SUPPLEMENTAL MATERIAL

Table S1. Race interaction in association of global ECG measures with SCD in Cox models.

	Predictor, per 1 SD	All (n=14,408; 522 SCDs)			
		HR(95%CI)	P-value	RHR for black vs. white pts (95%CI)	$P_{interaction}$
Model 1	Peak QRS-T angle	**1.34(1.22-1.47)**	**<0.0001**	**0.86(0.75-0.98)**	**0.026**
	Area QRS-T angle	**1.35(1.21-1.51)**	**<0.0001**	**0.78(0.67-0.90)**	**0.001**
	Peak SVG elevation	**1.13(1.01-1.26)**	**0.027**	0.92(0.78-1.09)	0.348
	Area SVG elevation	**1.16(1.06-1.28)**	**0.002**	0.88(0.75-1.04)	0.136
	Peak SVG azimuth	**1.11(1.01-1.21)**	**0.026**	1.01(0.88-1.15)	0.940
	Area SVG azimuth	0.99(0.90-1.09)	0.878	1.07(0.92-1.25)	0.389
	Peak SVG magnitude	0.89(0.79-1.01)	0.083	1.17(0.98-1.40)	0.083
	Area SVG magnitude	0.98(0.86-1.11)	0.753	1.09(0.92-1.29)	0.314
	SAI QRST	**1.21(1.08-1.35)**	**0.001**	0.89(0.79-1.01)	0.078
	Heart rate	1.11(0.99-1.24)	0.081	1.01(0.86-1.19)	0.907
	Bazett's QTc	**1.12(1.01-1.24)**	**0.032**	1.01(0.89-1.14)	0.924
	QRS duration	1.07(0.98-1.18)	0.128	0.93(0.81-1.07)	0.304
	Cornell voltage	1.10(0.98-1.24)	0.104	1.01(0.87-1.18)	0.893
Model 2	Peak QRS-T angle	**1.24(1.12-1.36)**	**<0.0001**	0.89(0.77-1.03)	0.121
	Area QRS-T angle	**1.27(1.15-1.40)**	**<0.0001**	**0.83(0.72-0.97)**	**0.020**
	Peak SVG elevation	**1.14(1.03-1.27)**	**0.011**	0.96(0.81-1.15)	0.675
	Area SVG elevation	**1.12(1.01-1.23)**	**0.035**	0.97(0.81-1.16)	0.726
	Peak SVG azimuth	**1.12(1.02-1.22)#**	**0.015**	1.04(0.90-1.21)	0.602
	Area SVG azimuth	1.04(0.95-1.15)	0.387	1.11(0.93-1.32)	0.246
	Peak SVG magnitude	0.98(0.86-1.11)	0.720	**1.19(1.001-1.41)**	**0.048**
	Area SVG magnitude	0.93(0.82-1.07)	0.310	**1.24(1.04-1.66)**	**0.018**
	SAI QRST	**1.10(1.02-1.19)**	**0.013**	1.01(0.91-1.12)	0.865
	Heart rate	1.11(0.99-1.24)	0.078	1.04(0.89-1.23)	0.600
	Bazett's QTc	**1.16(1.06-1.27)#**	**0.002**	1.01(0.88-1.15)	0.916
	QRS duration	**1.18(1.09-1.29)**	**<0.0001**	0.96(0.84-1.10)	0.575
	Cornell voltage	1.06(0.97-1.16)	0.187	1.09(0.97-1.23)	0.135

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient: RHR=relative hazard ratio.

Table S2. Association of GEH with SCD in Cox models for white and black.

	Predictor, per 1 SD	White (n=10,669; 309 SCDs)		Black (n=3,739; 213 SCDs)	
		HR(95%CI)	P-value	HR(95%CI)	P-value
Model 1	Peak QRS-T angle	**1.34(1.21-1.48)**	**<0.0001**	**1.15(1.02-1.30)**	**0.018**
	Area QRS-T angle	**1.38(1.22-1.55)**	**<0.0001**	1.05(0.91-1.22)	0.467
	Peak SVG elevation	**1.13(1.01-1.27)**	**0.032**	1.05(0.90-1.23)	0.523
	Area SVG elevation	**1.17(1.06-1.30)**	**0.002**	1.05(0.90-1.21)	0.555
	Peak SVG azimuth	**1.10(1.003-1.21)**	**0.044**	1.10(0.97-1.26)	0.129
	Area SVG azimuth	0.99(0.90-1.10)	0.901	1.05(0.91-1.22)	0.471
	Peak SVG magnitude	0.92(0.81-1.04)	0.198	1.01(0.88-1.15)	0.915
	Area SVG magnitude	1.01(0.88-1.15)	0.935	1.03(0.90-1.18)	0.625
	SAI QRST	**1.23(1.08-1.39)**	**0.001**	1.07(0.95-1.21)	0.270
	Heart rate	1.11(0.98-1.26)	0.090	**1.16(1.02-1.32)**	**0.029**
	Bazett's QTc	**1.18(1.03-1.29)**	**0.010**	**1.11(1.002-1.23)**	**0.046**
	QRS duration	1.06(0.95-1.18)	0.272	1.04(0.92-1.18)	0.510
	Cornell voltage	1.07(0.95-1.22)	0.256	**1.15(1.02-1.30)**	**0.018**
Model 2	Peak QRS-T angle	**1.23(1.12-1.36)**	**<0.0001**	1.09(0.96-1.24)	0.171
	Area QRS-T angle	**1.27(1.15-1.41)**	**<0.0001**	1.06(0.93-1.22)	0.373
	Peak SVG elevation	**1.16(1.04-1.29)**	**0.006**	1.12(0.96-1.30)	0.147
	Area SVG elevation	**1.13(1.02-1.25)**	**0.021**	1.09(0.94-1.28)	0.251
	Peak SVG azimuth	**1.11(1.01-1.21)**	**0.022**	**1.16(1.02-1.32)**	**0.023**
	Area SVG azimuth	**1.05(0.95-1.16)**	**0.359**	1.15(0.99-1.34) #	0.074
	Peak SVG magnitude	0.96(0.84-1.10)	0.595	1.08(0.95-1.23)	0.236
	Area SVG magnitude	1.00(0.88-1.14)	0.964	1.09(0.96-1.24)	0.183
	SAI QRST	**1.13(1.04-1.22)**	**0.004**	**1.11(1.01-1.21)**	**0.023**
	Heart rate	1.09(0.97-1.23)	0.134	**1.20(1.06-1.36)**	**0.005**
	Bazett's QTc	**1.19(1.09-1.30)**	**<0.0001**	**1.16(1.05-1.29)**	**0.004**
	QRS duration	**1.18(1.08-1.29)**	**<0.0001**	**1.15(1.03-1.30)**	**0.015**
	Cornell voltage	1.08(0.99-1.19)	0.082	**1.16(1.06-1.27)**	**0.001**

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient.

Table S3. Race interaction in association of GEH with SCD and nonSCD in competing risk models.

