



Comparing Medicaid Hospital Payment Across States and to Medicare

Medicaid and CHIP Payment and Access Commission
Chris Park

Overview

- Create a payment index for fee-for-service inpatient hospital payments to compare payments across states
- Compare Medicaid payments to Medicare
- Analysis can serve as a foundation for work on:
 - Payment adequacy across states
 - Relationship between payment and access, value, and quality
 - Impact of supplemental payments and provider contributions

Payment index data

- 2010 Medicaid Analytic Extract (MAX) claims data
- Focused on acute care hospital stays for non-dually eligible, non-elderly enrollees
- Excluded:
 - dually eligible for Medicare and Medicaid
 - eligible on the basis of age
 - rehabilitation, long-term, psychiatric hospitals
 - managed care stays

Methods

- Identify the service provided during a stay using a comparable methodology across all states
 - Classified all claims using all patient refined diagnosis related groups (APR-DRGs)
- Control for input wage levels, casemix, and enrollee characteristics

Wage index adjustment

- Wage adjustment to account for differences in local prices across states
- Based on Medicare methodology
 - Local wage index data from CMS Medicare acute inpatient prospective payment system
 - Used Medicare's hospital labor share (estimated amount of payment and costs related to wages)

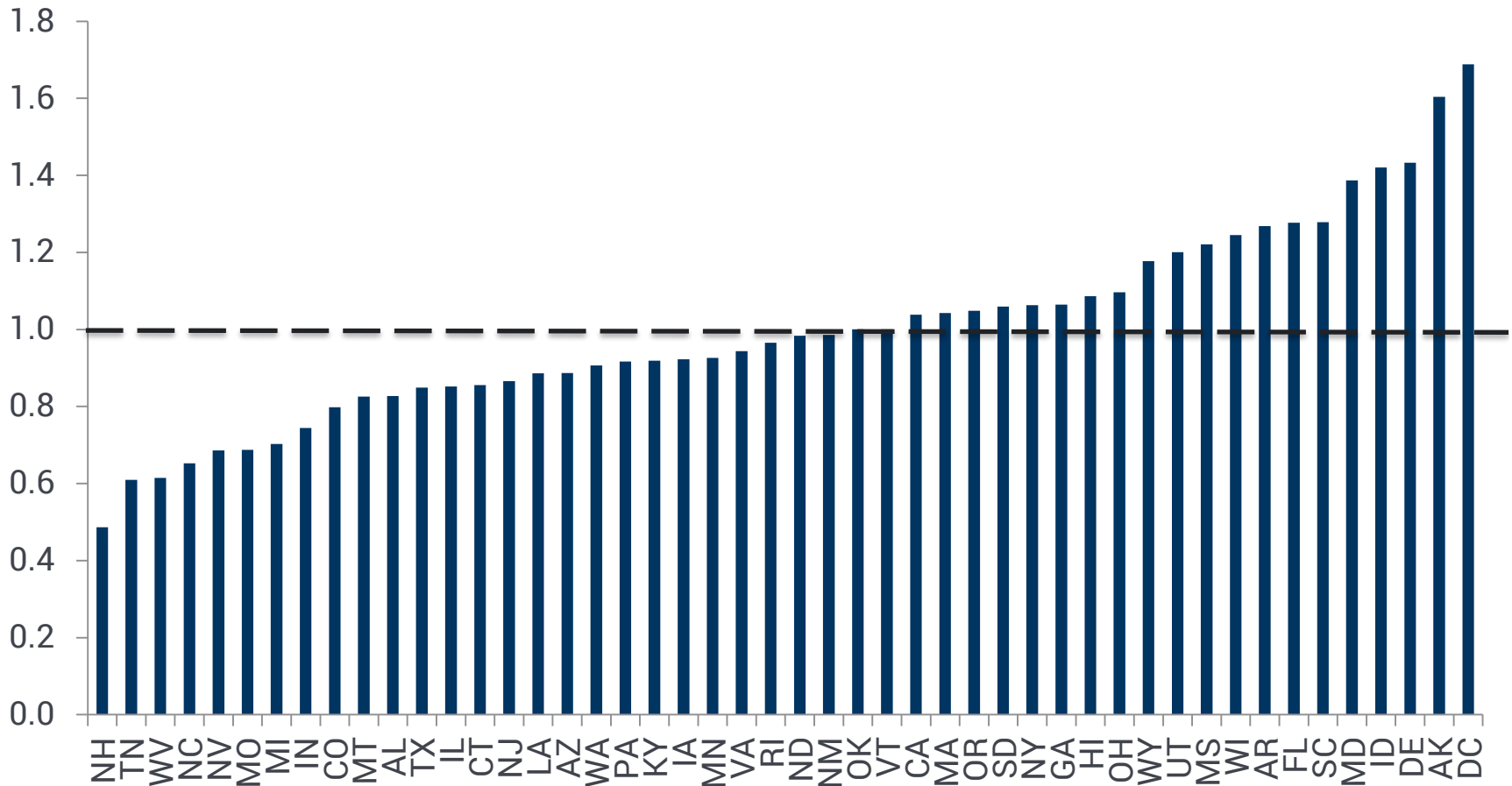
Casemix adjustment

- Casemix adjustment to account for differences in acuity and severity of admissions across states
- Regression model to relate the APR-DRG and demographic variables such as age and eligibility to cost
- Calculated expected cost for each stay and then computed relative cost by dividing by overall average cost
- Calculated overall casemix adjustment factor for each state as the average of relative weights of all its stays

