Search Strategy

Search Strategy Free text search strategy: Initial search date: 10 July 2024, Medical subject headings (MeSH) and non-MeSH terms used to search relevant publications on the relation between plant-based diets and cardiovascular disease, frailty, and cognitive dysfunction in middle and old age.

eTable 1: Detailed search procedure

Database	Step	Terms	Results
PubMed	1	('Diet, Plant-Based' [Mesh] OR 'Diet, Vegetarian'[Mesh]) OR ('Diet, Plant-Based'[Title/Abstract] OR 'Diet, Vegetarian'[Title/Abstract] OR 'Diet, Plant Based'[Title/Abstract] OR 'Diets, Plant-Based'[Title/Abstract] OR 'Plant-Based Diets'[Title/Abstract] OR 'Plant-Based Diet'[Title/Abstract] OR 'Plant Based Diet'[Title/Abstract] OR 'Plant-Based Nutrition'[Title/Abstract] OR 'Nutrition, Plant-Based'[Title/Abstract] OR 'Plant Based Nutrition'[Title/Abstract] OR 'vegetarian'[Title/Abstract] OR 'vegan'[Title/Abstract] OR 'vegetable'[Title/Abstract] OR 'dietary fiber'[Title/Abstract] OR 'dietary pattern'[Title/Abstract] OR 'food pattern'[Title/Abstract])	67238
	2	('Cerebrovascular Disorders'[Mesh] OR 'Cardiovascular Diseases'[Mesh]) OR ('cerebrovascular disorders'[Title/Abstract] OR 'cardiovascular disease'[Title/Abstract] OR 'cardiovascular diseases'[Title/Abstract] OR 'CVD'[Title/Abstract] OR 'coronary disease'[Title/Abstract] OR 'coronary artery disease'[Title/Abstract] OR 'coronary heart disease'[Title/Abstract] OR 'CHD'[Title/Abstract] OR 'ischemic heart disease'[Title/Abstract] OR 'ischaemic heart disease'[Title/Abstract] OR 'cerebrovascular disease'[Title/Abstract] OR 'heart disease'[Title/Abstract] OR 'myocardial infarction'[Title/Abstract] OR 'MI'[Title/Abstract] OR 'heart failure'[Title/Abstract] OR 'atrial fibrillation'[Title/Abstract] OR 'CVA'[Title/Abstract] OR 'cerebral vascular accident'[Title/Abstract] OR 'cardiovascular'[Title/Abstract] OR 'coronary'[Title/Abstract] OR 'myocardial'[Title/Abstract] OR 'Adverse Cardiac Event'[Title/Abstract] OR 'Adverse Cardiac Events'[Title/Abstract] OR 'Cardiac Events, Adverse'[Title/Abstract] OR 'Major Adverse Cardiac Events'[Title/Abstract])	3360169
	3	('heart arrest'[Title/Abstract] OR 'cardiovascular death'[Title/Abstract] OR 'cardiovascular mortality'[Title/Abstract] OR 'cardiac death'[Title/Abstract] OR 'cardiac mortality'[Title/Abstract])	63444
	4	'stroke'[Mesh] OR 'Stroke'[Title/Abstract] OR 'Strokes'[Title/Abstract] OR 'Cerebrovascular Accident*'[Title/Abstract] OR 'Cerebrovascular Apoplexy'[Title/Abstract] OR 'Apoplexy, cerebrovascular'[Title/Abstract] OR 'Vascular Accident, Brain'[Title/Abstract] OR 'Brain Vascular Accident*'[Title/Abstract] OR 'Cerebrovascular Stroke*'[Title/Abstract] OR 'Apoplexy'[Title/Abstract] OR 'Stroke,	394648

