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Impact of the Medicare Disproportionate Share Hospital Payment Cap on Rural and Urban Hospitals

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Purpose

This brief describes the number and location of urban and rural hospitals affected by a 12 percent cap on their payments from the Medicare Disproportionate Share Hospital (DSH) program. We also analyze the impact of lost revenue (defined as DSH payment amounts exceeding the 12 percent cap) as a percentage of affected hospitals' overall inpatient revenue. The cap was established in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. Given that DSH payments are now (beginning in FY2014) limited to 25 percent of the total DSH burden (per the 2010 Patient Protection and Affordable Care Act), revisiting the cap may be a way to help address the fiscal plight of rural hospitals with minimal cost to the Medicare program.

Key Findings

- Of the 4,460 hospitals qualifying (all inpatient prospective payment system [IPPS], nonfederal hospitals) for Medicare DSH payments in 2017, 2,146 hospitals met location and bed size criteria for the 12 percent payment cap. Of these, 1,430 were urban hospitals and 716 were rural hospitals.
- Of the total 2,146 hospitals that met the location and bed size criteria for the cap, 279 (13 percent) were affected by the cap because they had operating DSH percentages exceeding 12 percent. Of these, 88 (32 percent) were urban and 191 (68 percent) were rural.
- Among capped hospitals (those hospitals whose operating DSH percentages exceeded the 12 percent cap), rural hospitals lost a higher average amount than urban hospitals as a result of the cap. The average DSH payment amount lost among rural hospitals due to the 12 percent cap was \$130,636; for urban hospitals, the amount was \$118,596.
- Rural hospitals lost a higher average percentage of total inpatient revenue than urban hospitals. As a fraction of total inpatient revenue, the average DSH percentage lost among capped rural hospitals was 3.1 percent; for urban hospitals, it was 1.6 percent.



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Background

The Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 created the DSH program as a means of helping hospitals offset some of the costs of providing care to indigent patients. Both Medicare and Medicaid have their own DSH programs using distinct mechanisms for finance and fund allocation. The Medicaid DSH program is a federal-state partnership providing states with flexibility to establish their own rules for making payments to hospitals. Alternately, Medicare DSH payments are made from the federal government directly to qualifying hospitals based on a number of factors including hospital size and location.ⁱ This brief focuses on Medicare DSH payments only.

DSH funds preserve access to care for Medicare and low-income populations by financially assisting the hospitals they use. Effective for discharges after May 1, 1986, hospitals paid under the IPPS may qualify for the Medicare DSH payment adjustment if certain criteria are met. A hospital may qualify for Medicare DSH payment adjustments under one of two determinations: (1) the Primary Method, which applies to hospitals that serve a significantly disproportionate number of low-income patients and which is based on a hospital's disproportionate patient percentage (DPP); and, (2) the Alternate Special Exception Method, which applies to hospitals located in an urban area having 100 or more beds that can demonstrate that more than 30 percent of their total net inpatient care revenues come from State and local government sources for indigent care (other than Medicare and Medicaid). The DSH adjustment is determined using a complex formula with the actual adjustment made as a percentage increase to the Medicare DRG (diagnosis related group) payment qualifying hospitals receive for each IPPS case.ⁱⁱ

Since the program's creation, there have been a number of modifications to the formulas used to calculate Medicare DSH payments to hospitals. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 made a number of changes to the program including the imposition of a 12 percent cap on the DSH payment adjustment for certain hospitals whose DPP exceeds 15 percent. Two groups of hospitals paid under the Primary Method can be affected by this cap: hospitals located in rural areas with 0-499 beds (excluding rural referral centers), and hospitals in urban areas with fewer than 100 beds.ⁱⁱ The 2010 Patient Protection and Affordable Care Act modified the method for computing Medicare DSH adjustments (for discharges occurring on or after October 1, 2013) by paying hospitals 25 percent of the amount determined under the traditional method.ⁱⁱ The remainder (75 percent of what otherwise would have been paid) is paid to hospitals based on its share of uncompensated care costs relative to all Medicare DSH-eligible hospitals.ⁱⁱⁱ

The 12 percent cap on Medicare DSH payment may unintentionally jeopardize hospitals who serve a very high percentage of low-income Medicare patients. From the hospitals' perspective, low-income Medicare patients have lower health status and are costlier to treat on average than other Medicare patients with the same diagnosis, and DSH payments help hospitals offset these higher costs.^{iv} The hospitals affected by the 12 percent cap—rural IPPS hospitals with fewer than 500 beds and urban hospitals with fewer than 100 beds—are the subject of this policy brief.