	Predictor, per 1 SD	SCD (n=14,408; 522 SCDs)				nonSCD (n=14,408; 2,147 nonSCDs)			
		SHR(95%CI)	P-value	RSHR for black vs.white (95%CI)	$P_{interaction}$	SHR(95%CI)	P-value	RSHR for black vs.white (95%CI)	$P_{interaction}$
Model 1	Peak QRS-T angle	**1.28(1.16-1.40)**	**<0.0001**	**0.85(0.75-0.98)**	**0.022**	**1.11(1.05-1.17)**	**<0.0001**	1.01(0.93-1.09)	0.979
	Area QRS-T angle	**1.25(1.13-1.39)**	**<0.0001**	**0.79(0.69-0.92)**	**0.002**	**1.15(1.08-1.22)**	**<0.0001**	1.00(0.91-1.09)	0.914
	Peak SVG elevation	1.11(0.99-1.25)	0.075	0.96(0.80-1.14)	0.630	1.00(0.95-1.06)	0.869	0.930(0.84-1.03)	0.148
	Area SVG elevation	**1.14(1.03-1.25)**	**0.010**	0.94(0.80-1.11)	0.471	1.00(0.94-1.05)	0.904	0.96(0.87-1.05)	0.398
	Peak SVG azimuth	1.09(0.99-1.19)	0.071	1.02(0.89-1.18)	0.755	1.04(0.99-1.09)	0.168	0.99(0.91-1.09)	0.890
	Area SVG azimuth	0.98(0.88-1.08)	0.640	1.07(0.91-1.64)	0.426	**1.07(1.01-1.13)**	**0.017**	0.99(0.90-1.09)	0.837
	Peak SVG magnitude	0.90(0.79-1.02)	0.096	1.10(0.93-1.31)	0.263	0.96(0.90-1.02)	0.170	1.10(0.99-1.21)	0.073
	Area SVG magnitude	0.98(0.87-1.11)	0.727	1.02(0.87-1.21)	0.792	0.98(0.92-1.05)	0.608	1.08(0.98-1.19)	0.114
	SAI QRST	**1.13(1.02-1.26)**	**0.019**	0.88(0.77-1.01)	0.076	1.05(0.98-1.13)	0.192	1.01(0.93-1.10)	0.751
	Heart rate.	1.03(0.92-1.16)	0.576	0.99(0.84-1.17)	0.918	**1.13(1.07-1.20)**	**<0.0001**	1.07(0.98-1.17)	0.128
	Bazett's QTc	1.09(0.98-1.21)	0.124	1.02(0.90-1.17)	0.737	1.05(0.996-1.11)	0.071	1.02(0.94-1.09)	0.673
	QRS duration	1.06(0.95-1.17)	0.293	0.92(0.78-1.07)	0.267	1.05(0.996-1.11)	0.069	0.98(0.90-1.06)	0.608
	Cornell voltage	1.08(0.96-1.22)	0.185	0.98(0.84-1.15)	0.815	**1.12(1.05-1.20)**	**0.001**	0.97(0.89-1.07)	0.543
Model 2	Peak QRS-T angle	**1.21(1.10-1.33)**	**<0.0001**	0.89(0.76-1.04)	0.130	**0.93(0.87-0.98)**	**0.010**	1.02(0.93-1.12)	0.706
	Area QRS-T angle	**1.26(1.13-1.41)**	**<0.0001**	**0.82(0.69-0.96)**	**0.017**	**0.92(0.87-0.97)**	**0.004**	1.02(0.92-1.13)	0.656
	Peak SVG elevation	**1.16(1.04-1.29)**	**0.007**	0.96(0.80-1.15)	0.649	**0.92(0.86-0.98)**	**0.006**	1.07(0.95-1.21)	0.281
	Area SVG elevation	**1.11(1.005-1.24)**	**0.041**	0.98(0.82-1.17)	0.849	**0.93(0.88-0.99)**	**0.031**	1.05(0.93-1.18)	0.418
	Peak SVG azimuth	**1.11(1.01-1.22)**	**0.033**	1.04(0.88-1.23)	0.651	**0.95(0.90-0.999)**	**0.044**	1.01(0.91-1.12)	0.887
	Area SVG azimuth	1.04(0.93-1.16)	0.458	1.10(0.89-1.81)	0.360	0.96(0.91-1.02)	0.171	0.97(0.87-1.07)	0.549
	Peak SVG magnitude	0.91(0.79-1.04)	0.180	1.20(0.99-1.44)	0.058	1.04(0.97-1.12)	0.273	0.94(0.84-1.05)	0.248
	Area SVG magnitude	0.99(0.83-1.08)	0.425	1.14(0.96-1.37)	0.144	1.04(0.97-1.12)	0.273	0.93(0.83-1.03)	0.179
	SAI QRST	**1.10(1.02-1.19)**	**0.011**	0.99(0.87-1.12)	0.831	0.95(0.90-1.01)	0.083	0.97(0.89-1.05)	0.447
	Heart rate.	1.03(0.92-1.15)	0.589	1.05(0.88-1.25)	0.583	**1.11(1.04-1.18)**	**0.001**	0.97(0.88-1.08)	0.590
	Bazett's QTc	**1.13(1.03-1.24)**	**0.009**	1.02(0.89-1.16)	0.792	1.02(0.97-1.09)	0.413	0.96(0.88-1.06)	0.418
	QRS duration	**1.20(1.10-1.30)**	**<0.0001**	0.96(0.83-1.10)	0.530	**0.92(0.87-0.97)**	**0.002**	0.98(0.89-1.08)	0.713
	Cornell voltage	1.05(0.96-1.15)	0.257	1.09(0.96-1.24)	0.204	0.97(0.92-1.02)	0.187	1.00(0.92-1.08)	0.937

RSHR=relative sub-hazard ratio

Table S4. Competing risks of sudden cardiac death and non-sudden cardiovascular death for white and black.

	Predictor, per 1 SD	Sudden cardiac death				Non-sudden cardiac death			
		White (n=10,669;309 SCDs)		Black (n=3,739; 213 SCDs)		White (n=10,669;309 SCDs)		Black (n=3,739; 213 SCDs)	
		SHR(95%CI)	P-value	SHR(95%CI)	P-value	SHR(95%CI)	P-value	SHR(95%CI)	P-value
Model 1	Peak QRS-T angle	**1.27(1.15-1.40)**	**<0.0001**	1.09(0.96-1.24)	0.167	**1.10(1.04-1.16)**	**0.002**	**1.15(1.07-1.23)**	**<0.0001**
	Area QRS-T angle	**1.26(1.12-1.42)**	**<0.0001**	1.00(0.87-1.15)	0.975	**1.14(1.07-1.21)**	**<0.0001**	**1.19(1.09-1.29)**	**<0.0001**
	Peak SVG elevation	1.10(0.97-1.26)	0.130	1.09(0.93-1.29)	0.293	0.99(0.93-1.05)	0.783	0.96(0.87-1.06)	0.403
	Area SVG elevation	**1.15(1.04-1.27)**	**0.008**	1.09(0.94-1.27)	0.257	0.98(0.93-1.04)	0.559	1.00(0.92-1.09)	0.959
	Peak SVG azimuth	1.08(0.98-1.19)	0.116	1.12(0.98-1.28)	0.095	1.04(0.99-1.10)	0.137	1.01(0.93-1.11)	0.746
	Area SVG azimuth	0.97(0.87-1.08)	0.594	1.04(0.89-1.22)	0.625	**1.08(1.02-1.14)**	**0.013**	1.05(0.97-1.15)	0.220
	Peak SVG magnitude	0.92(0.81-1.05)	0.229	0.97(0.85-1.11)	0.636	0.97(0.91-1.04)	0.362	1.03(0.96-1.12)	0.344
	Area SVG magnitude	1.01(0.89-1.14)	0.933	0.98(0.86-1.13)	0.823	0.99(0.93-1.07)	0.885	1.06(0.98-1.15)	0.122
	SAI QRST	**1.16(1.03-1.31)**	**0.012**	1.00(0.88-1.15)	0.953	1.04(0.96-1.12)	0.325	**1.11(1.03-1.20)**	**0.010**
	Heart rate.	1.05(0.93-1.19)	0.450	1.04(0.91-1.19)	0.526	**1.14(1.08-1.21)**	**<0.0001**	**1.19(1.10-1.28)**	**<0.0001**
	Bazett's QTc	1.11(0.99-1.25)	0.069	1.10(0.99-1.22)	0.066	**1.06(1.00-1.12)**	**0.037**	1.05(0.98-1.12)	0.180
	QRS duration	1.05(0.94-1.17)	0.420	1.01(0.88-1.16)	0.880	1.03(0.97-1.09)	0.371	1.07(0.99-1.16)	0.085
	Cornell voltage	1.05(0.93-1.19)	0.460	1.09(0.97-1.23)	0.140	**1.12(1.04-1.20)**	**0.002**	**1.11(1.03-1.06)**	**0.006**
Model 2	Peak QRS-T angle	**1.21(1.09-1.33)**	**<0.0001**	1.07(0.93-1.24)	0.340	**0.93(0.87-0.98)**	**0.014**	0.94(0.86-1.02)	0.153
	Area QRS-T angle	**1.26(1.13-1.41)**	**<0.0001**	1.04(0.89-1.20)	0.644	**0.92(0.87-0.98)**	**0.008**	0.92(0.84-1.02)	0.115
	Peak SVG elevation	**1.17(1.05-1.30)**	**0.005**	1.12(0.95-1.32)	0.195	**0.91(0.85-0.97)**	**0.003**	1.01(0.91-1.13)	0.793
	Area SVG elevation	**1.13(1.02-1.26)**	**0.020**	1.10(0.94-1.30)	0.243	**0.93(0.87-0.99)**	**0.032**	1.01(0.91-1.12)	0.812
	Peak SVG azimuth	**1.10(1.004-1.22)**	**0.042**	1.16(0.99-1.35)	0.068	0.95(0.90-1.00)	0.061	0.94(0.85-1.04)	0.254
	Area SVG azimuth	1.04(0.93-1.16)	0.453	1.14(0.95-1.38)	0.169	0.97(0.92-1.02)	0.229	**0.91(0.82-0.998)**	**0.046**
	Peak SVG magnitude	0.95(0.83-1.09)	0.455	1.04(0.91-1.19)	0.541	1.04(0.97-1.23)	0.262	0.96(0.88-1.04)	0.336
	Area SVG magnitude	0.98(0.86-1.12)	0.791	1.05(0.91-1.21)	0.530	1.04(0.97-1.12)	0.245	0.95(0.87-1.03)	0.222
	SAI QRST	**1.11(1.03-1.20)**	**0.007**	1.09(0.97-1.23)	0.148	0.95(0.90-1.01)	0.079	**0.92(0.86-0.99)**	**0.018**
	Heart rate	1.03(0.92-1.16)	0.630	1.12(0.97-1.30)	0.114	**1.12(1.06-1.19)**	**<0.0001**	1.06(0.98-1.16)	0.158
	Bazett's QTc	**1.15(1.05-1.27)**	**0.003**	**1.15(1.03-1.28)**	**0.011**	1.02(0.97-1.08)	0.439	1.02(0.93-1.08)	0.953
	QRS duration	**1.19(1.09-1.30)**	**<0.0001**	**1.16(1.02-1.31)**	**0.019**	**0.91(0.86-0.96)**	**0.001**	0.92(0.84-1.002)	0.056
	Cornell voltage	1.07(0.97-1.17)	0.159	**1.14(1.03-1.27)**	**0.015**	0.97(0.92-1.02)	0.182	0.96(0.89-1.03)	0.224

