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Medicaid Inpatient Hospital Payment Index

Comparison across States

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Overview

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Background

Background

- Medicaid accounted for about 20 percent of all hospital spending in 2024
- In fiscal year (FY) 2022, Medicaid spent approximately $262.6 billion (federal and state spending) on hospital care, about one-third of total Medicaid spending
- Comparing payment levels across states is difficult because of differences in enrollment mix, local input prices, service intensity, and payment policy
- MACPAC developed an inpatient hospital payment index in 2017 to provide a more comparable measure of fee-for-service (FFS) hospital payment across states

Medicaid Hospital Payments Are Made Through Multiple Streams

- Base payments are made for services delivered and are paid through claims
- Supplemental payments are additional payments typically paid in a lump sum; not tied to a specific service or beneficiary
  - Disproportionate share hospital (DSH) payments
  - Non-DSH supplemental payments, including upper payment limit (UPL), graduate medical education, and payments under Section 1115 demonstration
- State directed payments (SDPs) allow states to require managed care plans to pay providers according to specified rates or methods
  - Many states use SDPs to make large uniform rate increases that are paid on a lump sum basis

Update to the 2017 Index

- The 2017 index used 2010 FFS claims from the Medicaid Analytic eXtract and did not include managed care spending
- The majority of hospital spending is now through managed care
- Current regulations allow states to pay up to average commercial rates through SDPs, which is higher than the Medicare limit that applies to UPL payments
- 2025 Budget Reconciliation Act imposes new Medicare-based limits on SDPs
- New data sources allow us to refine the assumptions and adjustments made in 2017
  - Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) include managed care encounter claims and payment amounts
  - New supplemental payment reporting captures non-DSH supplemental payments at the provider level
  - Centers for Medicare & Medicaid Services (CMS) publishes approved SDP preprints with projected payment amounts

Data and Methods

Data Sources

- Calendar year (CY) 2022 TAF eligibility and claims data for inpatient hospital services (FFS and managed care)
- FY 2022 non-DSH supplemental payment validation (SPV) data
- FY 2022 CMS-64 net expenditure report
- State plan rate year 2019 DSH audit data
- Approved SDP preprints as of August 2024
- 2018 provider tax and local government financing data from a 2020 Government Accountability Office (GAO) report
- 2022 Medicare pre-reclassification, pre-floor inpatient prospective payment system (IPPS) wage index

Analytic Population

- Analysis focused on acute care hospital stays for full-benefit Medicaid enrollees under age 65 who are not dually eligible
  - Excluded individuals dually eligible for Medicare and Medicaid because Medicare is the primary payer
  - Excluded beneficiaries over age 65 due to small sample size
  - Excluded enrollees with limited benefits because their service use is not representative of the Medicaid population
- Excluded four states (Alabama, Oregon, South Carolina, and Utah) due to data quality issues
- Analysis included more than 6.8 million inpatient stays across 46 states and the District of Columbia

Adjustment for Wage and Case Mix

- Wage adjustment
  - Used the pre-reclassification, pre-floor Medicare wage index
  - Assigned a Medicare IPPS wage index value to each hospital using provider county and ZIP code
  - Normalized payment amounts to control for geographic variation in wage cost
- Case mix adjustment
  - Grouped each inpatient admission using the All Patient Refined Diagnosis Related Group (APR-DRG) classification system
  - APR-DRG weight used as a proxy for case mix complexity and resource intensity
  - Calculated a case mix adjustment factor by dividing volume-weighted average DRG weight for each state by the national average DRG weight
  - Payment per stay in each state divided by case mix adjustment factor

Adjustments for Supplemental and Directed Payments

- Claims in TAF represent base payments and do not include lump sum payments not tied to a specific service or beneficiary
- DSH payments
  - Used FY 2022 CMS-64 DSH expenditures as the starting point
  - Allocated a portion to inpatient services and to Medicaid shortfall using 2019 DSH audit data
- Non-DSH supplemental payments
  - Used FY 2022 SPV data for UPL, graduate medical education, and 1115 demonstration waiver inpatient hospital payments
- State directed payments
  - Used estimated payment amounts from preprints approved as of August 1, 2024
  - Included only arrangements made through separate payment terms to minimize double counting of spending that may already be reflected in claims

