SUPPLEMENTAL MATERIAL

SUPPLEMENTAL METHODS

ICD9 codes used to define prevalent comorbid conditions

Comorbid condition	ICD9 code
Hypertension	401-405
Diabetes mellitus	250.x
Myocardial infarction	410-410.9, 412
Angina	411, 413
CAD	414.0, 414.8, 414.9
PCI	36.03, 36.04, 36.06, 36.07, 36.09
CABG	36.10-36.17, 36.19
CHF	428-428.9

Peripheral arterial disease

39.22, 39.24, 39.25, 39.26, 39.28

- Cerebrovascular disease 430-438
- Chronic lung disease 490-496, 500-505, 506.4
- Dementia

- 290-290.9
- Rheumatologic disease 710.0, 710.1, 710.4, 714.0-714.2,
- 714.81, 725
- Peptic ulcer disease
- 531-534.9, 531.4-531.7, 532.4-532.7,
- 533.4-533.7, 534.4-534.7

Liver disease

- 571.x, 572.x, 456.0-456.21
- Hemiplegia or paraplegia 344.1, 342-342.9
- Malignancy 140-172.9, 174-195.8, 200-208.9, 196-199.1

HIV/AIDS

042, V08, 795.71

296.x

CAD, coronary artery disease; PCI, percutaneous coronary intervention; CABG, coronary artery bypass grafting; CHF, congestive heart failure

ICD9 codes used to define incident clinical events

Incident event	ICD9 code
Acute myocardial infarction	410.x
PCI	36.03, 36.04, 36.06, 36.07, 36.09
CABG	36.10-36.17, 36.19
Ischemic stroke	133 x 131 x 136 x
	тээлл, тэтлл, тэөлл

PCI, percutaneous coronary intervention; CABG, coronary artery bypass grafting

Procedure (CPT) codes used to define coronary interventions

Coronary intervention	CPT code
PCI	92980 92981 92982 92984 92985 92986 92987 92988
	92989 92990 92991 92992 92993 92994 92995 92996
CABG	33510 33511 33512 33513 33514 33515 33516 33517
	33518 33519 33521 33522 33523 33533 33534 33535
	33536

PCI, percutaneous coronary intervention; CABG, coronary artery bypass grafting

Area-based socio-economic indicators

The Area Health Resources Files (AHRF, http://ahrf.hrsa.gov/) system is issued by the National Center for Health Workforce Analysis, Bureau of Health Workforce, Health Resources and Services Administration.

Within the AHRF, we used select **2004 County Typology Codes** from the Economic Research Service (ERS), U.S. Department of Agriculture, <u>www.ers.usda.gov</u>. The 2004 County Typology Codes were developed for all 3,141 counties, county equivalents, and independent cities in the United States.

-Housing stress: 30 percent or more of households had one or more of these housing conditions in 2000: lacked complete plumbing, lacked complete kitchen, paid 30 percent or more of income for owner costs or rent, or had more than 1 person per room.

-Low-education: 25 percent or more of residents 25 through 64 years old had neither a high school diploma nor GED in 2000.

-Low-employment: Less than 65 percent of residents 21 through 64 years old were employed in 2000.

-Persistent poverty: 20 percent or more of residents were poor as measured by each of the last 4 censuses: 1970, 1980, 1990 and 2000.

Methods used in analyses of NHANES data

Survey design and data collection

The NHANES is conducted by the National Center for Health Statistics and implements a stratified multistage probability design to obtain a representative sample of the civilian, non-institutionalized U.S. population. Details on the sampling strategy and weighting methods are available in electronic form (2). Baseline data were linked to the National Center for Health Statistics mortality follow-up file. Mortality status was ascertained by matching National Death Index screen from the time of survey until 31 December 2006. Cause of death was coded using ICD-10 codes. (3). Using special mobile examination centers, the NHANES conducts household interviews and collects sociodemographic and clinical information, standardized physical examinations including height, weight and blood pressure, and a collection of blood samples. Because NHANES data are publicly available and subjects are de-identified the project was exempt from IRB review.

Data for our study were drawn from NHANES 1999-2004, which included a sample of approximately 31,126 persons from randomly selected U.S. locations. The study population was restricted to adult participants, self-reported as non-Hispanic white or African American, age \geq 18 years at the time of interview (n=11,634). Participants with non-positive sample weights were excluded (n=863). The final study cohort was comprised of 10,771 participants.

