Supplementary Table S5. Multivariable-adjusted association between body mass index (BMI) and mammographic density[a] by race and ethnicity, stratified by age at mammogram and restricted to women in urban areas

BMI (kg/m²)	All Low MD (n)	All High MD (n)	All RR (95% CI)	AIAN Low MD (n)	AIAN High MD (n)	AIAN RR (95% CI)	Asian Low MD (n)	Asian High MD (n)	Asian RR (95% CI)	Black Low MD (n)	Black High MD (n)	Black OR (95% CI)	Hispanic Low MD (n)	Hispanic High MD (n)	Hispanic RR (95% CI)	NHPI Low MD (n)	NHPI High MD (n)	NHPI RR (95% CI)	White Low MD (n)	White High MD (n)	White RR (95% CI)
Full cohort[b]																					
<25	25,979	45,448	(ref)	84	166	(ref)	265	1,168	(ref)	92	200	(ref)	1,162	2,592	(ref)	16	54	(ref)	24,360	41,268	(ref)
≥25-<30	28,752	20,141	0.68 (0.68, 0.69)	105	90	0.71 (0.60, 0.85)	129	172	0.72 (0.65, 0.79)	154	115	0.63 (0.54, 0.74)	1,517	1,406	0.71 (0.68, 0.74)	38	43	0.70 (0.55, 0.88)	26,809	18,315	0.68 (0.67, 0.69)
≥30	24,068	8,643	0.43 (0.42, 0.44)	126	37	0.35 (0.26, 0.46)	48	32	0.52 (0.39, 0.68)	186	68	0.40 (0.32, 0.49)	1,295	583	0.46 (0.43, 0.49)	84	33	0.38 (0.28, 0.52)	22,329	7,890	0.43 (0.42, 0.44)
p-trend			<0.001			<0.001			<0.001			<0.001			<0.001			<0.001			<0.001
p-heterogeneity[c]																					0.16
Age <45[d]																					
<25	5,262	17,089	(ref)	25	64	(ref)	60	486	(ref)	19	79	(ref)	378	1,234	(ref)	*	23	(ref)	4,775	15,203	(ref)
≥25-<30	5,018	5,597	0.69 (0.68, 0.71)	23	29	0.80 (0.61, 1.05)	23	68	0.83 (0.73, 0.94)	32	56	0.79 (0.65, 0.95)	467	604	0.74 (0.69, 0.78)	*	19	0.80 (0.60, 1.08)	4,466	4,821	0.69 (0.67, 0.70)
≥30	4,796	2,299	0.42 (0.41, 0.44)	28	16	0.51 (0.34, 0.77)	*	*	0.56 (0.34, 0.94)	46	27	0.45 (0.33, 0.62)	418	231	0.46 (0.41, 0.51)	29	*	0.34 (0.22, 0.54)	4,268	2,005	0.42 (0.40, 0.44)
p-trend			<0.001			0.019			<0.001			<0.001			<0.001			0.004			<0.001
p-heterogeneity[c]																					0.015
Age 45 to <55[b]																					
<25	7,316	16,088	(ref)	26	60	(ref)	79	443	(ref)	33	74	(ref)	453	1,034	(ref)	*	*	(ref)	6,718	14,455	(ref)
≥25-<30	8,128	7,266	0.70 (0.68, 0.71)	31	44	0.83 (0.65, 1.06)	49	59	0.64 (0.54, 0.76)	62	37	0.63 (0.54, 0.74)	615	597	0.71 (0.66, 0.76)	*	*	0.69 (0.46, 1.03)	7,359	6,513	0.70 (0.68, 0.71)
≥30	7,842	3,312	0.44 (0.43, 0.45)	55	*	0.25 (0.15, 0.43)	22	15	0.47 (0.31, 0.70)	72	27	0.40 (0.32, 0.49)	537	260	0.47 (0.43, 0.53)	29	*	0.45 (0.28, 0.72)	7,127	2,982	0.44 (0.42, 0.45)
p-trend			<0.001			<0.001			<0.001			<0.001			<0.001			0.018			<0.001
p-heterogeneity[c]																					0.10
Age ≥55[b]																					
<25	13,401	12,271	(ref)	33	42	(ref)	126	239	(ref)	40	47	(ref)	331	324	(ref)	*	*	(ref)	12,867	11,610	(ref)
≥25-<30	15,606	7,278	0.67 (0.66, 0.69)	51	17	0.42 (0.26, 0.69)	57	45	0.68 (0.54, 0.86)	60	22	0.47 (0.32, 0.71)	435	205	0.64 (0.56, 0.74)	19	*	0.44 (0.21, 0.93)	14,984	6,981	0.67 (0.66, 0.69)
≥30	11,430	3,032	0.44 (0.42, 0.45)	43	*	0.30 (0.16, 0.56)	*	*	0.54 (0.33, 0.91)	68	14	0.30 (0.18, 0.50)	340	92	0.42 (0.35, 0.52)	26	*	0.23 (0.09, 0.63)	10,934	2,903	0.44 (0.42, 0.45)
p-trend			<0.001			<0.001			<0.001			<0.001			<0.001			0.08			<0.001
p-heterogeneity[c]																					0.19

Abbreviations: AIAN=non-Hispanic American Indian or Alaska Native; Asian=non-Hispanic Asian; Black=non-Hispanic Black; NHPI=non-Hispanic Native Hawaiian or Pacific Islander; White=non-Hispanic White

*Consistent with Utah Population Database confidentiality policies, we have masked low counts (n<11) and any counts that could be used to re-create the low counts.

[a]Low MD is defined as BI-RADS A or B, and high MD defined as BI-RADS C or D.

[b]Multivariable models are adjusted for age (continuous), education (less than high school or high school diploma, more than high school, missing), parity (0 births in Utah, 1 birth in Utah, 2+ births in Utah, parous with number of births not known), and hormone therapy (HT) use (never, past, current). The model for the full population, "All," is additionally adjusted for the combined race and ethnicity variable.

[c]Test for heterogeneity is a likelihood ratio test comparing models with and without interaction terms between the combined race and ethnicity variable and BMI

[d]Multivariable models are adjusted for age (continuous), education (less than high school or high school diploma, more than high school, missing), and parity (0 births in Utah, 1 birth in Utah, 2+ births in Utah, parous with number of births not known). The model for the full population, "All," is additionally adjusted for the combined race and ethnicity variable.