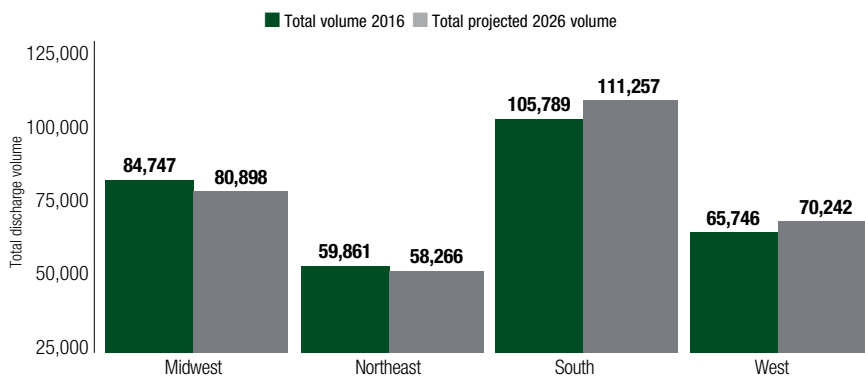


# FACTFILE

## Commercial Bundles

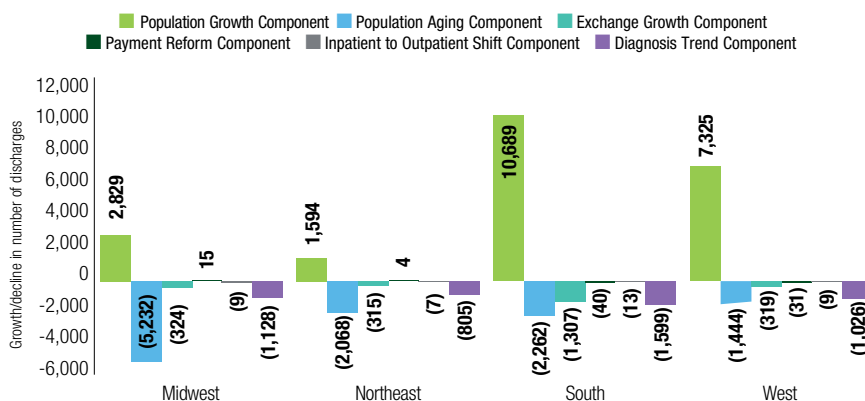
With premiums on the rise and commercial payers interested in increasing the value return on their healthcare investment, more payers are considering value-based care arrangements. While CMS has led the charge to use bundled payments for joint replacements through the Bundled Payments for Care Improvement (BPCI) and Comprehensive Care for Joint Replacement (CJR) program, there is increasing interest in these arrangements from the payer market. As payers and providers begin to anticipate and plan for the change, it's important to study bundled payments from a variety of angles looking at cost variations by region, market, provider type, and payers.

### TOTAL JOINT REPLACEMENT TRENDS, 2016–2026: PROJECTED DISCHARGE VOLUMES FOR COMMERCIALY-INSURED ADULT POPULATION AGED 45–64 WILL HOLD RELATIVELY STEADY WITH REGIONAL VARIATION



SOURCE: Truven Health Analytics.

### Population Growth and Population Aging Will Have the Greatest Projected Impact on Total Joint Replacement in the Commercially Insured Population



SOURCE: Truven Health Analytics.

When the impact of individual components of growth is studied for total joint replacement (TJR) projections, the impact of population growth is offset by the projected impact of the aging population in the Midwest and the Northeast, but not in the South or West. Inpatient Demand Estimates provide local annual acute care discharges and patient days by DRG. A key feature of the Inpatient Demand Estimates model is long-term forecasts of future trends. The trending model that supports these forecasts combines demographic and economic trends with expected changes in health insurance, practice patterns, reimbursement rules, and disease prevalence to estimate annual change over the next 10 years.

### ABOUT THE DATA

The Inpatient Demand Estimates from Truven Health Analytics,™ an IBM® Company, provides local annual acute care admissions and patient days by diagnosis-related group (DRG) and three-digit ICD-9 diagnosis code. The estimates are reported by age, sex, and principal payer Inpatient Demand Estimates relies on all-payer state discharge data from 24 states and Medicare Provider Analysis and Review (MEDPAR) data.

For the analysis on the following page, we used claims data from 2012 and 2013 from the Truven Health MarketScan® Commercial Database and selected only patients who were age 45 to 64 at the time of the procedure. (Patients under age 45 typically have joint replacement for different reasons than older adults and episode-of-care costs could skew the results.) This provided 84,648 simulated bundles, with each bundle characterized by 35 data attributes, including patient demographics, length of stay, presence of readmission, postacute care usage, and payments by component category.

Our simulated bundles (created by applying the Medicare bundling algorithm to fee-for-service data) were triggered by an anchor hospitalization for a Total Joint Replacement (TJR) procedure, using DRG 470, the most common DRG for TJR. We based our bundle length on the new CMS proposed rule—90 days post-hospital discharge.

Bundle sample size ranged from just over 4,000 to nearly 20,500 across the nine divisions.

