Variables	Q1 (n=18458)	Q2 (n=22459)	Q3 (n=15199)	Q4 (n=17200)	Q5 (n=18098)	P value
Sex (n, %)						
Male	9182	10758	7029	7649	7570	
	(49.7%)	(47.9%)	(46.2%)	(44.5%)	(41.8%)	< 0.001
Female	9276	11701	8170	9551	10528	
	(50.3%)	(52.1%)	(53.8%)	(55.5%)	(58.2%)	
Arm (n, %)						
Screen	9895	11514	7802	8594	8839	
	(53.6%)	(51.3%)	(51.3%)	(50.0%)	(48.8%)	< 0.001
Control	8563	10945	7397	8606	9259	
	(46.4%)	(48.7%)	(48.7%)	(50.0%)	(51.2%)	
Smoking status (n, %)						
Never	8325	10777	7489	8738	9558	
	(45.1%)	(48.0%)	(49.3%)	(50.8%)	(52.8%)	< 0.001
Current	1587	1989	1409	1597	1817	
	(8.6%)	(8.9%)	(9.3%)	(9.3%)	(10.0%)	
Former	8539	9688	6298	6860	6723	
	(46.3%)	(43.1%)	(41.4%)	(39.9%)	(37.1%)	
Drinking status (n, %)						
Never	1340	1934	1512	1938	2487	
	(7.3%)	(8.6%)	(9.9%)	(11.3%)	(13.7%)	< 0.00
Current	2241	2940	2069	2507	2964	
	(12.1%)	(13.1%)	(13.6%)	(14.6%)	(16.4%)	
Former	14474	17075	11202	12259	11969	
	(78.4%)	(76.0%)	(73.7%)	(71.3%)	(66.1%)	
Education (n, %)						
High school and	4549	6114	4324	5202	6207	
below	(24.6%)	(27.2%)	(28.4%)	(30.2%)	(34.3%)	< 0.001
Undergraduate	6271	7700	5279	5870	6183	
	(34.0%)	(34.3%)	(34.7%)	(34.1%)	(34.2%)	
Graduate and above	7605	8597	5565	6096	5672	
	(41.2%)	(38.3%)	(36.6%)	(35.4%)	(31.3%)	
BMI (n, %)		,	,	,	,	
$< 25.0 \text{ kg/m}^2$	5958	7707	5359	6109	6606	
	(32.3%)	(34.3%)	(35.3%)	(35.5%)	(36.5%)	< 0.001
$\geq$ 25.0 kg/m <sup>2</sup>	12255	14463	9639	10882	11230	
	(66.4%)	(64.4%)	(63.4%)	(63.3%)	(62.1%)	
Race (n, %)	. /	. /			. /	
White, Non-Hispanic	17003	20645	13897	15555	16044	
	(92.1%)	(91.9%)	(91.4%)	(90.4%)	(88.7%)	< 0.001

Supplementary Table 3 Main characteristics of participants included in this study by uPDI in Prostate, Lung, Colorectal and Ovarian (PLCO) Screening Trial.

Other	1446	1807	1298	1639	2047	
	(7.8%)	(8.0%)	(8.5%)	(9.5%)	(11.3%)	
Marital status (n, %)						
Married	14605	17904	12005	13385	13572	
	(79.1%)	(79.7%)	(79.0%)	(77.8%)	(75.0%)	< 0.001
Not married	3818	4509	3164	3782	4500	
	(20.7%)	(20.1%)	(20.8%)	(22.0%)	(24.9%)	
Total energy intake	2189.2	1869.1	1674.0	1514.3	1314.4	
(kcal/d), mean $\pm$ SD	(726.3)	(665.8)	(625.2)	(583.4)	(550.6)	< 0.001

uPDI, unhealthy plant-based diet index; y, year; SD, standard deviation; BMI, body mass index