Table S5. Two-way interactions in association of global ECG measures with SCD in Cox models: race-hypertension; race-coronary heart disease, and race-BMI category.

Predictor, per 1 SD	Subgroup	Cox model 1		Cox model 2	
		RHR(95%CI)	$P_{interaction}$	RHR (95%CI)	$P_{interaction}$
Peak QRS-T angle	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	0.87(0.66-1.14)	0.304	0.83(0.62-1.12)	0.229
	White HTN(148/2737)	0.94(0.79-1.12)	0.507	0.88(0.74-1.06)	0.170
	Black HTN(167/1910)	**0.82(0.70-0.97)**	**0.021**	**0.82(0.69-0.98)**	**0.029**
Area QRS-T angle	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.04(0.71-1.53)	0.681	0.93(0.68-1.26)	0.631
	White HTN(148/2737)	0.93(0.77-1.13)#	0.458	0.92(0.76-1.10)	0.359
	Black HTN(167/1910)	**0.71(0.59-0.86)**	**<0.0001**	**0.76(0.62-0.91)**	**0.004**
Peak SVG magnitude	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	**1.44(1.04-2.01)**	**0.030**	**1.49(1.08-2.05)**	**0.014**
	White HTN(148/2737)	1.26(0.98-1.61)#	0.066	1.18(0.91-1.54)	0.203
	Black HTN(167/1910)	**1.32(1.05-1.65)**	**0.016**	**1.30(1.03-1.63)**	**0.026**
SVG magnitude	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.35(0.98-1.85)	0.070	**1.41(1.03-1.92)**	**0.031**
	White HTN(148/2737)	1.28(0.99-1.64)#	0.055	1.17(0.91-1.51)	0.218
	Black HTN(167/1910)	1.25(0.999-1.56)	0.051	1.25(0.999-1.56)	0.051
SAI QRST	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.19(0.88-1.61)	0.254	1.19(0.91-1.57)	0.204
	White HTN(148/2737)	1.16(0.95-1.41)	0.140	0.997(0.85-1.17)	0.996
	Black HTN(167/1910)	0.95(0.80-1.14)	0.580	0.98(0.85-1.14)	0.821
Cornell voltage	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	0.95(0.68-1.32)	0.748	0.95(0.69-1.33)	0.781
	White HTN(148/2737)	1.08(0.86-1.36)	0.514	1.02(0.85-1.22)	0.812
	Black HTN(167/1910)	1.04(0.84-1.28)	0.712	1.11(0.95-1.31)	0.200
Peak QRS-T angle	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.98(0.84-1.15)	0.823	0.96(0.82-1.13)	0.640
	White CHD(88/534)	1.18(0.97-1.43)	0.100	1.12(0.91-1.40)	0.286
	Black CHD(29/148)	0.98(0.84-1.15)	0.823	0.82(0.57-1.17)	0.270
Area QRS-T angle	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.89(0.75-1.07)	0.225	0.88(0.73-1.05)	0.159
	White CHD(88/534)	**1.24(1.01-1.52)**	**0.043**	1.09(0.88-4.35)	0.437
	Black CHD(29/148)	0.82(0.58-1.14)	0.237	0.87(0.62-1.23)	0.434
Peak SVG magnitude	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	**1.22(1.001-1.48)**	**0.049**	1.18(0.97-1.43)	0.100
	White CHD(88/534)	0.95(0.71-1.26)	0.706	0.88(0.63-1.21)	0.423
	Black CHD(29/148)	0.90(0.60-1.35)	0.603	1.36(0.88-2.09)	0.167
SVG magnitude	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	1.19(0.98-1.44)	0.080	1.16(0.96-1.40)	0.128
	White CHD(88/534)	1.06(0.80-1.41)	0.701	0.90(0.67-1.21)	0.501
	Black CHD(29/148)	0.83(0.57-1.22)	0.348	1.10(0.72-1.67)	0.664
SAI QRST	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	1.07(0.91-1.26)	0.404	1.08(0.95-1.23)	0.219
	White CHD(88/534)	**1.26(1.01-1.56)**	**0.038**	1.13(0.94-1.36)	0.207

		RHR	p	RHR	p
	Black CHD(29/148)	**0.71(0.51-0.99)**	**0.045**	0.95(0.76-1.19)	0.653
Cornell voltage	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.97(0.82-1.16)	0.763	1.09(0.96-1.24)	0.198
	White CHD(88/534)	0.79(0.62-1.003)	0.053	0.94(0.77-1.13)	0.491
	Black CHD(29/148)	0.78(0.57-1.08)	0.130	0.95(0.70-1.30)	0.757
Peak QRS-T angle	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.00(0.80-1.24)	0.979	0.93(0.74-1.17)	0.519
	White BMI-3(117/2426)	0.97(0.78-1.21)	0.785	0.88(0.69-1.10)	0.275
	Black BMI-1(46/832)	0.81(0.59-1.10)	0.169	0.83(0.61-1.14)	0.245
	Black BMI-2(82/1397)	0.77(0.60-0.97)	0.028	**0.70(0.54-0.90)**	**0.006**
	Black BMI-3(85/1510)	0.99(0.79-1.24)	0.920	1.02(0.79-1.33)	0.858
Area QRS-T angle	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	0.81(0.63-1.04)	0.098	0.90(0.71-1.14)	0.391
	White BMI-3(117/2426)	0.80(0.63-1.02)	0.077	0.88(0.69-1.12)	0.301
	Black BMI-1(46/832)	**0.57(0.41-0.81)**	**0.002**	**0.71(0.51-0.98)**	**0.040**
	Black BMI-2(82/1397)	**0.65(0.49-0.85)**	**0.002**	**0.67(0.51-0.87)**	**0.003**
	Black BMI-3(85/1510)	**0.73(0.56-0.95)**	**0.018**	0.95(0.72-1.25)	0.703
Peak SVG magnitude	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.10(0.80-1.50)	0.566	1.25(0.91-1.72)	0.177
	White BMI-3(117/2426)	1.08(0.79-1.47)	0.646	1.11(0.79-1.55)	0.555
	Black BMI-1(46/832)	1.18(0.85-1.64)	0.321	1.11(0.79-1.56)	0.545
	Black BMI-2(82/1397)	1.14(0.83-1.58)	0.414	**1.38(1.01-1.88)**	**0.043**
	Black BMI-3(85/1510)	1.38(0.995-1.90)	0.054	**1.51(1.10-2.07)**	**0.010**
SVG magnitude	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.03(0.74-1.42)	0.867	1.13(0.83-1.54)	0.431
	White BMI-3(117/2426)	1.00(0.72-1.37)	0.981	0.97(0.70-1.36)	0.872
	Black BMI-1(46/832)	1.07(0.78-1.47)	0.668	0.96(0.70-1.33)	0.822
	Black BMI-2(82/1397)	1.02(0.74-1.40)	0.918	1.22(0.90-1.65)	0.191
	Black BMI-3(85/1510)	1.32(0.95-1.84)	0.098	1.35(0.98-1.86)	0.062
SAI QRST	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.03(0.81-1.30)	0.825	0.97(0.80-1.18)	0.762
	White BMI-3(117/2426)	1.02(0.80-1.31)	0.864	1.06(0.84-1.33)	0.643
	Black BMI-1(46/832)	0.77(0.58-1.02)	0.069	0.88(0.68-1.15)	0.356
	Black BMI-2(82/1397)	**0.75(0.59-0.95)**	**0.019**	0.87(0.70-1.08)	0.194
	Black BMI-3(85/1510)	1.12(0.91-1.40)	0.288	**1.22(0.998-1.49)**	**0.052**
Cornell voltage	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.01(0.75-1.35)	0.968	0.95(0.78-1.17)	0.656
	White BMI-3(117/2426)	1.05(0.78-1.41)	0.749	0.91(0.71-1.15)	0.421
	Black BMI-1(46/832)	1.00(0.74-1.36)	0.995	1.01(0.811-1.27)	0.905
	Black BMI-2(82/1397)	0.96(0.73-1.27)	0.791	0.86(0.68-1.08)	0.200
	Black BMI-3(85/1510)	1.19(0.89-1.60)	0.246	**1.26(1.05-1.52)**	**0.015**