Study Variables

Variables included: age (years), estimated GFR (ml/min/1.73m²), gender, BMI (kg/m²), SBP (mmHg), DBP (mmHg), income (above/below 200% federal poverty level), marital status

(married, widowed, divorced, single) and prevalence rates of hypertension, diabetes, hypercholesterolemia, and history of CHD, CHF, stroke, heart attack, and liver disease.

Statistical analyses

Study population characteristics were described overall by race/ethnicity, respectively, using mean and standard deviation for continuous variables and proportions for categorical variables. All estimates were weighted to adjust for the differential probabilities of sampling and non-response, to represent the total civilian, non-institutionalized US population. Estimates derived from a sample size smaller than the recommended lower limit in the NHANES analytic guidelines were considered unreliable¹. Regression analyses based on the Cox proportional hazards model were used to obtain hazard rates comparing race/ethnicity for all-cause mortality, CV and cerebrovascular mortality (derived from ICD 10 codes). Model 1: unadjusted; model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; model 3: adjusted for model 2 variables plus comorbidities; model 4: adjusted for model 3 variables plus baseline body mass index; and model 5: adjusted for model 4 variables plus mean income and marital status. Analyses for mortality were repeated in participants with eGFR ≥ 60 ml/min/1.73m², in in participants categorized by baseline age (18-49 vs. \geq 50 years old), gender (male vs. female) and poverty level (above/below 200% federal poverty level). All analyses were performed with SAS v 9.3 (Research Triangle Park, NC), a statistical package that adjusts all estimates for the complex NHANES survey design. Because the observations contributed by each participant in the sample were weighted for the differential probabilities of selection and non-response, actual sample sizes are not reported along with percentages.

References

 Duru OK, Harawa NT, Kermah D, Norris KC. Allostatic load burden and racial disparities in mortality. *Journal of the National Medical Association*. Jan-Feb 2012;104(1-2):89-95.

 Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey Analytic Guidelines. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [1999-2010][http://www.cdc.gov/nchs/data/series/sr_02/sr02_161.pdf]

3. NHANES (1999–2004) Linked Mortality Files. Available:

http://www.cdc.gov/nchs/data_access/data_linkage/mortality/nhanes_99_04_linkage.htm. Accessed April 10th, 2015. Supplemental Table 1. Baseline characteristics of a propensity matched cohort of 937,560 US veterans.

-	Whites	African-	Standardized
-		Americans	difference
	N=468,780	N=468,780	
Age (years)	54.5 ± 13.1	54.2 ± 14.3	0.02
Estimated GFR (ml/min/1.73m2)	91.7 ± 18.7	90.8 ± 15.5	0.05
Gender (males)	424,545(91)	426,761 (91)	0.02
Hypertension	294,985 (63)	291,979 (62)	0.01
DM	119,599 (26)	119,617 (26)	-0.0
CHD	33,646 (7)	33,069 (7)	0.004
CHF	20,860 (4)	20,470 (4)	0.004
Cerebrovascular disease	26,520 (6)	26,087 (6)	0.004
PAD	21,872 (5)	22,036 (5)	-0.002
Chronic Lung disease	71,903 (15)	71,450(15)	0.003
Dementia	3,975 (0.9)	4,005 (0.9)	-0.001
Rheumatologic disease	5,564 (1)	5,307 (1)	0.005
Peptic ulcer disease	9,957 (2)	9,931 (2)	0.0
Liver disease	5,885 (1)	6,000 (1)	-0.002
Hemiplegia	2,777 (0.6)	2,733 (0.6)	0.001
Malignancies	45,996 (10)	46,374 (10)	-0.003
AIDS/HIV	9,239 (2)	6,413 (1)	0.05
Depression	49,844 (11)	50,643 (11)	-0.006
Per capita income	16,713 (10,084-	16,744 (9,736-	0.02
	29,348)	29,732)	
Married	281,292 (60)	281,349 (60)	-0.0
Service-connected	232,190 (50)	235,786 (50)	-0.02
BMI (kg/m^2)	29.0 ± 6.0	29.1 ±5.9	-0.01
SBP (mmHg)	136.8 ± 20.4	136.7 ± 19.7	0.004
DBP (mmHg)	80.0 ± 12.7	79.9 ± 12.1	0.007
ACEI/ARB use	95,412 (20)	95,046 (20)	0.002
Statin use	44,033 (9)	43,054 (9)	0.007
Influenza vaccination	120,887 (26)	120,215 (26)	0.003
Healthcare encounters >1/month	304,946 (65)	305,419 (65)	-0.002
Living in area with high housing	219,950(47)	218,963 (47)	0.004
stress			
Living in area with low education	67,642 (14)	66,167 (14)	0.009
Living in area with low	50,827 (11)	49,478 (11)	0.009
employment	24.009 (7)	22 (92 (7)	0.01
Living in area of persistent poverty	34,008 (7)	32,082 (7)	0.01

