SUPPLEMENTARY DATA

Supplementary Table 1. Factor Loadings for Food Groups of the 2 Major Dietary Patterns Identified from the NHS-2 High School FFQ

Food Groups	Dietary Pattern	
	Prudent	Western
Other vegetables	0.77	.
Green, leafy vegetables	0.72	.
Cruciferous vegetables	0.68	.
Yellow vegetables	0.67	.
Fruit	0.65	.
Tomatoes	0.56	.
Legumes	0.52	0.16
Salad dressing	0.44	0.23
Garlic	0.42	.
Fruit juice	0.41	.
Better quality grains	0.39	.
Fish	0.38	0.18
Poultry	0.31	0.18
Potato salad	0.28	0.26
Low fat dairy	0.26	.
Organ meats	0.20	.
Tea	.	.
Diet soda	.	.
Coffee	.	.
Desserts and Sweets	.	0.62
Condiments	.	0.61
Snacks	0.19	0.58
Processed meat	.	0.56
Fries	.	0.55
Refined grains	.	0.53
Red meat	.	0.52
Mayonnaise	0.19	0.44
Nuts/ peanut butter	0.26	0.42
High fat dairy	.	0.41
Soda	-0.16	0.40
Pizza	.	0.37
Potato (mashed, boiled)	.	0.33
Eggs	.	0.31
Margarine	.	0.26
Butter	.	0.22
Cream soup (chowder)	0.16	0.18
Iced tea	.	0.17
Cereal	.	.

Factor Loadings are identical to Pearson Correlation coefficients. Factor loadings with absolute values <0.15 are not shown for simplicity. Food groups with absolute factor loadings ≥0.30 are considered as significantly contributing to the pattern.

SUPPLEMENTARY DATA

Supplementary Table 2. Factor loadings for food groups of the 2 major dietary patterns identified from FFQ's in 1991, 1995, 1999 and 2003 in women of the NHS2

Food Groups	Dietary Patterns							
	1991		1995		1999		2003	
	Prudent	Western	Prudent	Western	Prudent	Western	Prudent	Western
Other vegetables	0.70	0.20	0.71	0.17	0.69	0.17	0.72	0.26
Leafy green vegetables	0.70	.	0.68	.	0.62	.	0.69	0.22
Yellow vegetables	0.66	.	0.61	.	0.56	.	0.60	0.18
Fruit	0.63	.	0.61	.	0.61	.	0.67	0.23
Cruciferous vegetables	0.60	.	0.60	.	0.59	.	0.65	0.17
Tomatoes	0.55	0.19	0.55	0.18	0.45	0.36	0.56	0.43
Legumes	0.53	0.20	0.55	.	0.50	.	0.58	0.15
Fish	0.48	.	0.42	0.16	0.45	.	0.61	0.19
Poultry	0.44	.	0.27	0.25	0.30	0.28	0.46	0.44
Salad dressing	0.37	.	0.40	.	0.38	0.17	0.52	0.25
Water	0.36	.	0.36	.	0.38	.	0.58	0.29
Olive oil	0.36	.	0.35	.	0.47	.	0.59	.
Garlic	0.35	.	0.42	.	0.45	.	0.55	.
Whole grains	0.31	.	0.29	.	0.27	.	0.47	0.34
Low fat dairy	0.28	.	0.24	.	0.27	.	0.37	0.36
Juice	0.26	.	0.25	.	0.21	.	0.20	0.29
Wine	.	.	0.17	.	0.19	.	0.22	.
Coffee	.	.	.	.	.	.	0.33	0.29
Red meat	.	0.65	.	0.64	.	0.62	0.22	0.69
Processed meat	.	0.60	.	0.59	.	0.55	.	0.52
French fries	-0.16	0.57	-0.19	0.56	-0.20	0.53	.	0.63
Dessert	.	0.50	.	0.45	.	0.41	.	0.59
Pizza	.	0.45	.	0.44	.	0.43	.	0.58
Potato	0.17	0.43	0.20	0.40	.	0.44	0.18	0.62
Refined grains	.	0.42	.	0.37	.	0.43	0.25	0.68
Snack foods	.	0.41	.	0.39	.	0.39	.	0.58
Eggs	.	0.40	.	0.40	.	0.32	0.32	0.32
High fat dairy	.	0.37	.	0.35	.	0.34	0.29	0.43
Condiments	.	0.35	.	0.41	.	0.43	0.27	0.50
Sugary beverages	.	0.35	.	0.35	-0.16	0.32	.	0.42