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient: RHR=relative hazard ratio; HTN=hypertension; CHD=coronary heart disease; BMI-1=under- or normal-weight; BMI-2=overweight; BMI-3=obese.

Table S6. Two-way interactions in association of global ECG measures with SCD in competing risk models: race-hypertension; race-coronary heart disease, and race-BMI category.

Predictor, per 1 SD	Subgroup	Competing SCD risk model 1		Competing SCD risk model 2	
		RSHR(95%CI)	$P_{interaction}$	RSHR (95%CI)	$P_{interaction}$
Peak QRS-T angle	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	0.93(0.71-1.23)	0.611	0.87(0.64-1.17)	0.348
	White HTN(148/2737)	0.93(0.78-1.09)	0.368	0.87(0.72-1.04)	0.134
	Black HTN(167/1910)	**0.79(0.67-0.93)**	**0.005**	**0.80(0.67-0.96)**	**0.019**
Area QRS-T angle	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.04(0.74-1.44)	0.834	0.97(0.71-1.33)	0.850
	White HTN(148/2737)	0.93(0.77-1.12)	0.448	0.90(0.74-1.10)	0.320
	Black HTN(167/1910)	**0.71(0.59-0.86)**	**<0.0001**	**0.72(0.59-0.89)**	**0.002**
Peak SVG magnitude	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	**1.42(1.07-1.89)**	**0.017**	**1.50(1.07-2.09)**	**0.018**
	White HTN(148/2737)	1.26(0.99-1.60)	0.063	1.15(0.87-1.51)	0.326
	Black HTN(167/1910)	1.19(0.96-1.48)	0.120	1.22(0.97-1.53)	0.090
SVG magnitude	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	**1.32(1.00-1.76)**	**0.050**	**1.44(1.05-1.96)**	**0.023**
	White HTN(148/2737)	**1.27(1.01-1.61)**	**0.043**	1.16(0.90-1.51)	0.255
	Black HTN(167/1910)	1.12(0.90-1.38)	0.314	1.18(0.94-1.48)	0.155
SAI QRST	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.22(0.94-1.59)	0.132	1.25(0.96-1.63)	0.102
	White HTN(148/2737)	1.11(0.93-1.33)	0.232	1.01(0.87-1.16)	0.921
	Black HTN(167/1910)	0.90(0.75-1.08)	0.256	0.96(0.82-1.12)	0.626
Cornell voltage	White HTN-free(161/7623)	Reference (1.00)		Reference (1.00)	
	Black HTN-free(46/1616)	1.00(0.73-1.36)	0.985	1.02(0.74-1.39)	0.922
	White HTN(148/2737)	1.09(0.87-1.36)	0.457	1.01(0.86-1.20)	0.864
	Black HTN(167/1910)	1.01(0.82-1.25)	0.899	1.11(0.94-1.32)	0.208
Peak QRS-T angle	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.94(0.80-1.09)	0.408	0.93(0.78-1.10)	0.402
	White CHD(88/534)	1.04(0.86-1.24)	0.708	1.04(0.83-1.30)	0.762
	Black CHD(29/148)	**0.71(0.52-0.96)**	**0.027**	0.80(0.54-1.20)	0.282
Area QRS-T angle	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.87(0.73-1.03)	0.108	0.85(0.70-1.02)	0.087
	White CHD(88/534)	1.09(0.89-1.33)	0.396	1.04(0.82-1.32)	0.745
	Black CHD(29/148)	0.77(0.56-1.09)	0.107	0.84(0.60-1.18)	0.321
Peak SVG magnitude	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	1.14(0.95-1.38)	0.160	1.17(0.95-1.43)	0.132
	White CHD(88/534)	0.94(0.70-1.26)	0.681	0.86(0.61-1.20)	0.366
	Black CHD(29/148)	0.76(0.51-1.14)	0.182	1.02(0.64-1.62)	0.926
SVG magnitude	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	1.12(0.93-1.35)	0.215	1.14(0.94-1.39)	0.197
	White CHD(88/534)	1.03(0.78-1.37)	0.815	0.89(0.65-1.21)	0.443
	Black CHD(29/148)	0.69(0.47-1.01)	0.059	0.88(0.54-1.42)	0.595
	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	

SAI QRST	Black CHD-free(184/3591)	1.02(0.87-1.18)	0.842	1.06(0.92-1.22)	0.395
	White CHD(88/534)	1.07(0.87-1.31)	0.506	1.05(0.86-1.27)	0.631
	Black CHD(29/148)	**0.64(0.47-0.88)**	**0.007**	0.86(0.64-1.17)	0.337
Cornell voltage	White CHD-free(221/10135)	Reference (1.00)		Reference (1.00)	
	Black CHD-free(184/3591)	0.96(0.81-1.13)	0.052	1.09(0.95-1.25)	0.219
	White CHD(88/534)	**0.76(0.60-0.98)**	**0.037**	0.90(0.75-1.08)	0.256
	Black CHD(29/148)	0.72(0.81-1.13)	0.615	0.91(0.54-1.53)	0.729
Peak QRS-T angle	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	0.94(0.76-1.15)	0.546	0.87(0.69-1.09)	0.232
	White BMI-3(117/2426)	0.91(0.74-1.12)	0.362	0.83(0.65-1.05)	0.112
	Black BMI-1(46/832)	**0.73(0.54-0.99)**	**0.043**	0.78(0.57-1.07)	0.125
	Black BMI-2(82/1397)	**0.72(0.57-0.92)**	**0.008**	**0.68(0.52-0.88)**	**0.004**
	Black BMI-3(85/1510)	0.94(0.75-1.17)	0.562	0.96(0.73-1.26)	0.755
Area QRS-T angle	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	0.82(0.65-1.04)	0.098	0.86(0.67-1.11)	0.255
	White BMI-3(117/2426)	**0.78(0.62-0.97)**	**0.029**	0.82(0.63-1.06)	0.136
	Black BMI-1(46/832)	**0.57(0.41-0.78)**	**0.001**	**0.65(0.46-0.90)**	**0.009**
	Black BMI-2(82/1397)	**0.64(0.49-0.83)**	**0.001**	**0.65(0.49-0.87)**	**0.004**
	Black BMI-3(85/1510)	**0.75(0.58-0.96)**	**0.024**	0.86(0.64-1.17)	0.336
Peak SVG magnitude	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.16(0.86-1.57)	0.328	1.28(0.93-1.76)	0.132
	White BMI-3(117/2426)	1.13(0.85-1.49)	0.411	1.15(0.81-1.64)	0.438
	Black BMI-1(46/832)	1.14(0.87-1.51)	0.343	1.11(0.79-1.55)	0.555
	Black BMI-2(82/1397)	1.14(0.84-1.54)	0.403	**1.43(1.02-2.01)**	**0.036**
	Black BMI-3(85/1510)	1.25(0.94-1.67)	0.130	**1.44(1.07-1.94)**	**0.017**
SVG magnitude	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.13(0.84-1.52)	0.423	1.15(0.84-1.58)	0.377
	White BMI-3(117/2426)	1.10(0.82-1.47)	0.527	1.04(0.73-1.47)	0.847
	Black BMI-1(46/832)	0.99(0.74-1.32)	0.922	0.96(0.69-1.34)	0.800
	Black BMI-2(82/1397)	0.99(0.73-1.34)	0.956	1.27(0.90-1.79)	0.178
	Black BMI-3(85/1510)	1.16(0.86-1.57)	0.328	1.27(0.92-1.75)	0.152
SAI QRST	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.02(0.84-1.25)	0.813	0.99(0.83-1.19)	0.959
	White BMI-3(117/2426)	0.99(0.80-1.23)	0.923	1.04(0.83-1.29)	0.754
	Black BMI-1(46/832)	0.76(0.57-1.02)	0.070	0.86(0.62-1.20)	0.373
	Black BMI-2(82/1397)	**0.76(0.63-0.93)**	**0.006**	0.86(0.70-1.06)	0.148
	Black BMI-3(85/1510)	1.06(0.84-1.33)	0.637	**1.24(1.01-1.51)**	**0.037**
Cornell voltage	White BMI-1(75/3951)	Reference (1.00)		Reference (1.00)	
	White BMI-2(117/4292)	1.03(0.79-1.33)	0.643	0.95(0.78-1.15)	0.591
	White BMI-3(117/2426)	1.02(0.76-1.37)	0.897	0.87(0.68-1.12)	0.287
	Black BMI-1(46/832)	0.97(0.73-1.28)	0.812	1.00(0.78-1.27)	0.992
	Black BMI-2(82/1397)	0.96(0.74-1.24)	0.739	0.83(0.64-1.07)	0.150
	Black BMI-3(85/1510)	1.14(0.85-1.52)	0.375	**1.31(1.10-1.56)**	**0.003**