Data is presented as means \pm SD, medians (25-75 percentile) or number (% of total).

ACEI/ARB, angiotensin converting enzyme inhibitors/angiotensin receptop blockers; eGFR, estimated glomerular filtration rate; SBP, systolic blood pressure; DBP, diastolic blood pressure; DM, diabetes mellitus; CHD, coronary heart disease; CHF, chronic heart failure; PAD, peripheral arterial disease.

	All	Whites	African-	
	N=10771	N=7545 (87)	Americans	p-value
			N=3226 (13)	
Age (years)	46 ± 0.3	47 ± 0.3	42 ± 0.3	< 0.0001
Estimated	99 ± 0.7	97 ± 0.7	115 ± 1.4	< 0.0001
$GFR(ml/min/1.73m^2)$				
Gender (males)	5167(48)	3630(48)	1537(44)	0.0004
Hypertension	4375(36)	3002(35)	1373(41)	0.0002
Diabetes	1181(9)	747(8)	434(12)	< 0.0001
High Cholesterol	4816(49)	3639(50)	1177(42)	< 0.0001
CHD	508(4)	431(4)	77(2)	< 0.0001
CHF	358(3)	275(2)	83(2)	0.8
Stroke	393(3)	278(3)	115(3)	0.07
Heart attack	531(4)	428(4)	103(3)	0.01
Liver disease	297(3)	240(3)	57(2)	0.0003
Below 200% poverty	3940(31)	2360(28)	1580(53)	< 0.0001
level				
Marital Status				
Married	6034(65)	4682(67)	1352(47)	
Widowed	1097(7)	815(7)	282(7)	
Divorced	937(9)	615(9)	322(12)	< 0.0001
Single	2385(19)	1214(17)	1171(34)	
BMI (kg/m^2)	28 ± 0.1	28 ± 0.1	30 ± 0.2	< 0.0001
SBP (mmHg)	123 ± 0.4	123 ± 0.4	126 ± 0.5	< 0.0001
DBP(mmHg)	72 ± 0.2	71 ± 0.3	73 ± 0.4	0.001

Supplemental Table 2a. Baseline characteristics in the overall NHANES 1999-2004 sample

Data is presented as means \pm SE, or number (weighted %)

Supplemental Table 2b. Baseline characteristics in NHANES 1999-2004 participants with

	All	Whites	African-	
	N=9257	N=6481 (87)	Americans	p-value
			N=2776 (13)	_
Age (years)	45 ±0.3	45 ± 0.3	41 ± 0.3	< 0.0001
Estimated	102 ± 0.7	100 ± 0.6	117 ± 1.4	< 0.0001
$GFR(ml/min/1.73m^2)$				
Gender (males)	4498(49)	3167(49)	1331(44)	0.0004
Hypertension	3432(33)	2338(33)	1094(38)	0.0004
Diabetes	884(8)	549(7)	335(11)	< 0.0001
High Cholesterol	4412(49)	3305(50)	1107(41)	< 0.0001
CHD	344(3)	291(3)	53(2)	< 0.0001
CHF	193(2)	149(2)	44(2)	0.7
Stroke	237(2)	174(2)	63(2)	0.7
Heart attack	356(3)	288(3)	68(2)	0.01
Liver disease	244(3)	203(3)	41(2)	0.0005
Below 200% poverty	3316(30)	1973(27)	1343(52)	< 0.0001
level				
Marital Status				
Married	5297(66)	4124(68)	1173(48)	
Widowed	710(5)	509(5)	201(6)	
Divorced	803(10)	541(9)	262(11)	< 0.0001
Single	2164(19)	1113(17)	1051(35)	
BMI (kg/m^2)	28 ± 0.1	28 ± 0.1	30 ± 0.2	< 0.0001
SBP (mmHg)	122 ± 0.4	122 ± 0.4	125 ±0.5	< 0.0001
DBP(mmHg)	72 ± 0.2	72 ± 0.3	73 ± 0.4	0.02

estimated glomerular filtration rate ≥ 60 ml/min/1.73m²

Data is presented as means \pm SE, or number (weighted %)

Supplemental Table 3a: Hazard ratios and 95% confidence intervals of various outcomes associated with African American vs. white race in a propensity matched cohort of 937,560 patients.

