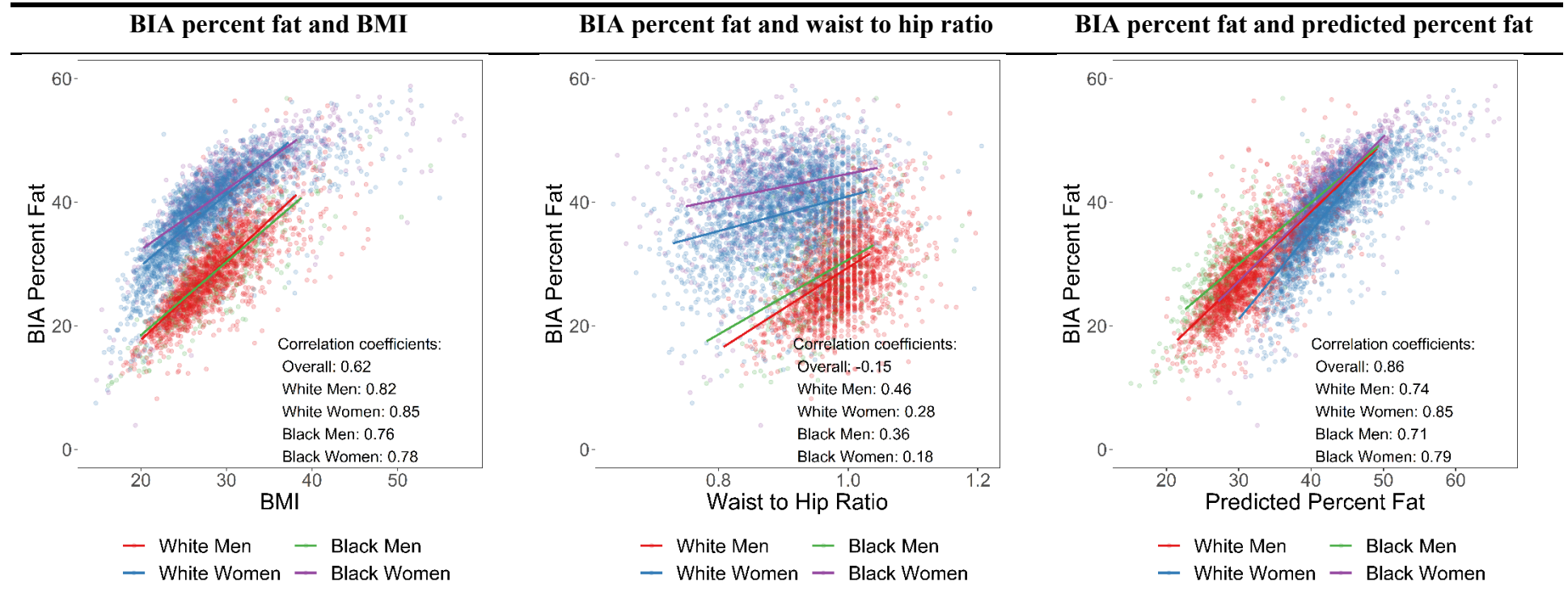


Figure S1. Scatter plot of bioelectrical impedance analysis (BIA) measured percent fat and body mass index (BMI), waist to hip ratio, or predicted percent fat at visit 5 with generalized additive regression line.



All p-values are <0.001

Figure S2. Distributions of waist to hip ratio and predicted percent fat according to baseline body mass index (BMI) tertile by sex and race.

