

SUPPLEMENTAL MATERIAL

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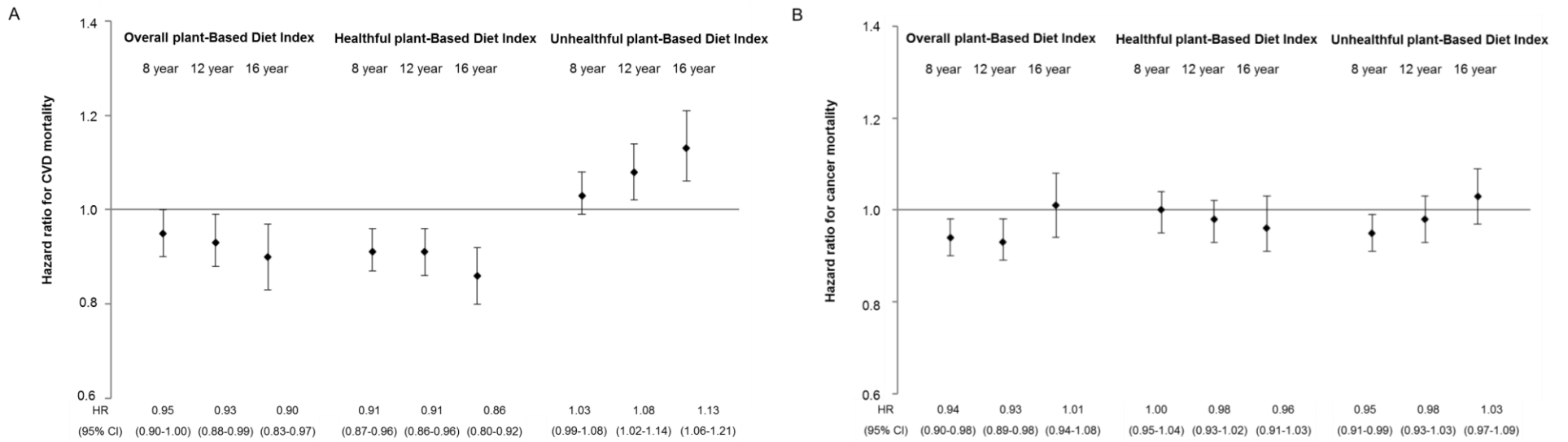
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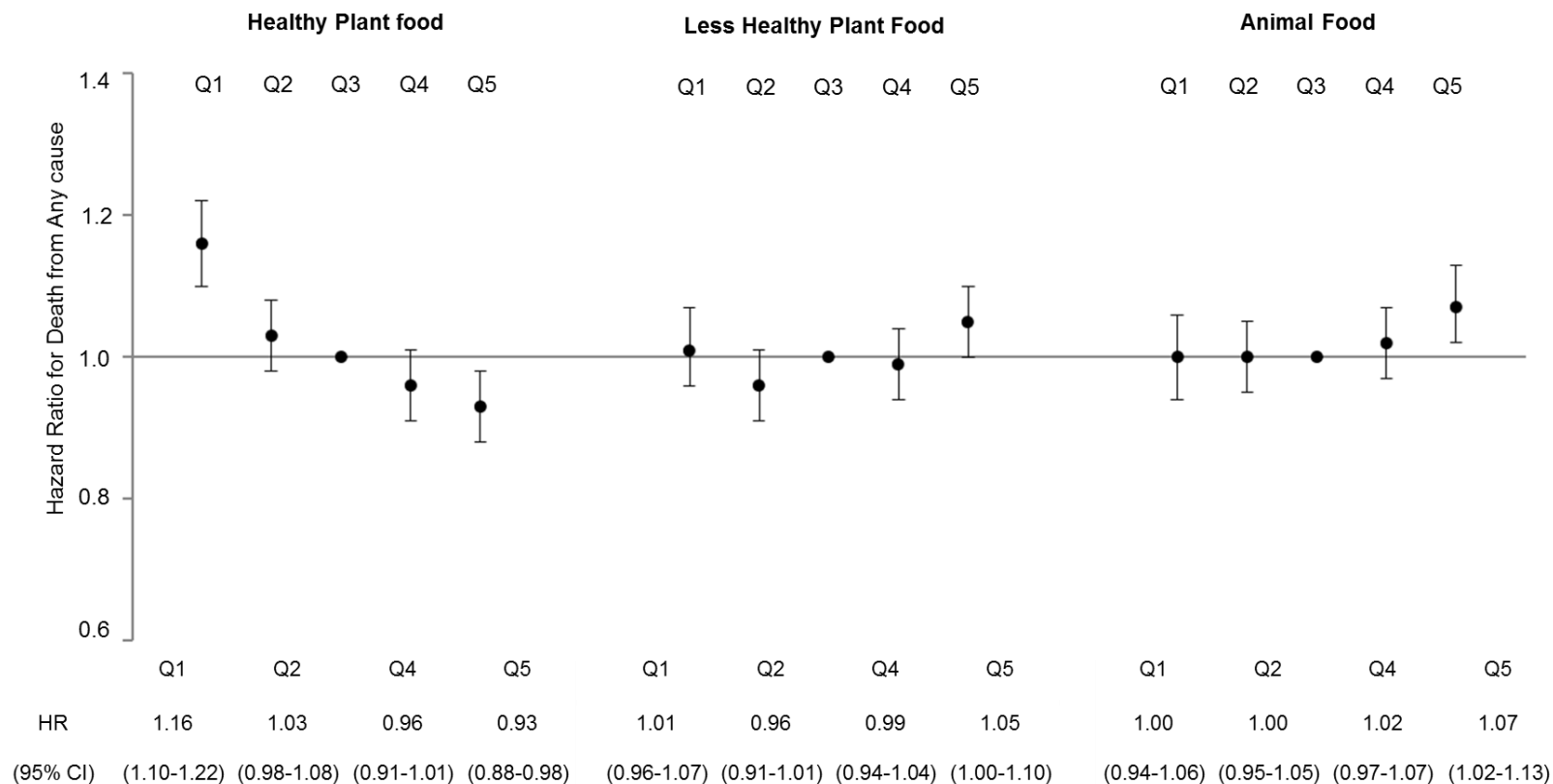
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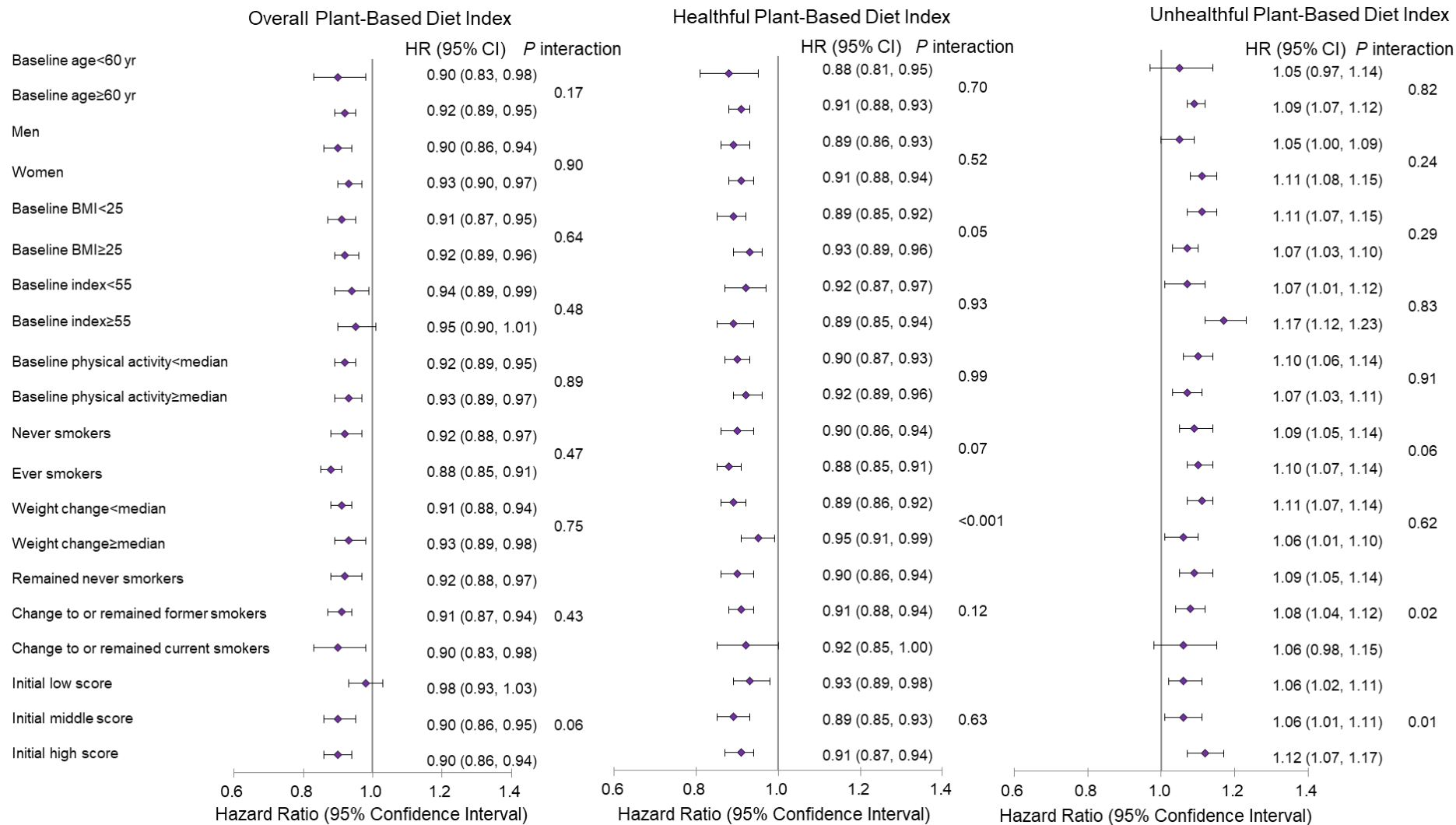
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Supplemental Figure 1. Risk of death from cardiovascular disease (A) and cancer (B) per 10-point increase in plant-based diet index scores for preceding 8-, 12-, 16-year changes. The multivariable-adjusted hazard ratios were calculated with adjustments for age, sex, race, initial plant-based diet index score, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, and margarine intake. Results from the Nurses' Health Study and the Health Professionals Follow-Up Study were combined with the use of the fixed effects model. Error bars represent 95% confidence intervals; and CVD, cardiovascular disease.



