

The Impact of Adding a Racial Case Mix Adjuster to Medicare Dialysis Reimbursement: Correcting a Potential Bias

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INTRODUCTION

In 2011, a new prospective payment system will be instituted for Medicare payments for dialysis. CMS analyses revealed that dialysis payments differ significantly by race, yet CMS has not proposed including a racial case mix adjuster (CMA). Multiple studies have shown that in the U.S., blacks undergoing dialysis have greater health care resource utilization and cost than do patients of other races [1,2].

OBJECTIVE. Model the impact of adding a race case mix adjuster on dialysis facilities reimbursement under the Medicare proposed prospective payment system in DaVita® dialysis facilities.

METHODOLOGY

Data sources

- CY2011 Proposed ESRD PPS Facility Level Impact File
- DaVita Clinical Data Warehouse

Variables

- Racial case mix weights were abstracted from the CMS Notice of Proposed Rulemaking (see Table 1)
- For geomapping, race was defined by county using U.S. Census 2008 projects. For regression analyses, race was defined by DaVita patient self-report: Black; White; Asian/Pacific Islander (API); Native American/Alaskan Native (NA/AN)
- Facility-level Medicare reimbursement under the current and proposed payment systems were abstracted from the 2011 projected payment data provided *CY2011 Proposed ESRD PPS Facility Level Impact File*
- Change in reimbursement under the current and proposed payment systems was calculated as: $\frac{2011 \text{ payment under current payment rules} - 2011 \text{ payment under NPRM}}{2011 \text{ payment under current payment rules}}$

- The race CMA was applied at a facility level. The base payment was reduced by the net increase created by CMS in order to maintain budget neutrality

Analyses

- Payment differential was mapped against U.S. Census percent blacks at the county level
- Linear regressions were run with percent race as the independent variable and difference in CMS-projected 2001 payment under the current and proposed payment systems as the dependent variable
- Because initial analyses showed the black race CMA over-corrected payment, a limited Monte Carlo simulation was conducted, solving for a black race CMA that eliminated the relationship between percentage of blacks in a facility and change in payment, producing a slope of the regression line closest to zero

References

1. Norris K, Nissenson AR. Race, gender, and socioeconomic disparities in CKD in the United States. *J Am Soc Nephrol* 19: 1261-1270, 2008.
2. Lacson E, Rogus J, Teng M, Lazarus M, Hakim RM. The association of race with erythropoietin does in patients on long-term hemodialysis. *Am J Kidney Dis* 52(6): 1104-1114, 2008.
3. Centers for Medicare & Medicaid Services. End-stage renal disease prospective payment system proposed rules. Fed Registry. 74(187): 49922-50102, 2009.

RESULTS

Table 1. CMS Proposed Prospective Payment Racial Adjusters [3]

Race	REMS
Asian/Pacific Islander	1.00 (reference)
Native American/Alaskan Native/North American Native	1.126
White	1.142
Black	1.207
Other	1.646
Hispanic	1.000
Non-Hispanic	1.065

Figure 1. Dialysis Facilities Receiving a Lower Payment under the Proposed Prospective Payment System Based on CMS Projections, by County Percent Blacks/African Americans (U.S. Census, 2008 Projections)