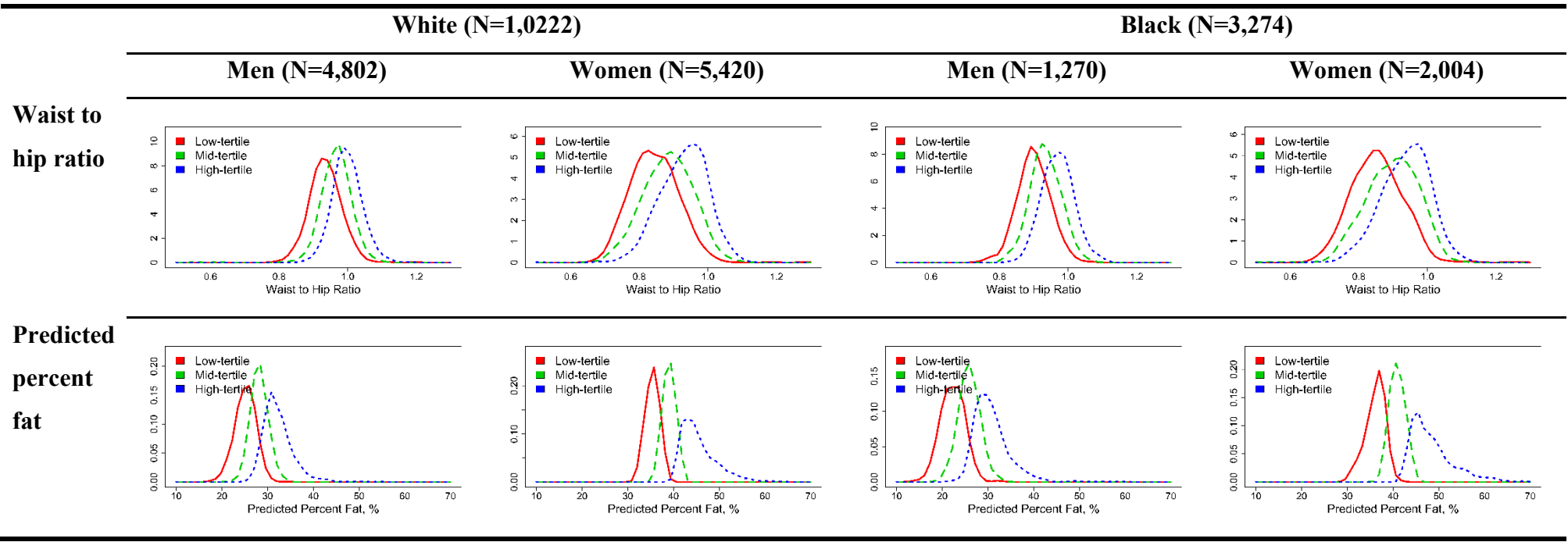


Figure S3. Kaplan-Meier survival free of kidney failure with replacement therapy (KFRT) by tertile of baseline obesity measure within each sex-race group showing absolute risk of KFRT.

