
Supplementary material

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Table S1. Eligibility criteria for the systematic review and the overview of reviews.

Data source	Systematic review		Overview of reviews	
Criteria	Include	Exclude	Include	Exclude
Publication details	Studies published in any language between January 1980 and March 2019.	Studies published prior to 1980.	Reviews published in English prior to March 2019.	Reviews not published in English or full text not available.
Study designs	Randomised controlled trials, prospective cohort studies, and nested case control studies.	Primary studies with any other design (e.g. cross-sectional studies, ecological studies).	Reviews that include 3 or more relevant mechanistic studies.	Reviews that include less than 3 relevant mechanistic studies.
		Reviews, conference proceedings, conference abstracts, study protocols, commentaries, editorials, reports, books.	Reviews that include 3 or more relevant intervention studies.	Reviews that include less than 3 relevant intervention studies.
				Reviews that only include observational studies.
				Reviews that only include other reviews.
				Primary studies, conference proceedings, conference abstracts, study protocols, commentaries, editorials, reports, books.

Populations	Studies conducted in healthy, free-living adults (aged 18 years and over).	Studies conducted exclusively in specialist populations e.g. institutionalised populations, diseased populations, pregnant women. Studies conducted in animals.	For mechanistic studies: studies conducted in animal models or cell models. For intervention studies: studies conducted in any human population (including e.g. adults and children with and without disease).	For mechanistic studies: studies conducted in humans. For intervention studies: studies conducted in animal models or cell models.
Interventions/Comparators	For prospective cohort and nested case control studies: dietary pattern exposures assessed using index-based methods, factor or principal component analysis, cluster analysis, or reduced rank regression. For randomised controlled trials: studies were also eligible for inclusion if two or more food groups were consumed together as part of a dietary pattern.	Other diet exposures e.g. foods, nutrients, supplements (not assessed as part of a dietary pattern). Non-diet exposures e.g. physical activity. Combined exposures e.g. diet combined with exercise, physical activity, sedentary behaviour, smoking, sleep, drugs.	Dietary patterns, foods, nutrients, other food components, supplements.	Non-diet exposures e.g. physical activity. Combined exposures e.g. diet combined with exercise, physical activity, sedentary behaviour, smoking, sleep, drugs.
Outcomes	All-cause mortality.	Cause-specific mortality, any other health outcome.	Any health outcome e.g. chronic disease risk factors,	Non-health outcomes e.g. environmental outcomes

	chronic disease incidence, cause-specific and all-cause mortality.	associated with food production or consumption.
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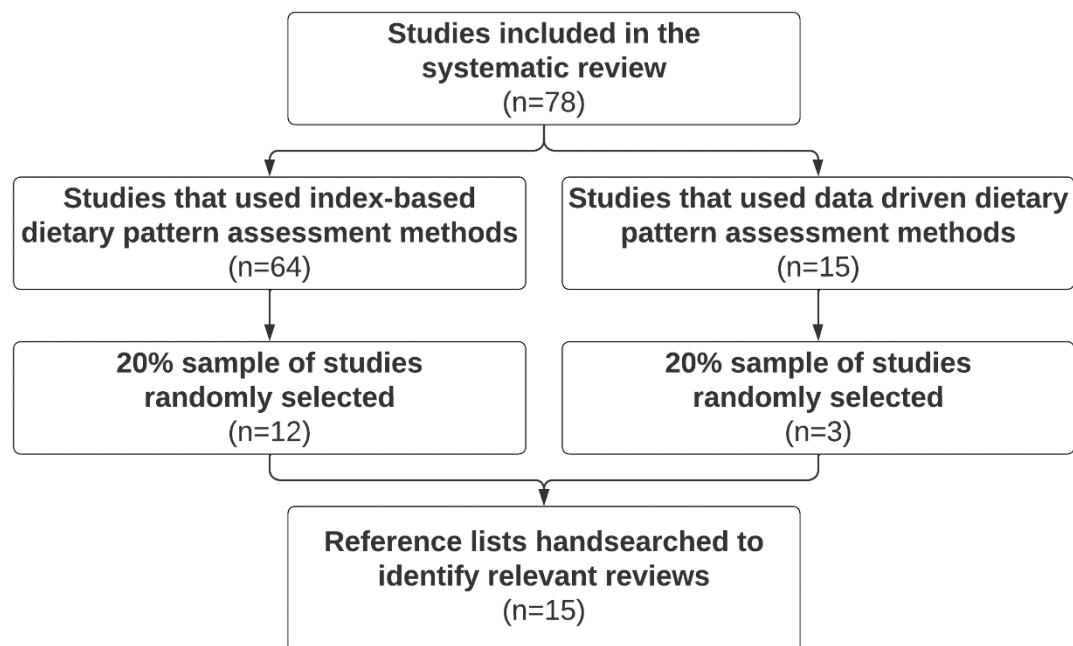
Figure S1. Search strategy for the overview of reviews.

Table S2. Data items for the systematic review and the overview of reviews.

Systematic review	Overview of reviews
The following data were collated from the studies included in each meta-analysis and each narrative synthesis: - For each study: number of participants at follow-up; length of follow-up; overall ROB (low, moderate, serious, or critical) - For each result: Relative measure of effect size (e.g. Relative Risk, Hazard Ratio, Odds Ratio), 95% confidence intervals (CIs) for relative measure of effect size	The following data were extracted from each review: - Review type (systematic review or narrative review) - Number of relevant mechanistic studies - o For each study: populations, interventions/comparators, and outcomes - o Was most of the evidence derived from studies with low ROB? ▪ Yes if >50% of studies had low ROB ▪ No if ≤50% of studies had low ROB - o Is there an indication of consistent results between studies for at least 1 outcome? ▪ Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies ▪ No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies - o Were most of the results significant for at least 1 outcome? ▪ Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1 for relative measures of effect and/or CI does NOT cross 0 for mean difference in effect) ▪ No if ≤50% of results (not studies) were significant

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- Number of relevant intervention studies
 - For each study: populations, interventions/comparators, and outcomes
 - Was most of the evidence derived from studies with low ROB? (yes/no)
 - Yes if >50% of studies had low ROB
 - No if ≤50% of studies had low ROB
 - Is there an indication of consistent results between studies for at least 1 outcome?
 - Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies
 - No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies
 - Were most of the results significant for at least 1 outcome?
 - Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1 for relative measures of effect and/or CI does NOT cross 0 for mean difference in effect)
 - No if ≤50% of results (not studies) were significant
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The data were summarised as follows:

- Number of prospective cohort studies with >1000 participants at follow-up

The data were summarised as follows:

- Number of reviews that included at least 3 mechanistic studies
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- Number of prospective cohort studies with length of follow-up >10 years
 - Percentage of studies with low ROB
 - I²<50% (yes/no)
 - Small differences in effect size between studies (yes/no)
 - Overlap in CIs between studies (yes/no)
 - Number and percentage of significant results
- Number and percentage of narrative reviews and systematic reviews
 - Number and percentage of reviews where most studies had low ROB
 - Number and percentage of reviews with an indication of consistent results between studies for at least one outcome
 - Number and percentage of reviews where most results were significant for at least one outcome
- Number of reviews that included at least 3 intervention studies
 - Number and percentage of narrative reviews and systematic reviews
 - Number and percentage of reviews where most studies had low ROB
 - Number and percentage of reviews with an indication of consistent results between studies for at least one outcome
 - Number and percentage of reviews where most results were significant for at least one outcome
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CI confidence interval; ROB risk of bias

Table S3. Studies included in the systematic review of dietary patterns and all-cause mortality (n=78).