Supplemental Figure 2. Hazard Ratios (95% CI) for associations between 12-year changes in quintiles of food group intake and the risk of death from any cause. The multivariable-adjusted hazard ratios were calculated with adjustments for age, race, initial corresponding food group intake, family history of diabetes, myocardial infarction, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and postmenopausal hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol intake, margarine intake, and other food group intake. Results from the Nurses' Health Study and the Health Professionals Follow-Up Study were combined with the use of the fixed effects model. Error bars represent 95% confidence intervals; Q, quintile; HR, hazard ratio; and CI, confidence interval.



Supplemental Figure 3. Subgroup analyses between 12-year changes in plant-based diet indices and all-cause mortality per 10-point increase in each index score. The multivariable-adjusted hazard ratios were calculated with adjustments for age, race, initial plant-based diet index score, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity,

total energy intake, alcohol consumption, and margarine intake, except the stratification factor. Results for sex were obtained after combining the Nurses' Health Study and the Health Professionals Follow-Up Study. All other results were calculated by combining the results from the Nurses' Health Study and the Health Professionals Follow-Up Study with the use of the fixed effects model. Error bars represent 95% confidence intervals; HR, hazard ratio; CI, confidence interval.

Supplemental Table 1. Examples of food items and criteria for scoring each plant-based diet indices (from the 1986 NHS food frequency questionnaire)

		PDI	hPDI	uPDI
<i>Healthy plant foods</i>				
Whole grains	Whole grain breakfast cereal (1 cup), other cooked breakfast cereal (1 cup), cooked oatmeal (1 cup), dark bread (slice), brown rice (1 cup cooked), other grains (1 cup cooked), bran (1 tbs), wheat germ (1 tbs), popcorn (1 cup)	Positive scores	Positive scores	Reverse scores
Fruits	Raisins or grapes (1 oz or small pack), prunes (5 or 1/2 cup), bananas (1), cantaloupe (1/4 melon), watermelon (1 slice), avocado (1/2 fruit), fresh apples (1), applesauce (1/2 cup), pears (1), oranges (1), grapefruit (1/2), strawberries (1/2 cup), blueberries (1/2 cup), peaches (1), apricots (1), plums (1)	Positive scores	Positive scores	Reverse scores
Vegetables	Tomatoes (1), tomato juice (small glass), tomato sauce (1/2 cup), red chili sauce (1 tbs), broccoli (1/2 cup), cauliflower (1/2 cup), cooked cabbage (1/2 cup), coleslaw or uncooked cabbage (1/2 cup), Brussels sprouts (1/2 cup), raw carrots (1/2 carrot), cooked carrots (1/2 cup), mixed vegetables (1/2 cup), yams or sweet potatoes (1/2 cup), yellow or winter squash (1/2 cup), eggplant or zucchini or other summer squash (1/2 cup), kale or mustard or chard greens (1/2 cup), cooked spinach (1/2 cup), raw spinach (1 serving), iceberg or head lettuce (serving), romaine or leaf lettuce (serving), green pepper (1/2 pepper), cucumber (1/4 cucumber), celery (4-inch stick), mushrooms (1), alfalfa sprouts (1/2 cup), corn (1 ear or 1/2 cup frozen or canned)	Positive scores	Positive scores	Reverse scores
Nuts	Nuts (small pack or 1 oz), peanut butter (1 tbs)	Positive scores	Positive scores	Reverse scores
Legumes	String beans (1/2 cup), tofu or soybeans (3-4 oz), beans or lentils (1/2 cup), peas or lima beans (1/2 cup)	Positive scores	Positive scores	Reverse scores
Vegetable oil	Vegetable oil (1 tbs), oil-based salad dressing (1 tbs)	Positive scores	Positive scores	Reverse scores

Tea and coffee	Tea (1 cup), coffee (1 cup), decaffeinated coffee or non-caffeinated tea (1 cup)	Positive scores	Positive scores	Reverse scores
<i>Less healthy plant foods</i>				
Fruit juices	Apple cider (nonalcoholic) or juice (small grass), orange juice (small grass), grapefruit juice (small grass), other fruit juice (small grass)	Positive scores	Reverse scores	Positive scores
Refined grains	Refined grain breakfast cereal (1 cup), white bread (slice), English muffins or bagels or rolls (1), muffins or biscuits (1), white rice (1 cup cooked), pancakes or waffles (serving), crackers (4), pasta (1 cup cooked)	Positive scores	Reverse scores	Positive scores
Potatoes	French fries (4 oz), baked or boiled or mashed potatoes (1 for baked or boiled, 1 cup for mashed), potato or corn chips (small bag or 1 oz)	Positive scores	Reverse scores	Positive scores
Sugar-sweetened beverages	Soda with sugar (1 glass, bottle, or can), noncarbonated fruit drinks with sugar (1 glass, bottle, or can)	Positive scores	Reverse scores	Positive scores
Sweets and desserts	Chocolates (1 oz), candy bars (1), candy without chocolate (1 oz), cookies (home-baked and ready-made) (1), brownies (1), doughnuts (1), cake (home-made and ready-made) (slice), sweet roll or coffee cake or other pastry (serving), pie (home-baked and ready-made) (slice), jams or jellies or preserves or syrup or honey (1 tbs)	Positive scores	Reverse scores	Positive scores
<i>Animal foods</i>				
Animal fat	Butter added to food (1 pat), butter or lard used for cooking (yes or no)	Reverse scores	Reverse scores	Reverse scores
Dairy	Skim low fat milk (8 oz glass), whole milk (8 oz glass), cream (1 tbs), sour cream (1 tbs), sherbet (1/2 cup), ice cream (1/2 cup), yogurt (1 cup), cottage or ricotta cheese (1/2 cup), cream cheese (1 oz), other cheese (1 slice or 1 oz)	Reverse scores	Reverse scores	Reverse scores
Eggs	Eggs (1)	Reverse scores	Reverse scores	Reverse scores

