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SDI Associated With Access to Kidney Transplant

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Purpose

- Social determinants of health, including socioeconomic status and neighborhood characteristics, play a significant role in shaping health care access and outcomes.
- The Social Deprivation Index (SDI) is a composite measure reflecting the socioeconomic disadvantages of a community using US Census Bureau data on years of schooling, crowding, vehicle ownership, income, renter status, and single parent status.
- We assessed the association between SDI and time to transplant, accounting for insurance status and cause of end-stage kidney disease (ESKD).

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.



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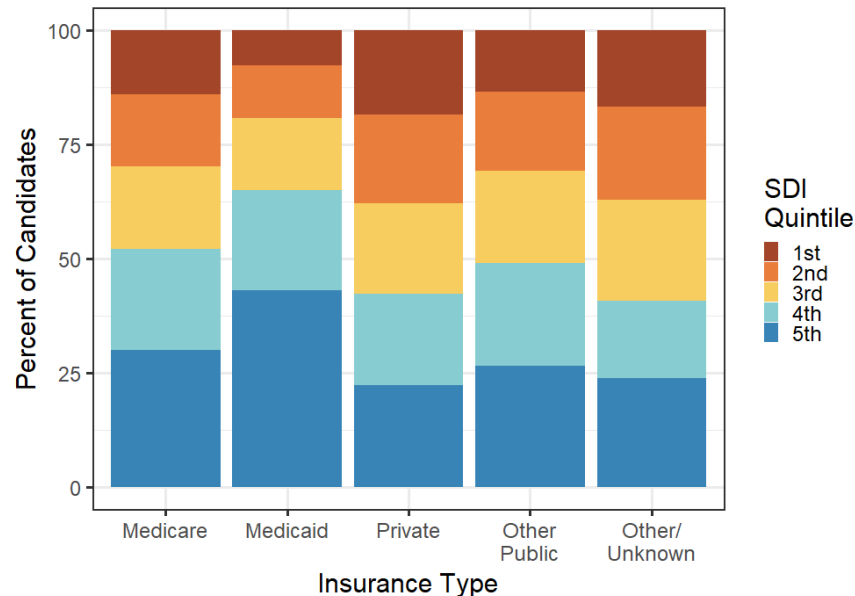
Methods

- Analysis cohort = 247,297 adult kidney transplant candidates on waiting list 2020-2024 (SRTR data)
- SDI calculated and merged by candidate zip code
 - Higher SDI quintiles reflect higher levels of social deprivation
- Candidates listed concurrently at multiple centers had listings combined
- Cox proportional hazards models performed to test SDI quintile with time to deceased or living donor transplant from listing adjusting for: insurance type, ESKD cause, age group, calculated panel-reactive antibody (cPRA) value at listing, and dialysis time at listing



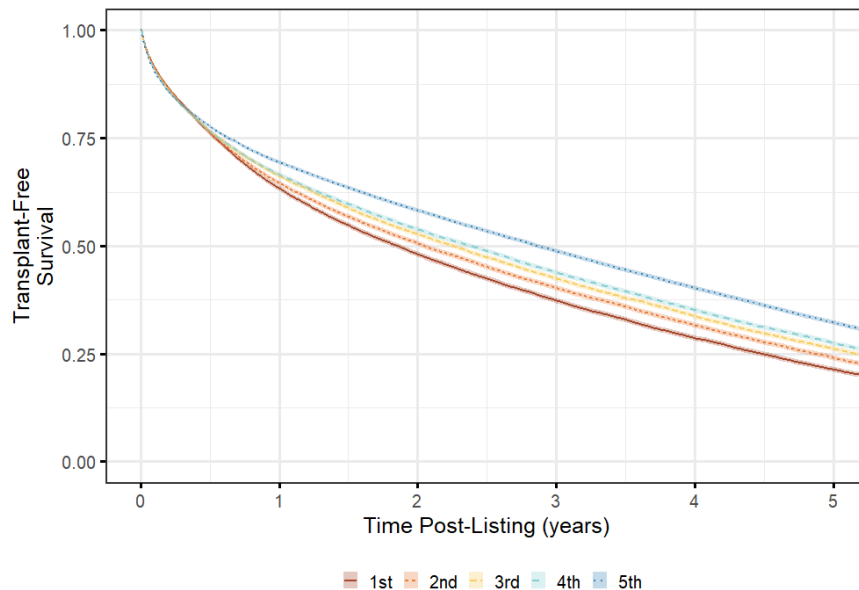
Results: SDI Associated With Insurance Type

SDI is highly associated with insurance type.



Results: SDI Associated With Time to Transplant

- HR (95% CI) relative to 1st SDI quintile (least deprivation):
 - 2nd SDI quintile: 0.92 (0.90 – 0.94)
 - 3rd SDI quintile: 0.87 (0.85 – 0.89)
 - 4th SDI quintile: 0.82 (0.81 – 0.84)
 - 5th SDI quintile: 0.73 (0.72 – 0.75)
- Insignificant interaction between SDI quintile and insurance type
- Future direction: Subset analysis censoring living donor transplants





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