ID ^a	Citation
10	Akbaraly TN, Ferrie JE, Berr C, et al. (2011) Alternative healthy eating index and mortality over 18 y of follow-up: Results from the Whitehall II cohort. <i>Am J Clin Nutr.</i> 94(1):247-53. http://doi.org/10.3945/ajcn.111.013128
21	Alvarez-Alvarez I, Zazpe I, Pérez de Rojas J, et al. (2018) Mediterranean diet, physical activity and their combined effect on all-cause mortality: The Seguimiento Universidad de Navarra (SUN) cohort. <i>Prev Med.</i> 106:45-52. http://doi.org/10.1016/j.ypmed.2017.09.021
41	Bamia C, Trichopoulos D, Ferrari P, et al. (2007) Dietary patterns and survival of older Europeans: The EPIC-Elderly Study (European Prospective Investigation into Cancer and Nutrition). <i>Public Health Nutr.</i> 10(6):590-8. http://doi.org/10.1017/S1368980007382487
45	Behrens G, Fischer B, Kohler S, et al. (2013) Healthy lifestyle behaviors and decreased risk of mortality in a large prospective study of U.S. women and men. <i>Eur J Epidemiol.</i> 28(5):361-72. http://doi.org/10.1007/s10654-013-9796-9
47	Bellavia A, Tektonidis TG, Orsini N, et al. (2016) Quantifying the benefits of Mediterranean diet in terms of survival. <i>Eur J Epidemiol.</i> 31(5):527-30. http://doi.org/10.1007/s10654-016-0127-9
60	Biesbroek S, Verschuren WMM, Boer JMA, et al. (2017) Does a better adherence to dietary guidelines reduce mortality risk and environmental impact in the Dutch sub-cohort of the European Prospective Investigation into Cancer and Nutrition? <i>Br J Nutr.</i> 118(1):69-80. http://doi.org/10.1017/S0007114517001878
62	Bonaccio M, Di Castelnuovo A, Costanzo S, et al. (2018) Mediterranean diet and mortality in the elderly: A prospective cohort study and a meta-analysis. <i>Br J Nutr.</i> http://doi.org/10.1017/S0007114518002179
64	Bongard V, Arveiler D, Dallongeville J, et al. (2016) Food groups associated with a reduced risk of 15-year all-cause death. <i>Eur J Clin Nutr.</i> 70(6):715-22. http://doi.org/10.1038/ejcn.2016.19
68	van den Brandt PA (2011) The impact of a Mediterranean diet and healthy lifestyle on premature mortality in men and women. <i>Am J Clin Nutr.</i> 94(3):913-20. http://doi.org/10.3945/ajcn.110.008250
71	Buckland G, Agudo A, Travier N, et al. (2011) Adherence to the Mediterranean diet reduces mortality in the Spanish cohort of the European Prospective Investigation into Cancer and Nutrition (EPIC-Spain). <i>Br J Nutr.</i> 106(10):1581-91. http://doi.org/10.1017/S0007114511002078
85	Cai H, Shu XO, Gao YT, et al. (2007) A prospective study of dietary patterns and mortality in Chinese women. <i>Epidemiology.</i> 18(3):393-401. http://doi.org/10.1097/01.ede.0000259967.21114.45
112	Dai J, Krasnow RE, Reed T (2016) Midlife moderation-quantified healthy diet and 40-year mortality risk from CHD: The prospective National Heart, Lung, and Blood Institute Twin Study. <i>Br J Nutr.</i> 116(2):326-34. http://doi.org/10.1017/S0007114516001914

