**TABLE S1: FURTHER DESCRIPTION OF DATA SOURCES AND VARIABLES**

The Centers for Medicare & Medicaid Services maintains the Renal Management Information System (REMIS) to maintain information regarding Medicare coverage for patients with kidney failure, treatment including, transplant and dialysis.[1] It is part of the ESRD Program Management and Medical Information System Database. The REMIS data is one of the primary sources of the   of data for the United States Renal Data System (USRDS). An in-depth description of the USRDS data structure can be found in the website. [2] Brown University's institutional review board and the Centers for Medicare & Medicaid Services (CMS) Privacy Board approved the study protocol and waived the need for informed consent.

1. Centers for Medicare & Medicaid Services. End-Stage Renal Disease Systems Data Management Guidelines [Internet]. CMS; 2019 [cited 2019 Jul 23]. Available from: http://mycrownweb.org/assets/documents/ESRD_Systems_Data_Management_Guidelines.pdf

2. United States Renal Data System. 2016 Researcher's Guide to the USRDS Database [Internet]. USRDS; 2016 [cited 2019 Jul 23]. Available from: https://www.usrds.org/2016/rg/2016_USRDS_Researchers_Guide_16.pdf

| VARIABLE | SOURCE IN REMIS | ADDITIONAL INFORMATION |
|---|---|---|
| **Quality outcomes** | | |
| One-year all-cause mortality | Death Notification Form (CMS-2746) | This is submitted within two weeks of the patient's death by the dialysis facility last responsible for the patient's treatment. The form can be download from: https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/CMS-Forms-Items/CMS008869.html |
| Receipt of nephrology care prior to dialysis | ESRD Medical Evidence Form (CMS-2728) | The CMS-2728 form is required for all newly diagnosed patients with chronic kidney failure contains facility-reported fixed race and ethnic categories and other demographic and clinical information, regardless of their Medicare status or method of treatment, and is included in the REMIS data. The form can be download from: https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/CMS-Forms-Items/CMS008867.html |
| Presence of arteriovenous fistula or graft) during the first outpatient treatment session | ESRD Medical Evidence Form (CMS-2728) | |
| Insurance coverage prior to dialysis initiation | ESRD Medical Evidence Form (CMS-2728) | |

**TABLE S1: FURTHER DESCRIPTION OF DATA SOURCES AND VARIABLES (CONTINUED)**

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The Centers for Medicare & Medicaid Services maintains the Renal Management Information System (REMIS) to maintain information regarding Medicare coverage for patients with kidney failure, treatment including, transplant and dialysis.[1] It is part of the ESRD Program Management and Medical Information System Database. The REMIS data is one of the primary sources of the   of data for the United States Renal Data System (USRDS). An in-depth description of the USRDS data structure can be found in the website. [2] The university's institutional review board and the Centers for Medicare & Medicaid Services (CMS) Privacy Board approved the study protocol and waived the need for informed consent.

1.  Centers for Medicare & Medicaid Services. End-Stage Renal Disease Systems Data Management Guidelines [Internet]. CMS; 2019 [cited 2019 Jul 23]. Available from: http://mycrownweb.org/assets/documents/ESRD_Systems_Data_Management_Guidelines.pdf

2.  United States Renal Data System. 2016 Researcher's Guide to the USRDS Database [Internet]. USRDS; 2016 [cited 2019 Jul 23]. Available from: https://www.usrds.org/2016/rg/2016_USRDS_Researchers_Guide_16.pdf

| VARIABLE | SOURCE IN REMIS | ADDITIONAL INFORMATION |
|---|---|---|
| **Quality outcomes** | | |
| **Co-variates** | | |
| Race and ethnicity | ESRD Medical Evidence Form (CMS-2728) | The dialysis facility collected and reported information on race/ethnicity using fixed categories in the CMS 2728 form. |
| Residence (Zip-code and state), age and sex | ESRD Medical Evidence Form (CMS-2728) | The dialysis facility collected this information. |
| Clinical information | ESRD Medical Evidence Form (CMS-2728) | Completed by attending physician. We used the information as completed during the first outpatient treatment session |
| Zip-code level employment, poverty, income and education | Census 2010 | |

