Comprehensive Care for Joint Replacement Model Evaluation

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Executive Summary
Seventh Evaluation Report

Key Findings in Performance Year 7 (2023)

December 2025

Executive Summary

Seventh Evaluation Report

Key Takeaways

The Comprehensive Care for Joint Replacement (CJR) Model resulted in estimated savings of $112.7 million across Performance Years (PYs) 6 and 7.

In PY 7 alone, the CJR Model resulted in Medicare savings of $58.8 million. Average hospital repayments to Medicare increased notably from $78 per episode in PY 6 to $404 per episode in PY 7.

Results strongly suggest that CJR hospitals reduced episode payments for lower extremity joint replacements (LEJRs) by decreasing post-acute care facility payments.

The estimated per-episode payment reduction was $975 overall, $533 of which resulted from reductions in inpatient rehabilitation facility (IRF) payments. CJR hospitals also decreased the proportion of patients with an elective LEJR and patients with a fracture LEJR first discharged to an IRF relative to control hospitals.

Hospitals maintained quality of care under the CJR Model.

Patients receiving LEJRs at CJR and control hospitals had similar changes in emergency department visits, unplanned readmission rates, mortality rates, and LEJR complication rates between baseline and PYs 6–7.

About 60% of hospitals owed repayments to the Centers for Medicare & Medicaid Services (CMS) in PY 7, a larger percentage than in any prior PY.

The distribution of net reconciliation payments across hospitals remained uneven. The top 10% of hospitals with the largest reconciliation payments earned $16.3 million, and the bottom 10% of hospitals repaid CMS $21.1 million.

On average, safety-net hospitals (SNHs) in the CJR Model performed worse financially than non-SNHs.

SNHs were substantially more likely than non-SNHs to owe repayments to Medicare. SNHs also had a lower volume of LEJR procedures than non-SNHs. They served a more complex patient population, with higher rates of patients with fractures, major comorbidities, and unmet nonmedical needs.

Evaluation Approach

The evaluation assessed the impact of the CJR Model in PY 6 and PY 7 on outcomes relevant to model objectives. We used Medicare claims data to evaluate the model's impact, measured as changes between baseline (3-year period before model start) and the extension period for CJR hospitals relative to control hospitals. Calendar Years 2012 through 2014 made up the model baseline period. The extension period lasted from October 2021 through December 2024.

We used descriptive statistics and regression-based techniques, such as difference-in-differences (DiD), to examine impacts on cost, quality, and utilization. The DiD approach allowed for a time-invariant analysis of the changes in outcomes between the model baseline and the intervention period of interest (PYs 6–7).

We estimated Medicare program savings and changes in reconciliation payments using annual reconciliation data. We calculated estimated Medicare program savings by subtracting the net payment reconciliation amounts from the change in episode spending.

We also conducted semi-structured interviews with a sample of CJR participants identified as SNHs to examine their experiences in the CJR Model. The participant-reported outcomes captured in the interviews highlight information not available from other data sources.

Model Background

Implemented from April 1, 2016, to December 31, 2024, by the Center for Medicare and Medicaid Innovation, the mandatory CJR Model aimed to slow Medicare spending growth on LEJRs by rewarding hospitals for value rather than volume of services.

The CJR Model tested whether episode-based payments and quality measurement for LEJRs could lower spending and maintain or improve quality. The goal of the CJR Model was for patients to have a safe, effective, and positive recovery experience that is free from complications, while maintaining their freedom of choice in providers and services.

The model held participant hospitals financially accountable for the cost and quality of health care services during and after an LEJR.

CJR payment incentives encouraged participant hospitals to take on responsibilities for patients receiving an LEJR. One of these responsibilities was ensuring patients received high-quality, coordinated care by all health care providers from the time of the procedure through recovery, including physical therapy and any other at-home rehabilitation care. Providers also worked with their patients to develop a plan for recovery, including whether they preferred to recover at home instead of a rehabilitation facility.

