

AUTHORS: [Mohammad Darweesh](#)¹, [Rasheed Musa](#)¹, [Ratib Mahfouz](#)², [Hisham Laswi](#)³, [Mahmoud Mansour](#)⁴, [Adham E. Obeidat](#)⁵, [Bhavesh Gajjar](#)¹

1. East Tennessee State University, Johnson City, TN, 2. Kent Hospital/Brown University, Warwick, RI, 3. John H. Stroger, Jr. Hospital of Cook County, 4. University of Missouri, Columbia, MO 5. University of Hawaii, Honolulu, HI

INTRODUCTION

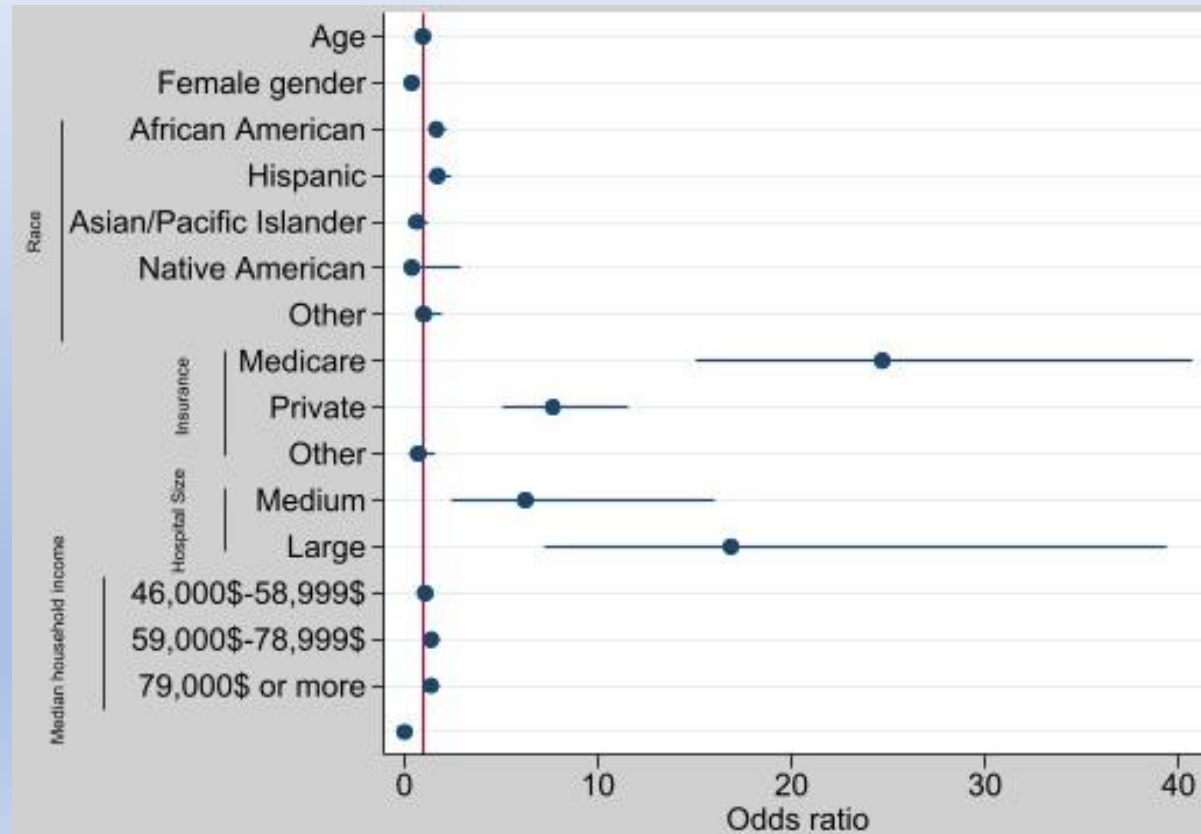
Pancreatic transplantation is still the only treatment that can restore normoglycemic and complete insulin independence. Potentially life-threatening complications of diabetes, hypoglycemia unawareness, and intolerable problems with insulin therapy can all be indications of pancreatic transplantation. In this study, we aimed to investigate the healthcare determinants and racial disparities in pancreatic transplantation.

METHODOLOGY

A retrospective study was conducted utilizing the Nationwide Inpatient Sample database (NIS) for the years 2016 to 2018. Patients who underwent pancreatic transplantation were identified using ICD-10 diagnosis codes from all listed discharge diagnoses. Patients younger than 18 years of age, and missing information for age, gender, or race were excluded. Multivariate logistic regression analysis was performed to compare different predictors of pancreatic transplantation in the included population.

RESULTS

A total of 2530 patients underwent pancreatic transplantation were identified during the study period. Compared to White patients, African American and Hispanic patients had increased transplant rates (OR 1.64, 95% CI 1.26-2.14, P-value < 0.00) and (OR 1.72, 95% CI 1.23-2.42, P-value 0.02), respectively. While Native American and Asian/Pacific Islander patients had statistically insignificant results. Female gender was associated with decreased transplant rates (OR 0.93, 95% CI 0.925-0.936, P-value < 0.00).



RESULTS CONT'D

Patients with Medicare and private insurances had considerably higher transplant rates compared to those with Medicaid (OR 24.7, 95% CI 14.9-40.7, P-value < 0.00) and (OR 7.66, 95% CI 5.07-11.57, P-value < 0.00), respectively. In addition, the 59,000\$-78,999\$ and 79,000\$ or more income quartile were associated with higher transplant rates (OR 24.7, 95% CI 14.9-40.7, P-value < 0.00) and (OR 7.66, 95% CI 5.07-11.57, P-value < 0.00), respectively.

CONCLUSION

This study demonstrated that race and social determinants of health, including gender, income, and insurance status, are associated with the likelihood of receiving pancreatic transplantation in the United States. Poverty and unequal access to health care can contribute to health care disparities. National-level initiatives raising public and provider awareness of racial and social disparities in care are needed in addition to expanding health insurance coverage.