UNITED STATES DEPARTMENT OF AGRICULTURE

Dietary Patterns and All-Cause Mortality: A Systematic Review

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NESR

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USDA and HHS implemented a process to identify topics and scientific questions to be examined by the 2020 Dietary Guidelines Advisory Committee. The Committee conducted its review of evidence in subcommittees for discussion by the full Committee during its public meetings. The role of the Committee members involved establishing all aspects of the protocol, which presented the plan for how they would examine the scientific evidence, including the inclusion and exclusion criteria; reviewing all studies that met the criteria they set; deliberating on the body of evidence for each question; and writing and grading the conclusion statements to be included in

[i] Under contract with the Food and Nutrition Service, United States Department of Agriculture.

the scientific report the 2020 Committee submitted to USDA and HHS. The NESR team with assistance from Federal Liaisons and Project Leadership, supported the Committee by facilitating, executing, and documenting the work necessary to ensure the reviews were completed in accordance with NESR methodology. More information about the 2020 Dietary Guidelines Advisory Committee, including the process used to identify topics and questions, c can be found at www.DietaryGuidelines.gov. More information about NESR can be found at NESR.usda.gov.

The Committee and NESR staff thank USDA's Agricultural Research Service for coordinating the peer review of this systematic review, and the Federal scientist peer reviewers for their time and expertise.

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TABLE OF CONTENTS

INTRODUCTION

This document describes a systematic review conducted to answer the following question: What is the relationship between dietary patterns consumed and all-cause mortality? This systematic review was conducted by the 2020 Dietary Guidelines Advisory Committee, supported by USDA's Nutrition Evidence Systematic Review (NESR).

More information about the 2020 Dietary Guidelines Advisory Committee is available at the following website: www.DietaryGuidelines.gov.

NESR specializes in conducting food- and nutrition-related systematic reviews using a rigorous, protocol-driven methodology. More information about NESR is available at the following website: https://NESR.usda.gov.

NESR's systematic review methodology involves developing a protocol, searching for and selecting studies, extracting data from and assessing the risk of bias of each included study, synthesizing the evidence, developing conclusion statements, grading the evidence underlying the conclusion statement, and recommending future research. A detailed description of the systematic reviews conducted for the 2020 Dietary Guidelines Advisory Committee, including information about methodology, used in conducting systematic reviews for the 2020 Dietary Guidelines Advisory Committee is available on the NESR website: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews. In addition, starting on page 223, this document describes the final protocol as it was applied in the systematic review. A description of and rationale for modifications made to the protocol are described in the 2020 Dietary Guidelines Advisory Committee Report, Part D: Chapter 8. Dietary Patterns.

List of abbreviations

Abbreviation	Full name
AMDR	Acceptable macronutrient distribution range
BMI	Body mass index
CNPP	Center for Nutrition Policy and Promotion
CVD	Cardiovascular disease
DASH	Dietary Approaches to Stop Hypertension
EVOO	Extra virgin olive oil
FNS	Food and Nutrition Service
f/u	Follow-up
HEI	Healthy Eating Index
HHS	United States Department of Health and Human Services
MUFA	Monounsaturated fatty acids
NESR	Nutrition Evidence Systematic Review
NIH	National Institutes of Health
ONGA	Office of Nutrition Guidance and Analysis
%	Percent
PREDIMED	PREvención con DIeta MEDiterránea
PCS	Prospective cohort study design
PUFA	Polyunsaturated fatty acids
RRR	Reduced rank regression
SFA	Saturated fats/fatty acids
SES	Socioeconomic status
USDA	United States Department of Agriculture

WHAT IS THE RELATIONSHIP BETWEEN DIETARY PATTERNS CONSUMED AND ALL-CAUSE MORTALITY?

PLAIN LANGUAGE SUMMARY

What is the question?

- The question is: What is the relationship between dietary patterns consumed and all-cause mortality?

What is the answer to the question?

Dietary patterns

- Strong evidence demonstrates that dietary patterns in adults and older adults characterized by vegetables, fruits, legumes, nuts, whole grains, unsaturated vegetable oils, and fish, lean meat or poultry when meat was included, are associated with decreased risk of all-cause mortality. These patterns were also relatively low in red and processed meat, high-fat dairy, and refined carbohydrates or sweets. Some of these dietary patterns also included alcoholic beverages in moderation.