		Acute’[Title/Abstract] OR ‘Acute Cerebrovascular Accident’[Title/Abstract] OR ‘Hemorrhagic Stroke*’[Title/Abstract] OR ‘Ischemic Stroke*’[Title/Abstract] OR ‘Acute Ischemic Stroke*’[Title/Abstract] OR ‘Thrombotic Stroke*’[Title/Abstract] OR ‘Embolic Stroke*’[Title/Abstract] OR ‘Cerebral Infarction*’[Title/Abstract]	
	5	(‘Dementia’[Mesh] OR ‘Alzheimer Disease’[Mesh]) OR (‘Dementia’[Title/Abstract] OR ‘Alzheimer Disease’[Title/Abstract] OR ‘amentia*’[Title/Abstract] OR ‘Dement*’[Title/Abstract] OR ‘Alzheim*’[Title/Abstract] OR ‘AD’[Title/Abstract] OR ‘ATD’[Title/Abstract] OR ‘Frontotemporal’[Title/Abstract] OR ‘FTD’[Title/Abstract] OR ‘Neurocognitive disorder*’[Title/Abstract] OR ‘cognitive decline’[Title/Abstract] OR ‘cognitive defect’[Title/Abstract] OR ‘cognitive dysfunction’[Title/Abstract] OR ‘cognitive impairment’[Title/Abstract] OR ‘cogniti*’[Title/Abstract])	908266
	6	(‘Frailty’[Mesh] OR ‘Frailty’[Title/Abstract] OR ‘Frailties’[Title/Abstract] OR ‘Frailness’[Title/Abstract] OR ‘Frailty Syndrome’[Title/Abstract] OR ‘Debility’[Title/Abstract] OR ‘Debilities’[Title/Abstract] OR ‘Frail*’[Title/Abstract] OR ‘pre-frail’[Title/Abstract])	41924
	7	#2 OR #3 OR #4 OR #5 OR #6	4301955
	8	#1 AND #7	**10402**
Embase	1	'plant-based diet'/exp OR 'vegetarian diet'/exp OR 'Diet, Plant-Based':ab,ti,kw OR 'Diet, Vegetarian':ab,ti,kw OR 'Diet, Plant-Based':ab,ti,kw OR 'Diet, Vegetarian':ab,ti,kw OR 'Diet, Plant Based':ab,ti,kw OR 'Diets, Plant-Based':ab,ti,kw OR 'Plant-Based Diets':ab,ti,kw OR 'Plant-Based Diet':ab,ti,kw OR 'Plant Based Diet':ab,ti,kw OR 'Plant-Based Nutrition':ab,ti,kw OR 'Nutrition, Plant-Based':ab,ti,kw OR 'Plant Based Nutrition':ab,ti,kw OR 'vegetarian':ab,ti,kw OR 'vegan':ab,ti,kw OR 'vegetable':ab,ti,kw OR 'dietary fiber':ab,ti,kw OR 'dietary pattern':ab,ti,kw OR 'food pattern':ab,ti,kw	87522
	2	'Cerebrovascular Disorders'/exp OR 'Cardiovascular Diseases'/exp OR 'cerebrovascular disorders':ab,ti,kw OR 'cardiovascular disease':ab,ti,kw OR 'cardiovascular diseases':ab,ti,kw OR 'CVD':ab,ti,kw OR 'coronary disease':ab,ti,kw OR 'coronary artery disease':ab,ti,kw OR 'coronary heart disease':ab,ti,kw OR 'CHD':ab,ti,kw OR 'ischemic heart disease':ab,ti,kw OR 'ischaemic heart disease':ab,ti,kw OR 'cerebrovascular disease':ab,ti,kw OR 'heart disease':ab,ti,kw OR 'myocardial infarction':ab,ti,kw OR 'MI':ab,ti,kw OR 'heart failure':ab,ti,kw OR 'atrial fibrillation':ab,ti,kw OR 'cerebral vascular accident':ab,ti,kw OR 'CVA':ab,ti,kw OR 'cardiovascular':ab,ti,kw OR 'coronary':ab,ti,kw OR 'myocardial':ab,ti,kw OR 'Adverse Cardiac Event':ab,ti,kw OR 'Adverse Cardiac Events':ab,ti,kw OR 'Cardiac Events, Adverse':ab,ti,kw OR 'Major Adverse Cardiac Events':ab,ti,kw	6151038
	3	'heart arrest'/exp OR 'cardiovascular death'/exp OR 'cardiovascular mortality'/exp OR 'heart death'/exp OR 'heart arrest':ab,ti,kw OR 'cardiovascular death':ab,ti,kw OR 'cardiovascular mortality':ab,ti,kw OR 'cardiac death':ab,ti,kw OR 'cardiac mortality':ab,ti,kw	276560
	4	'stroke'/exp OR 'Hemorrhagic Stroke*'/exp OR 'Ischemic Stroke*'/exp OR 'Stroke':ab,ti,kw OR 'Strokes':ab,ti,kw OR 'Cerebrovascular Accident*':ab,ti,kw OR 'Cerebrovascular Apoplexy':ab,ti,kw OR 'Apoplexy, cerebrovascular':ab,ti,kw OR 'Vascular Accident, Brain':ab,ti,kw OR 'Brain Vascular Accident*':ab,ti,kw OR 'Cerebrovascular Stroke*':ab,ti,kw OR 'Apoplexy':ab,ti,kw OR 'Stroke, Acute':ab,ti,kw OR 'Acute Cerebrovascular Accident':ab,ti,kw OR 'Hemorrhagic Stroke*':ab,ti,kw OR 'Ischemic Stroke*':ab,ti,kw OR 'Acute Ischemic Stroke*':ab,ti,kw OR 'Thrombotic Stroke*':ab,ti,kw OR 'Embolic Stroke*':ab,ti,kw OR 'Cerebral Infarction*':ab,ti,kw	689322
	5	'dementia'/exp OR 'Alzheimer Disease'/exp OR 'cognition'/exp OR 'Dementia':ab,ti,kw OR 'Alzheimer Disease':ab,ti,kw OR	4016131