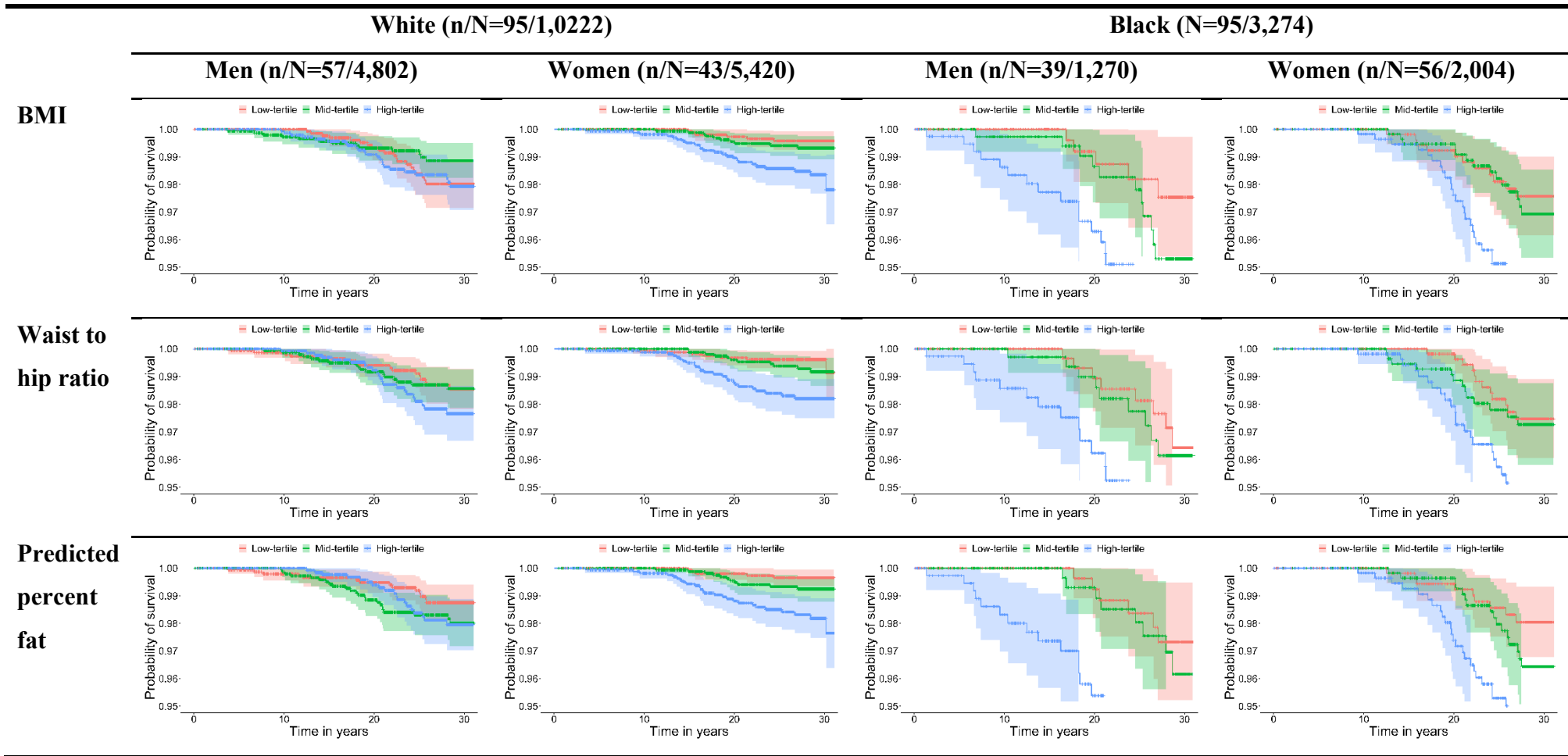


Table S1. Difference in estimated glomerular filtration rate (eGFR) decline slope (unit: ml/min per 1.73 m² per decade) according to baseline obesity status tertile by sex and race.

	White (N=1,0222)						Black (N=3,274)					
	Men (N=4,802)			Women (N=5,420)			Men (N=1,270)			Women (N=2,004)		
	Low- tertile (N=1,601)	Mid- tertile (N=1,600)	High- tertile (N=1,601)	Low- tertile (N=1,809)	Mid- tertile (N=1,803)	High- tertile (N=1,808)	Low- tertile (N=423)	Mid- tertile (N=424)	High- tertile (N=423)	Low- tertile (N=668)	Mid- tertile (N=668)	High- tertile (N=668)
	BMI											
Model 1^{a,b}	Ref	0.01	0.56	Ref	-1.09***	-1.93***	Ref	0.45	-0.98	Ref	-1.70*	-3.19***
Model 2^{a,b}	Ref	0.56	1.46***	Ref	-0.50	-0.52	Ref	0.82	0.45	Ref	-1.06	-1.92*
	Waist to hip ratio											
Model 1^{a,b}	Ref	-0.92**	-0.57	Ref	-1.02***	-1.89***	Ref	-0.83	-3.00**	Ref	-0.59	-3.13***
Model 2^{a,b}	Ref	-0.36	0.28	Ref	-0.28	-0.40	Ref	0.78	-0.07	Ref	-0.22	-1.86*
	Predicted percent fat											
Model 1^{a,b}	Ref	-0.69*	-0.19	Ref	-1.25***	-2.22***	Ref	-1.10	-3.36***	Ref	-1.91**	-3.61***
Model 2^{a,b}	Ref	-0.28	0.72*	Ref	-0.50	-0.68*	Ref	0.21	-0.95	Ref	-1.36	-2.22**

^a Model 1 is random effects model showing rate of decline (the interaction of each variable with follow-up time) adjusted for age (continuous), center (categorical), current smoker (yes / no), and prevalent coronary heart disease (yes / no) at baseline; model 3 additionally adjusted for hypertension medication (yes / no), systolic blood pressure (continuous), total cholesterol (continuous), high-density lipoprotein cholesterol (continuous), triglyceride (continuous, log transformed), education level (high school graduated / not graduated), and annual family income (categorical) at baseline.

