parameters, not all rural hospitals would necessarily be affected by changes to allocation of Federal DSH payments, and the effects on individual hospitals will be a function of how much their revenues are impacted and the overall financial condition of the hospital.[3]

Methods

Data from the 2011 State Plan Rate Year (SPRY) DSH Audits, the most recently available data at the time of analysis, were utilized. DSH audit data were not available for Massachusetts because the state is exempt from the reporting requirements under its Section 1115 demonstration waiver. Institutions for mental diseases were excluded from the analysis, as they are not eligible for Medicaid payment for adults aged 21-64 years. Delaware and Maine made DSH payments only to institutions for mental diseases, and were not included in this analysis. Minnesota's audit data for 2011 was not available, so its 2012 audit data was substituted.

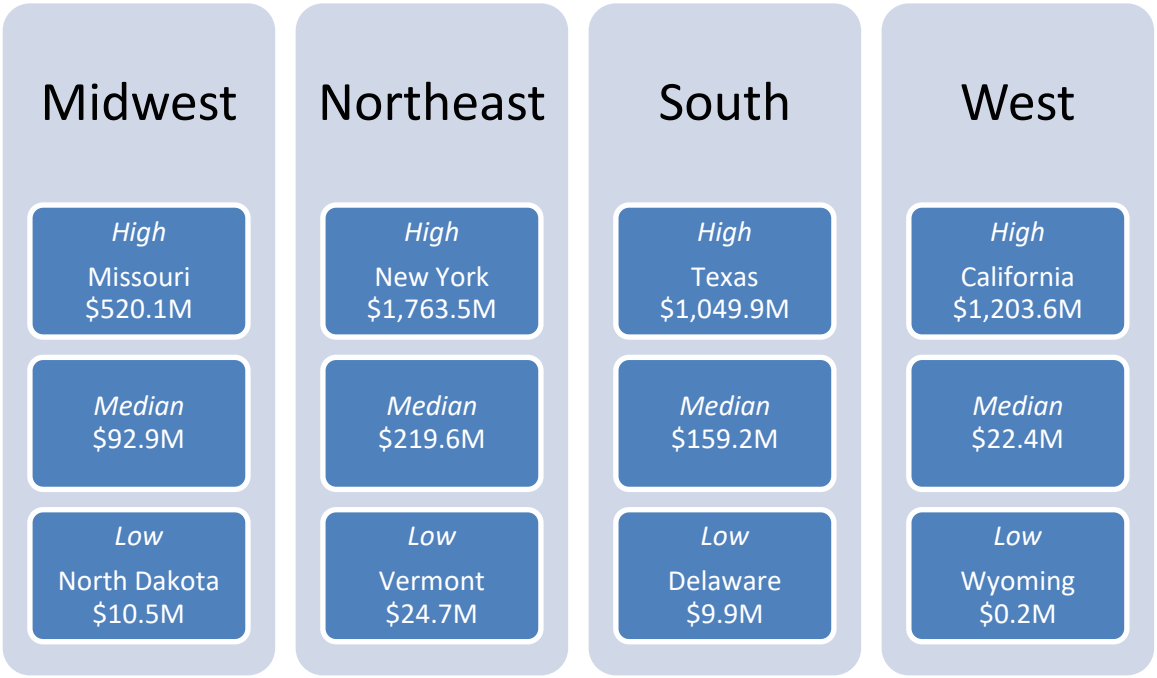
Information on hospital characteristics was obtained from the 2011 Centers for Medicare & Medicaid Services (CMS) Provider of Service data, and from the 2011 CMS Medicare Hospital Cost Reports. We were unable to match records from 18 hospitals receiving DSH payment with cost report data. Institutions identified (in cost report data) as General Short-Term hospitals (excludes specialty hospitals such as psychiatric and rehabilitation, and long-term care hospitals) were retained for analysis. Hospitals under Federal control were removed. The final analytic data set contained information on 2,384 institutions receiving Medicaid DSH payment, and 2,180 non-DSH payment hospitals. As a means of testing for differences related to size and payment design, we report results for Critical Access Hospitals (CAHs) separately from all other rural hospitals.