**TABLE S2. CHARACTERISTICS OF HISPANIC AND WHITE PATIENTS INITIATING DIALYSIS IN THE US AND PUERTO RICO 2006 TO 2015**

| Characteristics | Puerto Rican Hispanics | United States | |
| --- | --- | --- | --- |
| | | Hispanics | Whites |
| No. of patients | 13,131 | 155,200 | 623,112 |
| Age, mean (SD) | 62.6 (14.6) | 58.2 (16.4) | 66.0 (15.1) |
| Female | 39.8 | 42.1 | 40.6 |
| *Primary cause of end-stage renal disease* | | | |
| Diabetes | 66.2 | 58.6 | 40.9 |
| Hypertension | 14.1 | 19.9 | 25.1 |
| Other or uncertain | 19.8 | 21.5 | 33.9 |
| *Comorbid conditions* | | | |
| Congestive heart failure | 39.8 | 24.3 | 33.4 |
| Atherosclerotic heart disease | 42.0 | 13.3 | 22.8 |
| Other cardiac disease | 10.1 | 12.1 | 21.9 |
| Hypertension | 91.8 | 86.5 | 83.9 |
| Diabetes | 66.6 | 63.4 | 51.2 |
| Diabetic retinopathy | 33.3 | 11.2 | 7.0 |
| Cancer | 5.0 | 3.4 | 9.5 |
| Current smoker | 2.3 | 2.7 | 6.9 |
| Alcohol dependence | 1.2 | 1.4 | 1.5 |
| Hemoglobin, mean (SD), g/dL | 9.8 (1.6) | 9.6 (1.7) | 9.9 (1.6) |
| Serum albumin, mean (SD), g/dL | 3.1 (0.7)[a] | 3.1 (0.8) | 3.2 (0.7) |
| Kidney transplant during first year | 0.5 | 1.6 | 2.1 |
| Obese (BMI >30), % | 30.8 | 34.1 | 38.9 |
| % in ZIP Code with income below the federal poverty level, mean (SD) | 46.9 (0.10) | 20.6 (.03) | 13.7 (0.01) |
| % in ZIP Code who were unemployed, mean (SD) | 18.0 (0.06) | 10.4 (.01) | 8.7 (0.005) |
| Income in Zip Code, mean (SD), $ | 19042.2 (61.6) | 47388.7 (47.3) | 54582.9 (27.0) |
| % in ZIP Code with education less than 9th grade, mean (SD) | 22.0 (0.06) | 15.1 (.027) | 5.5 (.006) |

Notes: Data are expressed as percentages unless otherwise indicated. All differences between Hispanics in Puerto Rico and Whites in the US significant at P<.05. All differences between Hispanics in Puerto Rico and Hispanic in the US significant at P<.05 except for serum albumin. [a] No significant differences between Hispanics in the US and Hispanic in Puerto Rico.

**TABLE S3. ONE-YEAR MORTALITY RATES, ACCESS TO PREDIALYSIS NEPHROLOGY CARE AND PRESENCE OF AN ARTERIOFISTULA OR GRAFT AMONG HISPANIC AND WHITE PATIENTS INITIATING DIALYSIS IN THE US MAINLAND AND PUERTO RICO 2006 TO 2015**

| | Puerto Rican Hispanics | United States | |
| --- | --- | --- | --- |
| | | Hispanics | Whites |
| **One-year age-adjusted all-cause mortality** | | | |
| Age standardized (n=791,443) | 28.1 (27.4 to 29.0) [A, C] | 17.9 (17.7 to 18.1) [B] | 25.6 (25.5 to 25.7) |
| Adjusted (n=411,572) | 29.0 (27.8 to 30.2) [A, C] | 18.2 (17.9 to 18.6) [B] | 26.0 (25.9 to 26.2) |
| **Nephrology care prior to dialysis** | | | |
| Unadjusted (n=696,661) | 57.8 (57.0 to 59.0) [A, C] | 61.8 (61.5 to 62.1) [B] | 72.0 (71.9 to 72.1) |
| Adjusted (n= 453, 551) | 58.7 (57.5 to 60.0) [A, C] | 66.8 (66.5 to 67.2) [B] | 71.3 (71.1 to 71.4) |
| **Arteriovenous fistula or graft present** | | | |
| Unadjusted (n=725,306) | 30.3 (29.5 to 31.2) [C] | 30.9 (30.6 to 31.1) [B] | 33.0 (32.8 to 33.1) |
| Adjusted (n= 465,191) | 31.3 (30.1 to 32.5) [A, C] | 33.2 (32.8 to 33.5) [B] | 32.8 (32.6 to 32.9) |
| **Insurance coverage** | | | |
| Unadjusted (n=791, 443) | 99.7 (99.6 to 99.8) [A, C] | 86.6 (86.4 to 86.8) [B] | 96.1 (96.0 to 96.1) |
| Adjusted (n=508,836) | 99.7 (99.6 to 99.8) [A, C] | 90.3 (90.1 to 90.5) [B] | 95.4 (95.3 to 95.4) |