Mayonnaise	.	0.34	0.16	0.36	0.20	0.35	0.30	0.38
Margarine	.	0.34	.	0.37	.	0.32	.	0.44
Nuts	0.19	0.29	.	0.25	0.25	0.18	0.44	0.20
Cream soup	.	0.26	.	0.32	.	0.31	.	0.43
Butter	.	0.23	.	0.22	.	0.21	0.18	0.29
Tea	.	.	.	.	0.17	.	0.33	0.18
Diet soda	.	.	.	0.15	.	0.23	.	0.36
Beer	.	.	.	.	.	.	.	.
Organ meat	.	.	.	.	.	.	.	.
Liquor	.	.	.	.	.	.	.	.
Egg Whites	NA	NA	NA	NA	0.18	.	0.27	.

Factor Loadings are identical to Pearson Correlation coefficients. Factor loadings with absolute values <0.15 are not shown for simplicity. Food groups with absolute factor loadings ≥0.30 are considered as significantly contributing to the pattern.

Supplementary Table 3. Association between High School Western Dietary Pattern and Risk of Type 2 Diabetes according to BMI at age 18 among NHS-2 participants

	Quintile of High School Western Dietary Pattern					P trend
	1	**2**	**3**	**4**	**5**	
BMI at age 18 < 25						
Number of cases	119	71	68	59	67	
Person years	78344	46825	46753	46207	45012	
Model: RR (95% CI)*	1.00	1.20 (0.86, 1.68)	0.99 (0.69, 1.40)	1.34 (0.98, 1.83)	1.41 (1.04, 1.91)	0.02
BMI at age 18 ≥ 25						
Number of cases	47	39	20	35	25	
Person years	8745	4738	4378	4776	4926	
Model: RR (95% CI)	1.00	0.78 (0.44, 1.39)	1.15 (0.69, 1.91)	0.71 (0.41, 1.23)	0.95 (0.58, 1.55)	0.69

*Adjusted for: age, high school total energy, smoking and physical activity, adult physical activity, family history of diabetes, smoking status, postmenopausal hormone use, oral contraceptive use, total energy, alcohol intake, adult Western dietary pattern and weight change since age 18
p for interaction = 0.04

SUPPLEMENTARY DATA

Supplementary Table 4. Relative Risk of Type 2 Diabetes Among NHS-2 participants (1997-2005) According to quintile of Energy Adjusted Adult Dietary Pattern

	Quintile of Dietary Pattern					P trend
	1	**2**	**3**	**4**	**5**	
Prudent Pattern						
Number of cases	155	105	86	105	99	.
Person years	58105	58156	58128	58157	58157	.
						.
Model 1: RR (95% CI)	1.00	0.66 (0.51, 0.85	0.51 (0.39, 0.67)	0.59 (0.45, 0.75)	0.52 (0.40, 0.67)	<.0001
Model 2: RR (95% CI)	1.00	0.81 (0.63, 1.04)	0.70 (0.53, 0.92)	0.87 (067, 1.12)	0.85 (0.65, 1.11)	0.32
Model 3: RR (95% CI)	1.00	0.87 (0.67, 1.13)	0.74 (0.56, 0.98)	0.87 (0.67, 1.13)	0.84 (0.64, 1.11)	0.24
Western Pattern						
Number of cases	62	89	96	113	190	.
Person Years	58251	58158	58124	58156	58014	.
						.
Model 1: RR (95% CI)	1.00	1.53 (1.11, 2.13)	1.69 (1.22, 2.33)	2.0 (1.46, 2.73)	3.32 (2.49 4.43)	<.0001
Model 2: RR (95% CI)	1.00	1.36 (0.98, 1.88)	1.37 (0.99, 1.90)	1.49 (1.08, 2.04)	2.14 (1.58, 2.88)	<.0001
Model 3: RR (95% CI)	1.00	1.18 (0.85, 1.65)	1.07 (0.77, 1.49)	1.04 (0.75, 1.43)	1.24 (0.91, 1.69)	0.23

