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Medicare's bundled payment for joint replacement improves key outcomes for Black patients

Comprehensive Care for Joint Replacement was associated with lower use of institutional post-acute care and readmissions after surgery — with Black patients benefiting most

Hip and knee replacements are the most common inpatient procedures for Medicare beneficiaries, accounting for 5% of Medicare inpatient spending. To reduce spending and improve outcomes, Medicare introduced the **Comprehensive Care for Joint Replacement model (CJR),** using random assignment to implement a mandatory value-based payment bundle in 67 metropolitan statistical areas. Beginning in April 2016, hospitals in those MSAs became accountable for meeting quality-adjusted cost targets for the initial surgical stay and all care in the 90 days following. Hospitals that stayed under the target were eligible for bonuses; those that exceeded the target were subject to penalties.

How value-based payments like CJR may affect racial and ethnic disparities in health care has become a critical question for policymakers. Black and Hispanic patients are disproportionately more likely to experience social and medical complexity. However, value-based payments like CJR do not adjust for these factors. Thus, CJR may create incentives for hospitals to avoid caring for these patients, exacerbating existing racial and ethnic disparities. On the other hand, care improvements motivated by CJR may benefit all patients, including minorities.

To assess the impact of CJR on racial and ethnic disparities, we analyzed claims from all Medicare beneficiaries receiving joint replacements in hospitals in 67 CJR and 103 "control" MSAs during periods in 2013-2015 (pre-CJR) and 2016-7 (after the introduction of CJR). We compared the performance of hospitals in these two groups, assessing changes in spending, utilization, and health outcomes among Black, white, and Hispanic patients.

Kim, H, Meath, THA, Tran, FW, et al. Association of Medicare Mandatory Bundled Payment System for Hip and Knee Joint Replacement with Racial/Ethnic Difference in Joint Replacemetn Care. *JAMA Network Open*. 2020;3(9):e2014475.

Access to article

KEY FINDINGS

- Despite concerns that value-based payment models could exacerbate racial inequities, this did not occur in the first two years of CJR.
- Readmissions for Black patients following joint replacement decreased by 3.1 percentage points at hospitals in CJR.
- Black/white disparities in use of institutional post-acute care decreased, along with overall reductions for both races.
- No similar changes were found for Hispanic patients.

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3.1%

Percentage-point reduction in rate of hospital readmission for Black patients who received joint replacements at hospitals in the CJR model

CJR led hospitals to reduce reliance on skilled nursing facilities for post-surgical care

Discharges to institutional post-acute care (such as skilled nursing and inpatient rehabilitation facilities) decreased for patients of all races and ethnicities from hospitals in CJR, along with reductions in the number of days patients spent in this setting. Institutional care after surgery is often associated with worse outcomes.

Black patients experienced the largest reductions in discharges to institutional post-acute care. While the rate dropped for all groups, it dropped most for Black patients, closing the gap with whites by 3.4 percentage points.

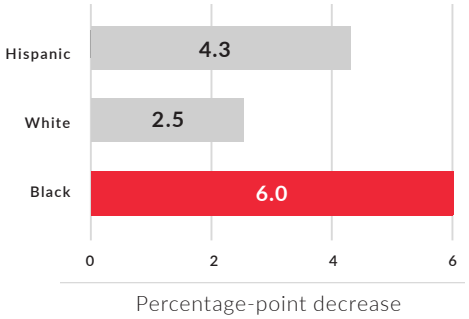
Despite these reductions, health outcomes (emergency department visits, complications, and mortality) remained unchanged during the 90-day post-surgical period.

Hospital readmissions drop too, especially for Black patients

Readmissions, an indicator of poor quality care, decreased by 3.1 percentage points for Black patients after introduction of the CJR model. Readmissions fell for white and Hispanic patients too, but the change was not statistically significant.

Improvements did not hold for Black patients dually eligible for Medicare and Medicaid. Patients with dual coverage tend to have lower incomes and more complex needs. That CJR's benefits did not extend to them may suggest greater challenges in improving care for this group.

Figure 1. Black patients saw greater CJR-associated reductions in discharge to institutional settings after surgery than whites or Hispanics did.



Implications

Racial and ethnic minority patients still face marked disparities in health outcomes for hip and knee replacements. Despite concerns about value-based payments and their potential to exacerbate existing disparities, our analysis found that that Medicare's CJR model produced modest improvements in outcomes for Black patients.

Learning more about how hospitals achieved improvements for some patients while still reducing institutional post-acute care may point to ways to support patients with complex social and medical needs and to further reduce disparities.

Please see full publication for references.

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