Methods

Hospital cost report data for Fiscal Year 2017 (April 11, 2019, release) were downloaded from the CMS Cost Reports website.^v Cost reports for hospitals outside the 50 states and District of Columbia and those covering fewer than 300 days were discarded. This left a total of 4,512 IPPS hospitals eligible for DSH payments in the analytic sample. Of these, 52 hospitals had missing data, leaving 4,460 for analysis. Per the CMS DSH payment adjustment formula,ⁱⁱ the effective operating DSH percentage was calculated for each

hospital in the sample and those that were subject to the 12 percent cap were flagged. Among hospitals subject to the cap, the financial impact of the 12 percent cap was assessed by calculating the difference in the hospital’s DSH-adjusted DRG payment based on the capped and uncapped DSH percentage. This lost revenue was then divided by four, because hospitals receive only 25 percent of this traditional DSH-adjusted amount in their total Medicare DSH payment.^{vi} The remainder of the Medicare DSH payment is made as an uncompensated care payment based on a different formula.ⁱⁱⁱ The impact on hospitals was evaluated in terms of the percentage of inpatient revenue lost as a result of the 12 percent cap.

Results

Of the 4,460 hospitals qualifying for DSH payments, 2,146 (48 percent) met location and bed size criteria for the 12 percent payment cap. Of these, 1,430 (67 percent) were urban hospitals with fewer than 100 beds, and 716 (33 percent) were rural hospitals with fewer than 500 beds. As a percentage of all hospitals eligible for the 12 percent cap, just 13 percent had their DSH payment capped (279 out of 2,146) due to their operating DSH percentages exceeding 12 percent. Of those, 88 were urban (6 percent of eligible urban hospitals, 32 percent of capped hospitals) and 191 were rural (27 percent of eligible rural hospitals, 68 percent of capped hospitals).

Table 1 shows summary statistics for the calculated impact of the 12 percent DSH cap on the hospitals with operating DSH percentages exceeding 12 percent. In addition to the average operating DSH percentage, the table displays the average total inpatient revenue amount for urban and rural hospitals affected by the cap, what the average full DSH adjustment to the DRG amount would be without the cap, and the average of the difference between that amount and the amount capped at 12 percent (average lost revenue). The final column shows the average percentage of total inpatient revenue that the lost revenue represents among urban and rural hospitals. One rural hospital was excluded from analyses due to its operating DSH percent exceeding 400 percent, making it an outlier among all hospitals whose DSH percentages exceeded 12 percent.

Table 1. Effect of Medicare DSH cap on urban and rural hospitals subject to cap

	N	Average Operating DSH % ¹	Average Total Inpatient Revenue, \$	Average Full DSH Amount ² , \$	Average Lost Revenue due to DSH Cap ³ , \$	Average percent Lost Revenue of Total Inpatient Revenue, % ⁴
Urban	88	20.3%	32,346,330	352,342	118,596	1.6
Rural	190 ¹	22.2%	21,604,484	353,204	130,636	3.1

1 One qualifying hospital was excluded from this table due to an excessive (>400%) DSH calculation.
 2 (DRG amount * Operating DSH) / 4
 3 Lost Revenue = Full DSH Adjustment - ((12% cap * DRG Amount) / 4)
 4 The average of each urban and rural hospitals’ lost revenue divided by their total inpatient revenue.