^b Black participants in the Minnesota and Washington County centers were excluded in the model because of small numbers.

* indicates p<0.05, ** indicates p<0.01, *** indicates p<0.001.

Table S2. Difference in estimated glomerular filtration rate (eGFR) decline slope (unit: ml/min per 1.73 m² per decade) according to baseline obesity status tertile by sex and race among participants who had visit 6 information.

	White (N=2,802)						Black (N=799)					
	Men (N=1,237)			Women (N=1,565)			Men (N=253)			Women (N=546)		
	Low-tertile (N=430)	Mid-tertile (N=412)	High-tertile (N=395)	Low-tertile (N=575)	Mid-tertile (N=564)	High-tertile (N=426)	Low-tertile (N=73)	Mid-tertile (N=102)	High-tertile (N=78)	Low-tertile (N=202)	Mid-tertile (N=186)	High-tertile (N=158)
Attended visit 6, %	26%	25%	24%	31%	31%	23%	17%	23%	16%	29%	26%	21%
	BMI											
Model 1^{a,b}	Ref	0.07	0.42	Ref	-1.20***	-1.57***	Ref	0.41	-0.14	Ref	-1.14	-3.02***
Model 2^{a,b}	Ref	0.45	0.98**	Ref	-0.76*	-0.53	Ref	0.08	-0.59	Ref	-1.10	-2.67**
	Waist to hip ratio											
Model 1^{a,b}	Ref	-1.01**	-0.08	Ref	-1.02***	-1.40***	Ref	-0.45	-0.55	Ref	-0.91	-2.11**
Model 2^{a,b}	Ref	-0.68*	0.30	Ref	-0.41	-0.44	Ref	-0.37	-0.44	Ref	-0.92	-1.76*
	Predicted percent fat											
Model 1^{a,b}	Ref	-0.43	0.10	Ref	-1.05***	-1.65***	Ref	-0.85	-1.09	Ref	-1.81**	-3.55***
Model 2^{a,b}	Ref	-0.16	0.66	Ref	-0.53	-0.56	Ref	-1.02	-1.37	Ref	-1.98**	-3.32***

^a Model 1 is random effects model showing rate of decline (the interaction of each variable with follow-up time) adjusted for age (continuous), center (categorical), current smoker (yes / no), and prevalent coronary heart disease (yes / no) at baseline; model 2 additionally adjusted for hypertension medication (yes / no), systolic blood pressure (continuous), total cholesterol (continuous), high-density lipoprotein cholesterol (continuous), triglyceride (continuous, log transformed), education level (high school graduated / not graduated), and annual family income (categorical) at baseline.

^b Black participants in the Minnesota and Washington County centers were excluded in the model because of small numbers.

* indicates p<0.05, ** indicates p<0.01, *** indicates p<0.001.

Table S3. Association of estimated glomerular filtration rate (eGFR) decline slope (unit: ml/min per 1.73 m² per decade) with three measures of baseline obesity by sex and race excluding current smokers.

	White (N=1,0222)		Black (N=3,274)	
	Men (N=3,608)	Women (N=4,081)	Men (N=782)	Women (N=1,490)
	BMI^c, per standard deviation			
Model 1^{a,b}	-0.05 (-0.33, 0.23)	-0.84 (-1.08, -0.59)***	-0.34 (-1.28, 0.61)	-1.60 (-2.20, -1.00)***
Model 2^{a,b}	0.31 (0.02, 0.61)*	-0.27 (-0.53, 0.001)	0.11 (-0.87, 1.09)	-1.22 (-1.86, -0.58)***
	Waist to hip ratio^c, per standard deviation			
Model 1^{a,b}	-0.35 (-0.62, -0.07)*	-0.70 (-0.94, -0.46)***	-1.17 (-2.10, -0.24)*	-1.47 (-2.06, -0.87)***
Model 2^{a,b}	-0.07 (-0.35, 0.22)	-0.12 (-0.39, 0.14)	-0.51 (-1.52, 0.51)	-1.24 (-1.89, -0.59)***
	Predicted percent fat^c, per standard deviation			
Model 1^{a,b}	-0.27 (-0.55, 0.01)	-0.92 (-1.17, -0.68)***	-0.83 (-1.79, 0.13)	-1.67 (-2.27, -1.07)***
Model 2^{a,b}	0.07 (-0.22, 0.37)	-0.31 (-0.58, -0.04)*	-0.30 (-1.32, 0.72)	-1.29 (-1.94, -0.65)***