Accounting for Provider Financing of the Non-Federal Share

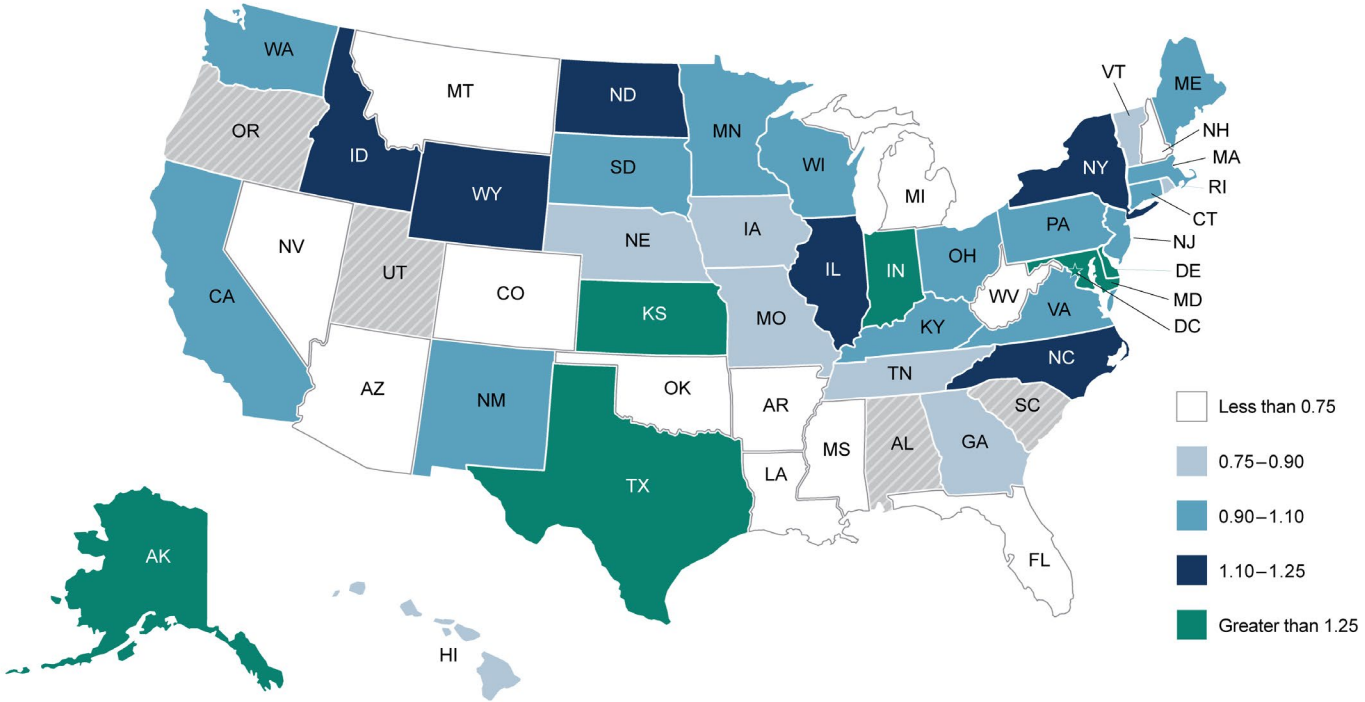
- States often rely on providers to finance the non-federal share, particularly for supplemental payments and SDPs
- Provider taxes, intergovernmental transfers (IGTs), and certified public expenditures (CPEs) are additional costs that effectively reduce gross payments in terms of net provider revenue
- Calculated the non-federal share for total gross expenditures
- Subtracted the percentage of non-federal spending associated with provider taxes, IGTs, and CPEs based on 2018 data from the GAO report for FFS, DSH, and non-DSH supplemental payments
  - Used the percentage for the non-DSH supplemental payment category as a proxy for SDPs because the largest arrangements are used and financed in a similar manner

Constructing the Payment Index

- Divided average inpatient hospital spending per stay in each state by the national average spending per stay to index each state relative to the national average
  - For example, a state with an index value of 1.10 had spending per stay 10 percent higher than the national average
- Calculated index values at three levels
  - Base payment, after wage and case mix adjustment
  - Total gross payment, including DSH, non-DSH supplemental, and SDPs
  - Net payment (total gross payments minus provider-financed non-federal share)
- The index measures relative differences across states and is not a measure of payment adequacy, hospital costs, or the sufficiency of Medicaid payment rates