In the 2021 Final Rule, CMS implemented multiple changes to the CJR Model.

Extended the performance period by 3 years, from September 2021 to December 2024, to evaluate design updates.

Returned to full mandatory participation, excluding Section 401 rural status, low-volume, and voluntary participant hospitals.

Made significant changes to the payment design, including:

- Inclusion of outpatient episodes
- A streamlined reconciliation process
- Additional flexibilities for gainsharing and downstream distribution payments
- Updates to the target price calculation:

Target prices were risk-adjusted based on age, dual-eligibility status, and count of Hierarchical Condition Categories. These adjustments were **in addition** to the existing 3% discount and adjustments for the composite quality score.

CMS calculated target prices using the most recent year, instead of 3 years, of claims data.

CMS replaced a national adjustment factor with a **retrospective market trend factor** that was applied at the reconciliation stage.

CMS **updated the quality discount factors** for hospitals with a quality rating of "excellent" or "good," altered the method to calculate spending caps, and removed the use of anchor factor and regional and hospital-specific anchor weights.

The CJR Model saved CMS an estimated $112.7 million cumulatively in PYs 6 and 7.

$90.2 M Estimated Reduction in LEJR Spending + **$22.5 M** Net Hospital Repayments to Medicare = **$112.7 M** Medicare Savings Across PYs 6 and 7

CJR hospitals reduced episode payments for LEJRs by decreasing post-acute care facility payments.

Results strongly suggest that in PY 6 and PY 7, the CJR Model led to a reduction in total per-episode payments. The magnitude of the per-episode payment reduction ($975) was consistent with estimates from prior PYs. We estimated a statistically significant reduction in total payments of $1,172 for the elective LEJR population, which makes up most LEJRs, and estimated no reduction in fracture LEJR per-episode payments. Hospitals reported in interviews that they had more control over their elective patients' care pathway.

Reductions in episode payments were mostly driven by reductions in IRF payments. We estimated a statistically significant reduction in per-episode IRF payments of $533 for LEJRs. While we did not estimate payment reductions for patients with a fracture LEJR, we estimated a significant increase in skilled nursing facility payments that was offset by a similar reduction in IRF payments. CJR hospitals decreased the proportion of patients first discharged to an IRF for both fracture and elective LEJRs.

Hospitals maintained quality while reducing costs:

Hospitals maintained quality of care under the CJR Model as measured by our four claims-based measures of quality:

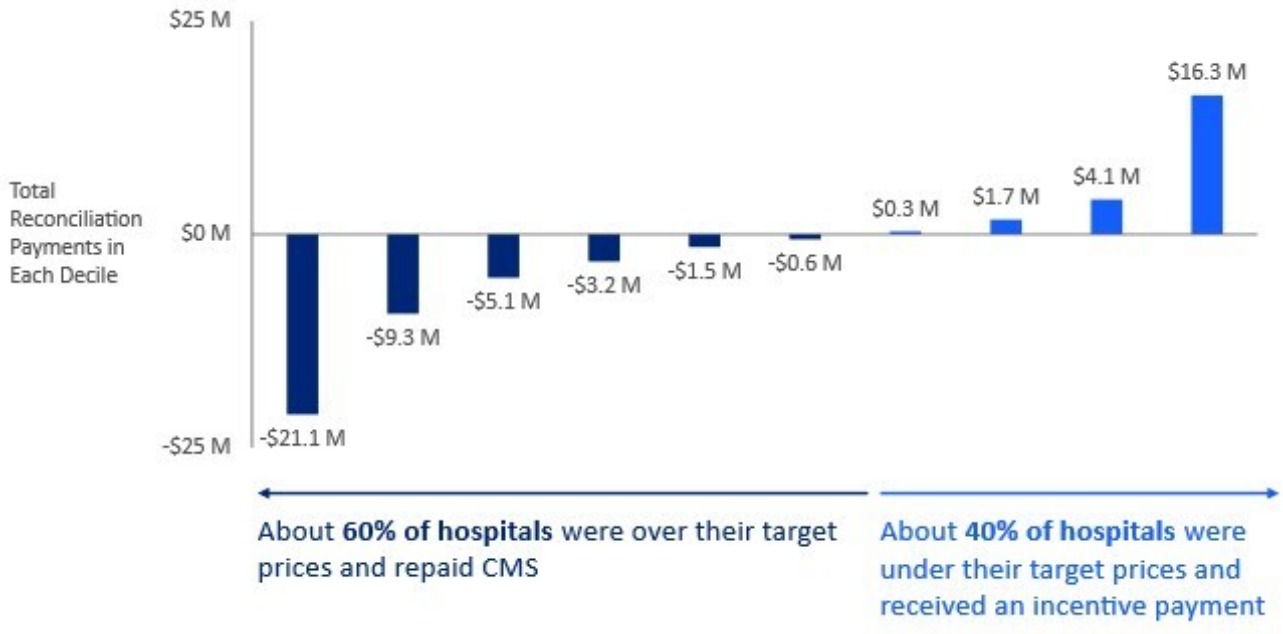
- Complication Rate
- Mortality Rate
- Unplanned Readmission Rate
- Emergency Department Use