		'amentia*':ab,ti,kw OR 'Dement*':ab,ti,kw OR 'Alzheim*':ab,ti,kw OR 'AD':ab,ti,kw OR 'ATD':ab,ti,kw OR 'Frontotemporal':ab,ti,kw OR 'FTD':ab,ti,kw OR 'Neurocognitive disorder*':ab,ti,kw OR 'cognitive decline':ab,ti,kw OR 'cognitive defect':ab,ti,kw OR 'cognitive dysfunction':ab,ti,kw OR 'cognitive impairment':ab,ti,kw OR 'cogniti*':ab,ti,kw	
	6	'Frailty'/exp OR 'Frailty':ab,ti,kw OR 'Frailties':ab,ti,kw OR 'Frailness':ab,ti,kw OR 'Frailty Syndrome':ab,ti,kw OR 'Debility':ab,ti,kw OR 'Debilities':ab,ti,kw OR 'Frail*':ab,ti,kw OR 'pre-frail':ab,ti,kw	67491
	7	#2 OR #3 OR #4 OR #5 OR #6	9774872
	8	#1 AND #7	**23479**
Web of Science	1	TS=(‘Diet, Plant-Based’ OR ‘Diet, Vegetarian’ OR ‘Diet, Plant Based’ OR ‘Diets, Plant-Based’ OR ‘Plant-Based Diets’ OR ‘Plant-Based Diet’ OR ‘Plant Based Diet’ OR ‘Plant-Based Nutrition’ OR ‘Nutrition, Plant-Based’ OR ‘Plant Based Nutrition’ OR ‘vegetarian’ OR ‘vegan’ OR ‘vegetable’ OR ‘dietary fiber’ OR ‘dietary pattern’ OR ‘food pattern’)	87495
	2	TS=(‘Cerebrovascular Disorders’ OR ‘Cardiovascular Diseases’ OR ‘cerebrovascular disorders’ OR ‘cardiovascular disease’ OR ‘cardiovascular diseases’ OR ‘CVD’ OR ‘coronary disease’ OR ‘coronary artery disease’ OR ‘coronary heart disease’ OR ‘CHD’ OR ‘ischemic heart disease’ OR ‘ischaemic heart disease’ OR ‘cerebrovascular disease’ OR ‘heart disease’ OR ‘myocardial infarction’ OR ‘MI’ OR ‘heart failure’ OR ‘atrial fibrillation’ OR ‘cerebral vascular accident’ OR ‘CVA’ OR ‘cardiovascular’ OR ‘coronary’ OR ‘myocardial’ OR ‘Adverse Cardiac Event’ OR ‘Adverse Cardiac Events’ OR ‘Cardiac Events, Adverse’ OR ‘Major Adverse Cardiac Events’)	1021964
	3	TS=(‘heart arrest’ OR ‘cardiovascular death’ OR ‘cardiovascular mortality’ OR ‘cardiac death’ OR ‘cardiac mortality’)	47818
	4	TS=(‘Stroke’ OR ‘Strokes’ OR ‘Cerebrovascular Accident*’ OR ‘Cerebrovascular Apoplexy’ OR ‘Apoplexy, cerebrovascular’ OR ‘Vascular Accident, Brain’ OR ‘Brain Vascular Accident*’ OR ‘Cerebrovascular Stroke*’ OR ‘Apoplexy’ OR ‘Stroke, Acute’ OR ‘Acute Cerebrovascular Accident’ OR ‘Hemorrhagic Stroke*’ OR ‘Ischemic Stroke*’ OR ‘Acute Ischemic Stroke*’ OR ‘Thrombotic Stroke*’ OR ‘Embolic Stroke*’ OR ‘Cerebral Infarction*’)	300028
	5	TS=(‘Dementia’ OR ‘Alzheimer Disease’ OR ‘amentia*’ OR ‘Dement*’ OR ‘Alzheim*’ OR ‘AD’ OR ‘ATD’ OR ‘Frontotemporal’ OR ‘FTD’ OR ‘Neurocognitive disorder*’ OR ‘cognitive decline’ OR ‘cognitive defect’ OR ‘cognitive dysfunction’ OR ‘cognitive impairment’ OR ‘cogniti*’)	763995
	6	TS=(‘Frailty’ OR ‘Frailties’ OR ‘Frailness’ OR ‘Frailty Syndrome’ OR ‘Debility’ OR ‘Debilities’ OR ‘Frail*’ OR ‘pre-frail’)	40967
	7	#2 OR #3 OR #4 OR #5 OR #6	1978189
	8	#1 AND #7	**8618**
Cochrane Library	1	MeSH descriptor: [Diet,Plant-Based] explode all trees OR MeSH descriptor: [Diet,Vegetarian] explode all trees OR (‘Diet, Plant-Based’ OR ‘Diet, Vegetarian’ OR ‘Diet, Plant Based’ OR ‘Diets, Plant-Based’ OR ‘Plant-Based Diets’ OR ‘Plant-Based Diet’ OR ‘Plant Based Diet’ OR ‘Plant-Based Nutrition’ OR ‘Nutrition, Plant-Based’ OR ‘Plant Based Nutrition’ OR ‘vegetarian’ OR ‘vegan’ OR ‘vegetable’ OR ‘dietary fiber’ OR ‘dietary pattern’ OR ‘food pattern’):ti,ab,kw	12499
	2	MeSH descriptor: [Cerebrovascular Disorders] explode all trees OR MeSH descriptor: [Cardiovascular Diseases] explode all trees OR (‘Cerebrovascular Disorders’ OR ‘Cardiovascular Diseases’ OR ‘cerebrovascular disorders’ OR ‘cardiovascular disease’ OR ‘cardiovascular diseases’ OR ‘CVD’ OR ‘coronary disease’ OR ‘coronary artery disease’ OR ‘coronary heart disease’ OR ‘CHD’ OR ‘ischemic heart	278757