Payment Index Findings

Medicaid Inpatient Hospital Base Payment Index, by State, 2022



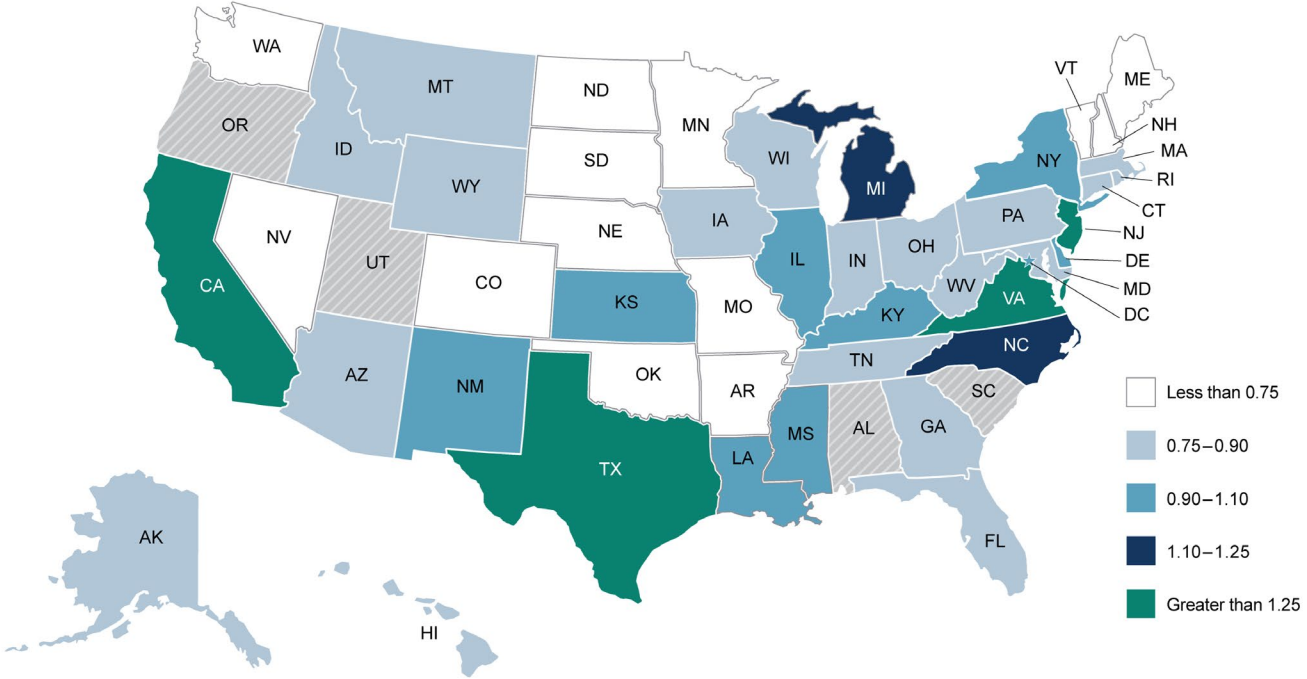
Notes: Base payments reflect amounts from claims that have been normalized to reflect differences in wage costs and case mix across states. Wage adjustments were made using wage indices from the Medicare Inpatient Prospective Payment System. Case mix adjustments were based on the relative weights from the All Patient Refined Diagnosis Related Group classification system. The index value reflects the ratio of each state's spending per inpatient stay relative to the national average per inpatient stay. A value above 1.00 indicates payments higher than the national average and a value below 1.00 indicates payments lower than the national average. Excludes Alabama, Oregon, South Carolina, and Utah due to data quality issues.
Source: MACPAC and AIR, 2026, analysis of 2022 T-MSIS analytic files.

Effect of Wage and Case Mix Adjustment, Selected States, 2022

State	Base payment index before wage and case mix adjustment	Base payment index after wage and case mix adjustment
California	1.34	0.95
New Jersey	1.06	0.91
Massachusetts	0.87	1.05
Texas	1.14	1.61

Notes: Base payments reflect payment amounts from claims. Wage adjustments were made using wage indices from the Medicare Inpatient Prospective Payment System. Case mix adjustments were based on the relative weights from the All Patient Refined Diagnosis Related Group classification system. The index value reflects the ratio of each state's spending per inpatient stay relative to the national average payment per inpatient stay. A value above 1.00 indicates payments higher than the national average and a value below 1.00 indicates payments lower than the national average. Excludes Alabama, Oregon, South Carolina, and Utah due to data quality issues.
Source: MACPAC and AIR, 2026, analysis of 2022 T-MSIS analytic files.