Results

Federal Allocation to States

According to the 2017 Medicaid and CHIP Payment Advisory Council (MACPAC) report on DSH to Congress, allotment of DSH funds as they currently stand vary a great deal across states and generally mirror the change of federal DSH policy since its creation.[2] State DSH allotments are calculated annually to determine the amount of federal dollars that the state will receive.[3] The original allotments were created in 1993 based on each state's fiscal year 1992 DSH spending, and are still the basis of the current DSH allotment formula.[3] As a result of all states starting with federal DSH funds calculated based on 1992 state DSH spending, there is large variation across states (see figure 1 below, based on the current fiscal year 2017 state DSH allotments, for the states included in our analysis).[3]

Figure 1. Fiscal Year 2017 Variability of Federal DSH Allotments by Census Region*



*Modified from Table 2A-1 from the 2017 MACPAC Report on DSH Payments to Congress[2]

The methodology for setting the level of future DSH allocations has not been established at the time of this document; but based on recent Congressional proposals, it appears that the DSH allocations will be reduced.

State Distribution to Hospitals

In the Midwest Census Region (see Table below), large variation is seen with respect to the distribution of DSH funds to urban hospitals, rural hospitals, and CAHs. For example, in Missouri, where a similar proportion of hospitals across the three classifications of hospitals (urban, rural, and CAH) that received DSH payments, there was significant differences in the average DSH payment disbursed by the state. We see that 79 percent of urban hospitals received an average DSH payment of almost $11 million, 84 percent of rural hospitals received an average payment of about $1.5 million, and 85 percent of CAHs received about $750,000. Wisconsin received a waiver to use a portion of DSH funds for a program expanding Medicaid coverage to an adult population; and distributed the remainder of DSH funds by paying all hospitals the same amount of $4,762 (two out-of-state urban hospitals received $6,872 and $24,485). Additionally, Indiana did not distribute DSH funds to any CAH or rural hospitals, however, one urban hospital received all DSH funds from the state, which totaled more than $127 million and over 62 percent of net patient revenue. Taken more broadly, in the Midwest Census Region, 1.4 – 89 percent of urban hospitals and 0 – 100 percent of rural hospitals and CAHs received DSH funds.

In the Northeast Census Region, we see the least amount of variation in terms of the percentage of hospitals receiving DSH funds by census region. Overall 90 – 100 percent of urban hospitals, 92 – 100 percent of rural hospitals, and 86 – 100 percent of CAHs received DSH funds. New York made an average DSH payment of almost $20 million to 93 percent of its urban hospitals, over $1 million

to rural hospitals, and more than $500,000 to CAHs. Additionally, Pennsylvania distributed DSH funds to all rural hospitals and CAHs, amounting to more than $800,000 and $900,000, respectively. Pennsylvania disbursed more than $4.5 million to 94 percent of its urban hospitals.

The largest variation in distribution of DSH funds was seen in the South Census Region. For example, Arkansas paid out almost $60 million to 3.7 percent of its urban hospitals and no DSH funds to its 47 rural hospitals or 29 CAHs. Conversely, Kentucky distributes DSH funds to all urban, rural, and CAHs in the state. The average DSH payment for an urban hospital was just over $5 million, while their rural counterparts received an average DSH payment of $750,000 and CAHs received slightly more than $400,000. South Carolina also disbursed DSH funds to all rural hospitals and CAHs, averaging almost $3.3 million and $700,000, respectively, while 95 percent of urban hospitals received an average DSH payment of more than $9 million. Given the large variation in the South Census Region, it is not surprising that the proportion of urban hospitals that received DSH funds ranged from 3.7 – 100 percent, while rural hospitals and CAHs ranged from 0 – 100 percent.