		disease' OR 'ischaemic heart disease' OR 'cerebrovascular disease' OR 'heart disease' OR 'myocardial infarction' OR 'MI' OR 'heart failure' OR 'atrial fibrillation' OR 'cerebral vascular accident' OR 'CVA' OR 'cardiovascular' OR 'coronary' OR 'myocardial' OR 'Adverse Cardiac Event' OR 'Adverse Cardiac Events' OR 'Cardiac Events, Adverse' OR 'Major Adverse Cardiac Events'):ti,ab,kw	
	3	('heart arrest' OR 'cardiovascular death' OR 'cardiovascular mortality' OR 'cardiac death' OR 'cardiac mortality'):ti,ab,kw	15997
	4	MeSH descriptor: [Stroke] explode all trees OR ('Stroke' OR 'Strokes' OR 'Cerebrovascular Accident*' OR 'Cerebrovascular Apoplexy' OR 'Apoplexy, cerebrovascular' OR 'Vascular Accident, Brain' OR 'Brain Vascular Accident*' OR 'Cerebrovascular Stroke*' OR 'Apoplexy' OR 'Stroke, Acute' OR 'Acute Cerebrovascular Accident' OR 'Hemorrhagic Stroke*' OR 'Ischemic Stroke*' OR 'Acute Ischemic Stroke*' OR 'Thrombotic Stroke*' OR 'Embolic Stroke*' OR 'Cerebral Infarction*'):ti,ab,kw	80026
	5	MeSH descriptor: [Dementia] explode all trees OR MeSH descriptor: [Alzheimer Disease] explode all trees OR ('Dementia' OR 'Alzheimer Disease' OR 'amentia*' OR 'Dement*' OR 'Alzheim*' OR 'AD' OR 'ATD' OR 'Frontotemporal' OR 'FTD' OR 'Neurocognitive disorder*' OR 'cognitive decline' OR 'cognitive defect' OR 'cognitive dysfunction' OR 'cognitive impairment' OR 'cogniti*'):ti,ab,kw	59023
	6	MeSH descriptor: [Frailty] explode all trees OR ('Frailty' OR 'Frailties' OR 'Frailness' OR 'Frailty Syndrome' OR 'Debility' OR 'Debilities' OR 'Frail*' OR 'pre-frail'):ti,ab,kw	6097
	7	#2 OR #3 OR #4 OR #5 OR #6	369556
	8	#1 AND #7	**3030**
Total			

[1] Two investigators (ZSP & JYJ) searched the online databases independently.

eTable 2: Evidence classification criteria

Evidence class	Description
Class I: convincing evidence	>1000 cases (or >20 000 participants for continuous outcomes); statistical significance at P<10−6 (random effects); no evidence of small study effects and excess significance bias; 95% prediction interval excluded null value; no large heterogeneity (I2<50%)

Class II: highly suggestive evidence	>1000 cases (or >20 000 participants for continuous outcomes), statistical significance at P<0.001 (random effects), and largest study with 95% confidence interval excluding null value
Class III: suggestive evidence	>1000 cases (or >20 000 participants for continuous outcomes) and statistical significance at P<0.01
Class IV: weak evidence	Remaining significant associations with P<0.05
NS: non-significant	P>0.05

The evidence classification criteria: class I (convincing evidence), class II (highly suggestive evidence), class III (suggestive evidence), class IV (weak evidence), and NS (non-significant).

eTable 3: Grade Grading Details

Outcomes	Relative effect difference (95% CI)	Absolute effect difference (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
CVD				
hPDI-CVD	RR=0.81, [95%CI 0.71,0.93]	-	320763 (9)	⊕⊕◯◯ Low (b-, c+)
uPDI-CVD	RR=1.16, [95%CI 1.09,1.24]	-	306749 (7)	⊕⊕⊕◯ Moderate (c+)
CVD mortality				
hPDI-CVD mortality	RR=0.83, [95%CI 0.75,0.90]	-	906888 (10)	⊕◯◯◯ Very low (b-)
uPDI-CVD mortality	RR=1.14, [95%CI 1.05,1.23]	-	859166 (7)	⊕◯◯◯ Very low (b-)

CHD				
hPDI-CHD	RR=0.79, [95%CI 0.70,0.88]	-	225289 (3)	⊕⊕◯◯ Low
uPDI-CHD	RR=1.12, [95%CI 0.90,1.39]	-	225289 (3)	⊕◯◯◯ Very low (b-, d-)
Stroke				
hPDI-Stroke	RR=0.91, [95%CI 0.86,0.96]	-	332458 (3)	⊕⊕◯◯ Low
uPDI-Stroke	RR=1.10, [95%CI 0.90,1.34]	-	328823 (2)	⊕◯◯◯ Very low (d-)
Ischemic stroke				
hPDI- Ischemic stroke	RR=0.86, [95%CI 0.79,0.94]	-	488043 (4)	⊕⊕◯◯ Low
uPDI- Ischemic stroke	RR=1.09, [95%CI 0.95,1.25]	-	488043 (4)	⊕◯◯◯ Very low (d-)
Hemorrhagic Stroke				
hPDI- Hemorrhagic stroke	RR=0.93, [95%CI 0.78,1.10]	-	335902 (2)	⊕◯◯◯ Very low (d-)
uPDI- Hemorrhagic stroke	RR=1.01, [95%CI 0.84,1.20]	-	335902 (2)	⊕◯◯◯ Very low (d-)
Cognitive dysfunction				
hPDI- Cognitive dysfunction	RR=0.75, [95%CI 0.66,0.84]	-	202272 (3)	⊕⊕◯◯ Low
uPDI- Cognitive dysfunction	RR=1.24, [95%CI 1.11,1.38]	-	185324 (2)	⊕⊕◯◯ Low
Frailty				

hPDI- Frailty	RR=0.72, [95%CI 0.60,0.86]	-	111993 (4)	⊕⊕◯◯ Low (b-, c+)
uPDI- Frailty	RR=1.52, [95%CI 1.10,2.08]	-	111993 (4)	⊕⊕◯◯ Low (b-, c+)

Note:

a-: Risk of bias in the study; b-: Inconsistencies between studies; c-: indirectness; d-: Accuracy of the findings; e-: Publication bias or small sample size

a+: Based on consistent evidence from two or more observational studies with no known confounders, RR>2(<0.5) (+1); b+: Direct evidence based on real and no significant threat RR>2(<0.5) (+2); c+: Evidence of dose-response gradient (+1); d+: All known confounders reduced the effect (+1).