Payment index

- Calculate wage and casemix-adjusted average payment per stay for each state
- Divide each state amount by average payment per stay for all states
- Index value provides a relative value compared to national average (e.g., index value of 1.10 is 10 percent higher than national average)

Payment index ranges from 0.49 to 1.69



Source: MACPAC/Urban Institute analysis of CY 2010 MAX data. Kansas, Maine, and Nebraska were not included in our data.

In-state variation

- States not consistently high or low payer across all conditions
 - Some states use policy adjusters to increase payments for specific services
- State payment for a particular condition may vary across hospitals
 - Different hospital base rates or payment methodology (e.g., cost-basis)

Analysis on selected conditions

- 20 high-volume, high-dollar APR-DRG/severity group combinations
 - Two severity subclasses each for vaginal delivery, cesarean delivery, and newborn
 - Others chosen to span a wide range of medical/surgical care
- Calculated a wage-adjusted payment index for each of the 20 APR-DRGs

20 APR-DRG indices compare to overall base payment index

Correlation Coefficient	Conditions (APR-DRG)
0.75 or greater	Other pneumonia (139-2); chronic obstructive pulmonary disease (140-2); cellulitis and other bacterial skin infections (383-1); diabetes (420-2); kidney and urinary tract infections (463-2)
0.50–0.75	Seizure (053-2); asthma (141-1); heart failure (194-2); appendectomy (225-1); cesarean delivery (540-1, 540-2), vaginal delivery (560-1, 560-2); other antepartum diagnoses (566-2); chemotherapy (693-2)
0.25–0.50	Renal failure (460-3); neonate birthweight >2499 g, normal newborn or neonate w/ other problem (640-1, 640-2); schizophrenia (750-2)
0–0.25	Bipolar disorders (753-2)