	Overa	all	eGFR≥60 t folloy	hroughout v-up	Incio dur	lent eGFR<60 ing follow-up
			Hazard	Ratio (95% CI)		
Mortality	0.86 (0.85	- 0.87)	0.83 (0.82	2 - 0.84)	0.99	9 (0.96 - 1.01)
Stroke	1.09 (1.06	- 1.12)	1.05 (1.02	2 - 1.09)	1.1	7 (1.1 - 1.24)
CHD Comp	osite 0.68 (0.66	5 - 0.7)	0.63 (0.6	1 - 0.65)	0.79	9 (0.75 - 0.84)
AMI	0.75 (0.72	- 0.77)	0.69 (0.6	7 - 0.72)	0.87	7 (0.81 - 0.93)
CABG	0.47 (0.44	- 0.5)	0.44 (0.4	1 - 0.48)	0.55	5 (0.47 - 0.63)
PCI	0.63 (0.6	- 0.67)	0.6 (0.57	' - 0.64)	0.6	7 (0.6 - 0.76)
			Ove	erall		
	White/no CHD	AA	/ no CHD	white/CHI)	AA/CHD
Mortality	1.00 (referent)	0.84 (0.83 - 0.85)	3.16 (3.04 - 3	.28)	3.69 (3.53 - 3.86)
Stroke	1.00 (referent)	1.09 ((1.06 - 1.13)	4.7 (4.32 - 5.	12)	5.15 (4.64 - 5.7)
		eGl	F R≥60 throu	ghout follow-up)	
	White/no CHD	AA	/ no CHD	white/CHI)	AA/CHD
Mortality	1.00 (referent)	0.81	(0.8 - 0.82)	3.09 (2.95 - 3	.24)	3.53 (3.33 - 3.74)
Stroke	1.00 (referent)	1.06	(1.02 - 1.1)	4.42 (3.97 - 4	.92)	4.93 (4.32 - 5.63)
		Incide	ent eGFR<60) during follow-	up	
	White/no CHD	AA	/ no CHD	white/CHI)	AA/CHD
Mortality	1.00 (referent)	0.98	8 (0.95 - 1)	2.27 (2.11 - 2	.44)	2.55 (2.37 - 2.76)
Stroke	1.00 (referent)	1.16 ((1.08 - 1.24)	3.06 (2.56 - 3	.65)	3.22 (2.66 - 3.89)
			Over	rall		
	White/no stroke	AA/ 1	no stroke	white/ stroke	e	AA/ stroke
Mortality	1.00 (referent)	0.83 (0	.82 - 0.84)	3.95 (3.8 - 4.1	1)	4.23 (4.07 - 4.39)
CHD	1.00 (referent)	0.65 (0	.63 - 0.67)	6.33 (5.82 - 6.8	88)	3.69 (3.33 - 4.09)
		eGF	`R≥60 throug	ghout follow-up		
	White/no CHD	AA/	no CHD	white/CHD		AA/CHD
Mortality	1.00 (referent)	0.80 (0	.79 - 0.81)	4.18 (3.98 - 4.3	39)	4.37 (4.17 - 4.59)
CHD	1.00 (referent)	0.61 (0	.59 - 0.63)	4.42 (3.97 - 4.9	92)	4.93 (4.32 - 5.63)
		Incide	nt eGFR<60	during follow-	up	
	White/no CHD	AA/	no CHD	white/CHD		AA/CHD
Mortality	1.00 (referent)	0.97 (0	.94 - 0.99)	2.32 (2.15 - 2.	51)	2.48 (2.32 - 2.66)