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient: RHR=relative hazard ratio; HTN=hypertension; CHD=coronary heart disease; BMI-1=under- or normal-weight; BMI-2=overweight; BMI-3=obese.

Table S7. Stratified association of global ECG measures with SCD in Cox models: race-hypertension; race-coronary heart disease, and race-BMI category subgroups.

Predictor, per 1 SD	Subgroup	Cox model 1		Cox model 2	
		HR(95%CI)	P	HR (95%CI)	P
Peak QRS-T angle	White HTN-free(161/7623)	**1.34(1.17-1.54)**	**<0.0001**	**1.30(1.13-1.49)**	**<0.0001**
	Black HTN-free(46/1616)	1.30(0.97-1.73)	0.078	1.00(0.72-1.41)	0.974
	White HTN(148/2737)	**1.37(1.21-1.57)**	**<0.0001**	**1.17(1.01-1.35)**	**0.031**
	Black HTN(167/1910)	**1.27(1.12-1.43)**	**<0.0001**	1.13(0.98-1.30)	0.087
Area QRS-T angle	White HTN-free(161/7623)	**1.36(1.17-1.58)#**	**<0.0001**	**1.32(1.14-1.54)**	**<0.0001**
	Black HTN-free(46/1616)	**1.52(1.09-2.11)**	**0.013**	1.21(0.86-1.69)	0.276
	White HTN(148/2737)	**1.41(1.22-1.63)**	**<0.0001**	**1.25(1.07-1.45)**	**0.004**
	Black HTN(167/1910)	1.15(0.99-1.32)	0.060	1.06(0.91-1.25)	0.430
Peak SVG magnitude	White HTN-free(161/7623)	**0.83(0.69-0.99)**	**0.041**	0.89(0.73-1.07)	0.203
	Black HTN-free(46/1616)	1.04(0.76-1.41)	0.826	1.14(0.85-1.51)	0.387
	White HTN(148/2737)	0.97(0.81-1.17)#	0.780	1.04(0.86-1.25)	0.703
	Black HTN(167/1910)	1.01(0.87-1.17)	0.882	1.06(0.91-1.22)	0.462
SVG magnitude	White HTN-free(161/7623)	0.90(0.75-1.08)	0.247	0.91(0.76-1.10)	0.342
	Black HTN-free(46/1616)	1.03(0.76-1.39)	0.863	1.14(0.86-1.52)	0.372
	White HTN(148/2737)	1.08(0.90-1.30)#	0.402	1.08(0.90-1.29)	0.420
	Black HTN(167/1910)	1.06(0.92-1.23)	0.422	1.08(0.94-1.26)	0.282
SAI QRST	White HTN-free(161/7623)	1.09(0.92-1.29)	0.312	1.10(0.95-1.27)	0.195
	Black HTN-free(46/1616)	1.27(0.93-1.75)	0.136	1.27(0.92-1.75)	0.153
	White HTN(148/2737)	**1.36(1.18-1.56)**	**<0.0001**	**1.15(1.03-1.28)**	**0.010**
	Black HTN(167/1910)	**1.14(1.02-1.27)**	**0.020**	**1.12(1.02-1.23)**	**0.024**
Cornell voltage	White HTN-free(161/7623)	1.04(0.86-1.25)	0.707	1.07(0.93-1.24)	0.347
	Black HTN-free(46/1616)	1.02(0.72-1.44)	0.925	0.98(0.67-1.46)	0.944
	White HTN(148/2737)	**1.23(1.05-1.44)**	**0.012**	1.12(0.99-1.27)	0.065
	Black HTN(167/1910)	**1.22(1.08-1.39)**	**0.002**	**1.19(1.08-1.31)**	**<0.0001**
Peak QRS-T angle	White CHD-free(221/10135)	**1.28(1.14-1.44)**	**<0.0001**	**1.20(1.06-1.35)**	**0.004**
	Black CHD-free(184/3591)	**1.27(1.13-1.43)**	**<0.0001**	1.10(0.96-1.26)	0.161
	White CHD(88/534)	**1.53(1.28-1.83)**	**<0.0001**	**1.35(1.10-1.65)**	**0.004**
	Black CHD(29/148)	1.24(0.81-1.88)	0.323	1.00(0.64-1.54)	0.991
Area QRS-T angle	White CHD-free(221/10135)	**1.24(1.09-1.41)**	**0.001**	**1.24(1.09-1.40)**	**0.001**
	Black CHD-free(184/3591)	**1.18(1.03-1.36)**	**0.018**	1.05(0.90-1.22)	0.545
	White CHD(88/534)	**1.67(1.38-2.01)**	**<0.0001**	**1.42(1.16-1.75)**	**0.001**
	Black CHD(29/148)	1.17(0.72-1.89)	0.535	1.53(0.97-2.44)	0.070
Peak SVG magnitude	White CHD-free(221/10135)	0.91(0.78-1.06)	0.222	0.99(0.85-1.15)	0.898
	Black CHD-free(184/3591)	1.07(0.93-1.23)	0.359	1.07(0.93-1.22)	0.353
	White CHD(88/534)	0.87(0.67-1.12)	0.279	0.90(0.66-1.23)	0.502
	Black CHD(29/148)	1.28(0.77-2.11)	0.345	1.40(0.83-1.36)	0.208
SVG magnitude	White CHD-free(221/10135)	0.98(0.84-1.15)	0.828	1.04(0.89-1.21)	0.623
	Black CHD-free(184/3591)	1.12(0.98-1.29)	0.107	1.10(0.96-1.25)	0.172
	White CHD(88/534)	1.01(0.79-1.29)	0.930	0.90(0.68-1.19)	0.467
	Black CHD(29/148)	0.99(0.59-1.65)	0.961	1.14(0.66-1.97)	0.650
SAI QRST	White CHD-free(221/10135)	1.13(0.98-1.30)	0.088	1.10(0.99-1.22)	0.064
	Black CHD-free(184/3591)	**1.23(1.11-1.37)**	**<0.0001**	**1.13(1.03-1.25)**	**0.012**
	White CHD(88/534)	**1.43(1.17-1.74)**	**<0.0001**	**1.30(1.07-1.59)**	**0.008**