Fish and seafood	Canned tuna (3-4 oz), dark meat fish (3-5 oz), other fish (3-5 oz), shrimp or lobster or scallops (as a main dish)	Reverse scores	Reverse scores	Reverse scores
Meat	Chicken or turkey with skin (4-6 oz), chicken or turkey without skin (4-6 oz), bacon (2 slices), hot dogs (1), processed meats (piece or slice), hamburger (1 patty), beef, calf, or pork liver (4 oz), chicken or turkey liver (1 oz), beef or pork or lamb (as a mixed dish, e.g. stew, casserole, lasagne), beef or pork or lamb (as a main dish, 4-6 oz)	Reverse scores	Reverse scores	Reverse scores
Miscellaneous animal-based foods	Pizza (2 slices), chowder or cream soup (1 cup), mayonnaise or other creamy salad dressing (1 tbs)	Reverse scores	Reverse scores	Reverse scores

Words in the parentheses showed serving sizes. Abbreviations: PDI, overall plant-based diet index; hPDI, healthful plant-based diet index, uPDI, unhealthful plant-based diet index; NHS, Nurses' Health Study; tbs, tablespoon.

**Supplemental Table 2. Initial (1986) and 12-year changes* in characteristics of participants according to quintiles of changes in
healthful plant-based diet index (hPDI) and unhealthy plant-based diet index (uPDI)**

	Nurses' Health Study			Health Professionals Follow-Up Study		
	Quintile 1	Quintile 3	Quintile 5	Quintile 1	Quintile 3	Quintile 5
Healthful plant-based diet index (hPDI)						
No.	10,089	11,180	9,389	5,213	5,878	4,686
hPDI score						
Initial	60.0 (56.0, 65.0)	55.0 (51.0, 60.0)	50.0 (46.0, 55.0)	60.0 (55.0, 64.0)	54.0 (49.0, 58.0)	49.0 (45.0, 54.0)
Change	-10.0 (-12.0, -8.0)	0.0 (-1.0, 0.0)	9.0 (7.0, 11.0)	-8.0 (-11.0, -7.0)	1.0 (0.0, 1.0)	10.0 (8.0, 12.0)
Age at 1998 (yr)	66 (60, 71)	63 (58, 70)	62 (57, 68)	65 (57, 73)	63 (56, 70)	61 (55, 68)
Initial body-mass index [†]	24.2 (22.0, 27.4)	24.0 (21.9, 27.4)	24.1 (21.8, 27.5)	25.1 (23.3, 26.9)	24.8 (23.2, 26.7)	25.0 (23.3, 26.9)
Weight change (kg)	4.5 (0.0, 9.1)	3.2 (0.0, 7.7)	2.3 (-0.9, 6.8)	2.7 (0.0, 6.8)	2.3 (-0.5, 5.4)	1.4 (-1.8, 4.5)
Physical activity (metabolic equivalents/wk)						
Initial	7.5 (2.2, 20.0)	7.4 (2.0, 18.0)	6.7 (2.0, 17.0)	14.3 (4.9, 31.6)	12.3 (4.1, 30.1)	12.3 (4.1, 29.3)
Change	1.0 (-5.6, 10.0)	2.1 (-3.7, 11.5)	3.2 (-2.6, 13.7)	0.3 (-8.8, 13.2)	1.6 (-6.2, 14.2)	1.8 (-6.2, 15.5)
Alcohol intake (g/day)						
Initial	1.8 (0.0, 7.4)	1.8 (0.0, 7.6)	1.8 (0.0, 6.9)	6.0 (1.0, 15.4)	6.3 (1.0, 15.3)	6.0 (1.0, 15.0)
Change	0.0 (-1.8, 0.9)	0.0 (-1.8, 0.3)	0.0 (-2.0, 0.1)	0.0 (-2.7, 3.7)	0.0 (-2.8, 2.9)	0.0 (-3.1, 2.7)
Margarine Intake (servings/day)						
Initial	0.4 (0.1, 1.0)	0.4 (0.1, 1.0)	0.4 (0.1, 1.0)	0.4 (0.0, 0.8)	0.4 (0.0, 1.0)	0.4 (0.0, 1.0)

	Nurses' Health Study			Health Professionals Follow-Up Study		
	Quintile 1	Quintile 3	Quintile 5	Quintile 1	Quintile 3	Quintile 5
Change	0.0 (-0.7, 0.0)	-0.1 (-0.8, 0.0)	-0.1 (-0.8, 0.0)	0.0 (-0.4, 0.1)	0.0 (-0.4, 0.0)	0.0 (-0.4, 0.0)
Initial Energy Intake (kcal/day)	1604 (1302, 1942)	1719 (1403, 2095)	1835 (1500, 2202)	1815 (1457, 2212)	1945 (1579, 2393)	2056 (1692, 2486)
White race (%) [‡]	98	98	98	97	96	96
Smoking status (%)						
Remained a never smoker	44	47	47	45	49	47
Change from current to former, or remained former smoker	45	43	44	45	42	45
Change from never or past to current, or remained current smoker	11	10	8	5	5	4
Smoking history among ever smokers (no. of pack-yr) [§]						
Initial	18.0 (6.0, 32.0)	16.0 (6.0, 31.0)	16.0 (6.0, 31.0)	18.0 (10.0, 30.0)	20.0 (10.0, 30.0)	18.0 (10.0, 30.0)
Change	0.0 (0.0, 4.0)	0.0 (0.0, 4.0)	0.0 (0.0, 3.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)
Past diagnoses (%)						
Hypertension	44	43	43	37	34	34
High cholesterol	56	56	60	47	46	49
Diabetes	5	6	9	5	6	8
Current use of medication or supplements (%)						

	Nurses' Health Study			Health Professionals Follow-Up Study		
	Quintile 1	Quintile 3	Quintile 5	Quintile 1	Quintile 3	Quintile 5
Aspirin	54	54	54	63	66	64
Multivitamin	62	62	62	61	60	60
Antihypertensive medication	37	36	35	28	27	25
Cholesterol-lowering medication	15	14	16	15	13	14
Family history (%)						
Diabetes	30	29	30	22	23	23
Myocardial infarction	26	26	25	16	16	15
Cancer	59	59	59	38	37	38
Unhealthful plant-based diet index (uPDI)						
No.	9,388	10,198	10,220	4,699	5,914	5,188
uPDI score						
Initial	59.0 (55.0, 64.0)	54.0 (50.0, 59.0)	49.0 (45.0, 54.0)	57.0 (52.0, 61.0)	55.0 (51.0, 60.0)	50.0 (46.0, 54.0)
Change	-10.0 (-12.0, -8.0)	0.0 (-1.0, 1.0)	10.0 (8.0, 13.0)	-10.0(-12.0, -8.0)	0.0 (-1.0, 1.0)	9.0 (7.0, 11.0)
Age at 1998 (yr)	61 (56, 66)	63 (58, 70)	68 (61, 72)	62 (55, 69)	63 (56, 70)	64 (56, 72)
Initial body-mass index [†]	24.0 (21.8, 27.4)	24.0 (21.9, 27.3)	24.3 (22.1, 27.4)	25.0 (23.3, 26.9)	25.0 (23.2, 26.8)	25.1 (23.4, 26.9)
Weight change (kg)	2.7 (-0.9, 6.8)	3.6 (0.0, 7.7)	3.6 (0.0, 8.6)	1.8 (-0.9, 5.0)	2.3 (-0.5, 5.4)	2.3 (-0.5, 5.9)
Physical activity (metabolic equivalents/wk)						
Initial	7.4 (2.0, 17.5)	7.5 (2.0, 18.6)	7.5 (2.2, 18.8)	12.1 (4.0, 29.9)	13.0 (4.4, 29.9)	13.9 (4.4, 30.8)

