

Supplementary

Table S1 Comparison of selected baseline characteristics between participants who received and did not receive chemotherapy within strata of race/ethnicity in the propensity score weighted cohort

Variable	Non-Hispanic White			Non-Hispanic Black		
	No/discordant chemotherapy (N=3,345)	Yes chemotherapy (N=3,383)	Std. Diff	No/discordant chemotherapy (N=3,345)	Yes chemotherapy (N=3,383)	Std. Diff
Stage						
I	520 (30.82)	524 (30.59)	0.005	394 (23.8)	410 (24.55)	0.018
II	838 (49.67)	816 (47.64)	0.041	869 (52.46)	819 (49.04)	0.068
III	263 (15.56)	318 (18.56)	0.080	287 (17.31)	342 (20.48)	0.081
IV	67 (3.95)	55 (3.21)	0.040	107 (6.44)	99 (5.93)	0.021
Surgery						
None	35 (2.1)	36 (2.1)	0.000	117 (7.06)	85 (5.09)	0.083
Breast conserving surgery	653 (38.69)	691 (40.34)	0.034	700 (42.23)	716 (42.87)	0.013
Mastectomy	999 (59.21)	986 (57.56)	0.033	840 (50.71)	869 (52.04)	0.027
Health insurance						
Private/military	1,276 (75.61)	1,304 (76.12)	0.012	971 (58.61)	1,089 (65.21)	0.136
Uninsured/Medicaid	154 (9.13)	113 (6.60)	0.094	446 (26.89)	326 (19.52)	0.175
Medicare	258 (15.26)	296 (17.28)	0.055	240 (14.5)	255 (15.27)	0.022
SES Index*						
0–<10%	1,113 (65.98)	1,023 (59.72)	0.130	364 (22)	313 (18.74)	0.081
10%+	574 (34.02)	690 (40.28)	0.130	1,293 (78)	1,357 (81.26)	0.081
Estrogen receptor status						
Negative	418 (24.74)	418 (24.4)	0.008	718 (43.31)	599 (35.87)	0.153
Positive/borderline	1,270 (75.26)	1,295 (75.6)	0.008	939 (56.69)	1,071 (64.13)	0.153
Nodal involvement						
No	830 (49.21)	878 (51.26)	0.041	821 (49.54)	825 (49.4)	0.003
Yes	857 (50.79)	835 (48.74)	0.041	836 (50.46)	845 (50.6)	0.003
Age, years	53.29 (9.98)	54.14 (11.27)	0.080	51.03 (15.52)	52.53 (11.41)	0.110

All variables are summarized using frequencies and column percent except for age, which is summarized using means and standard deviations. *, percentage of census tract at or below the federal poverty line. Std. Diff, standardized difference; SES, socioeconomic status.

Table S2 Comparison of selected baseline characteristics between participants who received and did not receive hormone therapy within strata of race/ethnicity in the propensity score weighted cohort