Cohort studies are usually evaluated from a low level (⊕⊕◯◯).

⊕⊕⊕◯: Evidence of moderate quality suggests that the current efficacy evaluation results are likely to be close to the true value;

⊕⊕◯◯: Low quality research evidence suggests that the reliability of current efficacy evaluation results is uncertain;

⊕◯◯◯: Very low quality research evidence, suggesting uncertainty about the reliability of current efficacy evaluation results;

eTable 4: Evaluation of Quality of Pooled Evidence Using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Framework

Outcome	Pooled outcomes (95% CI)	Number of participants (number of included studies)	Statistical Heterogeneity	Evidence class	GRADE

hPDI-CVD	RR=0.78, [95%CI 0.66,0.93]	8	I^2=76.11%	Class II	Low
uPDI-CVD	RR=1.14, [95%CI 1.05,1.24]	6	I^2=0.00%	Class I	Moderate
hPDI-CVD mortality	RR=0.83, [95%CI 0.75,0.90]	10	I^2=82.49%	Class II	Very low
uPDI- CVD mortality	RR=1.14, [95%CI 1.05,1.23]	9	I^2=79.26%	Class II	Very low
hPDI-CHD	RR=0.79, [95%CI 0.70,0.88]	3	I^2=31.70%	Class I	Low
uPDI- CHD	RR=1.12, [95%CI 0.90,1.39]	3	I^2=77.83%	NS	Very low
hPDI-Stroke	RR=0.91, [95%CI 0.86,0.96]	3	I^2=0.00%	Class I	Low
uPDI-Stroke	RR=1.10, [95%CI 0.90,1.34]	2	I^2=30.15%	NS	Very low
hPDI-Ischemic stroke	RR=0.86, [95%CI 0.79,0.94]	4	I^2=3.15%	Class I	Low
uPDI-Ischemic stroke	RR=1.09, [95%CI 0.95,1.25]	4	I^2=49.34%	NS	Very low
hPDI- Hemorrhagic stroke	RR=0.93, [95%CI 0.78,1.10]	2	I^2=0.00%	NS	Very low
uPDI- Hemorrhagic stroke	RR=1.01, [95%CI 0.84,1.20]	2	I^2=0.00%	NS	Very low
hPDI-Cognitive dysfunction	RR=0.75, [95%CI 0.66,0.84]	3	I^2=48.74%	Class I	Low
uPDI-Cognitive dysfunction	RR=1.24, [95%CI 1.11,1.38]	2	I^2=0.00%	Class I	Low
hPDI-frailty	RR=0.72, [95%CI 0.60,0.86]	4	I^2=81.24%	Class II	Low
uPDI-frailty	RR=1.52, [95%CI 1.10,2.08]	4	I^2=94.49%	Class II	Low

Quality of evidence for observational studies is graded starting at low quality for a causal effect, and downgraded or upgraded based on the following criteria. A: downgraded by one level for risk of bias among included studies. B: downgraded by one level for imprecision (e.g. few studies or large 95% confidence intervals). C:

downgraded by one level for inconsistency (e.g. little overlap of confidence intervals and/or moderate to substantial unexplained statistical heterogeneity with I^2 ≥40%). D: downgraded by one level for indirectness of evidence. E: downgraded by one level for publication bias. F: upgraded by one level for dose-response gradient. G: upgraded by one level for large effect size. H: upgraded by one level for residual confounding decreasing magnitude of effect.

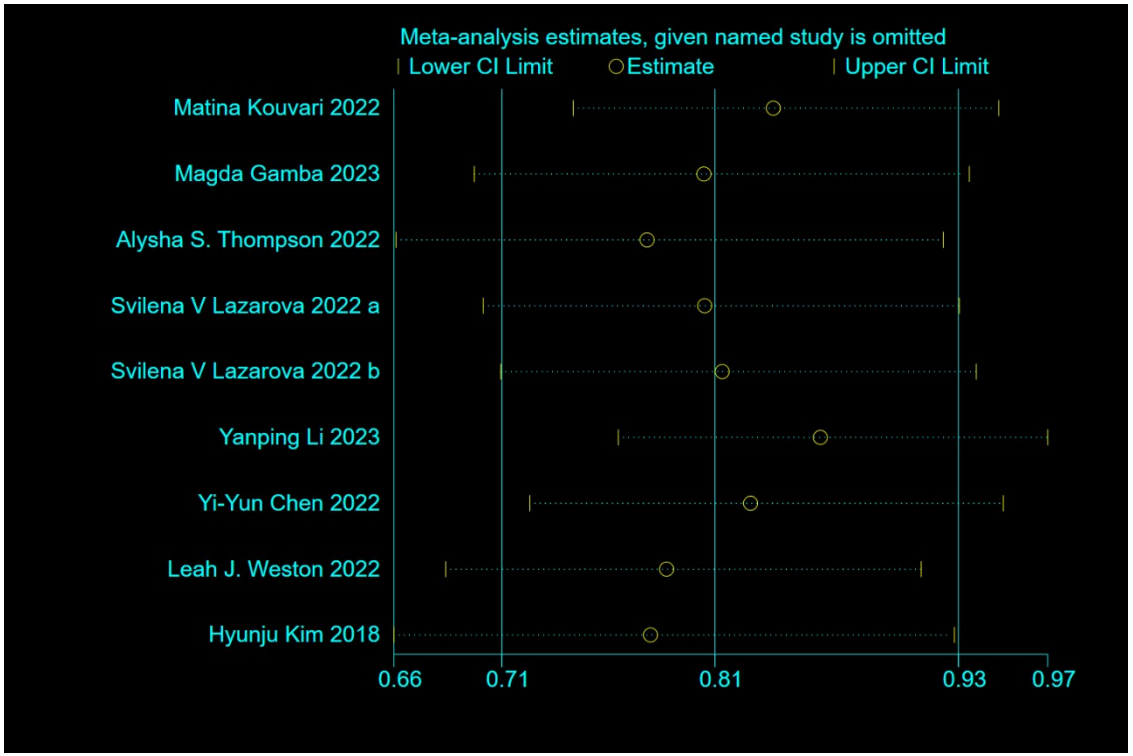
eTable 5: After reading the full text, exclude references and their specific reasons.