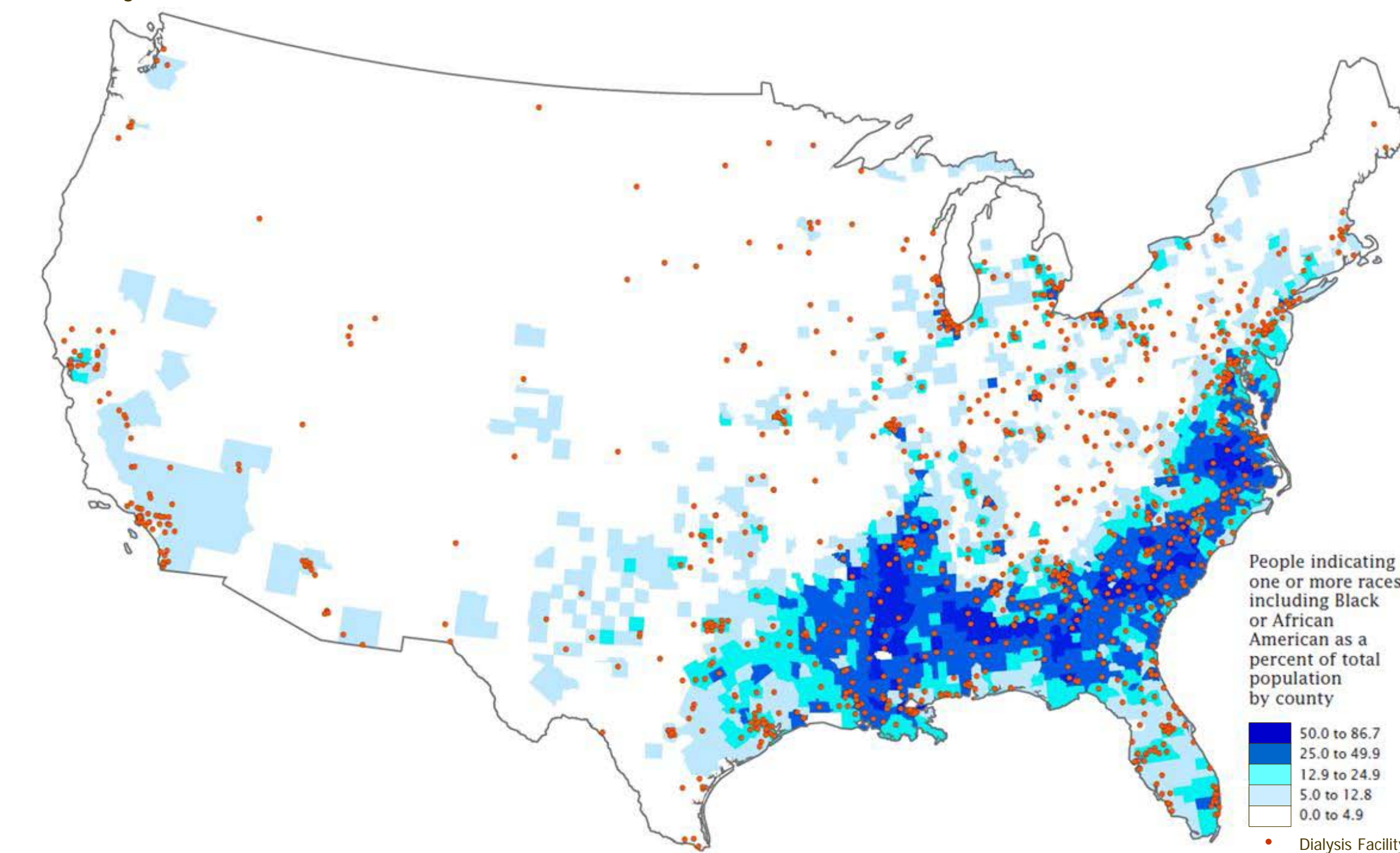
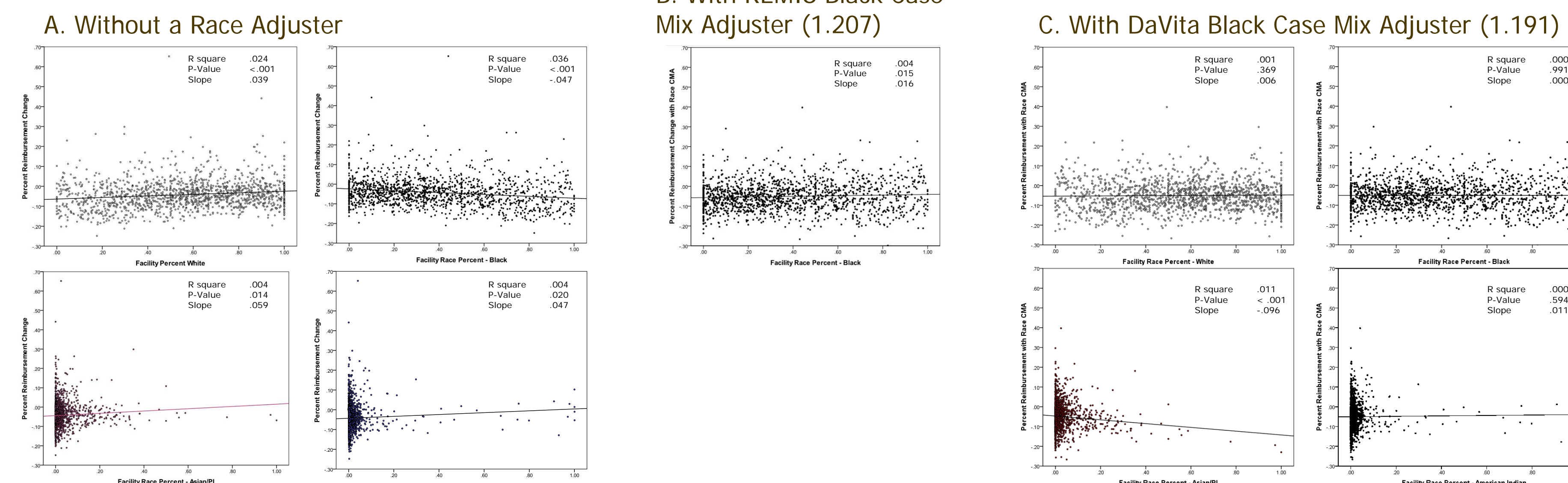


Figure 2. Association between facility percent race and percent change in CMS estimated 2011 reimbursement under current and proposed payment rules



CONCLUSIONS

- Facilities receiving lower payment under the proposed prospective payment system than under the current system (as projected by CMS) clustered in areas with higher percentages of blacks (Figure 1).
- Without the race CMA, there was a significant negative association between percent blacks in DaVita dialysis facilities, and payment differential under the old and new payment systems.
- The addition of the race CMA eliminated the association between race and payment differential for whites and NA/ANs (Figure 2).
- The addition of the race CMA introduced a positive association between black race and payment, which was eliminated by a minor reduction in the black CMA.
- The race CMA introduced a negative association between API race and payment.
- **Limitations:**
 - *The regression analyses included only DaVita dialysis facilities.*
 - *Under the proposed payment system, facilities with >50% API will receive lower payments, both with and without a race CMA.*
 - *The addition of a race adjuster magnifies the loss in facilities with >50% API patients in a financially meaningful way (from a mean loss of -6% to a mean of -17%). However, this affected only 6 out of 1477 DaVita facilities.*

KEY LEARNINGS

- ✓ CMS should include a race CMA in the prospective payment system for dialysis. This would ease the current financial disparities based on race.

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