The distribution of capped urban and rural hospitals by operating DSH percentages is shown in Figure 1. Notably, just over half (140 of 278) of the capped hospitals had operating DSH percentages less than 18 percent, while the remaining hospitals (138 of 278) had operating DSH percentages that were 18 percent or greater. The cap impact, consequently, has increasingly negative effects on hospitals as their operating DSH percentages grow in excess of 12 percent. Of the 138 hospitals having operating DSH percentages of 18 percent or more, a far greater portion (99, or 72 percent) were rural hospitals; these hospitals lost more DSH payment revenue as a result of the 12 percent cap. In subsequent analyses, we use the 18 percent threshold to estimate the impact of the cap on hospitals with operating

DSH percentages within 6 percentage points of the cap relative to those whose operating DSH percentages exceed an 18 percent threshold.

Figure 1. Distribution of capped urban and rural hospitals by operating DSH percentages

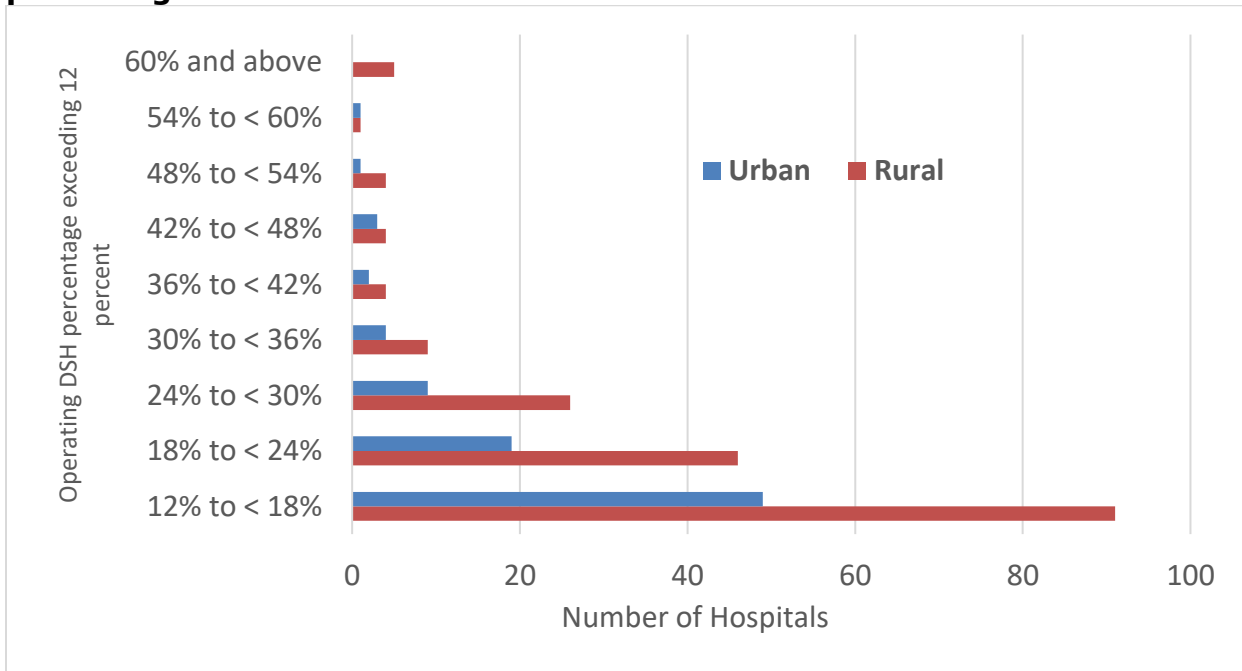


Table 2 shows the impact of the 12 percent DSH cap on hospitals demarcated by an operating DSH percentage above and below 18 percent. The average DSH amount lost for rural hospitals with an operating DSH percentage above 18 percent was \$204,633, vs. \$186,194 for urban hospitals. Compared to rural hospitals below 18 percent operating DSH, those above 18 percent lost over four times as much due to the 12 percent cap.

Among hospitals having operating DSH percentages of 18 percent or less, the effect of the 12 percent DSH cap measured as lost revenue as a percentage of total inpatient revenue was very small, much less than 1 percent for both urban and rural hospitals. However, for hospitals having operating DSH percentages greater than 18 percent, the average effect of the 12 percent cap was much higher, amounting to 3.5 percent of inpatient revenue for urban hospitals and 6 percent for rural.