CJR hospitals mirrored national trends in quality. Both CJR and control hospitals reduced the rates of unplanned readmissions and complications by more than 10% since the baseline period.

About 60% of hospitals owed repayments to CMS in PY 7, a larger share than in any prior PY.

PY 7 was the second consecutive year in which CJR hospitals, on average, owed repayments to Medicare. Repayments increased from $78 per episode in PY 6 to $404 per episode in PY 7. While some hospitals continued to do well financially in the CJR Model, the revenue hospitals earned from reconciliation payments had substantially decreased from prior years.

In PY 7, the top 10% of CJR hospitals earned large reconciliation payments, while the bottom 10% owed large repayments to Medicare.



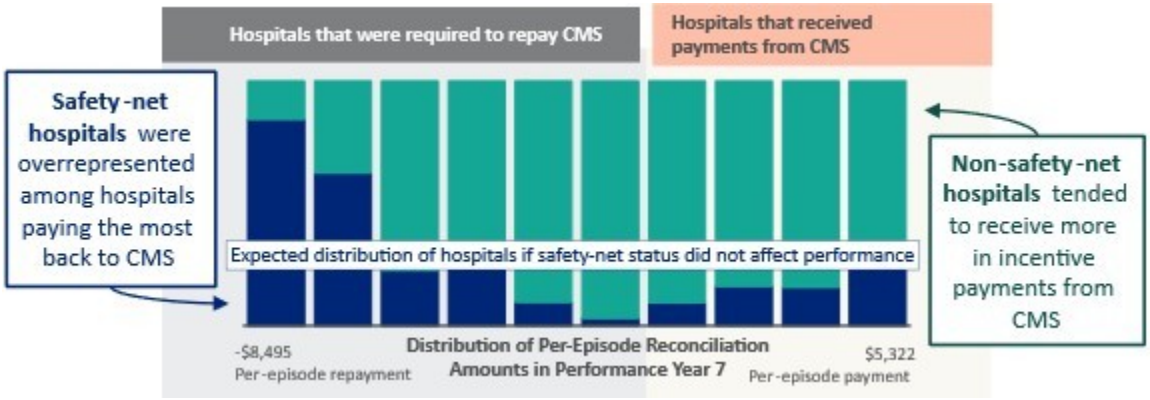
Successful participants in the CJR Model performed more LEJR procedures. Hospitals that earned reconciliation payments had smaller average bed counts than hospitals that owed repayments. However, hospitals that earned reconciliation payments had much larger LEJR volume, suggesting that LEJR volume and not overall hospital size was associated with financial success.