The West Census Region also shows significant differences in the proportion of hospitals that received DSH funds. The proportion of urban hospitals that received DSH funds ranged from 11 – 97 percent, rural hospitals spanned 8 – 95 percent, and CAHs included 0 – 96 percent. Notably, in California, 11 percent of urban hospitals received an average DSH payment of more than $70 million, while 22 percent of rural hospitals earned an average DSH payment amounting to $250,000, and 27 percent of CAHs received DSH funds amounting to an average of $37,000. In Utah, 86 percent of urban hospitals received an average DSH payment of just over $1.1 million, while 95 percent of rural hospitals and 91 percent of CAHs received $242,000 and $309,000.

Tables: Hospital Medicaid DSH Payments by Census Region

Midwest Census Region

	Urban Hospital				Rural Hospitals				Critical Access Hospitals			
State	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue
IA	23	21.7%	$10,537,960	9.0%	85	3.5%	$110,820	0.5%	75	1.3%	$208,902	1.2%
IL	107	29.0%	$10,912,836	7.2%	74	9.5%	$9,043	0.0%	51	3.9%	$1,408	0.0%
IN	70	1.4%	$127,062,529	62.4%	53	0.0%	$0	0.0%	35	0.0%	$0	0.0%
KS	26	19.2%	$2,332,712	0.9%	109	39.4%	$662,967	2.3%	80	32.5%	$201,601	1.6%
MI	69	88.4%	$3,814,276	1.1%	62	77.4%	$1,150,783	2.1%	35	68.6%	$683,247	1.9%
MN‡	37	54.1%	$1,394,621	0.2%	90	28.9%	$45,149	0.1%	75	20.0%	$20,406	0.0%
MO	48	79.2%	$10,913,863	4.6%	61	83.6%	$1,573,364	3.5%	33	84.8%	$757,638	3.9%
ND	6	33.3%	$335,901	0.1%	35	5.7%	$226,417	0.1%	33	3.0%	$10,213	0.1%
NE	17	41.2%	$6,647,882	1.5%	69	23.2%	$604,175	0.7%	62	16.1%	$74,715	0.4%
OH	102	89.2%	$4,616,183	1.8%	67	100.0%	$1,182,619	1.9%	30	100.0%	$608,965	2.4%
SD	10	40.0%	$47,363	0.1%	47	36.2%	$30,764	0.2%	37	37.8%	$32,874	0.3%
WI	52	11.5%	$8,401	0.0%	71	1.4%	$4,762	0.0%	58	1.7%	$4,762	0.0%

Northeast Census Region

	Urban Hospital				Rural Hospitals				Critical Access Hospitals			
State	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue
CT	29	89.7%	$5,133,665	1.3%	3	100.0%	$812,145	1.0%	0	†	†	†
NH	9	100.0%	$4,387,562	2.3%	17	94.1%	$4,820,194	5.3%	13	92.3%	$2,978,044	6.5%
NJ	63	100.0%	$14,717,454	5.4%	0	†	†	†	0	†	†	†
NY	129	93.0%	$19,767,886	4.5%	49	93.9%	$1,018,980	2.6%	10	90.0%	$532,237	3.7%
PA	120	94.2%	$4,653,458	2.1%	45	100.0%	$836,985	1.7%	11	100.0%	$909,835	4.1%
RI	11	100.0%	$10,739,569	3.8%	0	†	†	†	0	†	†	†
VT	1	100.0%	$16,738,071	2.0%	12	91.7%	$1,820,354	2.2%	7	85.7%	$1,296,632	2.3%