Variable	Non-Hispanic White			Non-Hispanic Black		
	No hormone therapy (N=4,677)	Yes hormone therapy (N=4,629)	Std. Diff	No hormone therapy (N=4,677)	Yes hormone therapy (N=4,629)	Std. Diff
Stage						
I	1,612 (54.66)	1,605 (55.52)	0.017	737 (42.67)	762 (43.84)	0.024
II	1,018 (34.53)	942 (32.58)	0.041	617 (35.7)	638 (36.71)	0.021
III	193 (6.53)	242 (8.37)	0.070	196 (11.33)	216 (12.43)	0.034
IV	126 (4.28)	102 (3.53)	0.039	178 (10.3)	122 (7.02)	0.117
Surgery						
None	140 (4.74)	125 (4.32)	0.020	129 (7.47)	128 (7.36)	0.004
Breast conserving surgery	1,538 (52.16)	1,579 (54.62)	0.049	792 (45.81)	877 (50.46)	0.093
Mastectomy	1,271 (43.1)	1,187 (41.06)	0.041	807 (46.73)	733 (42.17)	0.092
Health insurance						
Private/military	25 (0.85)	27 (0.93)	0.009	69 (3.97)	49 (2.82)	0.064
Uninsured	1,958 (66.37)	1,892 (65.44)	0.020	994 (57.52)	1,011 (58.17)	0.013
Medicaid	82 (2.79)	72 (2.49)	0.019	239 (13.86)	226 (13.0)	0.025
Medicare	884 (29.99)	900 (31.13)	0.025	426 (24.66)	452 (26.01)	0.031
SES Index*						
0<-5%	922 (31.27)	909 (31.44)	0.004	95 (5.48)	99 (5.7)	0.009
5-10%	942 (31.94)	881 (30.47)	0.032	201 (11.62)	220 (12.66)	0.032
10-20%	755 (25.62)	736 (25.46)	0.004	641 (37.12)	639 (36.77)	0.007
20-100%	330 (11.18)	365 (12.63)	0.045	791 (45.78)	780 (44.88)	0.018
Chemotherapy						
No/discordant	1,834 (62.18)	1,825 (63.13)	0.020	782 (45.25)	842 (48.45)	0.064
Yes	1,115 (37.82)	1,066 (36.87)	0.020	946 (54.75)	896 (51.55)	0.064
Radiation						
No/discordant	956 (32.41)	979 (33.86)	0.031	563 (32.59)	547 (31.47)	0.024
Yes	1,993 (67.59)	1,912 (66.14)	0.031	1,165 (67.41)	1,191 (68.53)	0.024
Subtype						
Luminal A	2,599 (88.14)	2,531 (87.55)	0.018	1,449 (83.87)	1,443 (83.03)	0.023
Luminal B	332 (11.25)	342 (11.83)	0.018	251 (14.55)	268 (15.42)	0.024
HER2-enriched	8 (0.27)	8 (0.28)	0.001	10 (0.59)	10 (0.58)	0.002
Triple negative	10 (0.34)	10 (0.35)	0.001	17 (0.99)	17 (0.98)	0.002
Age	59.29 (19.67)	59.66 (12.54)	0.023	56.55 (15.62)	57.08 (12.76)	0.037

All variables are summarized using frequencies and column percent except for age, which is summarized using means and standard deviations. *, percentage of census tract at or below the federal poverty line. Std. Diff, standardized difference; SES, socioeconomic status.

Table S3 Comparison of selected baseline characteristics between participants who received and did not receive trastuzumab within strata of race/ethnicity in the propensity score weighted cohort

Variable	Non-Hispanic White			Non-Hispanic Black		
	No Trastuzumab (N=924)	Yes Trastuzumab (N=925)	Std. Diff	No Trastuzumab (N=924)	Yes Trastuzumab (N=925)	Std. Diff
Stage						
I	170 (35.28)	170 (35.27)	0.000	86 (19.47)	104 (23.48)	0.098
II	177 (36.68)	203 (42.12)	0.111	204 (46.16)	194 (43.79)	0.048
III	103 (21.3)	76 (15.77)	0.143	93 (20.99)	92 (20.77)	0.006
IV	32 (6.75)	33 (6.85)	0.004	59 (13.38)	53 (11.96)	0.043
Surgery						
None	27 (5.57)	30 (6.22)	0.028	89 (20.03)	59 (13.32)	0.181
Breast conserving surgery	176 (36.55)	166 (34.44)	0.044	152 (34.42)	153 (34.54)	0.002
Mastectomy	279 (57.88)	286 (59.34)	0.030	201 (45.55)	231 (52.14)	0.132
Health insurance						
Private/military	4 (0.88)	5 (1.04)	0.016	24 (5.45)	14 (3.16)	0.113
Uninsured	369 (76.64)	357 (74.07)	0.060	254 (57.51)	278 (62.75)	0.107
Medicaid	22 (4.61)	25 (5.19)	0.027	83 (18.82)	81 (18.28)	0.014
Medicare	86 (17.86)	95 (19.71)	0.047	81 (18.22)	70 (15.8)	0.064
SES Index*						
0-<5%	117 (24.35)	135 (28.01)	0.083	26 (5.97)	27 (6.09)	0.005
5-10%	158 (32.75)	147 (30.5)	0.049	58 (13.03)	52 (11.74)	0.039
10-20%	145 (30.2)	134 (27.8)	0.053	183 (41.45)	177 (39.95)	0.030
20-100%	61 (12.7)	66 (13.69)	0.029	175 (39.56)	187 (42.21)	0.054
Chemotherapy						
No/discordant	25 (5.24)	25 (5.19)	0.003	29 (6.57)	29 (6.55)	0.001
Yes	456 (94.76)	457 (94.81)	0.003	413 (93.43)	414 (93.45)	0.001
Radiation						
No/discordant	162 (33.58)	189 (39.21)	0.117	153 (34.61)	160 (36.12)	0.032
Yes	320 (66.42)	293 (60.79)	0.117	289 (65.39)	283 (63.88)	0.032
Subtype						
Luminal A	30 (6.25)	30 (6.22)	0.001	28 (6.35)	28 (6.32)	0.001
Luminal B	340 (70.6)	342 (70.95)	0.008	269 (60.82)	285 (64.33)	0.073
HER2-enriched	101 (20.89)	99 (20.54)	0.009	136 (30.81)	121 (27.31)	0.077
Triple negative	11 (2.26)	11 (2.28)	0.001	9 (2.03)	9 (2.03)	0.000
Age	55.09 (4.08)	55.07 (12.71)	0.002	52.72 (4.86)	52.14 (12.03)	0.063