Diets based on macronutrient distribution

- Insufficient evidence was available to determine the relationship between diets based on macronutrient distribution and all-cause mortality.

Why was this question asked?

- This important public health question was identified by the U.S. Departments of Agriculture (USDA) and Health and Human Services (HHS) to be examined by the 2020 Dietary Guidelines Advisory Committee.

How was this question answered?

- The 2020 Dietary Guidelines Advisory Committee, Dietary Patterns Subcommittee conducted a systematic review to answer this question with support from the Nutrition Evidence Systematic Review (NESR) team.
- Dietary patterns were defined as the quantities, proportions, variety, or combination of different foods, drinks, and nutrients (when available) in diets, and the frequency with which they are habitually consumed.
- Diets based on macronutrient distribution were examined when at least one macronutrient proportion was outside of the acceptable macronutrient distribution range (AMDR) for carbohydrate, fat, and/or protein, whether or not the foods/food groups consumed were provided.

What is the population of interest?

- Children and adults, ages 2 years and older

What evidence was found?

- This review identified 153 articles that met inclusion criteria.
- Dietary patterns consumed were consistently related to lower risk of death from all-causes in most studies. Those dietary patterns were higher in vegetables, legumes, fruit, nuts, whole grains, fish and/or seafood, lean meat or poultry (when

included), and unsaturated fats relative to saturated fats, and lower in red and processed meat, high-fat dairy, and refined carbohydrates or sweets.
    - Some dietary patterns included alcoholic beverages in moderation.
    - Some dietary patterns did not include animal-source foods.
    - Studies used different categories and classifications of meat in the dietary patterns.
    - Studies used different methods to examine or derive dietary patterns.
    - The 2020 Committee determined this evidence was strong
- Diets based on macronutrient distributions outside the AMDR showed inconsistent associations with risk of death from all-causes.
    - Some studies provided information about the foods or food groups consumed, while many others did not.
    - Many limitations in the study design and conduct of the included studies were identified.
    - The 2020 Committee could not draw a conclusion due to limitations identified in the evidence.

How up-to-date is this systematic review?

- This review searched for studies from January, 2000 to October, 2019.

TECHNICAL ABSTRACT

Background

- This important public health question was identified by the U.S. Departments of Agriculture (USDA) and Health and Human Services (HHS) to be examined by the 2020 Dietary Guidelines Advisory Committee.
- The 2020 Dietary Guidelines Advisory Committee, Dietary Patterns Subcommittee conducted a systematic review to answer this question with support from the Nutrition Evidence Systematic Review (NESR) team.
- The goal of this systematic review was to examine the following question: What is the relationship between dietary patterns consumed and all-cause mortality?

Conclusion statements and grades

Dietary patterns

- Strong evidence demonstrates that dietary patterns in adults and older adults characterized by vegetables, fruits, legumes, nuts, whole grains, unsaturated vegetable oils, and fish, lean meat or poultry when meat was included, are associated with decreased risk of all-cause mortality. These patterns were also relatively low in red and processed meat, high-fat dairy, and refined carbohydrates or sweets. Some of these dietary patterns also included alcoholic beverages in moderation. (Grade: Strong)

Diets based on macronutrient distribution

- Insufficient evidence was available to determine the relationship between diets based on macronutrient distribution and all-cause mortality. (Grade: Grade not assignable)

Methods

- A literature search was conducted using 3 databases (PubMed, Cochrane, Embase) to identify articles that evaluated the intervention or exposure of dietary patterns consumed and the outcome of all-cause mortality. A manual search was conducted to identify articles that may not have been included in the electronic databases searched. Articles were screened by two NESR analysts independently for inclusion based on pre-determined criteria
- Data extraction and risk of bias assessment were conducted for each included study, and both were checked for accuracy. The Committee qualitatively synthesized the body of evidence to inform development of a conclusion statements, and graded the strength of evidence using pre-established criteria for risk of bias, consistency, directness, precision, and generalizability.
- Dietary patterns were defined as the quantities, proportions, variety, or combination of different foods, drinks, and nutrients (when available) in diets, and the frequency with which they are habitually consumed.
- Diets based on macronutrient distribution were examined when at least one macronutrient proportion was outside of the acceptable macronutrient distribution range (AMDR) for carbohydrate, fat, and/or protein, whether or not the foods/food groups consumed were provided