CHD	1.00 (referent)	0.76 (0.71 - 0.82)	4.04 (3.41 - 4.79)	2.26 (1.85 - 2.75)
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CHD, coronary heart disease; AMI; acute myocardial infarction; CABG, coronary artery nypass grafting; PCI, percutaneous coronary intervention

Supplemental Table 3b: Hazard ratios and 95% confidence intervals of various outcomes

associated with African American vs. white race in select subgroups of a propensity

matched cohor	t of 937,5	60 patients
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	All-cause	Incident	Incident CHD
	Mortality	ischemic strokes	Composite
		Hazard Ratio (95%	CI)
Age < 40	0.72 (0.67 - 0.78)	1.18 (0.98 - 1.43)	0.98 (0.82 - 1.18)
Age 40-59	0.71 (0.7 - 0.73)	0.96 (0.93 - 0.99)	0.58 (0.56 - 0.6)
Age 60-79	0.98 (0.97 - 1)	1.21 (1.15 - 1.26)	0.76 (0.72 - 0.8)
$Age \ge 80$	1.06 (1.04 - 1.09)	1.61 (1.41 - 1.83)	1.18 (1.02 - 1.37)
Male	0.87 (0.86 - 0.88)	1.1 (1.07 - 1.13)	0.68 (0.66 - 0.7)
Female	0.55 (0.52 - 0.59)	1.04 (0.91 - 1.19)	0.68 (0.58 - 0.8)
CHD	1.02 (0.99 - 1.04)	1.15 (1.07 - 1.23)	-
No CHD	0.84 (0.83 - 0.85)	1.08 (1.05 - 1.12)	-
CHF	0.94 (0.92 - 0.97)	1.32 (1.2 - 1.45)	0.89 (0.8 - 0.99)
No CHF	0.84 (0.83 - 0.85)	1.07 (1.04 - 1.1)	0.66 (0.65 - 0.68)
DM	0.91 (0.89 - 0.92)	1.12 (1.08 - 1.17)	0.63 (0.6 - 0.65)
No DM	0.83 (0.82 - 0.84)	1.07 (1.04 - 1.11)	0.72 (0.69 - 0.74)
HTN	0.88 (0.87 - 0.89)	1.1 (1.07 - 1.13)	0.68 (0.66 - 0.7)
No HTN	0.78 (0.76 - 0.8)	1.06 (1 - 1.13)	0.67 (0.63 - 0.72)
eGFR <90	0.84 (0.83 - 0.85)	1.14 (1.09 - 1.18)	0.71 (0.68 - 0.74)
$eGFR \ge 90$	0.85 (0.84 - 0.87)	1.02 (0.98 - 1.06)	0.63 (0.61 - 0.66)
Income < \$22000	0.9 (0.89 - 0.92)	1.15 (1.11 - 1.19)	0.72 (0.69 - 0.74)
Income ≥ \$22000	0.77 (0.75 - 0.78)	0.99 (0.95 - 1.04)	0.62 (0.59 - 0.64)

eGFR, estimated glomerular filtration rate; DM, diabetes mellitus; CHD, coronary heart disease;

CHF, chronic heart failure; HTN, hypertension.

Supplemental Table 4. Incident coronary heart disease and incident stroke outcomes associated with African American race in Cox

	Primary	Competing events	HR (95%CI)	SHR (95%CI)
	events (N, %)	(deaths; N, %)	_	_
Unmatched			censored for all-cause deaths	competing risk all-cause deaths
Incident	63,808 (2.3)	507,795 (18.7)	0.70 (0.69-0.71)	0.78 (0.76-0.80)
CHD events				
Incident	59,734 (2.1)	545,562 (19.0)	1.18 (1.16-1.21)	1.23 (1.21-1.26)
stroke				
Matched				
Incident	19,115 (2.3)	130,918 (15.0)	0.63 (0.55-0.72)	0.69 (0.67-0.71)
CHD events				
Incident	21,304 (2.4)	131,373 (15.0)	1.09 (1.06-1.12)	1.12 (1.09-1.15)
stroke				

models censored for mortality and in competing risk regression models.

Primary events represent incident CHD events or incident stroke events, respectively. Competing events are all-cause deaths for both

primary events. HR, hazard ratio; SHR, sub-hazard ratio

Supplemental Figure legends

Supplemental Figure 1. Association of African-American race with all-cause mortality in patients with eGFR \geq 60 ml/min/1.73m² throughout follow-up (N=2,732,494).