	Nurses' Health Study			Health Professionals Follow-Up Study		
	Quintile 1	Quintile 3	Quintile 5	Quintile 1	Quintile 3	Quintile 5
Change	3.5 (-2.9, 14.4)	2.0 (-3.7, 11.3)	0.9 (-5.6, 9.7)	1.9 (-6.1, 15.6)	1.2 (-6.8, 14.5)	0.4 (-8.7, 12.7)
Alcohol intake (g/day)						
Initial	1.8 (0.0, 7.6)	1.9 (0.0, 7.8)	1.8 (0.0, 6.9)	5.8 (0.9, 14.8)	6.0 (1.0, 15.0)	6.0 (1.0, 15.9)
Change	0.0 (-1.7, 0.9)	0.0 (-1.9, 0.6)	0.0 (-2.0, 0.0)	0.0 (-2.4, 3.9)	0.0 (-2.7, 3.0)	0.0 (-3.3, 2.6)
Margarine Intake (servings/day)						
Initial	0.8 (0.1, 1.0)	0.4 (0.1, 1.0)	0.4 (0.1, 1.0)	0.4 (0.0, 0.8)	0.4 (0.0, 0.8)	0.4 (0.0, 1.0)
Change	-0.1 (-0.8, 0.0)	-0.1 (-0.7, 0.0)	-0.1 (-0.7, 0.0)	0.0 (-0.4, 0.0)	0.0 (-0.4, 0.0)	0.0 (-0.4, 0.0)
Initial Energy Intake (kcal/day)	1617 (1313, 1966)	1725 (1402, 2105)	1798 (1481, 2155)	1837 (1471, 2255)	1952 (1567, 2383)	2018 (1650, 2448)
White race (%) [‡]	98	98	98	96	96	97
Smoking status (%)						
Remained a never smoker	45	46	46	48	48	46
Change from current to former, or remained former smoker	46	44	43	43	42	45
Change from never or past to current, or remained current smoker	9	10	11	5	5	4
Smoking history among ever smokers (no. of pack-yr) [§]						
Initial	17.0 (6.0, 32.0)	17.0 (6.0, 31.0)	17.0 (6.0, 32.0)	19.0 (10.0, 30.0)	19.0 (10.0, 31.0)	20.0 (10.0, 31.0)

	Nurses' Health Study			Health Professionals Follow-Up Study		
	Quintile 1	Quintile 3	Quintile 5	Quintile 1	Quintile 3	Quintile 5
Change	0.0 (0.0, 3.0)	0.0 (0.0, 3.0)	0.0 (0.0, 4.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)
Past diagnoses (%)						
Hypertension (%)	44	42	44	36	33	35
High cholesterol (%)	57	56	58	47	46	48
Diabetes (%)	10	6	5	9	5	5
Current use of medication or supplements (%)						
Aspirin	55	55	52	66	66	63
Multivitamin	64	61	60	62	59	58
Antihypertensive medication	36	36	36	27	26	27
Cholesterol-lowering medication	15	15	15	13	14	14
Family history (%)						
Diabetes	30	29	30	24	22	23
Myocardial infarction	26	25	25	16	15	16
Cancer	59	58	59	38	38	37

* The initial of the study was setup at 1986, and the baseline was setup at 1998; the change means 12-year difference between 1986 and 1998; values are medians (25th and 75th percentiles) for continuous variables and percentages for categorical variables. All variables except age were age standardized to the age distribution of the study population. †The body-mass index was calculated as weight in kilograms divided by the

square of the height in meters. †Race was reported by the participants. §A pack-year was defined as the equivalent of smoking one pack of cigarettes (20 cigarettes) per day for one year.

Supplemental Table 3. 12-year changes in plant-based diet indices and subtypes of CVD and cancer mortality risk per 10-point

increase in plant-based diet indices

	Nurses' Health Study			Health Professionals Follow-Up Study		
	PDI	hPDI	uPDI	PDI	hPDI	uPDI
Coronary heart disease						
Cases/person-years		1,394/725,316			1,539/371,322	
MV model	0.93 (0.84, 1.02)	0.88 (0.81, 0.97)	1.12 (1.03, 1.22)	0.89 (0.81, 0.98)	0.87 (0.80, 0.95)	1.09 (0.99, 1.19)
Stroke						
Cases/person-years		652/725,316			333/371,322	
MV model	0.99 (0.86, 1.15)	0.99 (0.87, 1.13)	1.04 (0.92, 1.18)	1.01 (0.82, 1.23)	1.04 (0.86, 1.26)	0.90 (0.74, 1.08)
Lung cancer						
Cases/person-years		797/725,316			343/371,322	
MV model	0.97 (0.85, 1.10)	1.11 (0.98, 1.24)	0.87 (0.78, 0.98)	0.77 (0.62, 0.94)	0.78 (0.64, 0.94)	1.14 (0.93, 1.38)
Colon cancer						
Cases/person-years		218/725,316			156/371,322	
MV model	1.15 (0.90, 1.47)	1.17 (0.93, 1.46)	0.99 (0.79, 1.22)	0.77 (0.57, 1.03)	1.02 (0.77, 1.34)	0.90 (0.68, 1.18)
Breast cancer						
Cases/person-years		262/725,316				
MV model	1.11 (0.89, 1.39)	1.03 (0.84, 1.27)	1.03 (0.85, 1.25)			
Prostate cancer						
Cases/person-years					175/371,322	

Abbreviations: CVD, cardiovascular disease; PDI, plant-based diet index; hPDI, healthful plant-based diet index; uPDI, unhealthful plant-based diet index; MV model, multivariable-adjusted model. The MV model was adjusted for age, race, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, and margarine intake. Due to the small numbers of cases, the initial BMI was categorized as <23, 23-24.9, 25-29.9, ≥30 and the smoking status was categorized as never-never, current-past, never/past-current, past-past, and current-current in the analyses on stroke, lung cancer, and prostate cancer in the Health Professionals Follow-Up Study.