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| 156 | Ford DW, Hartman TJ, Still C, et al. (2014) Body mass index, poor diet quality, and health-related quality of life are associated with mortality in rural older adults. <i>J Nutr Gerontol Geriatr.</i> 33(1):23-34. http://doi.org/10.1080/21551197.2014.875819 |
| 159 | Franzon K, Byberg L, Sjögren P, et al. (2017) Predictors of Independent Aging and Survival: A 16-Year Follow-Up Report in Octogenarian Men. <i>J Am Geriatr Soc.</i> 65(9):1953-60. http://doi.org/10.1111/jgs.14971 |
| 180 | George SM, Ballard-Barbash R, Manson JE, et al. (2014) Comparing indices of diet quality with chronic disease mortality risk in postmenopausal women in the women's health initiative observational study: evidence to inform national dietary guidance. <i>Am J Epidemiol.</i> 180(6):616-25. http://doi.org/10.1093/aje/kwu173 |
| 193 | Harmon BE, Boushey CJ, Shvetsov YB, et al. (2015) Associations of key diet-quality indexes with mortality in the Multiethnic Cohort: the Dietary Patterns Methods Project. <i>Am J Clin Nutr.</i> 101(3):587-97. http://doi.org/10.3945/ajcn.114.090688 |
| 200 | Heidemann C, Schulze MB, Franco OH, et al. (2008) Dietary patterns and risk of mortality from cardiovascular disease, cancer, and all causes in a prospective cohort of women. <i>Circulation.</i> 118(3):230-7. http://doi.org/10.1161/CIRCULATIONAHA.108.771881 |
| 208 | Hodge AM, Bassett JK, Dugué PA, et al. (2018) Dietary inflammatory index or Mediterranean diet score as risk factors for total and cardiovascular mortality. <i>Nutr Metab Cardiovasc Dis.</i> 28(5):461-9. http://doi.org/10.1016/j.numecd.2018.01.010 |
| 223 | Huijbregts P, Feskens E, Rasanen L, et al. (1997) Dietary pattern and 20 year mortality in elderly men in Finland, Italy, and The Netherlands: longitudinal cohort study. <i>BMJ.</i> 315(7099):13-7. http://doi.org/10.1136/bmj.315.7099.13 |
| 228 | Jacobs S, Harmon BE, Ollberding NJ, et al. (2016) Among 4 diet quality indexes, only the alternate mediterranean diet score is associated with better colorectal cancer survival and only in African American women in the multiethnic Cohort. <i>J Nutr.</i> 146(9):1746-55. http://doi.org/10.3945/jn.116.234237 |
| 237 | Jones NRV, Forouhi NG, Khaw KT, et al. (2018) Accordance to the Dietary Approaches to Stop Hypertension diet pattern and cardiovascular disease in a British, population-based cohort. <i>Eur J Epidemiol.</i> 33(2):235-44. http://doi.org/10.1007/s10654-017-0354-8 |
| 243 | Kaluza J, Håkansson N, Brzozowska A, et al. (2009) Diet quality and mortality: A population-based prospective study of men. <i>Eur J Clin Nutr.</i> 63(4):451-7. http://doi.org/10.1038/sj.ejcn.1602968 |
| 245 | Kant AK, Graubard BI, Schatzkin A (2004) Dietary patterns predict mortality in a national cohort: The National Health Interview Surveys, 1987 and 1992. <i>J Nutr.</i> 134(7):1793-9. http://doi.org/10.1093/jn/134.7.1793 |
| 246 | Kant AK, Schatzkin A, Graubard BI, et al. (2000) A prospective study of diet quality and mortality in women. <i>JAMA.</i> 283(16):2109-15. http://doi.org/10.1001/jama.283.16.2109 |
| 254 | Knoops KTB, de Groot LCPGM, Kromhout D, et al. (2004) Mediterranean diet, lifestyle factors, and 10-year mortality in elderly European men and women: The HALE project. <i>JAMA.</i> 292(12):1433-9. http://doi.org/10.1001/jama.292.12.1433 |
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| 255 | Knoops KTB, de Groot LC, Fidanza F, et al. (2006) Comparison of three different dietary scores in relation to 10-year mortality in elderly European subjects: the HALE project. <i>Eur J Clin Nutr.</i> 60(6):746-55. http://doi.org/10.1038/sj.ejcn.1602378 |
| 262 | Kouris-Blazos A, Gnardellis C, Wahlqvist ML, et al. (1999) Are the advantages of the mediterranean diet transferable to other populations? A cohort study in Melbourne, Australia. <i>Br J Nutr.</i> 82(1):57-61. http://doi.org/10.1017/s0007114599001129 |
| 271 | Lagiou P, Trichopoulos D, Sandin S, et al. (2006) Mediterranean dietary pattern and mortality among young women: A cohort study in Sweden. <i>Br J Nutr.</i> 96(2):384-92. http://doi.org/10.1079/BJN20061824 |
| 280 | Lassale C, Gunter MJ, Romaguera D, et al. (2016) Diet quality scores and prediction of all-cause, cardiovascular and cancer mortality in a pan-european cohort study. <i>PLoS ONE.</i> 11(7). http://doi.org/10.1371/journal.pone.0159025 |
| 284 | Lee MS, Huang YC, Su HH, et al. (2011) A simple food quality index predicts mortality in Elderly Taiwanese. <i>J Nutr Health Aging.</i> 15(10):815-21. http://doi.org/10.1007/s12603-011-0081-x |
| 288 | Lemming EW, Byberg L, Wolk A, et al. (2018) A comparison between two healthy diet scores, the modified Mediterranean diet score and the Healthy Nordic Food Index, in relation to all-cause and cause-specific mortality. <i>Br J Nutr.</i> 119(7):836-46. http://doi.org/10.1017/S0007114518000387 |
| 299 | Liese AD, Krebs-Smith SM, Subar AF, et al. (2015) The Dietary Patterns Methods Project: synthesis of findings across cohorts and relevance to dietary guidance. <i>J Nutr.</i> 145(3):393-402. http://doi.org/10.3945/jn.114.205336 |
| 302 | Limongi F, Noale M, Gesmundo A, et al. (2017) Adherence to the Mediterranean Diet and all-cause mortality risk in an elderly Italian population: Data from the ILSA study. <i>J Nutr Health Aging.</i> 21(5):505-13. http://doi.org/10.1007/s12603-016-0808-9 |
| 304 | Liu L, Nishihara R, Qian Z, et al. (2017) Association between inflammatory diet pattern and risk of colorectal carcinoma subtypes classified by immune responses to tumor. <i>Gastroenterology.</i> 153(6):1517-30.e14. http://doi.org/10.1053/j.gastro.2017.08.045 |
| 312 | Malekshah AFT, Zaroudi M, Etemadi A, et al. (2016) The combined effects of healthy lifestyle behaviors on all-cause mortality: The Golestan cohort study. <i>Arch Iran Med.</i> 19(11):752-61. |
| 320 | Martínez-González MA, Zazpe I, Razquin C, et al. (2015) Empirically-derived food patterns and the risk of total mortality and cardiovascular events in the PREDIMED study. <i>Clin Nutr.</i> 34(5):859-67. http://doi.org/10.1016/j.clnu.2014.09.006 |
| 325 | Masala G, Ceroti M, Pala V, et al. (2007) A dietary pattern rich in olive oil and raw vegetables is associated with lower mortality in Italian elderly subjects. <i>Br J Nutr.</i> 98(2):406-15. http://doi.org/10.1017/S0007114507704981 |
| 330 | McCullough ML, Feskanich D, Rimm EB, et al. (2000) Adherence to the Dietary Guidelines for Americans and risk of major chronic disease in men. <i>Am J Clin Nutr.</i> 72(5):1223-31. http://doi.org/10.1093/ajcn/72.5.1223 |
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-
- 331 McCullough ML, Willett WC (2006) Evaluating adherence to recommended diets in adults: the Alternate Healthy Eating Index. *Public Health Nutr.* 9(1A):152-7. <http://doi.org/10.1079/PHN2005938>
-
- 332 McNaughton SA, Bates CJ, Mishra GD (2012) Diet quality is associated with all-cause mortality in adults aged 65 years and older. *J Nutr.* 142(2):320-5. <http://doi.org/10.3945/jn.111.148692>
-
- 341 Menotti A, Puddu PE, Lanti M, et al. (2014) Lifestyle habits and mortality from all and specific causes of death: 40-year follow-up in the italian rural areas of the seven countries study. *J Nutr Health Aging.* 18(3):314-21. <http://doi.org/10.1007/s12603-013-0392-1>
-
- 343 Meyer J, Döring A, Herder C, et al. (2011) Dietary patterns, subclinical inflammation, incident coronary heart disease and mortality in middle-aged men from the MONICA/KORA Augsburg cohort study. *Eur J Clin Nutr.* 65(7):800-7. <http://doi.org/10.1038/ejcn.2011.37>
-
- 345 Michels KB, Wolk A (2002) A prospective study of variety of healthy foods and mortality in women. *Int J Epidemiol.* 31(4):847-54. <http://doi.org/10.1093/ije/31.4.847>
-
- 378 Odegaard AO, Koh WP, Yuan JM, et al. (2014) Dietary patterns and mortality in a Chinese population. *Am J Clin Nutr.* 100(3):877-83. <http://doi.org/10.3945/ajcn.114.086124>
-
- 387 Osler M, Heitmann BL, Gerdes LU, et al. (2001) Dietary patterns and mortality in Danish men and women: A prospective observational study. *Br J Nutr.* 85(2):219-25. <http://doi.org/10.1079/BJN2000240>
-
- 388 Osler M, Heitmann BL, Høidrup S, et al. (2001) Food intake patterns, self rated health and mortality in Danish men and women. A prospective observational study. *J Epidemiol Community Health.* 55(6):399-403. <http://doi.org/10.1136/jech.55.6.399>
-
- 389 Osler M, Schroll M (1997) Diet and mortality in a cohort of elderly people in a North European Community. *Int J Epidemiol.* 26(1):155-9. <http://doi.org/10.1093/ije/26.1.155>
-
- 393 Panizza CE, Shvetsov YB, Harmon BE, et al. (2018) Testing the predictive validity of the healthy eating index-2015 in the multiethnic cohort: Is the score associated with a reduced risk of all-cause and cause-specific mortality? *Nutrients.* <http://doi.org/10.3390/nu10040452>
-
- 396 Park YM, Steck SE, Fung TT, et al. (2016) Mediterranean diet and mortality risk in metabolically healthy obese and metabolically unhealthy obese phenotypes. *Int J Obes.* 40(10):1541-9. <http://doi.org/10.1038/ijo.2016.114>
-
- 409 Prinelli F, Yannakoulia M, Anastasiou CA, et al. (2015) Mediterranean diet and other lifestyle factors in relation to 20-year all-cause mortality: a cohort study in an Italian population. *Br J Nutr.* 113(6):1003-11. <http://doi.org/10.1017/S0007114515000318>
-
- 449 Seymour JD, Calle EE, Flagg EW, et al. (2003) Diet Quality Index as a predictor of short-term mortality in the American Cancer Society Cancer Prevention Study II Nutrition Cohort. *Am J Epidemiol.* 157(11):980-8. <http://doi.org/10.1093/aje/kwg077>
-
- 450 Shah NS, Leonard D, Finley CE, et al. (2018) Dietary Patterns and Long-Term Survival: A Retrospective Study of Healthy Primary Care Patients. *Am J Med.* 131(1):48-55. <http://doi.org/10.1016/j.amjmed.2017.08.010>
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- 460 Shivappa N, Hebert JR, Kivimaki M, et al. (2017) Alternative Healthy Eating Index 2010, dietary Inflammatory Index and risk of mortality: results from the Whitehall II cohort study and meta-analysis of previous Dietary Inflammatory Index and mortality studies. *Br J Nutr.* 118(3):210-21. <http://doi.org/10.1017/S0007114517001908>
-
- 462 Shvetsov YB, Harmon BE, Ettienne R, et al. (2016) The influence of energy standardisation on the alternate Mediterranean diet score and its association with mortality in the Multiethnic Cohort. *Br J Nutr.* 116(9):1592-601. <http://doi.org/10.1017/S0007114516003482>
-
- 467 Sjögren P, Becker W, Warensjö E, et al. (2010) Mediterranean and carbohydrate-restricted diets and mortality among elderly men: A cohort study in Sweden. *Am J Clin Nutr.* 92(4):967-74. <http://doi.org/10.3945/ajcn.2010.29345>
-
- 475 Stefler D, Malyutina S, Kubinova R, et al. (2017) Mediterranean diet score and total and cardiovascular mortality in Eastern Europe: the HAPIEE study. *Eur J Nutr.* 56(1):421-9. <http://doi.org/10.1007/s00394-015-1092-x>
-
- 476 Stefler D, Pikhart H, Jankovic N, et al. (2014) Healthy diet indicator and mortality in Eastern European populations: Prospective evidence from the HAPIEE cohort. *Eur J Clin Nutr.* 68(12):1346-52. <http://doi.org/10.1038/ejcn.2014.134>
-
- 490 Tognon G, Lissner L, Sæbye D, et al. (2014) The Mediterranean diet in relation to mortality and CVD: A Danish cohort study. *Br J Nutr.* 111(1):151-9. <http://doi.org/10.1017/S0007114513001931>
-
- 493 Tong TYN, Wareham NJ, Khaw KT, et al. (2016) Prospective association of the Mediterranean diet with cardiovascular disease incidence and mortality and its population impact in a non-Mediterranean population: The EPIC-Norfolk study. *BMC Med.* 14(1). <http://doi.org/10.1186/s12916-016-0677-4>
-
- 495 Trichopoulou A (2005) Modified Mediterranean diet and survival: EPIC-elderly prospective cohort study. *BMJ.* 330(7498):991-5. <http://doi.org/10.1136/bmj.38415.644155.8F>
-
- 497 Trichopoulou A, Bamia C, Trichopoulos D (2009) Anatomy of health effects of Mediterranean diet: Greek EPIC prospective cohort study. *BMJ.* 339(7711):26-8. <http://doi.org/10.1136/bmj.b2337>
-
- 498 Trichopoulou A, Kouris-Blazos A, Wahlqvist ML, et al. (1995) Diet and overall survival in elderly people. *BMJ.* 311(7018):1457-60. <http://doi.org/10.1136/bmj.311.7018.1457>
-
- 504 Van Dam RM, Li T, Spiegelman D, et al. (2008) Combined impact of lifestyle factors on mortality: Prospective cohort study in US women. *BMJ.* 337(7672):742-5. <http://doi.org/10.1136/bmj.a1440>
-
- 512 Voortman T, Kiefte-de Jong JC, Ikram MA, et al. (2017) Adherence to the 2015 Dutch dietary guidelines and risk of non-communicable diseases and mortality in the Rotterdam Study. *Eur J Epidemiol.* 32(11):993-1005. <http://doi.org/10.1007/s10654-017-0295-2>
-
- 515 Wahlqvist ML, Darmadi-Blackberry I, Kouris-Blazos A, et al. (2005) Does diet matter for survival in long-lived cultures? *Asia Pac J Clin Nutr.* 14(1):2-6.
-

