

SUPPLEMENTARY MATERIAL

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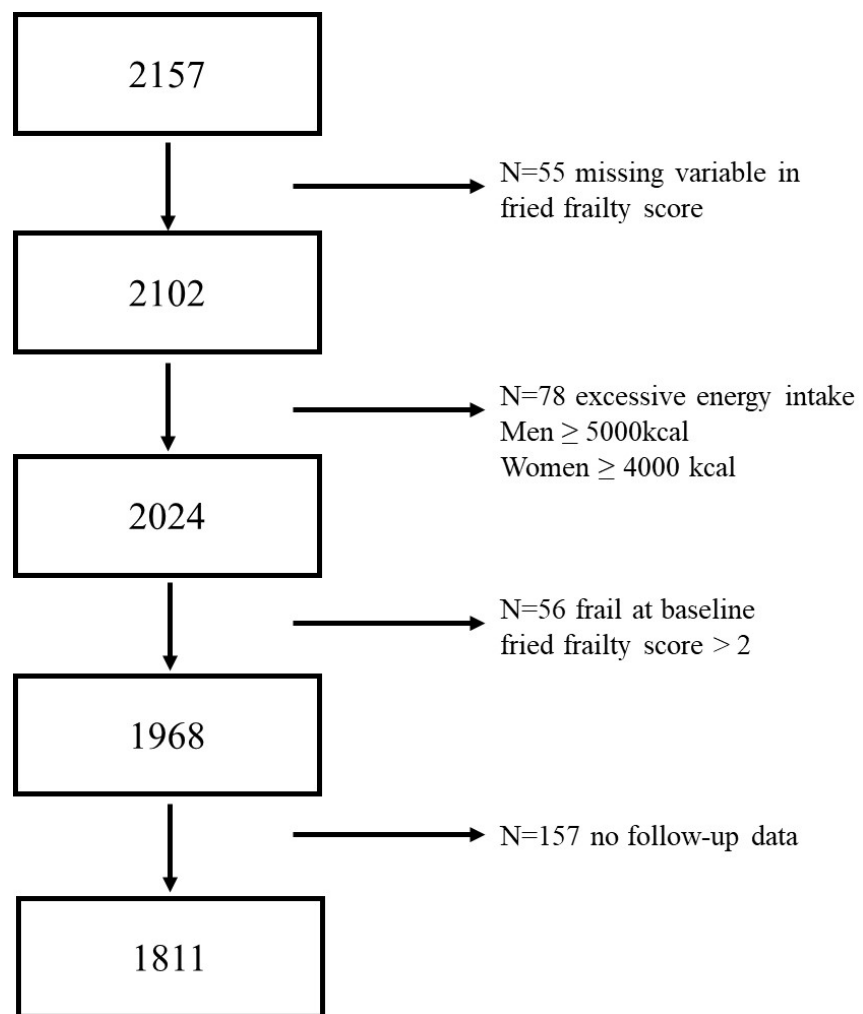


Figure S1. Participant flowchart

Table S1. Baseline population characteristics of DO-HEALTH participants considered being robust at baseline

Characteristics	Overall (n = 1035)	70-74 years (n = 630)	≥75 years (n =405)	p-value
Age, mean (SD), years	74.41 (4.08)	71.78 (1.36)	78.49 (3.48)	<0.001
Women, No. (%)	575 (55.6)	353 (56.0)	222 (54.8)	0.749
Education, mean (SD), year	13.28 (3.87)	13.64 (3.75)	12.73 (4.01)	<0.001
BMI, mean (SD) ^b	26.08 (3.97)	26.10 (4.14)	26.05 (3.71)	0.841
MoCA score, median (IQR) ^c , (0-30) points	27.00 (25.00, 28.00)	27.00 (25.00, 29.00)	27.00 (24.00, 28.00)	0.004
Sum of comorbidities, median (IQR)	1.00 (0.00, 2.00)	1.00 (0.00, 2.00)	2.00 (1.00, 2.00)	<0.001
Physical activity volume, median (IQR), MET-h/week ^d	30.00	31.45 (16.42, 57.62)	27.46 (12.81, 51.01)	0.010
Serum IL-6, median (IQR), ng/L	2.30 (1.50, 3.70)	2.10 (1.50, 3.30)	2.60 (1.80, 3.92)	<0.001
Serum CRP, median (IQR), mg/L	1.40 (0.80, 2.70)	1.40 (0.80, 2.50)	1.60 (0.80, 2.90)	0.027
Physical activity, N (%)				0.102
none	118 (11.4)	65 (10.3)	53 (13.1)	
1-2 times/week	327 (31.7)	190 (30.2)	137 (33.9)	
≥3 times/week	588 (56.9)	374 (59.5)	214 (53.0)	
Faller = Yes (%)	390 (37.7)	228 (36.2)	162 (40.0)	0.243
MedDietScore, mean (SD), (0-55) points	36.95 (4.85)	36.98 (4.72)	36.89 (5.06)	0.762
Energy intake, median (IQR), kcal/day	2428 (1950, 2927)	2411 (1932, 2915)	2434 (1958, 2947)	0.613
Abbreviations: IQR, interquartile range				
^a For these non-normal distributed variables, the Wilcoxon test was used.				
^b Body mass index (BMI) was calculated as weight in kilograms divided by height in meters squared. Higher BMI values reflect overweight (≥25) and obesity (≥30).				
^c The Montreal Cognitive Assessment (MoCA) is a screening test for mild cognitive dysfunction and has a range of 0 to 30 points, in which higher scores are better and scores greater than 26 suggest normal cognitive function.				
^d Weekly volume of physical activity was estimated based on the Nurses' Health Study questionnaire on physical activity, in which energy expenditure of different activities in metabolic equivalent tasks (METs) of activities based on the Compendium of Physical Activities were summed over the previous week.				

Table S2. Frequency distribution of frailty over the follow up of DO-HEALTH

	Year 1	Year 2	Year 3
Robust, n (%)	839 (48.4)	704 (41.8)	657 (39.8)
Pre-frail (1-2 points), n (%)	853 (49.2)	918 (54.5)	931 (56.4)
Frail (≥ 3 points), n (%)	43 (2.5)	62 (3.7)	63 (3.8)

Table S3. Interaction p-values of the exposure with the subgroup variables of interest.

	Baseline MedDietScore		Change in MedDietScore from baseline (Δ_{Y3-BL})	
	frailty	pre-frailty	frailty	pre-frailty
Sex	0.7515	0.0826	0.9261	0.9577
Age >75 years	0.4124	0.4241	0.5889	0.5210
Physical activity level (active vs inactive)	0.6017	0.9625	0.4691	0.2534
BMI > 30	0.8114	0.6358	0.6826	0.1343
Study site	0.3643	0.2718	0.0514	0.2028