Medicaid Inpatient Hospital Net Payment Index, by State, 2022



Notes: Net payments are total gross payments minus the amount of non-federal share financed by providers through provider taxes, intergovernmental transfers, and certified public expenditures. Total gross payments include wage and case mix adjusted base payments, disproportionate share hospital (DSH) supplemental payments, non-DSH supplemental payments, and state directed payments made through separate payment terms. The index value reflects the ratio of each state's spending per inpatient stay relative to the national average payment per inpatient stay. A value above 1.00 indicates payments higher than the national average and a value below 1.00 indicates payments lower than the national average. Excludes Alabama, Oregon, South Carolina, and Utah due to data quality issues.
Source: MACPAC and AIR, 2026, analysis of 2022 T-MSIS analytic files, FYs 2022–2024 CMS-64 data net expenditure data and supplemental payment validation files, 2019 DSH audit data, approved state directed payment preprints as of August 2024, and 2018 provider tax and local government financing data from GAO, 2020, *Medicaid: CMS needs more information on states' financing and payment arrangements to improve oversight. Report no. GAO-21-98,* https://www.gao.gov/products/gao-21-98.

State Variation in Payment Composition

State	Adjusted base payment index (ranking)	Total gross payment index (ranking)	Net payment index (ranking)
Texas	1.61 (2)	1.34 (2)	1.32 (3)
Nevada	0.53 (47)	0.41 (47)	0.41 (47)
California	0.95 (23)	1.25 (3)	1.28 (4)
Louisiana	0.64 (42)	1.03 (10)	1.00 (13)
Florida	0.58 (45)	1.08 (7)	0.88 (20)
Maryland	1.44 (3)	0.82 (24)	0.89 (17)
Minnesota	1.06 (14)	0.64 (41)	0.70 (37)
North Dakota	1.16 (11)	0.65 (39)	0.61 (45)
Alaska	1.33 (7)	0.74 (30)	0.84 (22)

Notes: Adjusted base payments reflect payment amounts from claims that have been normalized to reflect differences in wage costs and case mix across states. Wage adjustments were made using wage indices from the Medicare Inpatient Prospective Payment System. Case mix adjustments were based on the relative weights from the All Patient Refined Diagnosis Related Group classification system. Total gross payments include wage and case mix adjusted base payments, disproportionate share hospital (DSH) supplemental payments, non-DSH supplemental payments, and state directed payments made through separate payment terms. Net payments are total gross payments minus the amount of non-federal share financed by providers through provider taxes, intergovernmental transfers, and certified public expenditures. The index value reflects the ratio of each state's spending per inpatient stay relative to the national average payment per inpatient stay. A value above 1.00 indicates payments higher than the national average and a value below 1.00 indicates payments lower than the national average. Ranking indicates the state's relative ranking in spending per inpatient stay from highest (1) to lowest (47). Excludes Alabama, Oregon, South Carolina, and Utah due to data quality issues.
Source: MACPAC and AIR, 2026, analysis of 2022 T-MSIS analytic files, FYs 2022–2024 CMS-64 data net expenditure data and supplemental payment validation files, 2019 DSH audit data, approved state directed payment preprints as of August 2024, and 2018 provider tax and local government financing data from GAO, 2020, Medicaid: CMS needs more information on states' financing and payment arrangements to improve oversight. Report no. GAO-21-98, https://www.gao.gov/products/gao-21-98.

Limitations

Limitations

- Made several assumptions and adjustments because there are no comprehensive data on total Medicaid payment or financing
- Data sources are not aligned fully in terms of reporting periods
- DSH spending was allocated to inpatient services and Medicaid shortfall using 2019 audit data, which may not reflect how hospitals actually distribute DSH funds
- SDP preprints report projected spending rather than actual spending
- 2018 GAO financing data may not reflect how 2022 spending was financed
  - For example, Virginia implemented a hospital provider tax in FY 2019 that is not reflected in these data
- Point in time analysis that may not be reflective of current hospital spending nor future spending after changes from the 2025 Budget Reconciliation Act

Next Steps

Next Steps

- Compare Medicaid inpatient hospital payment to Medicare payment rates
- Group Medicaid claims using the Medicare Severity DRG (MS-DRG) grouper to allow service-level comparison
  - Focus on the most frequently billed MS-DRGs for which Medicare payment data are available
  - Explore repricing Medicaid claims for certain services prevalent in Medicaid but not in Medicare, such as maternity care
- Develop a chapter based on the completed inpatient analysis
- Begin a similar analysis of Medicaid payment for outpatient hospital services

Discussion

- Staff would appreciate feedback on the results of this initial work comparing inpatient hospital payment across states
- Staff would also appreciate any considerations for the ongoing comparison to Medicare and the upcoming outpatient hospital analysis
  - Potential for analysis of specific classes of hospitals
  - Findings compared to 2017 index
  - Effect of 2025 Budget Reconciliation Act

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