-
- 516 Waijers PMCM, Ocké MC, Rossum CTMv, et al. (2006) Dietary patterns and survival in older Dutch women. *Am J Clin Nutr.* 83(5):1170-6. <http://doi.org/10.1093/ajcn/83.5.1170>
-
- 522 Whalen KA, Judd S, McCullough ML, et al. (2017) Paleolithic and Mediterranean diet pattern scores are inversely associated with all-cause and cause-specific mortality in adults. *J Nutr.* 147(4):612-20. <http://doi.org/10.3945/jn.116.241919>
-
- 529 Yu D, Zhang X, Xiang YB, et al. (2014) Adherence to dietary guidelines and mortality: A report from prospective cohort studies of 134,000 Chinese adults in urban Shanghai. *Am J Clin Nutr.* 100(2):693-700. <http://doi.org/10.3945/ajcn.113.079194>
-
- 530 Yu D, Sonderman J, Buchowski MS, et al. (2015) Healthy Eating and Risks of Total and Cause-Specific Death among Low-Income Populations of African-Americans and Other Adults in the Southeastern United States: A Prospective Cohort Study. *PLoS Med.* 12(5). <http://doi.org/10.1371/journal.pmed.1001830>
-
- 535 Zazpe I, Sánchez-Tainta A, Toledo E, et al. (2014) Dietary patterns and total mortality in a Mediterranean cohort: the SUN Project. *J Acad Nutr Diet.* 114(1):37-47. <http://doi.org/10.1016/j.jand.2013.07.024>
-
- 538 Zhao W, Ukawa S, Okada E, et al. (2018) The associations of dietary patterns with all-cause mortality and other lifestyle factors in the elderly: An age-specific prospective cohort study. *Clin Nutr.* 38:288-96. <http://doi.org/10.1016/j.clnu.2018.01.018>
-
- 551 Abu-Saad K, Endevelt R, Goldsmith R, et al. (2019) Adaptation and predictive utility of a Mediterranean diet screener score. *Clin Nutr.* <http://doi.org/10.1016/j.clnu.2018.12.034>
-
- 554 Chan RSM, Yu BWM, Leung J, et al. (2019) How Dietary Patterns are Related to Inflammaging and Mortality in Community-Dwelling Older Chinese Adults in Hong Kong — A Prospective Analysis. *J Nutr Health Aging.* 23(2):181-94. <http://doi.org/10.1007/s12603-018-1143-0>
-
- 557 Fresán U, Sabaté J, Martínez-Gonzalez MA, et al. (2019) Adherence to the 2015 Dietary Guidelines for Americans and mortality risk in a Mediterranean cohort: The SUN project. *Prev Med.* 118:317-24. <http://doi.org/10.1016/j.ypmed.2018.11.015>
-
- 569 Li Y, Pan A, Wang DD, et al. (2018) Impact of healthy lifestyle factors on life expectancies in the US population. *Circulation.* 138(4):345-55. <http://doi.org/10.1161/CIRCULATIONAHA.117.032047>
-
- 570 Lim J, Lee Y, Shin S, et al. (2018) An association between diet quality index for Koreans (DQI-K) and total mortality in Health Examinees Gem (HEXA-G) study. *Nutr Res Pract.* 12(3):258-64. <http://doi.org/10.4162/nrp.2018.12.3.258>
-
- 575 Neelakantan N, Koh W, Yuan J, et al. (2018) Diet-quality indexes are associated with a lower risk of cardiovascular, respiratory, and all-cause mortality among Chinese adults. *J Nutr.* 148(8):1323-32. <http://doi.org/10.1093/jn/nxy094>
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- 594 Fresán U, Martínez-González MA, Sabaté J, et al. (2019) Global sustainability (health, environment and monetary costs) of three dietary patterns: Results from a Spanish cohort (the SUN project). *BMJ Open.* 9(2). <http://doi.org/10.1136/bmjopen-2018-021541>
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Table S4. Reviews included in the overview of reviews (n=21).