Title	Reason
Quality of Plant-Based Diet and Risk of Total,Ischemic, and Hemorrhagic Stroke	Repeat cohort for NHS, NHSII
Vegetarian diet and incidence of total, ischemic, and hemorrhagic stroke in 2 cohorts in Taiwan	Defined as a vegetarian, plant-free diet related index
Plant-Based Diet and Risk of Frailty in Older Chinese Adults	PDI is included, but hPDI and uPDI are not
Relationship Between a Plant-Based Dietary Portfolio and Risk of Cardiovascular Disease: Findings From the Women's Health Initiative Prospective Cohort Study	Defined as a vegetarian, plant-free diet related index
Adherence to the EAT-Lancet Diet and Risk of Stroke and Stroke Subtypes: A Cohort Study	Defined as a vegetarian, plant-free diet related index
Vegetarians, fish, poultry, and meat-eaters: who has higher risk of cardiovascular disease incidence and mortality? A prospective study from UK Biobank	Defined as a vegetarian, plant-free diet related index
Risks of ischaemic heart disease and stroke in meat eaters, fish eaters, and vegetarians over 18 years of follow-up: results from the prospective EPIC-Oxford study	Defined as a vegetarian, plant-free diet related index
Taiwanese Vegetarians Are Associated with Lower Dementia Risk: A Prospective Cohort Study	Defined as a vegetarian, plant-free diet related index

Association Between Healthy Eating Patterns and Risk of Cardiovascular Disease	Repeat cohort for NHS, NHSII，HPFS
Healthy dietary patterns and the risk of individual chronic diseases in community dwelling adults	Repeat cohort for UKB
The association between diet quality, plant-based diets, systemic infammation, and mortality risk: fndings from NHANES	Vegetarian diet and PDI were included but no data were included
Plant-based dietary patterns in relation to mortality among older adults in China	Cardiovascular data were not included
Genetic susceptibility, plant-based dietary patterns, and risk of cardiovascular disease	Repeat cohort for UKB
Cardiovascular Disease Risk in Individuals Following Plant-Based Dietary Patterns Compared to Regular Meat-Eaters	Defined as a vegetarian, plant-free diet related index
Plant-Centered Diet and Risk of Incident Cardiovascular Disease During Young to Middle Adulthood	Defined as a vegetarian, plant-free diet related index

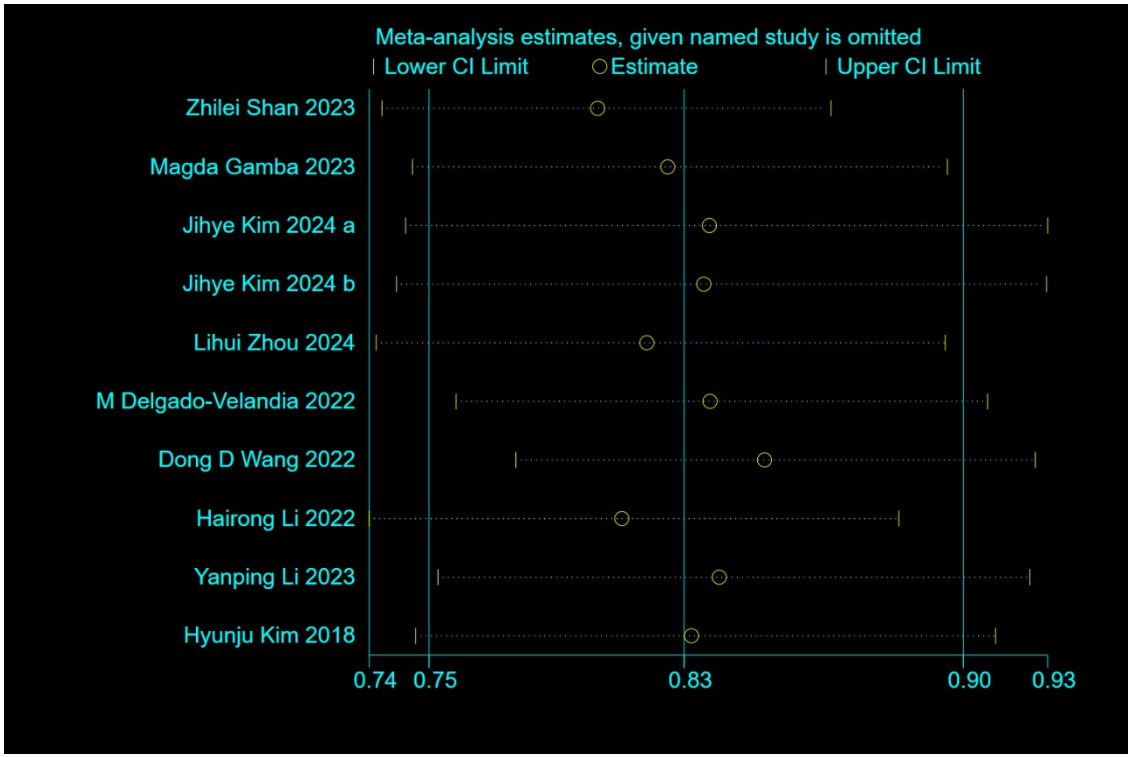
eFigure 1: Sensitivity analysis between hPDI and CVD.