South Census Region

State	Urban Hospital				Rural Hospitals				Critical Access Hospitals			
	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue
AL	56	96.4%	$7,053,102	6.2%	40	95.0%	$1,793,553	7.2%	2	100.0%	$478,341	5.7%
AR	27	3.7%	$59,565,628	10.0%	47	0.0%	$0	0.0%	29	0.0%	$0	0.0%
FL	161	31.1%	$4,652,662	1.5%	20	75.0%	$553,265	3.7%	13	100.0%	$469,511	3.9%
GA	84	91.7%	$4,312,834	2.7%	57	96.5%	$1,325,793	3.5%	34	97.1%	$610,949	4.4%
KY	21	100.0%	$5,315,912	1.6%	70	100.0%	$754,547	1.8%	26	100.0%	$413,487	2.5%
LA	84	54.8%	$15,424,542	13.6%	40	82.5%	$2,494,836	9.3%	25	100.0%	$1,816,480	10.2%
MD	40	27.5%	$2,769,556	1.2%	5	40.0%	$61,851	0.2%	0	†	†	†
MS	28	60.7%	$9,400,278	4.2%	68	44.1%	$1,350,450	2.8%	29	48.3%	$534,660	3.8%
NC	53	49.1%	$9,575,938	2.4%	57	40.4%	$2,308,273	2.9%	22	27.3%	$1,261,521	4.1%
OK	41	43.9%	$1,645,862	0.7%	75	48.0%	$298,173	0.7%	30	23.3%	$37,647	0.5%
SC	38	94.7%	$9,144,504	4.0%	24	100.0%	$3,297,719	5.0%	5	100.0%	$702,543	4.7%
TN	51	68.6%	$986,048	0.3%	60	65.0%	$112,959	0.2%	13	61.5%	$625	0.0%
TX	243	28.8%	$15,492,154	5.1%	161	51.6%	$1,207,408	4.0%	77	32.5%	$275,497	3.1%
VA	58	27.6%	$9,107,570	1.0%	30	40.0%	$252,252	0.4%	7	0.0%	$0	0.0%
WV	26	96.2%	$1,470,403	1.7%	23	100.0%	$853,740	4.2%	17	100.0%	$1,087,952	5.5%

West Census Region

State	Urban Hospital				Rural Hospitals				Critical Access Hospitals			
	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue	n	% Rec. DSH	Avg. DSH Payment*	DSH as % of pt. revenue
AK	3	66.7%	$2,589,888	0.7%	13	7.7%	$1,441,524	1.8%	10	0.0%	$0	0.0%
AZ	48	45.8%	$1,090,848	0.6%	22	50.0%	$335,455	1.0%	10	60.0%	$260,113	1.1%
CA	283	11.0%	$70,620,715	22.4%	59	22.0%	$250,228	1.5%	29	27.6%	$37,452	0.3%
CO	35	97.1%	$5,009,176	1.7%	40	97.5%	$407,072	1.0%	28	96.4%	$159,559	0.8%
HI	8	75.0%	$1,073,222	0.4%	13	30.8%	$206,857	0.3%	9	11.1%	$31,340	0.4%
ID	12	75.0%	$2,346,299	0.8%	26	42.3%	$194,286	0.5%	25	44.0%	$124,483	0.5%
MT	8	87.5%	$1,172,731	0.5%	48	85.4%	$176,244	0.6%	44	81.8%	$128,243	0.7%
NM	11	45.5%	$5,330,847	1.0%	24	33.3%	$274,628	0.5%	8	37.5%	$113,500	0.4%
NV	22	63.6%	$6,261,029	1.2%	13	53.8%	$482,459	1.8%	11	36.4%	$431,686	1.9%
OR	26	11.5%	$10,947,962	1.0%	30	16.7%	$149,815	0.2%	23	17.4%	$35,563	0.1%
UT	22	86.4%	$1,145,387	0.1%	21	95.2%	$242,948	2.9%	11	90.9%	$309,254	3.8%
WA	50	66.0%	$6,698,993	2.1%	36	72.2%	$911,620	1.8%	38	65.8%	$310,070	1.1%
WY	3	66.7%	$41,171	0.0%	22	40.9%	$39,629	0.2%	14	28.6%	$49,229	0.3%

†No rural hospitals or CAHs in state
*Excludes hospitals that did not receive any DSH payments.
‡Minnesota DSH payment data is from their 2012 audit report.
Data Sources: State plan rate year (SPRY) disproportionate share hospital audits. Centers for Medicare & Medicaid Services; 2011. Provider of Service File. Centers for Medicare & Medicaid Services; 2011. Medicare Hospital Cost Reports. Centers for Medicare & Medicaid Services; 2011.