Model 1: Adjusted for age, total energy
Model 2: Additional adjustment for physical activity, family history diabetes, smoking, hormone replacement therapy, oral contraceptive use, alcohol
Model 3: Additional adjustment for BMI

Supplementary Table 5. Association between High School Dietary Patterns and Risk of Type 2 Diabetes according to age of participants at return of the HS-FFQ

		Quintile of Dietary Pattern					P trend
		1	2	3	4	5	
Age at return of HS-FFQ			**Prudent Pattern**				
Number of cases / Person years		18/20931	16/11894	7/12116	15/11695	11/12381	
< 40 years	RR (95% CI)*	1.00	2.11 (1.0, 4.45)	1.01 (0.39, 2.62)	2.03 (0.94, 4.38)	1.26 (0.54, 2.92)	0.55
Number of cases / Person years		49/30074	25/17665	21/17015	25/17132	23/17129	
40 - 44 years	RR (95% CI)	1.00	1.07 (0.64, 1.80)	0.96 (0.56, 1.66)	0.97 (0.58, 1.62)	1.11 (0.65, 1.89)	0.82
Number of cases / Person years		65/27503	52/16659	42/16228	41/16566	42/15151	
45- 49 years	RR (95% CI)	1.00	1.38 (0.94, 2.02)	1.14 (0.77, 1.71)	1.20 (0.80, 1.80)	1.32 (0.88, 1.98)	0.26
Number of cases / Person years		31/8619	18/5390	17/5863	15/5590	17/5103	
≥ 50 years	RR (95% CI)	1.00	1.09 (0.59, 2.01)	0.92 (0.49, 1.73)	0.94 (0.50, 1.79)	1.12 (0.60, 2.09)	0.86
			Western Pattern				
Number of cases / Person years		13/21858	15/12601	17/11839	9/11392	13/11327	
< 40 years	RR (95% CI)	1.00	2.56 (1.13, 5.77)	2.79 (1.25, 6.20)	1.13 (0.45, 2.83)	1.25 (0.53, 2.95)	0.83
Number of cases / Person years		41/31097	20/17954	22/17477	28/16654	32/15834	
40 - 44 years	RR (95% CI)	1.00	0.89 (0.51, 1.57)	1.00 (0.58, 1.75)	1.08 (0.65, 1.79)	0.97 (0.59, 1.58)	0.95
Number of cases / Person years		54/25795	34/15505	41/16473	52/17191	61/17143	
45 - 49 years	RR (95% CI)	1.00	1.07 (0.69, 1.66)	1.13 (0.74, 1.72)	1.39 (0.94, 2.05)	1.25 (0.86, 1.83)	0.13
Number of cases / Person years		24/8233	13/5208	10/5661	22/6056	29/5406	
≥ 50 years	RR (95% CI)	1.00	1.10 (0.55, 2.22)	0.65 (0.30, 1.39)	1.16 (0.63, 2.13)	1.68 (0.95, 2.98)	0.10

*Adjusted for: BMI at age 18, high school total energy, smoking and physical activity, adult physical activity, family history of diabetes, smoking status, postmenopausal hormone use, oral contraceptive use, total energy, alcohol intake. Number of persons: <40 years, N=8765; 40-44 years, N=12,595; 45-49 years, N=11,768, ≥ 50 years, N=3910. p for interaction prudent pattern = 0.89 ; p for interaction Western pattern = 0.43