	Black CHD(29/148)	0.78(0.49-1.24)	0.298	1.14(0.85-1.52)	0.370
Cornell voltage	White CHD-free(221/10135)	**1.20(1.04-1.39)**	**0.015**	**1.13(1.01-1.26)**	**0.032**
	Black CHD-free(184/3591)	**1.23(1.08-1.39)**	**0.001**	**1.17(1.07-1.29)**	**0.001**
	White CHD(88/534)	0.97(0.78-1.20)	0.756	1.05(0.87-1.27)	0.621
	Black CHD(29/148)	1.07(0.68-1.70)	0.767	1.34(0.96-1.87)	0.089
Peak QRS-T angle	White BMI-1(75/3951)	**1.24(1.01-1.51)**	**0.042**	**1.28(1.02-1.60)**	**0.029**
	White BMI-2(117/4292)	**1.40(1.20-1.64)**	**<0.0001**	**1.25(1.06-1.47)**	**0.007**
	White BMI-3(117/2426)	**1.44(1.24-1.67)**	**<0.0001**	**1.19(1.01-1.40)**	**0.038**
	Black BMI-1(46/832)	1.18(0.89-1.57)	0.242	1.05(0.78-1.42)	0.750
	Black BMI-2(82/1397)	1.12(0.93-1.34)	0.243	1.03(0.83-1.27)	0.812
	Black BMI-3(85/1510)	**1.43(1.20-1.69)**	**<0.0001**	**1.35(1.09-1.68)**	**0.006**
Area QRS-T angle	White BMI-1(75/3951)	**1.52(1.23-1.89)**	**<0.0001**	**1.41(1.12-1.77)#**	**0.004**
	White BMI-2(117/4292)	**1.31(1.10-1.56)**	**0.002**	**1.25(1.05-1.48)**	**0.012**
	White BMI-3(117/2426)	**1.39(1.17-1.65)**	**<0.0001**	**1.27(1.07-1.51)**	**0.006**
	Black BMI-1(46/832)	0.99(0.73-1.36)	0.970	0.90(0.65-1.23)	0.500
	Black BMI-2(82/1397)	1.12(0.91-1.39)	0.288	1.08(0.86-1.36)	0.506
	Black BMI-3(85/1510)	**1.31(1.07-1.59)**	**0.008**	**1.38(1.09-1.74)**	**0.007**
Peak SVG magnitude	White BMI-1(75/3951)	0.88(0.68-1.14)	0.343	0.88(0.67-1.14)	0.327
	White BMI-2(117/4292)	0.95(0.77-1.17)	0.622	1.04(0.84-1.30)	0.712
	White BMI-3(117/2426)	0.88(0.71-1.08)	0.222	0.95(0.74-1.21)	0.658
	Black BMI-1(46/832)	0.87(0.67-1.12)	0.278	0.89(0.67-1.19)	0.436
	Black BMI-2(82/1397)	0.95(0.76-1.21)	0.697	1.18(0.96-1.47)	0.121
	Black BMI-3(85/1510)	1.18(0.94-1.48)	0.154	**1.28(1.01-1.62)**	**0.040**
SVG magnitude	White BMI-1(75/3951)	0.98(0.76-1.26)	0.860	0.99(0.77-1.27)	0.911
	White BMI-2(117/4292)	1.05(0.85-1.30)	0.656	1.06(0.86-1.31)	0.566
	White BMI-3(117/2426)	0.94(0.75-1.18)	0.606	0.94(0.73-1.19)	0.591
	Black BMI-1(46/832)	0.86(0.68-1.10)	0.231	0.87(0.66-1.14)	0.317
	Black BMI-2(82/1397)	0.96(0.76-1.22)	0.748	1.23(0.996-1.52)	0.055
	Black BMI-3(85/1510)	**1.36(1.07-1.72)**	**0.012**	**1.28(1.01-1.63)**	**0.041**
SAI QRST	White BMI-1(75/3951)	1.17(0.96-1.43)	0.109	1.15(0.95-1.38)	0.147
	White BMI-2(117/4292)	**1.24(1.05-1.47)#**	**0.013**	1.08(0.96-1.22)	0.201
	White BMI-3(117/2426)	**1.24(1.02-1.50)**	**0.027**	**1.23(1.03-1.47)**	**0.026**
	Black BMI-1(46/832)	0.89(0.68-1.18)	0.426	0.98(0.75-1.28)	0.875
	Black BMI-2(82/1397)	0.94(0.78-1.14)	0.537	1.04(0.89-1.21)	0.620
	Black BMI-3(85/1510)	**1.50(1.30-1.73)**	**<0.0001**	**1.45(1.26-1.68)**	**<0.0001**
Cornell voltage	White BMI-1(75/3951)	1.03(0.81-1.31)	0.807	1.12(0.94-1.34)	0.210
	White BMI-2(117/4292)	1.14(0.94-1.39)	0.195	1.04(0.90-1.20)	0.582
	White BMI-3(117/2426)	1.15(0.94-1.42)	0.184	1.10(0.91-1.32)	0.322
	Black BMI-1(46/832)	1.12(0.89-1.40)	0.334	1.13(0.92-1.38)	0.254
	Black BMI-2(82/1397)	1.09(0.90-1.31)	0.384	0.99(0.83-1.18)	0.889
	Black BMI-3(85/1510)	**1.37(1.10-1.70)**	**0.005**	**1.47(1.28-1.68)**	**<0.0001**

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient: RHR=relative hazard ratio; HTN=hypertension; CHD=coronary heart disease; BMI-1=under- or normal-weight; BMI-2=overweight; BMI-3=obese.

Table S8. Competing risk of sudden cardiac death in race-hypertension, race-coronary

heart disease, and race-BMI category subgroups.

Predictor, per 1 SD	Subgroup	Competing risk model 1		Competing risk model 2	
		SHR (95%CI)	P	SHR (95%CI)	P
Peak QRS-T angle	White HTN-free(161/7784)	**1.30(1.13-1.50)**	**<0.0001**	**1.26(1.10-1.44)**	**0.001**
	Black HTN-free(46/1662)	1.23(0.86-1.75)	0.258	1.14(0.77-1.68)	0.512
	White HTN(148/2885)	**1.25(1.08-1.44)**	**0.002**	**1.17(1.00-1.36)**	**0.045**
	Black HTN(167/2077)	1.10(0.96-1.27)	0.177	1.11(0.95-1.30)	0.200
Area QRS-T angle	White HTN-free(161/7784)	**1.31(1.09-1.56)**	**0.003**	**1.31(1.10-1.54)**	**0.002**
	Black HTN-free(46/1662)	**1.51(1.01-2.25)**	**0.044**	1.37(0.95-1.97)	0.092
	White HTN(148/2885)	**1.25(1.07-1.47)**	**0.005**	**1.25(1.08-1.47)**	**0.004**
	Black HTN(167/2077)	0.96(0.82-1.12)	0.595	1.03(0.87-1.23)	0.739
Peak SVG magnitude	White HTN-free(161/7784)	0.85(0.72-1.02)	0.078	0.89(0.74-1.08)	0.229
	Black HTN-free(46/1662)	1.09(0.79-1.50)	0.603	1.16(0.85-1.58)	0.347
	White HTN(148/2885)	0.97(0.81-1.18)	0.793	0.99(0.81-1.23)	0.991
	Black HTN(167/2077)	0.94(0.80-1.10)	0.410	1.01(0.87-1.18)	0.889
SVG magnitude	White HTN-free(161/7784)	0.92(0.77-1.09)	0.339	0.90(0.75-1.09)	0.282
	Black HTN-free(46/1662)	1.04(0.73-1.46)	0.837	1.15(0.82-1.61)	0.413
	White HTN(148/2885)	1.07(0.89-1.28)	0.476	1.05(0.87-1.27)	0.628
	Black HTN(167/2077)	0.97(0.82-1.15)	0.739	1.03(0.87-1.21)	0.753
SAI QRST	White HTN-free(161/7784)	1.10(0.91-1.33)	0.312	1.08(0.95-1.23)	0.232
	Black HTN-free(46/1662)	1.25(0.84-1.87)	0.270	1.33(0.92-1.92)	0.127
	White HTN(148/2885)	1.19(1.02-1.39)	0.030	**1.16(1.04-1.30)**	**0.008**
	Black HTN(167/2077)	0.99(0.85-1.16)	0.909	1.11(0.98-1.27)	0.110
Cornell voltage	White HTN-free(161/7784)	1.00(0.80-1.24)	0.976	1.06(0.92-1.23)	0.400
	Black HTN-free(46/1662)	1.00(0.71-1.40)	0.985	1.13(0.78-1.63)	0.520
	White HTN(148/2885)	1.11(0.96-1.29)	0.166	1.12(0.99-1.27)	0.065
	Black HTN(167/2077)	1.12(0.98-1.27)	0.095	**1.18(1.05-1.33)**	**0.005**
Peak QRS-T angle	White CHD-free(221/10135)	**1.21(1.07-1.38)**	**0.002**	**1.18(1.04-1.33)**	**0.009**
	Black CHD-free(184/3591)	1.11(0.97-1.28)	0.132	1.07(0.93-1.24)	0.344
	White CHD(88/534)	**1.28(1.09-1.52)**	**0.004**	**1.23(1.001-1.51)**	**0.048**
	Black CHD(29/148)	1.21(0.68-2.15)	0.516	**54.12(3.5-832.2)**	**0.004**
Area QRS-T angle	White CHD-free(221/10135)	1.16(0.996-1.34)	0.056	**1.23(1.07-1.41)**	**0.003**
	Black CHD-free(184/3591)	0.96(0.82-1.14)	0.672	1.02(0.87-1.20)	0.787
	White CHD(88/534)	**1.36(1.10-1.67)**	**0.004**	**1.36(1.09-1.69)**	**0.005**
	Black CHD(29/148)	1.05(0.55-2.01)	0.877	1.33(0.82-2.16)	0.244
Peak SVG magnitude	White CHD-free(221/10135)	0.93(0.80-1.08)	0.346	0.98(0.84-1.15)	0.824
	Black CHD-free(184/3591)	1.02(0.89-1.18)	0.770	1.06(0.92-1.21)	0.412
	White CHD(88/534)	0.89(0.69-1.16)	0.407	0.83(0.62-1.13)	0.240
	Black CHD(29/148)	0.97(0.50-1.88)	0.919	1.04(0.62-1.73)	0.895
SVG magnitude	White CHD-free(221/10135)	1.00(0.87-1.16)	0.963	1.00(0.87-1.16)	0.963
	Black CHD-free(184/3591)	1.08(0.93-1.25)	0.337	1.08(0.93-1.25)	0.337
	White CHD(88/534)	1.06(0.83-1.34)	0.659	1.06(0.83-1.34)	0.659
	Black CHD(29/148)	0.78(0.39-1.55)	0.473	0.78(0.39-1.55)	0.473
SAI QRST	White CHD-free(221/10135)	1.13(0.97-1.31)	0.116	1.10(0.999-1.21)	0.051
	Black CHD-free(184/3591)	1.14(0.99-1.32)	0.062	**1.14(1.01-1.29)**	**0.034**
	White CHD(88/534)	1.23(0.99-1.54)	0.067	1.22(0.99-1.51)	0.064