Summary of the evidence

- This systematic review identified 153 articles, including one randomized controlled trial and 152 prospective cohort study designs that met inclusion criteria and were published between January 2000 and October 2019.
- 141 studies examined the relationship between dietary patterns and all-cause mortality. The studies used multiple approaches to assess dietary patterns and all-cause mortality.
    - One RCT assigned participants to consume a “Mediterranean” dietary pattern with extra-virgin olive oil or mixed nuts compared to a control diet
    - One-hundred ten articles examined dietary patterns using index or score analysis,
    - Twenty-five articles examined dietary patterns identified with factor and cluster analysis,
    - Eleven articles used other methods, including only reduced rank regression (RRR), comparisons based on animal-product consumption vs. avoidance, or comparisons based on ‘ultra-processed’ food consumption, to examine the relationship between dietary patterns and/or diets based on macronutrient distribution
    - Despite the variety of different methods applied to examine or derive dietary patterns, the majority of studies finding statistically significant relationships between dietary patterns consumed and all-cause mortality risk were remarkably consistent.
    - Although the dietary patterns examined were characterized by different combinations of foods and beverages due to the variety of methods used, protective dietary patterns emerged with the following themes:
    - Patterns emphasizing higher consumption of vegetables, legumes, fruit, nuts, whole grains, fish, lean meat or poultry, and [unsaturated fats relative to saturated fats (either as a ratio of polyunsaturated fatty acids (PUFA) and monounsaturated fatty acids (MUFA) relative to saturated fats/fatty acids (SFA), MUFA relative to SFA, or Olive Oil specifically] were generally associated with decreased risk of all-cause mortality. Notably, there was consistency in particular with the inclusion of fish and/or seafood. Some of these dietary patterns also included alcoholic beverages in moderation.
    - Reduced risk of all-cause mortality was observed in several studies that examined dietary patterns without animal-source foods, such as those described as vegetarian, vegan, or determined by “plant-based” diet indices.
    - Of the dietary patterns that included animal-source foods, protective associations were generally observed with relatively lower consumption of red and processed meat. However, a limitation in the evidence is methodological heterogeneity in the food categories and terminology used to classify meat.
    - The inclusion of the ratio of white vs. red meat, type and amount of dairy products, and refined carbohydrates and sweets as elements to these patterns was less consistent across the evidence. The dietary patterns that included those elements and tended to show reduced risk of all-cause mortality had,
        - higher consumption of white meat relative to red or processed meat,
        - low-fat dairy relative to high-fat dairy, and/or
        - lower relative to higher intake of refined carbohydrates and sweets.
    - Despite the variability between approaches used to examine dietary