Supplemental Table 4. Pooled initial (1986) and 12-year changes in servings of healthy plant foods, less healthy plant foods, and animal foods among quintiles of changes in plant-based diet indices

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Beta coefficients (95% CI)
Overall plant-based diet index (PDI)						
No.	16,378	12,850	16,399	15,009	14,678	
Median (range)	-9 (-20, -6)	-4 (-5, -2)	0 (-2, 1)	3 (2, 5)	8 (6, 18)	
Healthy plant foods (servings/day)						
Whole grains						
Initial	1.5 (1.5, 1.5)	1.4 (1.4, 1.4)	1.4 (1.3, 1.4)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	
Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.2 (0.1, 0.2)	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)
Fruits						
Initial	1.9 (1.8, 1.9)	1.7 (1.7, 1.8)	1.7 (1.7, 1.7)	1.6 (1.6, 1.7)	1.6 (1.5, 1.6)	
Change	-0.2 (-0.2, -0.2)	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.2 (0.2, 0.3)	0.2 (0.2, 0.3)
Vegetables						
Initial	3.7 (3.7, 3.7)	3.5 (3.4, 3.5)	3.3 (3.3, 3.3)	3.3 (3.2, 3.3)	3.1 (3.1, 3.2)	
Change	0.0 (0.0, 0.1)	0.2 (0.2, 0.2)	0.3 (0.3, 0.4)	0.5 (0.5, 0.5)	0.9 (0.8, 0.9)	0.4 (0.4, 0.5)
Nuts						
Initial	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.3, 0.4)	
Change	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	0.0 (-0.1, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)
Legumes						
Initial	0.5 (0.5, 0.5)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.3 (0.3, 0.4)	

Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)
Vegetable oil						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	
Change	0.0 (-0.1, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)
Tea and coffee						
Initial	3.0 (3.0, 3.0)	2.9 (2.8, 2.9)	2.8 (2.7, 2.8)	2.7 (2.7, 2.7)	2.6 (2.5, 2.6)	
Change	-0.7 (-0.7, -0.7)	-0.5 (-0.5, -0.5)	-0.4 (-0.4, -0.4)	-0.3 (-0.3, -0.3)	-0.1 (-0.1, -0.1)	0.3 (0.3, 0.3)
<i>Less healthy plant foods (servings/day)</i>						
Fruit juices						
Initial	0.8 (0.8, 0.9)	0.8 (0.8, 0.8)	0.8 (0.8, 0.8)	0.7 (0.7, 0.7)	0.7 (0.7, 0.7)	
Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.1 (0.0, 0.1)	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.1 (0.1, 0.2)
Refined grains						
Initial	1.7 (1.6, 1.7)	1.6 (1.6, 1.6)	1.5 (1.5, 1.6)	1.5 (1.5, 1.5)	1.4 (1.4, 1.4)	
Change	0.0 (0.0, 0.0)	0.1 (0.1, 0.2)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.1 (0.1, 0.2)
Potatoes						
Initial	0.6 (0.6, 0.6)	0.6 (0.5, 0.6)	0.5 (0.5, 0.5)	0.5 (0.5, 0.5)	0.5 (0.5, 0.5)	
Change	-0.1 (-0.1, -0.1)	-0.1 (-0.1, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)
Sugar-sweetened beverages						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.0 (0.0, 0.1)
Sweets and desserts						

Initial	1.3 (1.3, 1.3)	1.3 (1.2, 1.3)	1.3 (1.2, 1.3)	1.2 (1.2, 1.2)	1.1 (1.1, 1.1)	
Change	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.2 (0.1, 0.2)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.2 (0.1, 0.2)
<i>Animal foods (servings/day)</i>						
Animal fat						
Initial	0.2 (0.2, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.4)	0.4 (0.4, 0.4)	
Change	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Dairy						
Initial	1.8 (1.8, 1.8)	2.0 (2.0, 2.0)	2.1 (2.1, 2.1)	2.2 (2.2, 2.2)	2.4 (2.4, 2.4)	
Change	0.3 (0.3, 0.3)	0.1 (0.0, 0.1)	-0.1 (-0.1, -0.1)	-0.2 (-0.3, -0.2)	-0.5 (-0.5, -0.5)	-0.4 (-0.4, -0.4)
Eggs						
Initial	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Fish and seafood						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.4)	0.3 (0.3, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	
Change	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	0.0 (-0.1, 0.0)
Meat						
Initial	1.2 (1.2, 1.2)	1.2 (1.2, 1.3)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	1.4 (1.4, 1.4)	
Change	0.1 (0.1, 0.1)	0.0 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.2 (-0.2, -0.2)	-0.3 (-0.3, -0.3)	-0.2 (-0.2, -0.2)
Miscellaneous animal-based foods						
Initial	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.5 (0.5, 0.5)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Food groups (servings/day)

Healthy plant foods

Initial	11.2 (11.2, 11.3)	10.6 (10.5, 10.7)	10.2 (10.1, 10.2)	9.9 (9.9, 10.0)	9.5 (9.4, 9.6)	
Change	-1.3 (-1.3, -1.2)	-0.5 (-0.6, -0.5)	0.0 (-0.1, 0.0)	0.6 (0.5, 0.6)	1.7 (1.6, 1.7)	1.6 (1.6, 1.6)

Less healthy plant foods

Initial	4.7 (4.7, 4.7)	4.4 (4.4, 4.5)	4.4 (4.4, 4.4)	4.2 (4.1, 4.2)	3.9 (3.9, 3.9)	
Change	-0.2 (-0.2, -0.2)	0.2 (0.2, 0.2)	0.4 (0.4, 0.4)	0.6 (0.6, 0.6)	0.9 (0.8, 0.9)	0.6 (0.6, 0.6)

Animal foods

Initial	4.1 (4.1, 4.2)	4.5 (4.5, 4.6)	4.7 (4.7, 4.8)	5.0 (5.0, 5.0)	5.4 (5.4, 5.4)	
Change	0.6 (0.5, 0.6)	0.0 (-0.1, 0.0)	-0.4 (-0.4, -0.4)	-0.7 (-0.7, -0.7)	-1.3 (-1.4, -1.3)	-1.0 (-1.1, -1.0)

Healthful plant-based diet index (hPDI)

No.	15,302	14,607	17,058	14,272	14,075	
Median (range)	-9 (-20, -6)	-4 (-6, -2)	0 (-2, 2)	4 (2, 6)	9 (6, 19)	

Healthy plant foods (servings/day)

Whole grains

Initial	1.7 (1.7, 1.7)	1.5 (1.5, 1.5)	1.4 (1.3, 1.4)	1.3 (1.2, 1.3)	1.1 (1.1, 1.1)	
Change	-0.3 (-0.3, -0.3)	-0.1 (-0.1, -0.1)	0.1 (0.1, 0.1)	0.2 (0.2, 0.3)	0.5 (0.5, 0.5)	0.4 (0.4, 0.4)

Fruits

Initial	2.0 (2.0, 2.0)	1.8 (1.8, 1.8)	1.7 (1.6, 1.7)	1.6 (1.5, 1.6)	1.4 (1.4, 1.5)	
Change	-0.4 (-0.4, -0.4)	-0.2 (-0.2, -0.1)	0.0 (0.0, 0.0)	0.2 (0.1, 0.2)	0.4 (0.4, 0.5)	0.4 (0.4, 0.4)

Vegetables

Initial	3.8 (3.8, 3.8)	3.5 (3.5, 3.6)	3.3 (3.3, 3.4)	3.2 (3.2, 3.2)	3.0 (2.9, 3.0)	
Change	-0.3 (-0.3, -0.3)	0.1 (0.1, 0.2)	0.4 (0.3, 0.4)	0.6 (0.6, 0.7)	1.1 (1.1, 1.1)	0.7 (0.7, 0.7)
Nuts						
Initial	0.5 (0.5, 0.5)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.3 (0.3, 0.3)	
Change	-0.2 (-0.2, -0.2)	-0.1 (-0.1, -0.1)	0.0 (-0.1, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)
Legumes						
Initial	0.5 (0.5, 0.5)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.3 (0.3, 0.3)	
Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)
Vegetable oil						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	
Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.1 (0.1, 0.1)
Tea and coffee						
Initial	3.0 (3.0, 3.0)	2.9 (2.8, 2.9)	2.8 (2.7, 2.8)	2.7 (2.7, 2.7)	2.6 (2.5, 2.6)	
Change	-0.7 (-0.7, -0.7)	-0.5 (-0.5, -0.5)	-0.4 (-0.4, -0.4)	-0.3 (-0.3, -0.2)	0.0 (-0.1, 0.0)	0.3 (0.3, 0.4)
<i>Less healthy plant foods (servings/day)</i>						
Fruit juices						
Initial	0.7 (0.7, 0.7)	0.7 (0.7, 0.8)	0.8 (0.7, 0.8)	0.8 (0.8, 0.8)	0.8 (0.8, 0.8)	
Change	0.2 (0.1, 0.2)	0.1 (0.1, 0.1)	0.1 (0.0, 0.1)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Refined grains						
Initial	1.3 (1.3, 1.4)	1.5 (1.4, 1.5)	1.5 (1.5, 1.5)	1.6 (1.6, 1.6)	1.7 (1.7, 1.8)	
Change	0.4 (0.4, 0.4)	0.2 (0.2, 0.3)	0.1 (0.1, 0.2)	0.1 (0.0, 0.1)	0.0 (-0.1, 0.0)	-0.2 (-0.2, -0.2)