Effect on Hospital Revenue

Eligibility for payment is one way to determine the impact of DSH on rural hospitals; another is to examine the effect on the hospital's revenue. Taken broadly, DSH payments as a percent of net patient revenue varied considerably across the Census Regions by hospital type. Among those receiving DSH payment, urban hospitals ranged from 0 – 62 percent of net patient revenue in the Midwest Census Region, compared to 1.3 – 5.4 percent in the Northeast, 0.7 – 14 percent in the South, and 0.1 – 22.4 percent in the West Census Region. In terms of rural hospitals, the impact of DSH payments as a percent of net patient revenue spanned 0 – 3.5 percent in the Midwest, 1 – 5.3 percent in the Northeast, 0 – 9.3 percent in the South, and 0.2 – 2.9 percent in the West Census Region. Lastly, CAHs saw the most variation with 0 – 3.9 percent of DSH as a percent of net patient revenue in the Midwest, 2.3 – 6.5 percent in the Northeast, 0 – 10.2 percent in the South, and 0 – 3.8 percent in the West Census Regions.

The unique formula states use to distribute available dollars results in considerable variation in the amounts hospitals receive. For example, South Dakota uses three tiers: 13 hospitals received $20,919.55 each, 6 hospitals received $41,839.10 (2 times the lowest tier amount), and 2 hospitals received $62,758.65 (3 times the lowest tier amount). In Wisconsin, all eligible hospitals (including out-of-state hospitals) received the same flat payment in 2011. State variability in rules for

allocating payments affects the impact of DSH payment on hospital net patient revenue. Rural hospitals and CAHs in some states realized high percentages of net patient revenue from DSH payment. Louisiana's CAHs received, on average, 10.2 percent of patient revenue from DSH payments, and the state's rural hospitals that received DSH payment averaged 9.3 percent. In contrast, New Hampshire rural hospitals and CAHs receiving DSH payment averaged 5.3 percent and 6.5 percent of net patient revenue, respectively.

Rural hospitals (including both CAH and prospective payment system hospitals) located in states in the Midwest, South, and West Census Regions received an average DSH payment equivalent to less than 1.0 percent of their net patient revenue. However, states in the Midwest, Northeast, and South Census Regions also had rural hospitals that received greater than three percent of their net patient revenue from DSH payments; albeit, the Northeast and Midwest had only one state each while the South had seven.

Discussion

Medicaid DSH payments are intended to provide a higher proportion of net patient revenue in hospitals with very high numbers and percentages of patients for whom either self-payment or Medicaid payments create disproportionate (compared to other hospitals) financial burden. In the context of that policy intent, we presented data showing the effects of state policies on the distribution of DSH payments. Generally, the payments are modest, and in some states, only a small percentage of rural hospitals receive any payments. However, the proportion of DSH payment in some states is higher, accounting for as much as 10.2 percent of net patient revenue in DSH-receiving CAHs.

As pointed out in the 2017 MACPAC report to Congress, state Medicaid programs are legislatively mandated to distribute DSH funds to hospitals that have a higher proportion of uncompensated care due to their case mix.[2] It is important to note that one of the inherent objectives of DSH is to expand access to care. But changes to the federal allocation formula, such as implementation of utilization-based standards could have a larger impact on CAHs which "report lower Medicaid utilization rates on average than other types of hospitals. [2] The data presented in this policy brief and subsequent discussion assume that states will maintain their distribution policies from 2011; however, that could change.

Policies lowering the federal DSH allocation, in the absence of increased payment from Medicaid (e.g., lack of expansion) and/or insurance plans could have serious financial impacts on low margin rural hospitals. Research examining impacts of decreasing DSH payment distribution on hospitals generally makes this point.[4,5] Changes to Medicaid DSH payment policy, especially if not combined with increased revenue from other sources, should consider the effect on vulnerable rural hospitals. Even for CAHs, which in 35 states receive cost-based reimbursement from Medicaid as well as Medicare, a loss of as much as 10 percent of net patient revenue resulting from the elimination of DSH payment would represent a significant threat to their ability to generate positive margins.

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