Notes: Analysis excluding cases with missing values. Age-standardized mortality rates were calculated using direct standardization with 5-year age-bands. For the adjusted model covariates included age, sex, primary cause of dialysis (diabetes, hypertension, or other), comorbid conditions including, congestive heart failure, atherosclerotic heart disease, other cardiac disease, hypertension, diabetes, diabetic retinopathy and cancer, current smoking, alcohol dependence, hemoglobin level, serum albumin level, body mass index and type of insurance (except for the insurance coverage model) and zip-code level information regarding poverty, unemployment, income, and education. In addition, mortality models adjusted for nephrology care, arteriovenous fistula or graft present prior to dialysis, as well as insurance coverage prior to dialysis. All 95% CIs are derived from probit regression models with Huber-White robust standard errors.

[A] all p-values for comparisons between Hispanics in Puerto Rico and Hispanics in the US were significant at p<.05; [B] all p-values for comparisons between Hispanics in the US and Whites in the US were significant at p<.05; [C] all p-values for comparisons between Whites in the US and Hispanics in Puerto Rico were significant at p<.05.

**TABLE S4. ONE-YEAR MORTALITY RATES, ACCESS TO PREDIALYSIS NEPHROLOGY CARE AND PRESENCE OF AN ARTERIOFISTULA OR GRAFT AMONG HISPANIC AND WHITE PATIENTS INITIATING DIALYSIS IN THE US MAINLAND STATES WITH HIGHER PROPORTION OF PUERTO RICANS AND PUERTO RICO 2006 TO 2015**

| | Puerto Rican Hispanics | United States Hispanics |
|---|---|---|
| **One-year age-adjusted all-cause mortality** | | |
| Age standardized (n=40,802) | 28.1 (27.4 to 29.0) [A] | 19.5 (19.0 to 20.0) |
| Adjusted (n=33,831) | 28.4 (27.5 to 29.3) [A] | 19.0 (18.5 to 19.5) |
| **Nephrology care prior to dialysis (n= 36,176)** | | |
| Unadjusted | 57.8 (57.0 to 58.7) [A] | 61.8 (61.2 to 62.4) |
| Adjusted | 58.2 (57.2 to 59.2) [A] | 65.6 (65.0 to 66.2) |
| **Arteriovenous fistula or graft present (n= 38,352)** | | |
| Unadjusted | 30.3 (29.5 to 31.2) [A] | 38.8 (38.2 to 39.4) |
| Adjusted | 30.1 (29.2 to 31.0) [A] | 40.1 (39.9 to 40.7) |
| **Insurance coverage (n=40,802)** | | |
| Unadjusted | 99.7 (99.6 to 99.8) [A] | 90.0 (89.6 to 90.3) |
| Adjusted | 99.7 (99.6 to 99.8) [A] | 92.7 (92.4 to 93.0) |

Notes: Analysis stratifying sample by Hispanics in the US mainland with the highest proportion of Puerto Rican Residents (i.e., New York, New Jersey, Florida, Pennsylvania and Massachusetts). Age-standardized mortality rates were calculated using direct standardization with 5-year age-bands. For the adjusted model covariates included age, sex, primary cause of dialysis (diabetes, hypertension, or other), comorbid conditions including, congestive heart failure, atherosclerotic heart disease, other cardiac disease, hypertension, diabetes, diabetic retinopathy and cancer, current smoking, alcohol dependence, hemoglobin level, serum albumin level, body mass index and type of insurance (except for the insurance coverage model) and zip-code level information regarding poverty, unemployment, income, and education. In addition, mortality models adjusted included nephrology care, arteriovenous fistula or graft present prior to dialysis, as well as insurance coverage prior to dialysis. All 95% CIs are derived from probit regression models with Huber-White robust standard errors.

[A] all p-values for comparisons between Hispanics in Puerto Rico and Hispanics in the US were significant at p<.05.