ID ^a	Citation
900	Barbaresko J, Koch M, Schulze MB, et al. (2013) Dietary pattern analysis and biomarkers of low-grade inflammation: A systematic literature review. <i>Nutr Rev.</i> 71(8):511-27. http://doi.org/10.1111/nure.12035
901	Bhupathiraju SN, Tucker KL (2011) Coronary heart disease prevention: Nutrients, foods, and dietary patterns. <i>Clin Chim Acta.</i> 412(17-18):1493-514. http://doi.org/10.1016/j.cca.2011.04.038
902	Dauchet L, Amouyel P, Dallongeville J (2009) Fruits, vegetables and coronary heart disease. <i>Nat Rev Cardiol.</i> 6(9):599-608. http://doi.org/10.1038/nrcardio.2009.131
903	Hanson C, Rutten EPA, Wouters EFM, et al. (2013) Diet and vitamin D as risk factors for lung impairment and COPD. <i>Transl Res.</i> 162(4):219-36. http://doi.org/10.1016/j.trsl.2013.04.004
904	Hu FB (2002) Dietary pattern analysis: a new direction in nutritional epidemiology. <i>Curr Opin Lipidol.</i> 13(1):3-9. http://doi.org/10.1097/00041433-200202000-00002
905	Jacobs DR, Jr., Gross MD, Tapsell LC (2009) Food synergy: an operational concept for understanding nutrition. <i>Am J Clin Nutr.</i> 89(5):1543S-8S. http://doi.org/10.3945/ajcn.2009.26736B
906	Jacobs Jr DR, Steffen LM (2003) Nutrients, foods, and dietary patterns as exposures in research: A framework for food synergy. <i>Am J Clin Nutr.</i> 78(3 SUPPL.):508S-13S. http://doi.org/10.1093/ajcn/78.3.508S
907	Kant AK (2004) Dietary patterns and health outcomes. <i>J Am Diet Assoc.</i> 104(4):615-35. http://doi.org/10.1016/j.jada.2004.01.010
908	Kastorini CM, Milionis HJ, Esposito K, et al. (2011) The effect of mediterranean diet on metabolic syndrome and its components: A meta-analysis of 50 studies and 534,906 individuals. <i>Journal of the American College of Cardiology.</i> 57(11):1299-313. http://doi.org/10.1016/j.jacc.2010.09.073
909	Lee JY, Zhao L, Hwang DH (2010) Modulation of pattern recognition receptor-mediated inflammation and risk of chronic diseases by dietary fatty acids. <i>Nutr Rev.</i> 68(1):38-61. http://doi.org/10.1111/j.1753-4887.2009.00259.x
911	Mozaffarian D (2016) Dietary and Policy Priorities for Cardiovascular Disease, Diabetes, and Obesity: A Comprehensive Review. <i>Circulation.</i> 133(2):187-225. http://doi.org/10.1161/CIRCULATIONAHA.115.018585
912	Mozaffarian D, Appel LJ, Van Horn L (2011) Components of a cardioprotective diet: New insights. <i>Circulation.</i> 123(24):2870-91. http://doi.org/10.1161/CIRCULATIONAHA.110.968735
913	Ndanuko RN, Tapsell LC, Charlton KE, et al. (2016) Dietary patterns and blood pressure in adults: A systematic review and meta-analysis of randomized controlled trials. <i>Adv Nutr.</i> 7(1):76-89. http://doi.org/10.3945/an.115.009753

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| 914 | Newman AB, Brach JS (2001) Diet and obstructive lung diseases. <i>Epidemiol Rev.</i> 23(2):268-87. http://doi.org/10.1093/oxfordjournals.epirev.a000806 |
| 915 | Nordmann AJ, Suter-Zimmermann K, Bucher HC, et al. (2011) Meta-analysis comparing mediterranean to low-fat diets for modification of cardiovascular risk factors. <i>Am J Med.</i> 124(9):841-51.e2. http://doi.org/10.1016/j.amjmed.2011.04.024 |
| 917 | Ross SA (2010) Evidence for the relationship between diet and cancer. <i>Exp Oncol.</i> 32(3):137-42. |
| 918 | Serra-Majem L, Roman B, Estruch R (2006) Scientific evidence of interventions using the Mediterranean Diet: A systematic review. <i>Nutr Rev.</i> 64(SUPPL. 1):S27-S47. http://doi.org/10.1111/j.1753-4887.2006.tb00232.x |
| 919 | Siervo M, Lara J, Chowdhury S, et al. (2015) Effects of the dietary approach to stop hypertension (DASH) diet on cardiovascular risk factors: A systematic review and meta-analysis. <i>Br J Nutr.</i> 113(1):1-15. http://doi.org/10.1017/S0007114514003341 |
| 920 | Tapsell LC, Neale EP, Satija A, et al. (2016) Foods, nutrients, and dietary patterns: interconnections and implications for dietary guidelines. <i>Adv Nutr.</i> 7(3):445-54. http://doi.org/10.3945/an.115.011718 |
| 921 | Tosti V, Bertozzi B, Fontana L (2018) Health Benefits of the Mediterranean Diet: Metabolic and Molecular Mechanisms. <i>J Gerontol A Biol Sci Med Sci.</i> 73(3):318-26. http://doi.org/10.1093/gerona/glx227 |
| 922 | Willett WC (1994) Diet and health: What should we eat? <i>Science.</i> 264(5158):532-7. http://doi.org/10.1126/science.8160011 |
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- a. Record identification numbers provided in Datasets A and B.
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Table S5. Strength of evidence assessed using the Hierarchies of Evidence Applied to Lifestyle Medicine (HEALM) approach^a