Source: MACPAC/Urban Institute analysis of CY 2010 MAX data

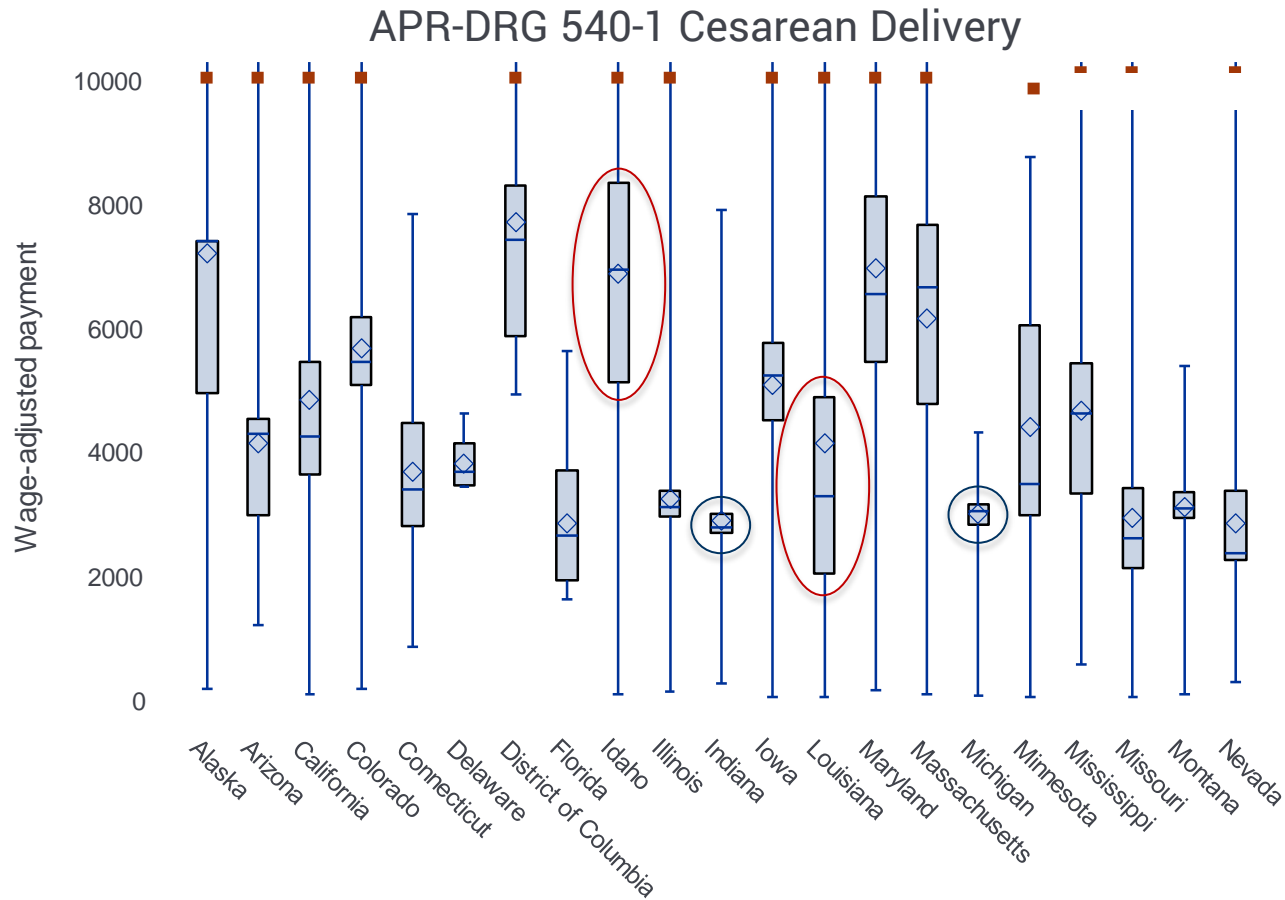
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Example of base payment indices in four states

State	Overall Index		225-1: Appendectomy		420-2: Diabetes		540-1: Cesarean Section	
	Index Value	State Rank	Index Value	State Rank	Index Value	State Rank	Index Value	State Rank
State A	1.28	7	0.70	34	1.47	4	0.61	40
State B	0.89	33	0.47	42	1.09	13	0.76	33
State C	0.94	26	1.29	13	0.83	35	0.80	30
State D	0.61	46	0.90	23	0.67	43	0.60	42

Source: MACPAC/Urban Institute analysis of 2010 MAX data.