Potatoes						
Initial	0.5 (0.5, 0.5)	0.5 (0.5, 0.5)	0.5 (0.5, 0.5)	0.6 (0.5, 0.6)	0.6 (0.6, 0.6)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Sugar-sweetened beverages						
Initial	0.2 (0.2, 0.2)	0.3 (0.2, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	
Change	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Sweets and desserts						
Initial	1.1 (1.1, 1.1)	1.2 (1.2, 1.2)	1.2 (1.2, 1.3)	1.3 (1.2, 1.3)	1.3 (1.3, 1.3)	
Change	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	0.2 (0.1, 0.2)	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	-0.2 (-0.2, -0.2)
<i>Animal foods (servings/day)</i>						
Animal fat						
Initial	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.4 (0.3, 0.4)	0.4 (0.4, 0.4)	
Change	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Dairy						
Initial	2.0 (2.0, 2.0)	2.0 (2.0, 2.1)	2.1 (2.1, 2.1)	2.1 (2.1, 2.1)	2.2 (2.2, 2.2)	
Change	0.0 (0.0, 0.0)	0.0 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.2 (-0.2, -0.2)	-0.1 (-0.1, -0.1)
Eggs						
Initial	0.3 (0.2, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, 0.0)
Fish and seafood						
Initial	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.3 (0.3, 0.4)	0.3 (0.3, 0.4)	0.4 (0.4, 0.4)	

Change	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)
Meat						
Initial	1.2 (1.2, 1.2)	1.2 (1.2, 1.3)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	
Change	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.2 (-0.2, -0.1)	-0.2 (-0.2, -0.2)	-0.1 (-0.1, -0.1)
Miscellaneous animal-based foods						
Initial	0.4 (0.3, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.5)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Food groups (servings/day)

Healthy plant foods

Initial	11.8 (11.7, 11.9)	10.8 (10.8, 10.9)	10.2 (10.1, 10.2)	9.7 (9.6, 9.7)	8.9 (8.9, 9.0)	
Change	-2.3 (-2.3, -2.2)	-0.8 (-0.9, -0.8)	0.0 (0.0, 0.1)	1.0 (1.0, 1.0)	2.6 (2.6, 2.7)	2.5 (2.5, 2.5)

Less healthy plant foods

Initial	3.9 (3.8, 3.9)	4.2 (4.1, 4.2)	4.3 (4.3, 4.4)	4.5 (4.5, 4.5)	4.8 (4.7, 4.8)	
Change	1.0 (1.0, 1.1)	0.6 (0.6, 0.6)	0.4 (0.3, 0.4)	0.1 (0.0, 0.1)	-0.4 (-0.4, -0.3)	-0.7 (-0.7, -0.7)

Animal foods

Initial	4.4 (4.4, 4.4)	4.6 (4.6, 4.6)	4.8 (4.7, 4.8)	4.9 (4.9, 4.9)	5.1 (5.1, 5.2)	
Change	0.1 (0.1, 0.1)	-0.2 (-0.2, -0.2)	-0.4 (-0.4, -0.4)	-0.6 (-0.6, -0.5)	-0.9 (-0.9, -0.9)	-0.5 (-0.5, -0.5)

Unhealthy plant-based diet index (uPDI)

No.	14,087	16,157	16,112	13,550	15,408	
Median	-10 (-20, -7)	-4 (-6, -2)	0 (-2, 2)	4 (2, 6)	9 (6, 21)	

Healthy plant foods (servings/day)

Whole grains

Initial	1.2 (1.2, 1.2)	1.3 (1.3, 1.3)	1.4 (1.3, 1.4)	1.5 (1.4, 1.5)	1.6 (1.6, 1.6)	
Change	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	-0.2 (-0.2, -0.1)	-0.2 (-0.2, -0.2)

Fruits

Initial	1.5 (1.5, 1.5)	1.6 (1.6, 1.6)	1.7 (1.7, 1.7)	1.8 (1.7, 1.8)	1.9 (1.9, 1.9)	
Change	0.3 (0.3, 0.3)	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.3 (-0.3, -0.2)	-0.3 (-0.3, -0.2)

Vegetables

Initial	3.0 (3.0, 3.0)	3.2 (3.2, 3.2)	3.3 (3.3, 3.4)	3.5 (3.5, 3.6)	3.8 (3.8, 3.9)	
Change	1.1 (1.1, 1.1)	0.6 (0.6, 0.7)	0.4 (0.3, 0.4)	0.1 (0.1, 0.1)	-0.3 (-0.3, -0.3)	-0.7 (-0.7, -0.7)

Nuts

Initial	0.4 (0.3, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.5)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Legumes

Initial	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.5 (0.5, 0.5)	
Change	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Vegetable oil

Initial	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	
Change	0.1 (0.1, 0.2)	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Tea and coffee

Initial	2.5 (2.5, 2.6)	2.7 (2.6, 2.7)	2.8 (2.8, 2.8)	2.9 (2.8, 2.9)	3.1 (3.0, 3.1)	
Change	0.0 (-0.1, 0.0)	-0.3 (-0.3, -0.3)	-0.4 (-0.4, -0.4)	-0.5 (-0.5, -0.5)	-0.7 (-0.7, -0.7)	-0.3 (-0.3, -0.3)

Less healthy plant foods (servings/day)

Fruit juices

Initial	0.9 (0.9, 0.9)	0.8 (0.8, 0.8)	0.8 (0.8, 0.8)	0.7 (0.7, 0.7)	0.7 (0.6, 0.7)	
Change	-0.2 (-0.2, -0.1)	0.0 (0.0, 0.0)	0.1 (0.0, 0.1)	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)

Refined grains

Initial	1.7 (1.7, 1.8)	1.6 (1.6, 1.6)	1.5 (1.5, 1.6)	1.4 (1.4, 1.5)	1.3 (1.3, 1.3)	
Change	-0.2 (-0.2, -0.2)	0.0 (0.0, 0.0)	0.2 (0.1, 0.2)	0.3 (0.3, 0.3)	0.5 (0.5, 0.6)	0.4 (0.4, 0.4)

Potatoes

Initial	0.6 (0.6, 0.6)	0.6 (0.6, 0.6)	0.5 (0.5, 0.5)	0.5 (0.5, 0.5)	0.5 (0.4, 0.5)	
Change	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)

Sugar-sweetened beverages

Initial	0.4 (0.4, 0.4)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	
Change	-0.1 (-0.1, -0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)

Sweets and desserts

Initial	1.4 (1.4, 1.4)	1.3 (1.3, 1.3)	1.2 (1.2, 1.3)	1.2 (1.1, 1.2)	1.0 (1.0, 1.0)	
Change	-0.2 (-0.2, -0.2)	0.0 (0.0, 0.0)	0.2 (0.1, 0.2)	0.3 (0.3, 0.3)	0.5 (0.5, 0.5)	0.3 (0.3, 0.3)

Animal foods (servings/day)

Animal fat

Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.4)	
Change	0.1 (0.1, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)