All variables are summarized using frequencies and column percent except for age, which is summarized using means and standard deviations. *, percentage of census tract at or below the federal poverty line. Std. Diff, standardized difference; SES, socioeconomic status.

Table S4 Comparison of selected baseline characteristics between participants who received and did not receive radiation therapy within strata of race/ethnicity in the propensity score weighted cohort

Variable	Non-Hispanic White			Non-Hispanic Black		
	No radiation (N=8,400)	Yes radiation (N=4,418)	Std. Diff	No radiation (N=8,400)	Yes radiation (N=4,418)	Std. Diff
Stage						
I	1,017 (18.34)	1,474 (57.07)	0.872	569 (19.92)	749 (40.82)	0.467
II	1,531 (27.6)	745 (28.84)	0.028	931 (32.63)	680 (37.06)	0.093
III	1,520 (27.42)	285 (11.03)	0.425	832 (29.16)	299 (16.29)	0.311
IV	1,477 (26.64)	79 (3.06)	0.703	522 (18.29)	107 (5.83)	0.390
Surgery						
None	69 (1.24)	56 (2.17)	0.072	74 (2.59)	70 (3.81)	0.069
Breast conserving surgery	4,997 (90.1)	1,999 (77.39)	0.350	2,309 (80.9)	1,228 (66.92)	0.322
Mastectomy	480 (8.66)	528 (20.44)	0.339	471 (16.51)	537 (29.26)	0.307
Health insurance						
Private/military	456 (8.22)	28 (1.08)	0.344	164 (5.74)	58 (3.16)	0.125
Uninsured	3,459 (62.37)	1,695 (65.62)	0.068	1,593 (55.82)	1,091 (59.46)	0.074
Medicaid	164 (2.96)	76 (2.94)	0.001	428 (15.01)	275 (14.99)	0.001
Medicare	1,467 (26.45)	784 (30.35)	0.087	669 (23.43)	411 (22.4)	0.025
SES Index						
0–<5%	1,726 (31.11)	808 (31.28)	0.004	69 (2.41)	120 (6.54)	0.201
5–10%	2,045 (36.88)	776 (30.04)	0.145	265 (9.28)	233 (12.7)	0.109
10–20%	765 (13.79)	690 (26.71)	0.326	1,200 (42.05)	680 (37.06)	0.102
20–100%	1,010 (18.22)	309 (11.96)	0.175	1,320 (46.25)	802 (43.71)	0.051
Chemotherapy						
No/discordant	1,685 (30.38)	1,448 (56.06)	0.537	681 (23.84)	639 (34.82)	0.243
Yes	3,861 (69.62)	1,135 (43.94)	0.537	2,174 (76.16)	1,196 (65.18)	0.243
Subtype						
Luminal A	4,010 (72.31)	2,010 (77.82)	0.128	1,732 (60.69)	1,170 (63.76)	0.063
Luminal B	1,088 (19.62)	286 (11.07)	0.239	449 (15.75)	231 (12.59)	0.091
HER2-enriched	189 (3.4)	76 (2.94)	0.026	169 (5.91)	85 (4.63)	0.057
Triple negative	259 (4.67)	211 (8.17)	0.143	504 (17.65)	349 (19.02)	0.036
Age	57.17 (28.65)	59.38 (11.81)	0.101	56.37 (19.29)	55.86 (11.67)	0.031