(NOTE: The sensitivity analysis was carried out by one-by-one elimination method for the analysis with more than 6 included articles.)



There were no contradictory results and the analysis results were stable.

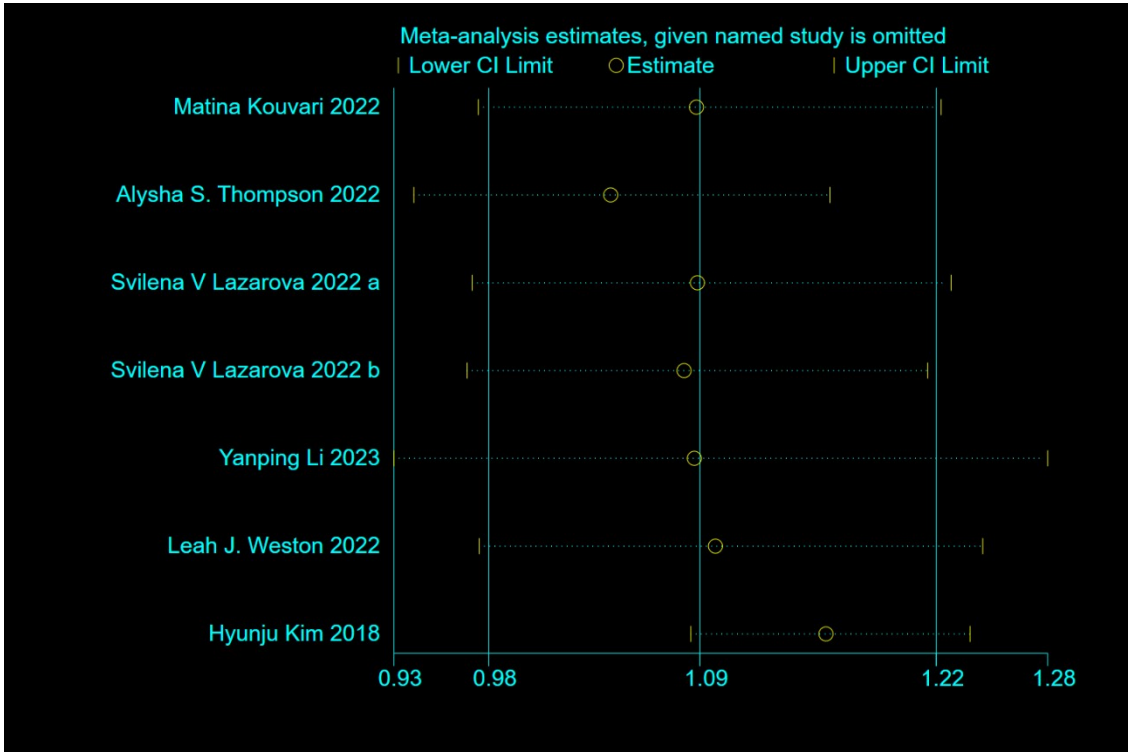
eFigure 2: Sensitivity analysis between hPDI and CVD mortality.



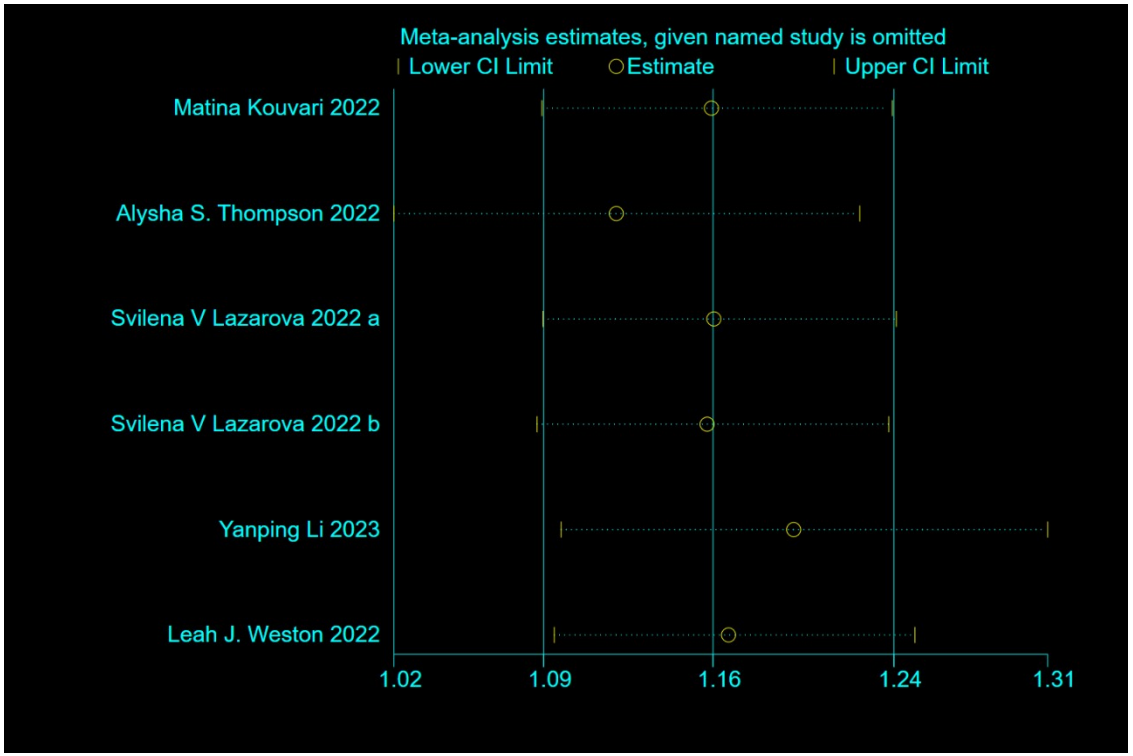
There were no contradictory results and the analysis results were stable.

eFigure 3: Sensitivity analysis between uPDI and CVD.