Dairy

Initial	1.9 (1.9, 2.0)	2.0 (2.0, 2.1)	2.1 (2.1, 2.1)	2.1 (2.1, 2.2)	2.3 (2.2, 2.3)	
Change	0.1 (0.1, 0.2)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.2 (-0.2, -0.2)	-0.3 (-0.3, -0.3)	-0.2 (-0.2, -0.2)
Eggs						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.3 (0.3, 0.4)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Fish and seafood						
Initial	0.3 (0.3, 0.3)	0.3 (0.3, 0.3)	0.4 (0.3, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	
Change	0.0 (0.0, 0.0)	0.0 (-0.1, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Meat						
Initial	1.2 (1.2, 1.2)	1.2 (1.2, 1.3)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	1.3 (1.3, 1.3)	
Change	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.2 (-0.2, -0.1)	-0.2 (-0.2, -0.2)	-0.1 (-0.1, -0.1)
Miscellaneous animal-based foods						
Initial	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.4)	0.4 (0.4, 0.5)	
Change	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)	-0.1 (-0.1, -0.1)
Food groups (servings/day)						
Healthy plant foods						
Initial	9.1 (9.1, 9.2)	9.8 (9.7, 9.8)	10.2 (10.2, 10.3)	10.7 (10.7, 10.8)	11.7 (11.6, 11.7)	
Change	2.1 (2.1, 2.2)	0.8 (0.7, 0.8)	0.0 (0.0, 0.1)	-0.7 (-0.7, -0.7)	-1.9 (-1.9, -1.8)	-1.9 (-2.0, -1.9)
Less healthy plant foods						
Initial	4.9 (4.9, 5.0)	4.6 (4.6, 4.6)	4.3 (4.3, 4.4)	4.1 (4.0, 4.1)	3.6 (3.6, 3.7)	
Change	-0.9 (-0.9, -0.9)	-0.1 (-0.1, -0.1)	0.4 (0.4, 0.4)	0.8 (0.8, 0.9)	1.6 (1.5, 1.6)	1.2 (1.2, 1.2)

Animal foods

Initial	4.4 (4.3, 4.4)	4.6 (4.6, 4.6)	4.8 (4.7, 4.8)	4.9 (4.8, 4.9)	5.1 (5.1, 5.2)	
Change	0.3 (0.3, 0.3)	-0.2 (-0.2, -0.2)	-0.4 (-0.4, -0.4)	-0.6 (-0.7, -0.6)	-1.0 (-1.0, -0.9)	-0.6 (-0.6, -0.6)

Abbreviation: CI, confidence interval. The least squares mean (95% CIs) initial (1986) and changes (1986 to 1998) in food intakes among quintiles of changes in plant-based diet indices were from the general linear model adjusted for age, sex, and initial and changes in total energy intake. Changes in food intakes were further adjusted for initial corresponding food intakes. Results were obtained after combining the Nurses' Health Study and the Health Professionals Follow-Up Study. Food group intakes were expressed as servings/day.

Supplemental Table 5. Hazard ratios (95% CIs) for the associations between 12-year changes in plant-based diet indices and risk of total, CVD, and cancer mortality per 10-point increase in each index score with further adjustment for mammogram screening and physical checkups

	10-point increase in PDI	10-point increase in hPDI	10-point increase in uPDI
Total Mortality			
Nurses' Health Study			
Cases/person-years	10,686/725,316	10,686/725,316	10,686/725,316
Multivariable-adjusted model	0.93 (0.90, 0.97)	0.91 (0.88, 0.94)	1.11 (1.08, 1.15)
Multivariable-adjusted model + adjustment for mammogram screening and physical checkups	0.93 (0.90, 0.97)	0.91 (0.88, 0.94)	1.11 (1.08, 1.15)
Health Professionals Follow-Up study			
Cases/person-years	6,490/371,322	6,490/371,322	6,490/371,322
Multivariable-adjusted model	0.90 (0.86, 0.94)	0.89 (0.86, 0.93)	1.05 (1.00, 1.09)
Multivariable-adjusted model + adjustment for physical checkups	0.90 (0.86, 0.94)	0.89 (0.86, 0.93)	1.05 (1.00, 1.09)
CVD Mortality			
Nurses' Health Study			
Cases/person-years	2,046/725,316	2,046/725,316	2,046/725,316
Multivariable-adjusted model	0.95 (0.87, 1.03)	0.92 (0.85, 0.99)	1.10 (1.02, 1.18)
Multivariable-adjusted model + adjustment for mammogram screening and physical checkups	0.95 (0.87, 1.03)	0.92 (0.85, 0.99)	1.10 (1.02, 1.18)
Health Professionals Follow-Up study			
Cases/person-years	1,872/371,322	1,872/371,322	1,872/371,322

Multivariable-adjusted model	0.91 (0.83, 0.99)	0.90 (0.83, 0.98)	1.05 (0.97, 1.14)
Multivariable-adjusted model + adjustment for physical checkups	0.91 (0.83, 0.99)	0.90 (0.83, 0.98)	1.05 (0.97, 1.14)
Cancer Mortality			
Nurses' Health Study			
Cases/person-years	3,091/725,316	3,091/725,316	3,091/725,316
Multivariable-adjusted model	0.96 (0.90, 1.03)	1.01 (0.95, 1.07)	0.97 (0.92, 1.03)
Multivariable-adjusted model + adjustment for mammogram screening and physical checkups	0.96 (0.90, 1.03)	1.01 (0.95, 1.07)	0.97 (0.92, 1.03)
Health Professionals Follow-Up study			
Cases/person-years	1,772/371,322	1,772/371,322	1,772/371,322
Multivariable-adjusted model	0.89 (0.81, 0.97)	0.93 (0.85, 1.00)	1.00 (0.92, 1.08)
Multivariable-adjusted model + adjustment for physical checkups	0.89 (0.81, 0.97)	0.93 (0.85, 1.00)	1.00 (0.92, 1.08)

Abbreviations: CI, confidence interval; CVD, cardiovascular disease; PDI, plant-based diet index; hPDI, healthful plant-based diet index; uPDI, unhealthful plant-based diet index. The multivariable-adjusted model was adjusted for age, race, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, and margarine intake.

Supplemental Table 6. 4-year lag analysis for 12-year changes in plant-based diet indices and risk of total mortality per 10-point increase in each index score

	Hazard Ratio (95% confidence interval)		
	Pooled results	Nurses' Health study	Health Professionals Follow-Up Study
Overall plant-based diet index (PDI)			
Cases/person-years		9,597/524,992	5,711/266,821
Multivariable-adjusted model	0.93 (0.91, 0.96)	0.95 (0.91, 0.99)	0.91 (0.87, 0.96)
Healthful plant-based diet index (hPDI)			
Cases/person-years		9,597/524,992	5,711/266,821
Multivariable-adjusted model	0.91 (0.89, 0.94)	0.92 (0.88, 0.95)	0.90 (0.86, 0.94)
Unhealthful plant-based diet index (uPDI)			
Cases/person-years		9,597/524,992	5,711/266,821
Multivariable-adjusted model	1.09 (1.06, 1.12)	1.12 (1.08, 1.16)	1.04 (0.99, 1.09)

The multivariable-adjusted model was adjusted for age, race, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, and margarine intake. Results from the Nurses' Health Study and the Health Professionals Follow-Up Study were combined with the use of the fixed effects model.