Table 2. Average lost revenue and percentage of inpatient revenue

	< 18 % Operating DSH (N=140)		≥18% Operating DSH (N=138)	
	Average Lost Revenue, \$	Average percent Lost Revenue of total inpatient revenue	Average Lost Revenue, \$	Average percent Lost Revenue of total inpatient revenue
Urban	64,793	0.26	186,194	3.5
Rural	50,134	0.33	204,633	6.0

Discussion

The Medicare DSH cap affects a relatively small number of urban and rural hospitals: approximately 13 percent of hospitals eligible for the 12 percent cap. More rural hospitals are affected by the 12 percent cap than urban, both nominally and as a percentage of eligible hospitals. Rural hospitals affected by the cap have higher average operating DSH

percentages than urban (22.2 percent vs. 20.3 percent, respectively), suggesting they are more affected financially than urban hospitals. For example, the average DSH amount lost by all rural hospitals exceeding the 12 percent cap is higher than the average urban hospital loss (\$130,636 vs. \$118,596, respectively) and represents a higher percentage of total inpatient revenue (3.1 percent vs. 1.6 percent). Furthermore, over half of rural hospitals subject to the cap (n=99, 52.1 percent) have operating DSH percentages exceeding 18 percent, and among those, the average amount lost due to the 12 percent cap is nearly 10 percent higher than urban and over four times as much as rural hospitals whose operating DSH percentages are less than 18 percent (\$204,633 vs. \$50,134). The impact on operating margin of the hospitals is evident in the fact that for the 99 rural hospitals above 18 percent, dollar amount equates on average to 6 percent of total inpatient revenue.

Among all rural hospitals, but especially those whose DSH payments represent higher percentages of total inpatient revenue, losing the DSH payments due to the 12 percent cap may add further financial distress among hospitals who serve an extraordinary percentage of low-income Medicare and Medicaid beneficiaries. Affected hospitals are likely to be in high financial distress, a position that could be addressed with higher DSH payments. One approach to helping hospitals facing financial distress would be to remove the cap. Two options could be considered, one that retains the 12 percent cap, but then provides DSH payments (partial or full) above an 18 percent threshold, or one that removes the cap. Using our data, the estimated cost of the first approach would have been \$27,520,280 in 2017; the cost of the second approach (at full payment) would have been \$35,257,388. From a policy perspective, the recent change (effective Oct. 1, 2013) to the Medicare DSH payment methodology (in which just 25 percent of the DSH payment is affected by the 12 percent cap and 75 percent covers uncompensated care costs) may result in more favorable DSH payments for those hospitals that have a more extreme operating DSH percentage due to serving a disproportionately high number of low-income Medicare and Medicaid beneficiaries. Future research should examine the effect of this methodological change on the most vulnerable rural and urban hospitals.

ⁱ Center for Health and Research Transformation, University of Michigan. "Medicaid and Medicare Disproportionate Share Hospital Programs". <https://chrt.org/publication/medicaid-medicare-disproportionate-share-hospital-programs/>, accessed 11/14/2019

ⁱⁱ Centers for Medicare & Medicaid Services, Medicare Learning Network (2017). *Medicare Disproportionate Share Hospital* (ICN 006741). Fact Sheet. https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Disproportionate_Share_Hospital.pdf, accessed 5/2/2019.

ⁱⁱⁱ Acute Care Hospital Inpatient Prospective Payment System", <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AcutePaymtSysfctsh.pdf>, accessed 5/2/2019.

^{iv} Medicare Disproportionate Share (DSH) Payments. Association of American Medical Colleges (AAMC). <https://www.aamc.org/advocacy/medicare/155102/dsh.html>, accessed 5/2/2019.

^v <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports/Cost-Reports-by-Fiscal-Year.html>, accessed 5/2/2019.

^{vi} Chen IJ, Hoskins D, Keough CL. *J. The Medicare DSH Payment*. AHIA. Institute on Medicare and Medicaid Payment Issues. March 25-27, 2015.