Example of in-state variation in payment for cesarean delivery



Source: MACPAC/Urban Institute analysis of CY 2010 MAX data

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Supplemental payment adjustment

Supplemental payments to hospitals

- Supplemental payments are substantial
 - 44 percent of total hospital payments in 2014
- Frequently made on aggregate, lump-sum basis
 - Claims data do not contain supplemental payments
- Do not have good information on the amount paid to individual hospitals
- Frequently used with non-federal financing options such as provider taxes, certified public expenditures (CPEs), and intergovernmental transfers (IGTs)
 - Need to net out contributions to get to net payment

Supplemental payment adjustment

- gross up base payments from MAX to CMS-64 total to account for supplemental payments
 - Makes adjustment even if state doesn't report supplemental payment separately
 - Potentially gross up base payments as well
 - Treats all hospitals equally
- gross up base payments in MAX using ratio of total inpatient payments to regular inpatient payments in CMS-64
 - Keeps claims payment the same
 - Doesn't work if state does not report supplemental payment separately
 - Treats all hospitals equally

Index scenarios

- Scenario 1: unadjusted base payments
- Scenario 2: gross up base payments in scenario 1 to CMS-64 total to account for supplemental payments
- Scenario 3: gross up base payments in scenario 1 using ratio of total inpatient payments to regular inpatient payments in CMS-64
- Scenario 4: calculate net provider payment level using scenario 3 and backing out provider contributions using data from GAO study

Payment index values for six states under different scenarios

State	Scenario 1: base payment		Scenario 2: supplemental adjustment 1		Scenario 3: supplemental adjustment 2		Scenario 4: net payment	
	Index Value	State Rank	Index Value	State Rank	Index Value	State Rank	Index Value	State Rank
State A	1.69	1	1.22	14	1.21	11	1.32	7
State B	0.99	23	1.81	3	1.87	1	2.23	1
State C	1.04	20	1.13	17	1.15	16	0.92	26
State D	0.49	48	0.47	44	0.53	47	0.46	48
State E	0.75	41	0.54	43	1.51	4	1.27	8
State F	0.69	43	1.34	9	0.56	46	0.57	45

Source: MACPAC/Urban Institute analysis of 2010 MAX data, CY 2011 CMS-64 financial management report data, and GAO survey data.