^a Model 1 is random effects model showing rate of decline (the interaction of each variable with follow-up time) adjusted for age (continuous), center (categorical), and prevalent coronary heart disease (yes / no) at baseline; model 2 additionally adjusted for hypertension medication (yes / no), systolic blood pressure (continuous), total cholesterol (continuous), high-density lipoprotein cholesterol (continuous), triglyceride (continuous, log transformed), education level (high school graduated / not graduated), and annual family income (categorical) at baseline.

^b Black participants in the Minnesota and Washington County centers were excluded in the model because of small numbers.

^c Centered at median of each race-gender group.

^d Estimate (95% confidence interval) for all such values.

* indicates p<0.05, ** indicates p<0.01, *** indicates p<0.001.

Table S4. Subhazard ratios for end-stage kidney disease (KFRT) according to baseline obesity status by sex and race with using a Fine-Gray competing risk model.

	White (n/N=95/1,0222)		Black (N=95/3,274)	
	Men (n/N=57/4,802)	Women (n/N=43/5,420)	Men (n/N=39/1,270)	Women (n/N=56/2,004)
	Body mass index^{c,d}, per standard deviation			
Mean (SD), kg/m²	27.23 (3.86)	26.33 (5.09)	27.28 (4.53)	30.29 (6.36)
Model 1^{a,b}	1.21 (0.96, 1.54)	1.46 (1.17, 1.83)***	1.73 (1.31, 2.28)***	1.61 (1.28, 2.02)***
Model 2^{a,b}	1.05 (0.82, 1.35)	1.05 (0.81, 1.36)	1.51 (1.07, 2.13)*	1.58 (1.24, 2.03)***
	Waist to hip ratio^c, per standard deviation			
Mean (SD)	0.97 (0.05)	0.89 (0.08)	0.94 (0.05)	0.90 (0.08)
Model 1^{a,b}	1.05 (0.80, 1.37)	1.70 (1.19, 2.43)**	1.78 (1.19, 2.65)**	1.70 (1.29, 2.24)***
Model 2^{a,b}	0.91 (0.69, 1.19)	1.27 (0.87, 1.86)	1.5 (0.97, 2.31)	1.67 (1.21, 2.3)**
	Predicted percent fat^c, per standard deviation			
Mean (SD), %	28.49 (3.88)	39.99 (4.92)	26.31 (4.65)	41.83 (5.99)
Model 1^{a,b}	1.11 (0.85, 1.46)	1.67 (1.30, 2.15)***	1.74 (1.30, 2.34)***	1.59 (1.29, 1.96)***
Model 2^{a,b}	0.96 (0.73, 1.25)	1.27 (0.92, 1.75)	1.44 (1.02, 2.03)*	1.53 (1.21, 1.93)***

^a Model 1 adjusted for age (continuous), center (categorical), current smoker (yes / no), and prevalent coronary heart disease (yes / no) at baseline; model 2 additionally adjusted for hypertension medication (yes / no), systolic blood pressure (continuous), total cholesterol (continuous), high-density lipoprotein cholesterol (continuous), triglyceride (continuous, log transformed), estimated glomerular filtration rate (continuous), education level (high school graduated / not graduated), and annual family income (categorical) at baseline.

^b Black participants in the Minnesota and Washington County centers were excluded in the model because of small numbers.

^c Centered at median of each race-gender group.

^d Hazard ratio (95% confidence interval) for all such values.

* indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$.