patterns, higher adherence to dietary patterns with common labels such as "Mediterranean", dietary-guidelines related (e.g., "Healthy Eating Index", "DASH" scores), or "plant-based" were generally protective against all-cause mortality risk. This highlights that a high-quality dietary pattern comprised of nutrient-dense foods, regardless of the label, associated with reduced all-cause mortality risk.
    - Results based on additional analyses according to a variety of key or potential confounders generally confirmed the robustness of results.
    - Although the majority of included studies were prospective cohort studies, most adjusted for key confounders, with the exception of race and ethnicity. The results are likely generalizable to adults of various race and ethnicity though it is difficult to determine the impact that race and ethnicity specifically may have on the relationship between dietary patterns and all-cause mortality due to a lack of reporting.
    - Insufficient evidence was available to determine the relationship between dietary patterns and all-cause mortality in younger populations (~age <35 years)
- Twenty-eight articles examined the relationship between diets based on macronutrient distributions but results were inconsistent.
    - When describing and categorizing studies included in this review, the Committee did not label the diets examined as "low" or "high," because no universally accepted standard definition is currently available for "low-carbohydrate" or "high-fat" diets. Instead, the Committee focused on whether, and the extent to which, the proportions of the macronutrients were below or above the AMDR.
    - Diets with proportions of carbohydrate and fat within the AMDR compared to outside the AMDRs tended to associate with reduced all-cause mortality risk, particularly when the diets examined were of higher quality (i.e., emphasizing vegetables, fruits, nuts, whole grains, legumes, fish, and/or lean meat or poultry).
    - Comparison of macronutrient distributions with or without the context of the foods/food groups comprising the dietary pattern showed inconsistent findings, likely due to several limitations that prevent the adequate assessment of the body of evidence:
    - The gradient between the macronutrient proportions compared between distributions was often small, e.g., 41% vs. 41.7%
    - Methods used to estimate macronutrient intake differed between studies
    - Many of the proportions outside of the AMDR were only marginally outside and often estimated differently between studies.
    - Most of these articles reported a proportion of energy from carbohydrate below and/or fat above the AMDR in at least one of the exposure groups compared.
    - Some of these articles also described the dietary pattern (i.e., foods and beverages) consumed, in addition to having macronutrient proportions outside of the AMDR.

FULL REVIEW

Systematic review question

What is the relationship between dietary patterns consumed and all-cause mortality?

Conclusion statements and grades

Dietary patterns

Strong evidence demonstrates that dietary patterns in adults and older adults characterized by vegetables, fruits, legumes, nuts, whole grains, unsaturated vegetable oils, and fish, lean meat or poultry when meat was included, are associated with decreased risk of all-cause mortality. These patterns were also relatively low in red and processed meat, high-fat dairy, and refined carbohydrates or sweets. Some of these dietary patterns also included alcoholic beverages in moderation. (Grade: Strong)

Diets based on macronutrient distribution

Insufficient evidence was available to determine the relationship between diets based on macronutrient distribution and all-cause mortality. (Grade: Grade not assignable)

Summary of the evidence

- Dietary patterns were defined as the quantities, proportions, variety, or combination of different foods, drinks, and nutrients (when available) in diets, and the frequency with which they are habitually consumed.
- Diets based on macronutrient distribution were examined when at least one macronutrient proportion was outside of the acceptable macronutrient distribution range (AMDR) for carbohydrate, fat, and/or protein; the foods/food groups consumed were not required to be provided. When describing and categorizing studies included in this review, the Committee did not label the diets examined as “low” or “high,” because no universally accepted standard definition is currently available for “low-carbohydrate” or “high-fat” diets. Instead, the Committee focused on whether, and the extent to which, the proportions of the macronutrients were below or above the AMDR.
- This systematic review identified 153 articles, including one randomized controlled trial and 152 prospective cohort study designs that met criteria for inclusion and were published between January 2000 and October 2019.

Dietary patterns

- 141 studies examined the relationship between dietary patterns and all-cause mortality. The studies used multiple approaches to assess dietary patterns and all-cause mortality.
    - One RCT[1] assigned participants to consume a “Mediterranean” dietary pattern with extra-virgin olive oil or mixed nuts compared to a control diet
    - One-hundred ten articles examined dietary patterns using index or score analysis,[2-111]
    - Twenty-five articles examined dietary patterns identified with factor and cluster analysis,[12,19,39,76,92,112-131]
    - Eleven articles used other methods, including only reduced rank regression (RRR), comparisons based on animal-product consumption vs. avoidance, or comparisons based on ‘ultra-processed’ food consumption, to examine the relationship between dietary patterns and/or diets based on macronutrient distribution.[119,132-141]