All variables are summarized using frequencies and column percent except for age, which is summarized using means and standard deviations. *, percentage of census tract at or below the federal poverty line. Std. Diff, standardized difference; SES, socioeconomic status.

Table S5 Number of cardiovascular disease-related deaths according to therapy received and race/ethnicity among women diagnosed with stage I-IV breast cancer in the metropolitan Atlanta area

Therapy	No. of CVD deaths	
	Non-Hispanic White	Non-Hispanic Black
Chemotherapy		
Yes	15	17
No/discordant	82	49
Hormone therapy		
Yes	55	40
No	44	25
Trastuzumab		
Yes	6	3
No	96	67

Table S6 Subdistribution hazard ratios (sdHR) and 95% confidence intervals (95% CI) for cardiovascular disease-specific death overall and according to race among women diagnosed with stage I-IV breast cancer in the metropolitan Atlanta area

Treatment	sdHR (95% CI)		
	Overall	Non-Hispanic White	Non-Hispanic Black
Chemotherapy*			
Yes	1.20 (0.66, 2.17)	0.94 (0.41, 2.14)	1.57 (0.65, 3.77)
No/discordant	Reference	Reference	Reference
Interaction P value		0.40	
Hormone therapy†			
Yes	0.94 (0.70, 1.26)	0.65 (0.45, 0.94)	2.25 (1.27, 3.97)
No/discordant	Reference	Reference	Reference
Interaction P value		≤0.01	
Trastuzumab†			
Yes	2.10 (0.56, 7.89)	Not estimable	
No/unknown	Reference		

Estimates for radiation therapy were unreliable and therefore excluded from this analysis. *, propensity score model included: age, stage, surgery, radiation therapy, insurance status, poverty level, estrogen receptor, node status, and race, as well as interaction terms between race and all variables in the model; †, propensity score models included: age, stage, surgery, radiation therapy, insurance status, poverty level, subtype, chemotherapy and race, as well as interaction terms between race and all variables in the model.

Table S7 Hazard ratios (HR) and 95% confidence intervals (95%CI) for cardiovascular disease-specific death overall and according to race among women diagnosed with stage I–III breast cancer in the metropolitan Atlanta area

Treatment	HR (95% CI)		
	Overall	Non-Hispanic White	Non-Hispanic Black
Chemotherapy*			
Yes	1.17 (0.66, 2.07)	0.97 (0.45, 2.06)	1.41 (0.58, 3.40)
No/discordant	Reference	Reference	Reference
Interaction P value		0.61	
Hormone therapy†			
Yes	0.99 (0.62, 1.59)	0.75 (0.44, 1.27)	1.99 (0.67, 5.94)
No/discordant	Reference	Reference	Reference
Interaction P value		0.11	
Trastuzumab†			
Yes	2.24 (0.87, 5.78)	Not estimable	
No/unknown	Reference		

Estimates for radiation therapy were unreliable and therefore excluded from this analysis. *, propensity score model included: age, stage, surgery, radiation therapy, insurance status, poverty level, estrogen receptor, node status, and race, as well as interaction terms between race and all variables in the model; †, propensity score models included: age, stage, surgery, radiation therapy, insurance status, poverty level, subtype, chemotherapy and race, as well as interaction terms between race and all variables in the model.