Supplemental Table 7. 12-year changes in plant-based diet indices and risk of total mortality per 10-point increase in plant-based diet indices with excluding each food group

	Nurses' Health Study	Health Professionals Follow-Up Study
Overall plant-based diet index (PDI)		
Excluded food group		
No exclusion	0.93 (0.90, 0.97)	0.90 (0.86, 0.94)
Healthy plant foods		
Whole grains	0.95 (0.92, 0.98)	0.91 (0.87, 0.95)
Fruits	0.92 (0.89, 0.96)	0.89 (0.85, 0.93)
Vegetables	0.96 (0.93, 0.99)	0.90 (0.86, 0.94)
Nuts	0.95 (0.92, 0.98)	0.92 (0.87, 0.96)
Legumes	0.95 (0.92, 0.98)	0.91 (0.87, 0.96)
Vegetable oil	0.96 (0.92, 0.99)	0.92 (0.88, 0.96)
Tea and coffee	0.96 (0.93, 1.00)	0.91 (0.87, 0.95)
Less healthy plant foods		
Fruit juices	0.92 (0.89, 0.95)	0.89 (0.85, 0.93)
Refined grains	0.94 (0.91, 0.97)	0.90 (0.86, 0.95)
Potatoes	0.93 (0.90, 0.97)	0.90 (0.86, 0.94)
Sugar-sweetened beverages	0.93 (0.90, 0.96)	0.89 (0.85, 0.93)
Sweets and desserts	0.93 (0.89, 0.96)	0.90 (0.86, 0.94)
Animal foods		

Animal fat	0.94 (0.91, 0.97)	0.90 (0.86, 0.94)
Dairy	0.93 (0.90, 0.96)	0.91 (0.87, 0.95)
Eggs	0.93 (0.90, 0.96)	0.91 (0.87, 0.95)
Fish and seafood	0.92 (0.89, 0.95)	0.89 (0.86, 0.93)
Meat	0.94 (0.90, 0.97)	0.91 (0.87, 0.95)
Miscellaneous animal-based foods	0.94 (0.91, 0.97)	0.91 (0.87, 0.95)
Healthful plant-based diet index (hPDI)		
No exclusion	0.91 (0.88, 0.94)	0.89 (0.86, 0.93)
<i>Healthy plant foods</i>		
Whole grains	0.93 (0.90, 0.96)	0.91 (0.87, 0.95)
Fruits	0.90 (0.87, 0.93)	0.89 (0.85, 0.93)
Vegetables	0.93 (0.90, 0.96)	0.90 (0.86, 0.94)
Nuts	0.92 (0.89, 0.95)	0.91 (0.87, 0.95)
Legumes	0.92 (0.89, 0.95)	0.90 (0.86, 0.94)
Vegetable oil	0.93 (0.90, 0.96)	0.92 (0.88, 0.96)
Tea and coffee	0.93 (0.90, 0.96)	0.91 (0.87, 0.95)
<i>Less healthy plant foods</i>		
Fruit juices	0.92 (0.90, 0.95)	0.91 (0.87, 0.94)
Refined grains	0.90 (0.87, 0.92)	0.89 (0.85, 0.93)
Potatoes	0.91 (0.88, 0.93)	0.89 (0.85, 0.93)
Sugar-sweetened beverages	0.91 (0.89, 0.94)	0.90 (0.86, 0.94)

Sweets and desserts	0.91 (0.89, 0.94)	0.90 (0.87, 0.94)
<i>Animal foods (servings/day)</i>		
Animal fat	0.92 (0.89, 0.95)	0.90 (0.86, 0.94)
Dairy	0.91 (0.88, 0.94)	0.90 (0.87, 0.94)
Eggs	0.91 (0.88, 0.93)	0.91 (0.87, 0.95)
Fish and seafood	0.91 (0.88, 0.93)	0.89 (0.86, 0.93)
Meat	0.91 (0.88, 0.94)	0.91 (0.87, 0.94)
Miscellaneous animal-based foods	0.91 (0.88, 0.94)	0.91 (0.87, 0.95)
Unhealthy plant-based diet index (uPDI)		
No exclusion	1.11 (1.08, 1.15)	1.05 (1.00, 1.09)
<i>Healthy plant foods</i>		
Whole grains	1.09 (1.06, 1.12)	1.03 (0.98, 1.07)
Fruits	1.12 (1.08, 1.15)	1.05 (1.00, 1.09)
Vegetables	1.09 (1.06, 1.13)	1.03 (0.98, 1.07)
Nuts	1.10 (1.06, 1.13)	1.02 (0.98, 1.07)
Legumes	1.10 (1.07, 1.13)	1.02 (0.98, 1.07)
Vegetable oil	1.08 (1.05, 1.12)	1.01 (0.97, 1.06)
Tea and coffee	1.08 (1.05, 1.11)	1.02 (0.98, 1.07)
<i>Less healthy plant foods</i>		
Fruit juices	1.10 (1.06, 1.13)	1.04 (0.99, 1.08)
Refined grains	1.12 (1.09, 1.15)	1.06 (1.02, 1.11)

Potatoes	1.11 (1.08, 1.14)	1.05 (1.01, 1.09)
Sugar-sweetened beverages	1.11 (1.07, 1.14)	1.03 (0.99, 1.08)
Sweets and desserts	1.10 (1.07, 1.13)	1.03 (0.99, 1.08)
<i>Animal foods (servings/day)</i>		
Animal fat	1.11 (1.07, 1.14)	1.05 (1.01, 1.09)
Dairy	1.10 (1.07, 1.14)	1.05 (1.01, 1.10)
Eggs	1.11 (1.07, 1.14)	1.07 (1.02, 1.11)
Fish and seafood	1.09 (1.06, 1.13)	1.04 (0.99, 1.08)
Meat	1.11 (1.08, 1.14)	1.05 (1.00, 1.09)
Miscellaneous animal-based foods	1.11 (1.08, 1.15)	1.05 (1.01, 1.10)

Abbreviation: CI, confidence interval. The values are hazard ratios calculated with multivariable adjustment for age, race, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, margarine intake, and corresponding excluded food intakes.

Supplemental Table 8. 12-year changes in plant-based diet indices and risk of total mortality per 10-point increase in healthy plant-based diet score with positive coding for fish, poultry, fermented dairy, low-fat dairy, high-fat dairy, and egg

	Hazard Ratio (95% confidence interval)		
	Pooled results	Nurses' Health study	Health Professionals Follow-Up Study
Healthy plant-based diet index	0.90 (0.88, 0.93)	0.91 (0.88, 0.94)	0.89 (0.86, 0.93)
Positive coding for fish	0.89 (0.86, 0.91)	0.89 (0.86, 0.92)	0.88 (0.85, 0.92)
Positive coding for poultry	0.90 (0.87, 0.92)	0.90 (0.87, 0.93)	0.89 (0.85, 0.93)
Positive coding for fermented dairy	0.90 (0.88, 0.93)	0.91 (0.88, 0.94)	0.90 (0.86, 0.94)
Positive coding for low-fat dairy	0.91 (0.88, 0.93)	0.91 (0.88, 0.94)	0.90 (0.87, 0.94)
Positive coding for high-fat dairy	0.91 (0.89, 0.94)	0.92 (0.89, 0.95)	0.90 (0.86, 0.95)
Positive coding for egg	0.90 (0.88, 0.93)	0.90 (0.87, 0.93)	0.91 (0.87, 0.95)
Positive coding for fish, poultry, fermented or low-fat dairy, and egg	0.89 (0.86, 0.91)	0.88 (0.85, 0.91)	0.90 (0.86, 0.94)

The values are hazard ratios calculated with multivariable adjustment for age, race, family history of myocardial infarction, diabetes, or cancer, aspirin use, multivitamin use, initial body mass index, weight change, menopausal status and hormone use in women, smoking status, history of hypertension, hypercholesterolemia, or type 2 diabetes, antihypertensive medication use, cholesterol-lowering medication use, and initial and changes in each of smoking pack-years, physical activity, total energy intake, alcohol consumption, and margarine intake. Results from the Nurses' Health Study and the Health Professionals Follow-Up Study were combined with the use of the fixed effects model.