	Black CHD(29/148)	0.59(0.32-1.10)	0.095	2.61(0.20-33.58)	0.461
Cornell voltage	White CHD-free(221/10135)	**1.21(1.04-1.42)**	**0.014**	**1.12(1.00-1.24)**	**0.043**
	Black CHD-free(184/3591)	**1.14(1.01-1.29)**	**0.034**	**1.16(1.04-1.29)**	**0.007**
	White CHD(88/534)	0.81(0.63-1.04)	0.094	0.97(0.82-1.16)	0.755
	Black CHD(29/148)	1.06(0.53-2.13)	0.873	1.30(0.79-2.14)	0.298
Peak QRS-T angle	White BMI-1(75/3951)	**1.27(1.01-1.60)**	**0.039**	**1.35(1.08-1.67)**	**0.007**
	White BMI-2(117/4292)	**1.30(0.11-1.51)**	**0.001**	**1.21(1.02-1.43)**	**0.026**
	White BMI-3(117/2426)	**1.25(1.05-1.49)**	**0.011**	1.13(0.95-1.33)	0.161
	Black BMI-1(46/832)	0.89(0.60-1.33)	0.581	1.04(0.76-1.43)	0.792
	Black BMI-2(82/1397)	1.02(0.83-1.27)	0.833	1.03(0.81-1.31)	0.829
	Black BMI-3(85/1510)	**1.24(1.02-1.51)**	**0.031**	1.27(0.99-1.63)	0.064
Area QRS-T angle	White BMI-1(75/3951)	**1.65(1.26-2.15)**	**<0.0001**	**1.48(1.16-1.90)**	**0.002**
	White BMI-2(117/4292)	**1.22(1.01-1.48)**	**0.043**	**1.24(1.03-1.50)**	**0.024**
	White BMI-3(117/2426)	1.18(0.96-1.44)	0.112	**1.23(1.01-1.48)**	**0.036**
	Black BMI-1(46/832)	0.74(0.51-1.09)	0.128	0.87(0.64-1.19)	0.383
	Black BMI-2(82/1397)	1.01(0.80-1.28)	0.917	1.10(0.85-1.43)	0.476
	Black BMI-3(85/1510)	1.10(0.88-1.37)	0.403	1.25(0.97-1.61)	0.090
Peak SVG magnitude	White BMI-1(75/3951)	0.87(0.69-1.09)	0.216	0.84(0.64-1.12)	0.234
	White BMI-2(117/4292)	0.96(0.76-1.20)	0.697	1.04(0.83-1.29)	0.740
	White BMI-3(117/2426)	0.92(0.75-1.14)	0.464	0.93(0.72-1.21)	0.601
	Black BMI-1(46/832)	0.90(0.70-1.15)	0.411	0.87(0.61-1.22)	0.414
	Black BMI-2(82/1397)	0.94(0.72-1.22)	0.637	1.18(0.90-1.55)	0.226
	Black BMI-3(85/1510)	0.97(0.76-1.24)	0.812	1.13(0.90-1.41)	0.295
SVG magnitude	White BMI-1(75/3951)	0.96(0.76-1.21)	0.708	0.94(0.72-1.24)	0.668
	White BMI-2(117/4292)	1.05(0.85-1.30)	0.654	1.04(0.85-1.28)	0.684
	White BMI-3(117/2426)	0.99(0.80-1.23)	0.946	0.92(0.72-1.18)	0.512
	Black BMI-1(46/832)	0.87(0.68-1.11)	0.263	0.84(0.61-1.15)	0.270
	Black BMI-2(82/1397)	0.95(0.72-1.24)	0.689	1.21(0.92-1.59)	0.183
	Black BMI-3(85/1510)	1.07(0.83-1.38)	0.623	1.14(0.88-1.48)	0.323
SAI QRST	White BMI-1(75/3951)	1.16(0.88-1.52)	0.286	1.14(0.96-1.37)	0.139
	White BMI-2(117/4292)	1.17(0.97-1.40)	0.101	1.09(0.97-1.22)	0.139
	White BMI-3(117/2426)	1.09(0.89-1.34)	0.410	**1.19(1.01-1.43)**	**0.041**
	Black BMI-1(46/832)	0.81(0.54-1.21)	0.305	0.97(0.65-1.46)	0.891
	Black BMI-2(82/1397)	0.89(0.72-1.09)	0.255	1.03(0.88-1.21)	0.693
	Black BMI-3(85/1510)	**1.23(1.01-1.50)**	**0.038**	**1.47(1.22-1.77)**	**<0.0001**
Cornell voltage	White BMI-1(75/3951)	0.99(0.78-1.26)	0.937	1.16(0.98-1.37)	0.083
	White BMI-2(117/4292)	1.07(0.88-1.30)	0.505	1.05(0.92-1.21)	0.474
	White BMI-3(117/2426)	1.03(0.81-1.30)	0.809	1.02(0.85-1.23)	0.815
	Black BMI-1(46/832)	1.07(0.80-1.43)	0.642	1.12(0.89-1.40)	0.353
	Black BMI-2(82/1397)	1.07(0.89-1.29)	0.477	0.97(0.80-1.18)	0.769
	Black BMI-3(85/1510)	1.15(0.90-1.47)	0.268	**1.51(1.31-1.75)**	**<0.0001**

#Proportionality hazards assumption not met; SVG=spatial ventricular gradient: RHR=relative hazard ratio; HTN=hypertension; CHD=coronary heart disease; BMI-1=under- or normal-weight; BMI-2=overweight; BMI-3=obese.