Comparison to Medicare

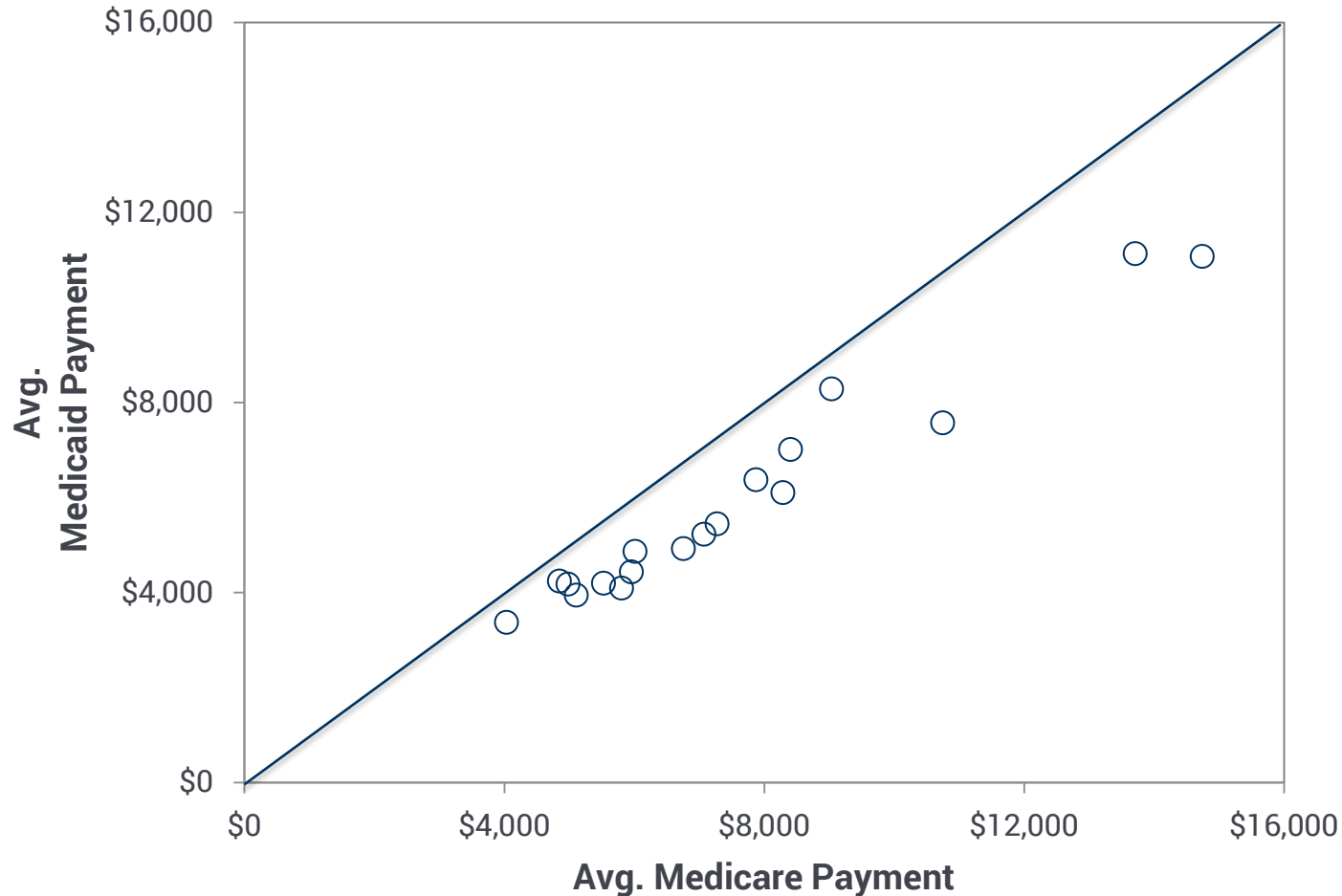
Methods

- Used FFS Medicaid stays for non-elderly adults eligible for Medicaid on the basis of disability
- Grouped Medicaid stays using CMS's MS-DRGs
- Medicare payment from CMS's Medicare provider utilization and payment data: Inpatient charge data FY 2011
 - Average total payment for top 100 most frequently billed Medicare MS-DRGs by provider
- Focused on 18 high-volume MS-DRGs for both Medicaid and Medicare
- Include hospitals that are in both datasets

Medicaid base payment compared to Medicare total payment

- Medicaid payments were weighted by Medicare volume at the hospital and MS-DRG level
- Medicaid base payments on average were 78 percent of Medicare
 - Medicare contains all payments
 - Medicaid base payments only (no non-DSH or DSH supplemental payments)