<u>Panel A</u> shows association of African-American race with all-cause mortality, with various adjustments for baseline characteristics. Patients with white race served as referent. <u>Panel B</u> shows associations of race with all-cause mortality in patients with and without an incident coronary heart disease event. Coronary heart disease events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident coronary heart disease events. Patients with white race and no incident coronary heart disease events as referent. <u>Panel C</u> shows associations of race with all-cause mortality in patients with and without an incident stroke events. Stroke events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident covariates, and models were estimated by including multiplicative as time entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident stroke events. Patients with white race and no incident stroke events served as referent.

Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American; CHD: coronary heart disease

Supplemental Figure 2. Association of African-American race with all-cause mortality in patients with incident eGFR <60 ml/min/1.73m² (N=328,221).

<u>Panel A</u> shows association of African-American race with all-cause mortality, with various adjustments for baseline characteristics. Patients with white race served as referent. <u>Panel B</u> shows associations of race with all-cause mortality in patients with and without an incident coronary heart disease event. Coronary heart disease events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident coronary heart disease events. Patients with white race and no incident coronary heart disease events as referent. <u>Panel C</u> shows associations of race with all-cause mortality in patients with and without an incident stroke events. Stroke events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident covariates, and models were estimated by including multiplicative as time entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident stroke events. Patients with white race and no incident stroke events served as referent.

Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American; CHD: coronary heart disease

Supplemental Figure 3. <u>Panel A</u>: Association of African-American race with incident coronary heart disease and with incident acute myocardial infarctions, coronary artery bypass grafting and percutaneous coronary interventions in patients with eGFR ≥ 60 ml/min/1.73m² throughout follow-up. Patients with white race served as referent. <u>Panel B</u>: Associations of race with incident coronary heart disease in patients with and without an incident stroke event, and with eGFR ≥ 60 ml/min/1.73m² throughout follow-up. Stroke events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident stroke events. Patients with white race and no incident stroke events served as referent.

Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American

Supplemental Figure 4. <u>Panel A</u>: Association of African-American race with incident coronary heart disease and with incident acute myocardial infarctions, coronary artery bypass grafting and percutaneous coronary interventions in patients with incident eGFR <60 ml/min/ $1.73m^2$. Patients with white race served as referent. <u>Panel B</u>: Associations of race with incident coronary heart disease in patients with and without an incident stroke event, and with incident eGFR <60 ml/min/1.73m². Stroke events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident stroke events. Patients with white race and no incident stroke events served as referent. Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American

Supplemental Figure 5. <u>Panel A</u>: Association of African-American race with incident ischemic strokes in patients with eGFR \geq 60 ml/min/1.73m² throughout follow-up. Patients with white race served as referent. <u>Panel B</u>: Associations of race with incident stroke in patients with and without an incident coronary heart disease event, and with eGFR \geq 60 ml/min/1.73m² throughout follow-up. Coronary heart disease events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident coronary heart disease events. Patients with white race and no incident coronary heart disease events.

Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American

Supplemental Figure 6. <u>Panel A</u>: Association of African-American race with incident ischemic strokes in patients with incident eGFR <60 ml/min/ $1.73m^2$. Patients with white race served as referent. <u>Panel B</u>: Associations of race with incident stroke in patients with and without an incident coronary heart disease event, and with incident eGFR <60 ml/min/ $1.73m^2$. Coronary heart disease events were entered in the models as time dependent covariates, and models were estimated by including multiplicative interaction terms between race and incident coronary heart disease events. Patients with white race and no incident coronary heart disease events served as referent.

Model 1: unadjusted, Model 2: adjusted for age, gender, baseline estimated glomerular filtration rate; Model 3: adjusted for Model 2 variables plus comorbidities; Model 4: adjusted for Model 3 variables plus baseline body mass index, systolic and diastolic blood pressure; Model 5: adjusted for Model 4 variables plus mean income, marital status, service connectedness, area-level housing stress, low education, low employment and persistent poverty, frequency of VA healthcare encounters, use of angiotensin converting enzyme inhibitors/angiotensin receptor blockers and statins, and receipt of influenza vaccination(s), and an indicator of each patient's VA healthcare center.

AA: African-American



Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4



Supplemental Figure 5



Supplemental Figure 6