Compared with PY 6, more hospitals had average episode spending above the target price. This increase in hospitals with spending above targets contributed to the growth in average hospital repayments in PY 7.

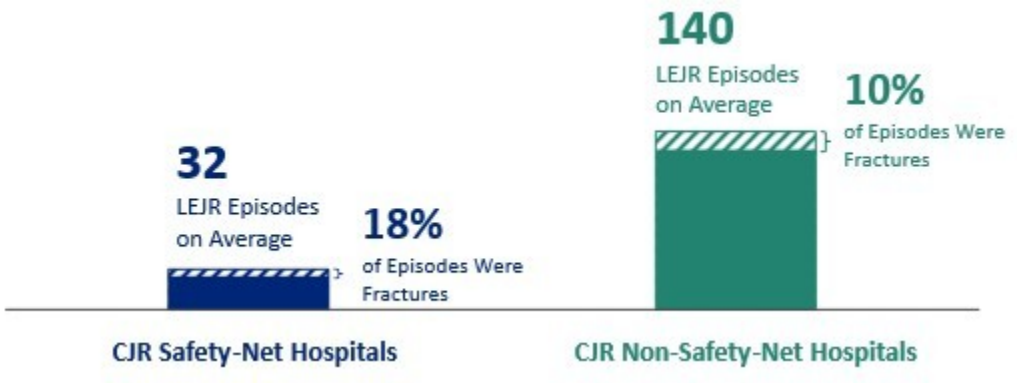
The increase in outpatient LEJRs reduced target prices and episode spending for lower-complexity LEJRs. Of the four Medicare Severity-Diagnosis Related Groups (MS-DRGs) in the model, the shift to outpatient procedures primarily affected elective LEJRs without complications. Target prices for this MS-DRG, which accounted for 85% of all LEJRs in PY 7, consistently declined over the course of the model, from $24,287 in PY 1 to $20,794 in PY 7. The target prices for the remaining higher-complexity MS-DRGs increased since PY 6, when CMS added patient-level risk adjustments that accounted for the greater complexity of patients receiving these procedures.

Safety-net hospitals (SNHs) in the CJR Model performed worse financially than non-SNHs.

SNHs were substantially overrepresented among hospitals with the highest per-episode repayments in PY 7, accounting for 27 of the 32 hospitals with the highest repayments.



SNHs performed fewer and more complex LEJR surgeries than non-SNHs. SNHs' lower volume and more complex episodes could have affected their ability to meet the CJR target price. As a result of their lower LEJR volume, SNHs may have anticipated low returns and not invested their limited resources in redesigning care for LEJRs. Among SNHs' LEJR episodes, a much larger proportion were a result of fractures, with fewer opportunities to intervene before surgery. Therefore, SNHs had more challenges affecting the care pathway for the patients they treated.



In interviews, representatives at SNHs described the **challenges to providing high-quality care while meeting the target price**:

- **Comorbidities,** such as diabetes and obesity, can complicate optimization before surgery and are associated with worse outcomes.
- **Lack of health literacy,** insufficient caregiver or family support, and trouble adhering to care plans can increase the risk for unplanned readmissions and worse outcomes.
- **Housing insecurity** and **limited access to transportation** may hinder safe discharge.

Our SNH-specific report highlights the unique experiences that SNHs faced in the CJR Model, the strategies that they employed to address patient needs, and the lessons learned for other SNHs and for future model design.

About This Document

The Lewin Group, an independent contractor, analyzed claims, survey, interview, and site visit data for this evaluation to determine whether the model achieved its primary goals.

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Interested in learning more?

In addition to this report, the following resources are available to get a quick snapshot of key findings or to dive deep into the Performance Year 7 evaluation:

- **Findings at a Glance | 2 pages**
  Concise visual summary of key findings
- **In-Depth Report | 200 pages**
  Comprehensive evaluation findings and methodology
- **SNH-Specific Report | 20 pages**
  Specialty report highlighting safety-net hospital experiences in the CJR Model