Medicaid base payment was lower than Medicare for all 18 MS-DRGs



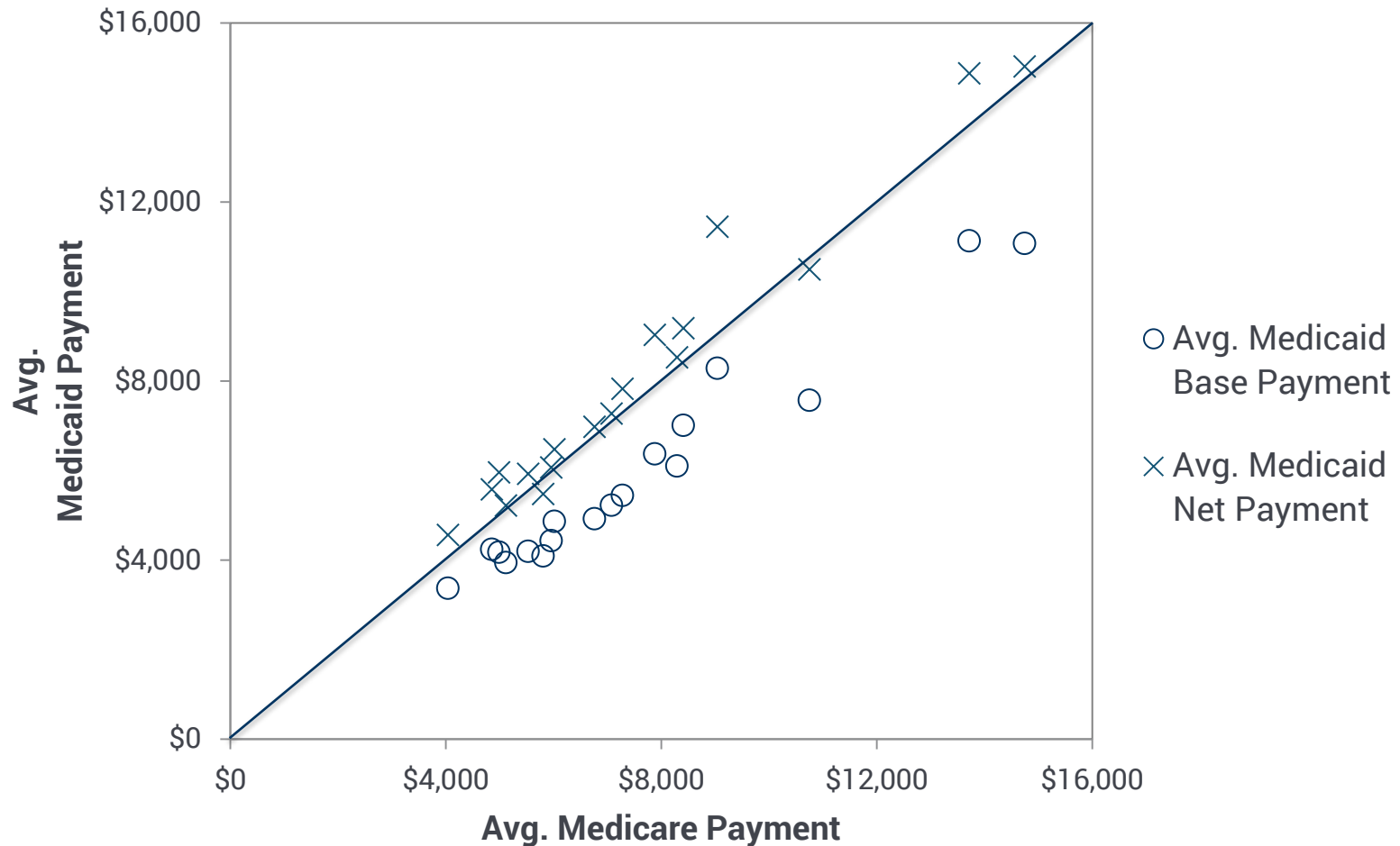
Source: MACPAC/Urban Institute analysis of 2010 MAX data.

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Medicaid net payment compared to Medicare total payment

- Applied supplemental payment and provider contribution adjustments from the payment index scenarios
- Medicaid net payments on average were 6 percent higher than Medicare
 - American Hospital Association survey results have shown that Medicaid has had a higher payment to cost ratio than Medicare since 2010

Medicaid net payment was higher than Medicare for all but two MS-DRGs



Source: MACPAC/Urban Institute analysis of 2010 MAX data.

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Takeaways

- Medicaid inpatient hospital payment varies widely both across states and within a state
- Overall Medicaid net payment is comparable or higher than Medicare
- Supplemental payment and financing challenges our ability to analyze the link between payment and access, quality, and value
- Confirms the Commission's prior statements on the need for additional payment and financing information at the provider level



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