Q1: Are there established mechanisms of action?	Q2: Are there intervention studies in people that provide evidence of causality/attribution?	Q3: Are there observational studies to establish generalizability to large, populations?	Q4: Are there observational studies to support effects over time periods measured in decades, lifetimes, or generations?	Overall strength of evidence
Dataset A	Dataset B	Dataset C	Dataset C	Dataset A+B+C
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	
Is there evidence from mechanistic studies?	Is there evidence from intervention studies?	Is there evidence from large, prospective cohort studies?	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	
Yes if at least 1 review included at least 3 mechanistic studies.	Yes if at least 1 review included at least 3 intervention studies.	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up.	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	
No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up.	No if evidence was derived from <3 studies with length of follow-up >10 years.	
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>	<i>46 prospective cohort studies with >1000 participants at follow-up.</i>	<i>31 prospective cohort studies with length of follow-up >10 years.</i>	
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	

Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if ≤50% of studies had low ROB. <i>0% of studies with low ROB.</i>	Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if ≤50% of studies had low ROB. <i>0% of studies with low ROB.</i>
<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review.	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review.	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies.	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies.

<i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<i>'No' based on I2 and large differences in effect size.</i>	<i>'No' based on I2 and large differences in effect size.</i>	
<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	
Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	
Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	
No if most of the results were significant in <1 review.	No if most of the results were significant in <1 review.	No if ≤50% of results (not studies) were significant.	No if ≤50% of results (not studies) were significant.	
<i>Most of the results were significant for at least 1 outcome in 0 reviews.</i>	<i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<i>71% of results were significant.</i>	<i>71% of results were significant.</i>	
<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Overall score</u>
Yes = 2	Yes = 3	Yes = 2	Yes = 2	6
Uncertain = 1	Uncertain = 1	Uncertain = 1	Uncertain = 1	
No = 0	No = 0	No = 0	No = 0	<u>Overall rating</u>
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	Grade A: strong/decisive (overall score ≥7)
				Grade B: moderate/suggestive (overall score 5 or 6)

				Grade C: insufficient/inconclusive (overall score <5)
Dataset A	Dataset B	Dataset D	Dataset D	Dataset A+B+D
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	
Is there evidence from mechanistic studies?	Is there evidence from intervention studies?	Is there evidence from large, prospective cohort studies?	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	
Yes if at least 1 review included at least 3 mechanistic studies.	Yes if at least 1 review included at least 3 intervention studies.	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up.	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	
No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up.	No if evidence was derived from <3 studies with length of follow-up >10 years.	
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>	<i>25 prospective cohort studies with >1000 participants at follow-up.</i>	<i>23 prospective cohort studies with length of follow-up >10 years.</i>	
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	
Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	
Yes if most of the evidence was derived from studies	Yes if most of the evidence was derived from studies	Yes if >50% of studies had low ROB.	Yes if >50% of studies had low ROB.	

with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	No if ≤50% of studies had low ROB. <i>0% of studies with low ROB.</i>	No if ≤50% of studies had low ROB. <i>0% of studies with low ROB.</i>
<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>'No' based on I².</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>'No' based on I².</i>

<i>studies for at least 1 outcome in 0 reviews.</i>	<i>studies for at least 1 outcome in 4 reviews.</i>			
<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	
Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	
Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	
No if most of the results were significant in <1 review.	No if most of the results were significant in <1 review.	No if ≤50% of results (not studies) were significant.	No if ≤50% of results (not studies) were significant.	
<i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<i>69% of results were significant.</i>	<i>69% of results were significant.</i>	
<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Overall score</u>
Yes = 2	Yes = 3	Yes = 2	Yes = 2	6
Uncertain = 1	Uncertain = 1	Uncertain = 1	Uncertain = 1	
No = 0	No = 0	No = 0	No = 0	<u>Overall rating</u>
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	Grade A: strong/decisive (overall score ≥7)
				Grade B: moderate/suggestive (overall score 5 or 6)
				Grade C: insufficient/inconclusive (overall score <5)

Dataset A	Dataset B	Dataset E	Dataset E	Dataset A+B+E
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	
Is there evidence from mechanistic studies?	Is there evidence from intervention studies?	Is there evidence from large, prospective cohort studies?	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	
Yes if at least 1 review included at least 3 mechanistic studies.	Yes if at least 1 review included at least 3 intervention studies.	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up.	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	
No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up.	No if evidence was derived from <3 studies with length of follow-up >10 years.	
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>	<i>13 prospective cohort studies with >1000 participants at follow-up.</i>	<i>6 prospective cohort studies with length of follow-up >10 years.</i>	
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	
Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	
Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if >50% of studies had low ROB.	Yes if >50% of studies had low ROB.	
		No if <=50% of studies had low ROB.	No if <=50% of studies had low ROB.	

No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	<i>0% of studies with low ROB.</i>	<i>0% of studies with low ROB.</i>
<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>‘No’ based on I² and large differences in effect size.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>‘No’ based on I² and large differences in effect size.</i>
<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	<u>Significance</u>

Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>68% of results were significant.</i>	Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>68% of results were significant.</i>	
<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 3 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Overall score</u> 6
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	<i>'Yes' for quantity and significance and 'no' for quality and consistency.</i>	<u>Overall rating</u> Grade A: strong/decisive (overall score ≥7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score <5)
Dataset A	Dataset B	Dataset F	Dataset F	Dataset A+B+F
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	

Is there evidence from mechanistic studies? Yes if at least 1 review included at least 3 mechanistic studies. No if no reviews included at least 3 mechanistic studies. <i>5 reviews included at least 3 mechanistic studies.</i>	Is there evidence from intervention studies? Yes if at least 1 review included at least 3 intervention studies. No if no reviews included at least 3 intervention studies. <i>21 reviews included at least 3 intervention studies.</i>	Is there evidence from large, prospective cohort studies? Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up. No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up. <i>2 prospective cohort studies with >1000 participants at follow-up.</i>	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations? Yes if evidence was derived from at least 3 studies with length of follow-up >10 years. No if evidence was derived from <3 studies with length of follow-up >10 years. <i>2 prospective cohort studies with length of follow-up >10 years.</i>
<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. <i>0% of studies with low ROB.</i>	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. <i>0% of studies with low ROB.</i>

with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	No if most of the evidence was derived from studies with low ROB in <1 review. <i>Most of the evidence was derived from studies with low ROB in 1 review.</i>		
<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I2<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>'No' based on I2 and large differences in effect size.</i>	<u>Consistency</u> Is there an indication of consistent results between studies? Yes if I2<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>'No' based on I2 and large differences in effect size.</i>
<u>Significance</u> Were most of the results significant?	<u>Significance</u> Were most of the results significant?	<u>Significance</u> Were most of the results significant?	<u>Significance</u> Were most of the results significant?

Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review.	Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if ≤50% of results (not studies) were significant.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if ≤50% of results (not studies) were significant.	
<i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<i>67% of results were significant.</i>	<i>67% of results were significant.</i>	
<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 3 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Overall score</u> 4
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<u>Overall rating</u> Grade A: strong/decisive (overall score ≥7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score <5)
Dataset A	Dataset B	Dataset G	Dataset G	Dataset A+B+G
<u>Quantity</u> Is there evidence from mechanistic studies?	<u>Quantity</u> Is there evidence from intervention studies?	<u>Quantity</u> Is there evidence from large, prospective cohort studies?	<u>Quantity</u> Is there evidence from observational studies conducted over time	

Yes if at least 1 review included at least 3 mechanistic studies. No if no reviews included at least 3 mechanistic studies. <i>5 reviews included at least 3 mechanistic studies.</i>	Yes if at least 1 review included at least 3 intervention studies. No if no reviews included at least 3 intervention studies. <i>21 reviews included at least 3 intervention studies.</i>	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up. No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up. <i>1 prospective cohort study with >1000 participants at follow-up.</i>	periods measured in decades, lifetimes, or generations? Yes if evidence was derived from at least 3 studies with length of follow-up >10 years. No if evidence was derived from <3 studies with length of follow-up >10 years. <i>2 prospective cohort studies with length of follow-up >10 years.</i>
<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. <i>0% of studies with low ROB.</i>	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. <i>0% of studies with low ROB.</i>

<i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>		<i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	
<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>
Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?
Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies.	Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies.
No if there was an indication of consistent results between studies in <1 review.	No if there was an indication of consistent results between studies in <1 review.	No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies.	No if I ² ≥50% and/or large differences in effect size and/or NO overlap in CIs between studies.
<i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<i>Can't assess consistency when there is only one study.</i>	<i>'Yes' based on I², small differences in effect size, and overlap in CIs.</i>
<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	<u>Significance</u>
Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	Were most of the results significant?
Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).

No if most of the results were significant in <1 review.	No if most of the results were significant in <1 review.	No if <=50% of results (not studies) were significant.	No if <=50% of results (not studies) were significant.	
<i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<i>50% of results were significant.</i>	<i>50% of results were significant.</i>	
<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 3 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Overall score</u> 4
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<u>Overall rating</u> Grade A: strong/decisive (overall score ≥7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score <5)
Dataset A	Dataset B	Dataset H	Dataset H	Dataset A+B+H
<u>Quantity</u> Is there evidence from mechanistic studies? Yes if at least 1 review included at least 3 mechanistic studies.	<u>Quantity</u> Is there evidence from intervention studies? Yes if at least 1 review included at least 3 intervention studies.	<u>Quantity</u> Is there evidence from large, prospective cohort studies? Yes if evidence was derived from at least 3 prospective cohort studies that	<u>Quantity</u> Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	

No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	included >1000 participants at follow up. No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up. <i>2 prospective cohort studies with >1000 participants at follow-up.</i>	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years. No if evidence was derived from <3 studies with length of follow-up >10 years. <i>2 prospective cohort studies with length of follow-up >10 years.</i>
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>		
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>
Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?
Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if >50% of studies had low ROB.	Yes if >50% of studies had low ROB.
No if most of the evidence was derived from studies with low ROB in <1 review.	No if most of the evidence was derived from studies with low ROB in <1 review.	No if <=50% of studies had low ROB.	No if <=50% of studies had low ROB.
<i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	<i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	<i>0% of studies with low ROB.</i>	<i>0% of studies with low ROB.</i>

<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>
Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?
Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if I2<50% and/or small differences in effect size and/or overlap in CIs between studies.	Yes if I2<50% and/or small differences in effect size and/or overlap in CIs between studies.
No if there was an indication of consistent results between studies in <1 review.	No if there was an indication of consistent results between studies in <1 review.	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies.	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies.
<i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<i>No MA so no I2. 'No' based on large differences in effect size.</i>	<i>No MA so no I2. 'No' based on large differences in effect size.</i>
<u>Significance</u>	<u>Significance</u>	<u>Significance</u>	<u>Significance</u>
Were most of the results significant?	Were most of the results significant?	Were most of the results significant?	Were most of the results significant?
Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if most of the results were significant for at least 1 outcome in at least 1 review.	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).	Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1).
No if most of the results were significant in <1 review.	No if most of the results were significant in <1 review.	No if <=50% of results (not studies) were significant.	No if <=50% of results (not studies) were significant.

<i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<i>89% of results were significant.</i>	<i>89% of results were significant.</i>	
<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 3 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Overall score</u> 4
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<u>Overall rating</u> Grade A: strong/decisive (overall score ≥ 7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score < 5)
Dataset A	Dataset B	Dataset I	Dataset I	Dataset A+B+I
<u>Quantity</u> Is there evidence from mechanistic studies? Yes if at least 1 review included at least 3 mechanistic studies. No if no reviews included at least 3 mechanistic studies.	<u>Quantity</u> Is there evidence from intervention studies? Yes if at least 1 review included at least 3 intervention studies. No if no reviews included at least 3 intervention studies.	<u>Quantity</u> Is there evidence from large, prospective cohort studies? Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up. No if evidence was derived from <3 prospective cohort	<u>Quantity</u> Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations? Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	

5 reviews included at least 3 mechanistic studies.	21 reviews included at least 3 intervention studies.	studies that included >1000 participants at follow up. 1 prospective cohort study with >1000 participants at follow-up.	No if evidence was derived from <3 studies with length of follow-up >10 years. 1 prospective cohort study with length of follow-up >10 years.
<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. Most of the evidence was derived from studies with low ROB in 0 reviews.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if most of the evidence was derived from studies with low ROB in at least 1 review. No if most of the evidence was derived from studies with low ROB in <1 review. Most of the evidence was derived from studies with low ROB in 1 review.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. 0% of studies with low ROB.	<u>Quality</u> Was most of the evidence derived from studies with low ROB? Yes if >50% of studies had low ROB. No if <=50% of studies had low ROB. 0% of studies with low ROB.
<u>Consistency</u> Is there an indication of consistent results between studies?	<u>Consistency</u> Is there an indication of consistent results between studies?	<u>Consistency</u> Is there an indication of consistent results between studies?	<u>Consistency</u> Is there an indication of consistent results between studies?

Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>Can't assess consistency when there is only one study.</i>	Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies. No if I²≥50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>Can't assess consistency when there is only one study.</i>
<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if ≤50% of results (not studies) were significant. <i>Only 1 result, and this result was significant.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if ≤50% of results (not studies) were significant. <i>Only 1 result, and this result was significant.</i>

<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Response</u>	<u>Overall score</u>
Yes = 2	Yes = 3	Yes = 2	Yes = 2	4
Uncertain = 1	Uncertain = 1	Uncertain = 1	Uncertain = 1	
No = 0	No = 0	No = 0	No = 0	<u>Overall rating</u>
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	Grade A: strong/decisive (overall score ≥ 7)
				Grade B: moderate/suggestive (overall score 5 or 6)
				Grade C: insufficient/inconclusive (overall score < 5)
Dataset A	Dataset B	Dataset J	Dataset J	Dataset A+B+J
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	
Is there evidence from mechanistic studies?	Is there evidence from intervention studies?	Is there evidence from large, prospective cohort studies?	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	
Yes if at least 1 review included at least 3 mechanistic studies.	Yes if at least 1 review included at least 3 intervention studies.	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up.	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	
No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up.	No if evidence was derived from <3 studies with length of follow-up >10 years.	
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>			

		3 prospective cohort studies with >1000 participants at follow-up.	1 prospective cohort study with length of follow-up >10 years.
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>
Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?
Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if >50% of studies had low ROB.	Yes if >50% of studies had low ROB.
No if most of the evidence was derived from studies with low ROB in <1 review.	No if most of the evidence was derived from studies with low ROB in <1 review.	No if ≤50% of studies had low ROB.	No if ≤50% of studies had low ROB.
<i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	<i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	<i>0% of studies with low ROB.</i>	<i>0% of studies with low ROB.</i>
<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>
Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?
Yes if there was an indication of consistent results between studies for	Yes if there was an indication of consistent results between studies for	Yes if I²<50% and/or small differences in effect size and/or overlap in CIs between studies.	Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies.

at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	at least 1 outcome in at least 1 review. No if there was an indication of consistent results between studies in <1 review. <i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>No MA so no I2. CI only reported for one study. 'Yes' based on small differences in effect size.</i>	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies. <i>Can't assess consistency when there is only one study.</i>	
<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>0% of results were significant.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>0% of results were significant.</i>	
<u>Response</u> Yes = 2	<u>Response</u> Yes = 3	<u>Response</u> Yes = 2	<u>Response</u> Yes = 2	<u>Overall score</u> 5

Uncertain = 1 No = 0	Uncertain = 1 No = 0	Uncertain = 1 No = 0	Uncertain = 1 No = 0	Overall rating
<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'Yes' for quantity and consistency, and 'no' for quality and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	Grade A: strong/decisive (overall score ≥ 7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score < 5)
Dataset A	Dataset B	Dataset K	Dataset K	Dataset A+B+K
<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	<u>Quantity</u>	
Is there evidence from mechanistic studies?	Is there evidence from intervention studies?	Is there evidence from large, prospective cohort studies?	Is there evidence from observational studies conducted over time periods measured in decades, lifetimes, or generations?	
Yes if at least 1 review included at least 3 mechanistic studies.	Yes if at least 1 review included at least 3 intervention studies.	Yes if evidence was derived from at least 3 prospective cohort studies that included >1000 participants at follow up.	Yes if evidence was derived from at least 3 studies with length of follow-up >10 years.	
No if no reviews included at least 3 mechanistic studies.	No if no reviews included at least 3 intervention studies.	No if evidence was derived from <3 prospective cohort studies that included >1000 participants at follow up.	No if evidence was derived from <3 studies with length of follow-up >10 years.	
<i>5 reviews included at least 3 mechanistic studies.</i>	<i>21 reviews included at least 3 intervention studies.</i>	<i>1 prospective cohort study with >1000 participants at follow-up.</i>		

1 prospective cohort study with length of follow-up >10 years.			
<u>Quality</u>	<u>Quality</u>	<u>Quality</u>	<u>Quality</u>
Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?	Was most of the evidence derived from studies with low ROB?
Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if most of the evidence was derived from studies with low ROB in at least 1 review.	Yes if >50% of studies had low ROB.	Yes if >50% of studies had low ROB.
No if most of the evidence was derived from studies with low ROB in <1 review.	No if most of the evidence was derived from studies with low ROB in <1 review.	No if <=50% of studies had low ROB.	No if <=50% of studies had low ROB.
<i>Most of the evidence was derived from studies with low ROB in 0 reviews.</i>	<i>Most of the evidence was derived from studies with low ROB in 1 review.</i>	<i>0% of studies with low ROB.</i>	<i>0% of studies with low ROB.</i>
<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>	<u>Consistency</u>
Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?	Is there an indication of consistent results between studies?
Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if there was an indication of consistent results between studies for at least 1 outcome in at least 1 review.	Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies.	Yes if I ² <50% and/or small differences in effect size and/or overlap in CIs between studies.

No if there was an indication of consistent results between studies in <1 review.	No if there was an indication of consistent results between studies in <1 review.	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies.	No if I2>=50% and/or large differences in effect size and/or NO overlap in CIs between studies.	
<i>There was an indication of consistent results between studies for at least 1 outcome in 0 reviews.</i>	<i>There was an indication of consistent results between studies for at least 1 outcome in 4 reviews.</i>	<i>Can't assess consistency when there is only one study.</i>	<i>Can't assess consistency when there is only one study.</i>	
<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in at 0 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if most of the results were significant for at least 1 outcome in at least 1 review. No if most of the results were significant in <1 review. <i>Most of the results were significant for at least 1 outcome in 7 reviews.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>Only 1 result, and this result was significant.</i>	<u>Significance</u> Were most of the results significant? Yes if >50% of results (not studies) were significant (p-value <0.05 and/or CI does NOT cross 1). No if <=50% of results (not studies) were significant. <i>Only 1 result, and this result was significant.</i>	
<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 3 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Response</u> Yes = 2 Uncertain = 1 No = 0	<u>Overall score</u> 4 <u>Overall rating</u>

<i>'Yes' for quantity, but 'no' for quality, consistency, and significance.</i>	<i>'Yes' for quantity, quality, consistency, and significance.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	<i>'No' for quantity. Quality, consistency, and significance don't matter if there isn't enough evidence.</i>	Grade A: strong/decisive (overall score ≥ 7) Grade B: moderate/suggestive (overall score 5 or 6) Grade C: insufficient/inconclusive (overall score < 5)
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CI confidence intervals; MA meta-analysis; NS narrative synthesis; PCA principal component analysis; ROB risk of bias; RRR reduced rank regression.

Dataset A: Overview of 5 reviews that included at least 3 relevant mechanistic studies

Dataset B: Overview of 21 reviews that included at least 3 relevant intervention studies

Dataset C: MA of 49 observational studies (index-based dietary patterns, categorical results)

Dataset D: MA of 33 observational studies (index-based dietary patterns, continuous results)

Dataset E: MA of 13 observational studies (PCA-derived dietary patterns, categorical results)

Dataset F: MA of 3 observational studies (PCA-derived dietary patterns, continuous results)

Dataset G: MA of 2 observational studies (RRR-derived dietary patterns, continuous results)

Dataset H: NS of 2 observational studies (index-based dietary patterns, categorical results)^b

Dataset I: NS of 1 observational study (index-based dietary patterns, continuous results)^b

Dataset J: NS of 3 observational studies (PCA-derived dietary patterns, categorical results)^b

Dataset K: NS of 1 observational study (RRR-derived dietary patterns, continuous results)^b

a. Selected responses indicated in **bold**. Comments explaining selected responses indicated in *italics*.

b. Studies that were included in the systematic review but could not be included in the MA.