(NOTE: The sensitivity analysis was carried out by one-by-one elimination method for the analysis with more than 6 included articles.)



We found that Hyunju Kim 2018 had a great impact on the summary results, resulting in contradictory results.



Sensitivity analysis results after excluding Hyunju Kim 2018 study. There were no contradictory results and the analysis results were stable.

eFigure 4: Sensitivity analysis between uPDI and CVD mortality.

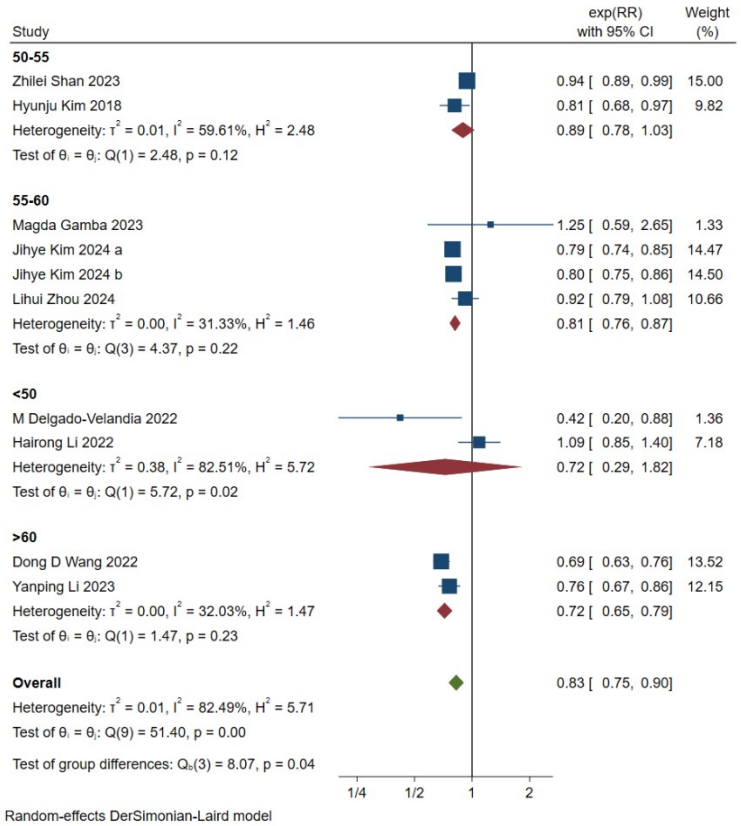
(NOTE: The sensitivity analysis was carried out by one-by-one elimination method for the analysis with more than 6 included articles.)

There were no contradictory results and the analysis results were stable.

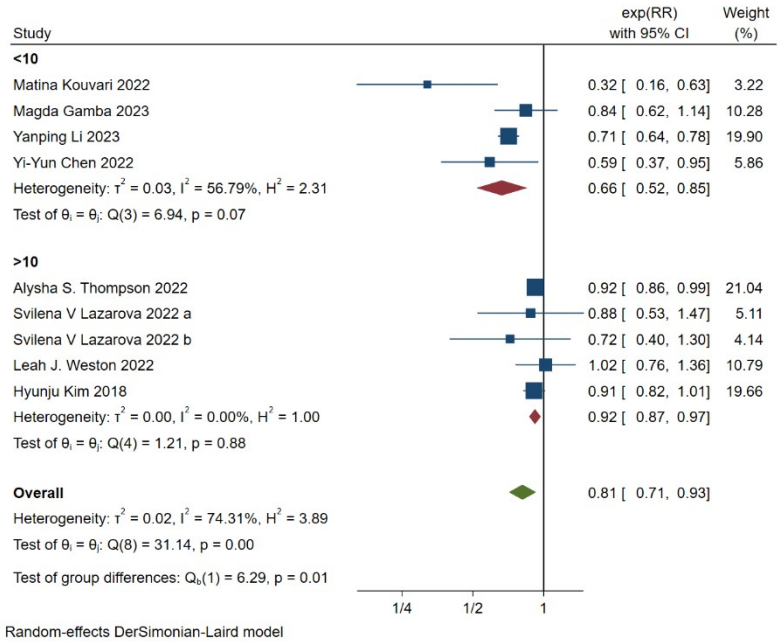
eFigure 5: Meta regression and subgroup analysis

Age-based meta regression results (hPDI with CVD mortality):

	exp	SE	t	P>|t|	[95% Conf. Interval]		R^2(% heterogeneity accounted for)	I^2(% residual heterogeneity)
Age	0.979	0.0035292	-6.04	0.000	0.971	0.987	100.00%	13.37%



eFigure 6: Subgroup Analysis based on follow-up time (hPDI with CVD)



eFigure 7: Subgroup Analysis based on follow-up time（hPDI with CVD mortality）