### Upcoming Topic:

➤ Top-Performing Health Systems

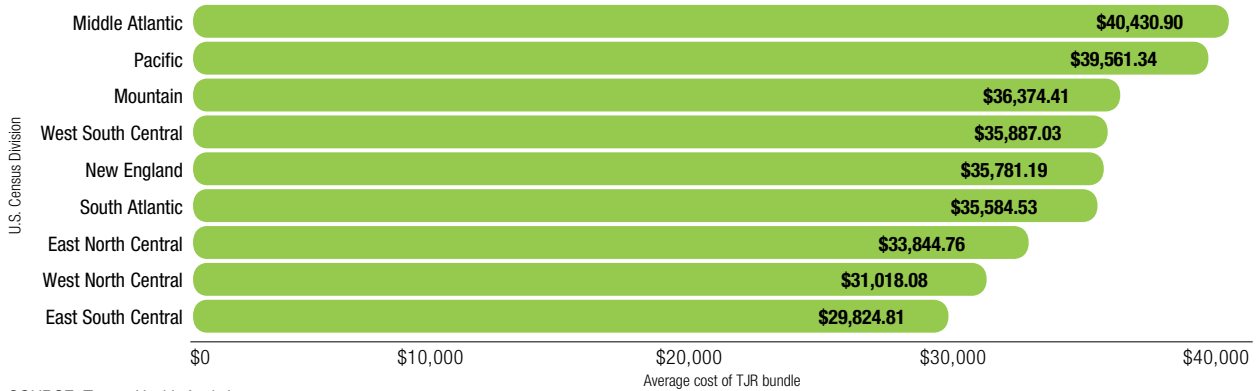
### FACT FILE PARTNER:

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## SIGNIFICANT VARIATION IN AVERAGE BUNDLED COSTS BY GEOGRAPHIC AREA

Our analysis showed that the average TJR bundled cost in the commercial (non-Medicaid) population ranged from \$29,825 in the East South Central division to \$40,431 in the Middle Atlantic—a difference of more than \$10,500 per patient.



SOURCE: Truven Health Analytics.

## AVERAGE TOTAL BUNDLED COST BY COMPONENT

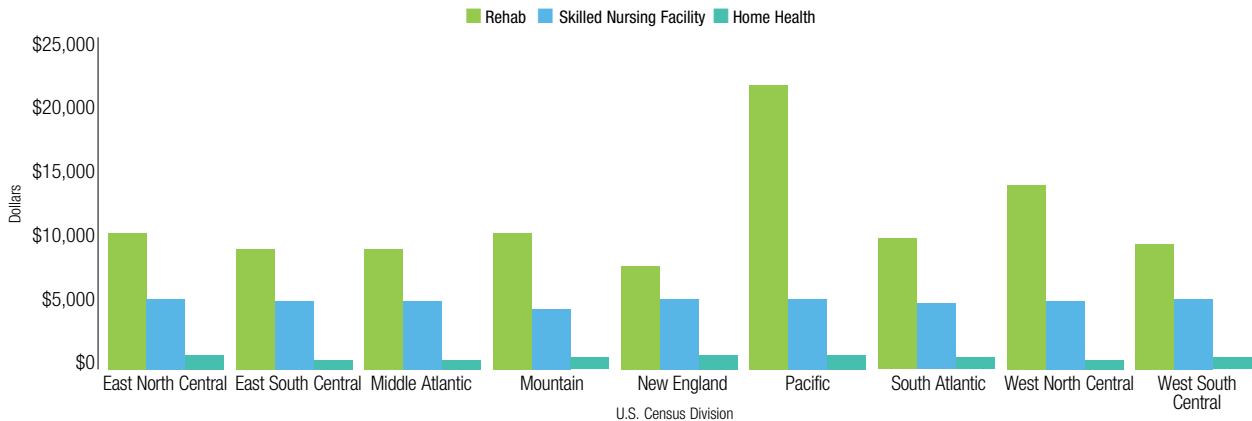
The average percentage of total costs due to the readmission component of the bundle is small at \$760 or 2.1 percent. That finding is fairly consistent across all divisions, ranging from 1.7 to 2.6 percent. This suggests that while expensive, readmissions are relatively rare in the commercial population. The average percentage of total bundled cost due to postacute care is still fairly low, although higher than readmissions, at 12.7 percent. The average percentages among divisions range from 10.8 percent (Mountain Division) to 14.5 percent (East South Central)—showing more cost variability.

U.S. Census Division	Average Total Cost	Average Anchor Cost	Average Postacute Care Cost	Average Readmissions Cost
East North Central	\$33,844.76	\$28,629.56	\$4,488.36	\$726.83
East South Central	\$29,824.81	\$24,955.05	\$4,331.30	\$538.45
Middle Atlantic	\$40,430.90	\$34,279.28	\$5,292.37	\$859.26
Mountain	\$36,374.41	\$31,655.86	\$3,918.41	\$800.15
New England	\$35,781.19	\$30,428.69	\$4,740.32	\$612.18
Pacific	\$39,561.34	\$34,399.69	\$4,374.51	\$787.15
South Atlantic	\$35,584.53	\$30,391.76	\$4,368.78	\$823.99
West North Central	\$31,018.08	\$26,505.52	\$3,907.37	\$605.19
West South Central	\$35,887.03	\$30,060.79	\$4,908.66	\$917.59
Average Across Divisions	\$35,520.00	\$30,255.38	\$4,504.33	\$760.29

SOURCE: Truven Health Analytics.

## AVERAGE COSTS PER DISCHARGE BY POSTACUTE CARE OPTIONS BY U.S. CENSUS DIVISION

Our study found differences in the average cost by type of postacute care service, a finding that was fairly consistent across divisions. This points to the importance of discharging a patient to the appropriate care option, when the goal is to reduce bundled costs for TJR while maintaining a high level of quality and optimal outcomes. The highest average patient cost was at an inpatient rehabilitation facility—the option that also had the largest variability in cost across divisions. The higher costs in the Pacific and West North Central divisions and the lower costs in the New England division are the most obvious.



SOURCE: Truven Health Analytics.