Figure S1. Estimated adjusted marginal (least-squares) means and 95% CI of (A) peak QRS-T angle, (B) area QRS-T angle, (C) peak SVG azimuth, and (D) area SVG azimuth for white and black participants.
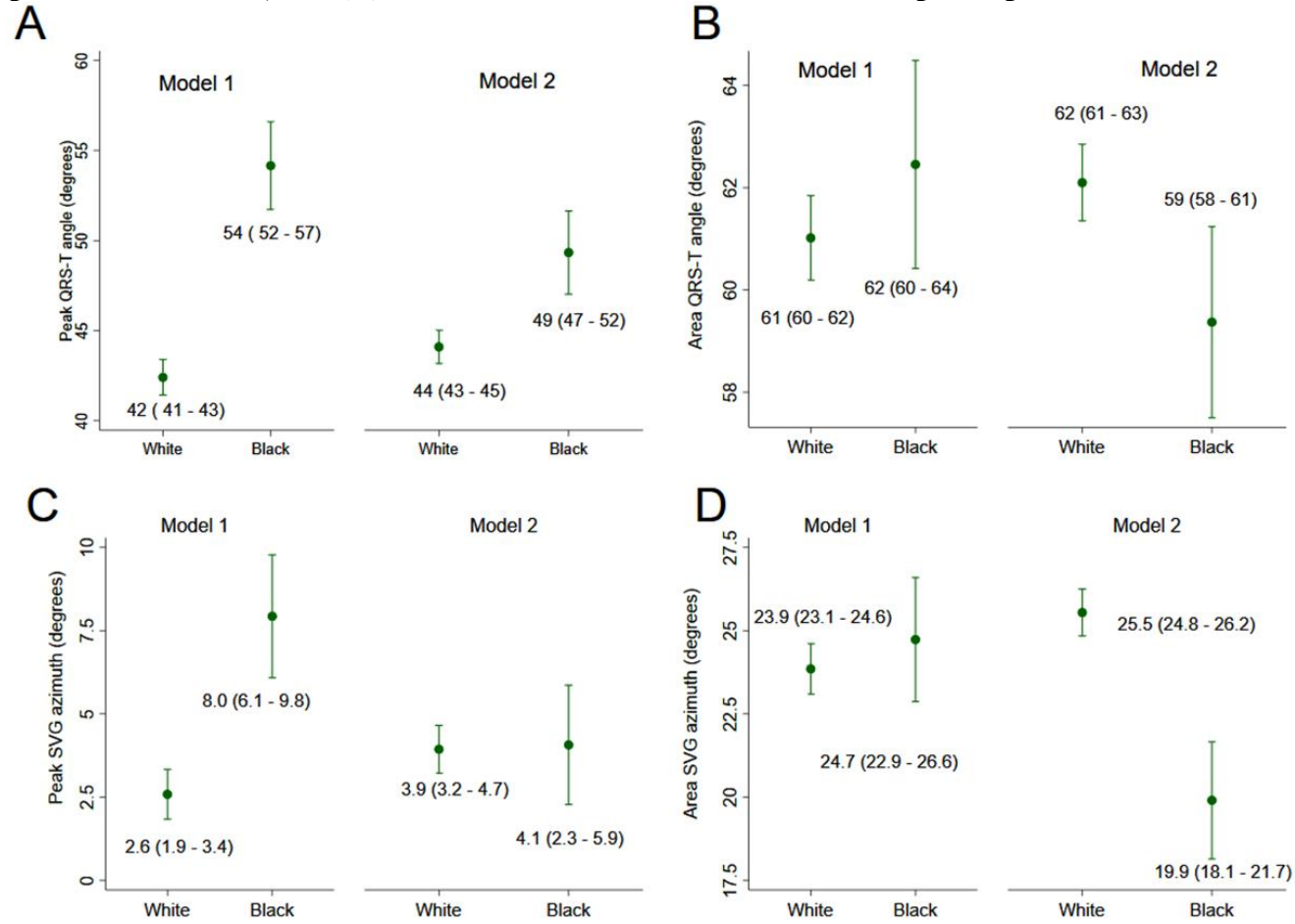
Figure S2. Estimated adjusted marginal (least-squares) means and 95% CI of (A) peak SVG elevation, (B) heart rate, (C) QRS duration, and (D) QTc for white and black participants.
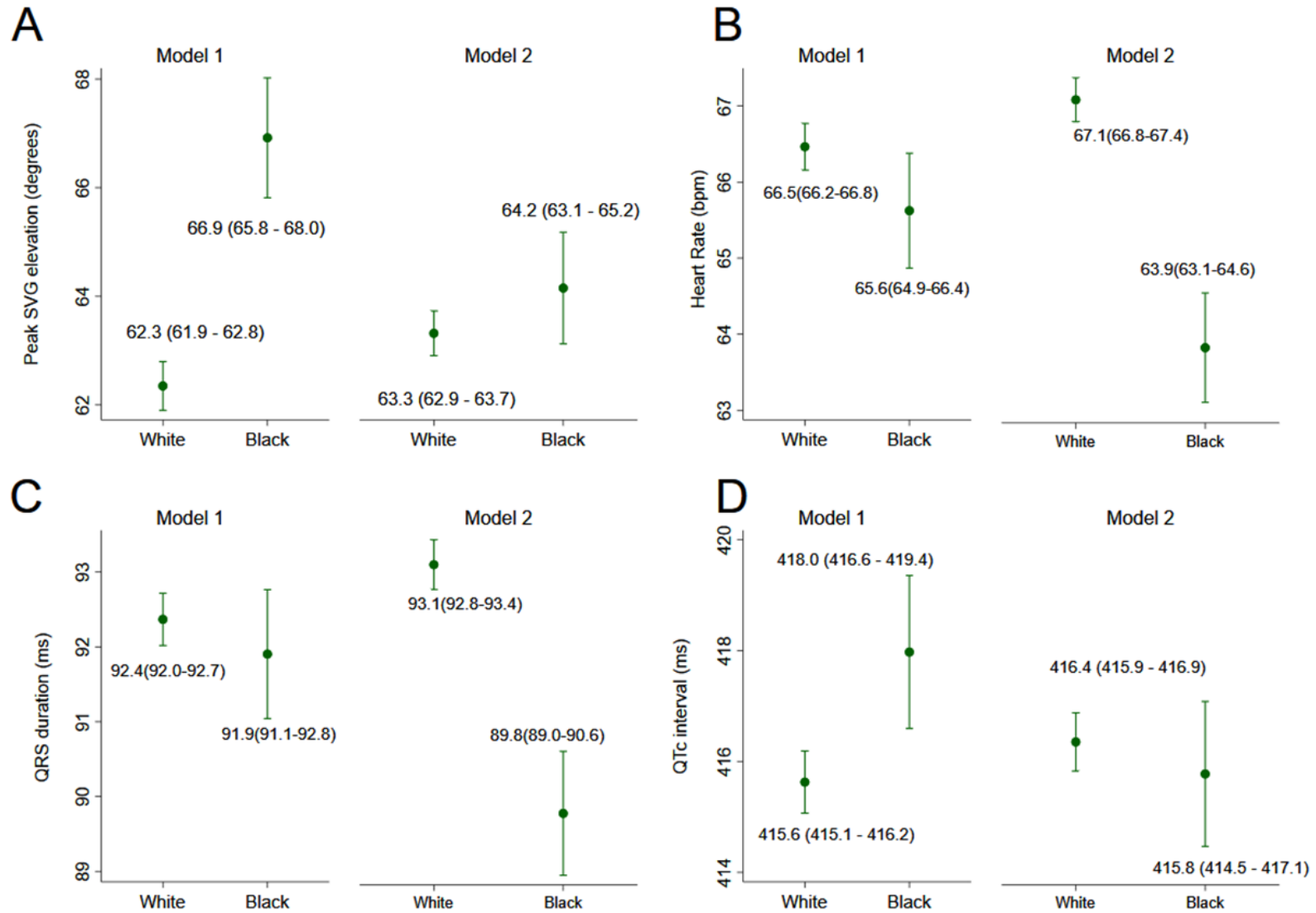
Figure S3. Adjusted (model 1) risk of SCD associated with an area and peak SVG magnitude in black and white participants. **Restricted cubic spline with 95% CI shows change in hazard ratio (Y-axis) in response to SVG magnitude change (X-axis).** **50th percentile of SVG magnitude is selected as reference. Knots of area SVG magnitude in black participants are at 1.2 – 1.7 – 2.1 – 2.9 mV, and in white participants are at 1.0 – 1.4 – 1.8 – 2.4 mV. Knots of peak SVG magnitude in black participants are at 1.1 – 1.6 – 2.0 – 2.6 mV, and in white participants are at 0.9 – 1.4 – 1.7 – 2.2 mV.**