



Adjusting for Race in Metrics of Organ Procurement Organization Performance

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Introduction

- In December 2020, the Centers for Medicare & Medicaid Services (CMS) published a Final Rule for organ procurement organizations (OPOs) to be evaluated for recertification with new unadjusted donation and age-adjusted transplant rate metrics.
- Adjustment for race is controversial. A common concern is that it will set lower expectations and “excuse” poor performance within racial subgroups.
- Whether existing disparities within racial subgroups are “caused” by OPOs or are preexisting conditions that OPOs operate within is debatable.
- This study examined national donation and transplant rates within racial subgroups and how additional adjustment for race would affect the CMS evaluation of OPOs.

Methods

- CMS donation and transplant rates and resulting tiers for the year 2020 were calculated with CDC and SRTR data using the method defined in the CMS Final Rule.
- Race adjustment by stratification was added to the metrics (categories: White, Black, Asian or Pacific Islander, and Mixed or Other race).
- Tiers were calculated for both the race-adjusted and race-unadjusted metrics: Tier 1 OPOs had an upper 95% confidence limit for both their donation and transplant rates above the 75th percentile of 2019 rates; Tier 2 OPOs had an upper 95% confidence limit for both rates above the median of 2019 rates; all other OPOs were in Tier 3.

Table 1: National CALC potential donors, donation and transplant rates by race – 2020

Race	CALC Potential Donors	Donors (Donation Rate)	Transplants (Transplant Rate)
Asian/Pacific Islander	3,691	328 (8.89%)	1,020 (27.63%)
Black	18,967	1,889 (9.96%)	6,150 (32.42%)
Other/Mixed Race	2,445	126 (5.15%)	425 (17.38%)
White	76,476	9,260 (12.11%)	29,494 (38.57%)

Table 2: OPOs that change tier when adjusting for race and whether they over or underperform national rates – 2020

OPO	CMS Tier	Race-adjusted Tier	Percent Non-White Potential Donors	Non-White Donor Performance: (Observed/Expected)	Non-White Transplant Performance: (Observed/Expected)	White Donor Performance: (Observed/Expected)	White Transplant Performance: (Observed/Expected)
OPO1	3	2	39.14%	Overperforms (116/113.95)	Overperforms (396/370.28)	Underperforms (206/218.19)	Underperforms (637/695.18)
OPO2	1	2	6.9%	Overperforms (10/5.17)	Overperforms (42/16.82)	Underperforms (84/94.7)	Underperforms (259/301.73)
OPO3	2	3	15.16%	Overperforms (45/32.71)	Overperforms (180/106.22)	Underperforms (193/227.03)	Underperforms (682/723.34)
OPO4	3	2	44.65%	Overperforms (84/78.83)	Overperforms (298/256.46)	Underperforms (118/120.24)	Overperforms (404/383.08)
OPO5	3	2	41.3%	Underperforms (36/45.03)	Underperforms (108/146.2)	Overperforms (95/79.67)	Overperforms (298/253.84)
OPO6	3	2	35.1%	Underperforms (81/85.6)	Underperforms (248/278.6)	Overperforms (203/199.06)	Overperforms (639/634.22)
OPO7	2	3	18.95%	Underperforms (8/12.82)	Underperforms (20/41.58)	Overperforms (68/67.32)	Overperforms (225/214.49)
OPO8	2	1	22.94%	Overperforms (35/25.63)	Overperforms (104/84.48)	Overperforms (152/146.39)	Underperforms (430/466.41)

Results

- Nationally, donation rates and transplant rates were higher among White potential donors than non-White potential donors (donation rate per 100 potential donors: 12.11 versus 9.33, respectively; transplant rate per 100 potential donors: 38.58 versus 30.26, respectively).
- When adjusting for race, 8 OPOs changed tiers (5 improved their tier, 3 lowered their tier). Among the OPOs that changed tiers, 1 that moved from Tier 3 to Tier 2 had 44.65% non-White potential donors and outperformed the national donor and transplant rates for non-White potential donors and the national transplant rate for White donors.

Conclusions

- Failing to adjust for race can hide good performance relative to national averages among potential non-White donors and *risks extreme penalties* for OPOs that have high proportions of non-White potential donors.
- If reducing racial disparities is a system goal, racial substrata must be examined and OPOs compared within substrata of performance—precisely what is done through adjustment for racial groups.

The authors have no financial relationships to disclose within the past 12 months, relevant to this presentation.

This work was supported wholly or in part by HRSA contract 75R60220C00011. The content is the responsibility of the authors alone and does not necessarily reflect the views or policies of the Department of HHS, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.