    - Despite the variety of different methods applied to examine or derive dietary patterns, the majority of studies finding statistically significant relationships between dietary patterns consumed and all-cause mortality risk were remarkably consistent.
    - Although the dietary patterns examined were characterized by different combinations of foods and beverages due to the variety of methods used, protective dietary patterns emerged with the following themes:
        - Patterns emphasizing higher consumption of vegetables, legumes, fruit, nuts, whole grains, fish, lean meat or poultry, and [unsaturated fats relative to saturated fats, either as a ratio of polyunsaturated fatty acids (PUFA) and monounsaturated fatty acids (MUFA) relative to saturated fats/fatty acids (SFA), MUFA/SFA, or Olive Oil specifically] were generally associated with decreased risk of all-cause mortality. Notably, there was consistency in particular with the inclusion of fish and/or seafood.
            - Some of these dietary patterns also included alcoholic beverages in moderation.
        - Reduced risk of all-cause mortality was observed in several studies that examined dietary patterns without animal-source foods, such as those described as vegetarian, vegan, or determined by "plant-based" diet indices.
        - Of the dietary patterns that included animal-source foods, protective associations were generally observed with relatively lower consumption of red and processed meat. However, a limitation in the evidence is methodological heterogeneity in the food categories and terminology used to classify meat.
        - The inclusion of the ratio of white vs. red meat, type and amount of dairy products, and refined carbohydrates and sweets as elements to these patterns was less consistent across the evidence. The dietary patterns that included those elements and tended to show reduced risk of all-cause mortality had,
            - higher consumption of white meat relative to red or processed meat,
            - low-fat dairy relative to high-fat dairy, and/or
            - lower relative to higher intake of refined carbohydrates and sweets.
    - Despite the variability between approaches used to examine dietary patterns, higher adherence to dietary patterns with common labels such as "Mediterranean", dietary-guidelines related (e.g., "Healthy Eating Index", "DASH" scores), or "plant-based" were generally protective against all-cause mortality risk. This highlights that a high-quality dietary pattern comprised of nutrient-dense foods, regardless of the label, associated with reduced all-cause mortality risk.
    - Results based on additional analyses according to a variety of key or potential confounders generally confirmed the robustness of results.
- Although the majority of included studies were prospective cohort studies, most adjusted for key confounders, with the exception of race and ethnicity. The results are likely generalizable to adults of various race and ethnicity though it is difficult to determine the impact that race and ethnicity specifically may have on

the relationship between dietary patterns and all-cause mortality due to a lack of reporting.
- Insufficient evidence was available to determine the relationship between dietary patterns and all-cause mortality in younger populations (~age <35 years)

Diets based on macronutrient distribution

- Twenty-eight articles examined the relationship between diets based on macronutrient distributions, but results were inconsistent.[20,23,28,34,41,43,60,73,74,96,112,115,119,127,128,141-153]
    - Diets with proportions of carbohydrate and fat within the AMDR compared to outside the AMDRs tended to associate with reduced all-cause mortality risk, particularly when the diets examined were of higher quality (i.e., emphasizing vegetables, fruits, nuts, whole grains, legumes, fish, and/or lean meat or poultry).
    - Comparison of macronutrient distributions with or without the context of the foods/food groups comprising the dietary pattern showed inconsistent findings, likely due to several limitations that prevent the adequate assessment of the body of evidence:
        - The gradient between the macronutrient proportions compared between distributions was often small, e.g., 41% vs. 41.7%
        - Methods used to estimate macronutrient intake differed between studies
        - Many of the proportions outside of the AMDR were only marginally outside and often estimated differently between studies.
    - Most of these articles reported a proportion of energy from carbohydrate below and/or fat above the AMDR in at least one of the exposure groups compared.
    - Some of these articles also described the dietary pattern (i.e., foods and beverages) consumed, in addition to having macronutrient proportions outside of the AMDR.

Description of the evidence

This systematic review includes 153 articles from 1 randomized controlled trial (RCT) and 152 prospective cohort studies that examined the relationship between dietary patterns and all-cause mortality.

The studies were conducted in the following countries:

- Australia[33,34,38,137]
- Belgium[142]
- Denmark[75,76,94]
- France[14]
- Germany[119,132,136]
- Greece[21,98,100]
- Hong Kong[19]
- Iran[31,67]
- Italy[11,13,54,63,80,123-125,130]
- Japan[48,49,70,73,74,126,129,140,150,151,153]
- Korea[45,53]

- Netherlands[9,36,88,92,102-104,127]
- Singapore[71,131]
- Spain[1,17,18,28,51,58-60,122,128,139,145]
- Sweden[8,24,37,50,65,72,82,89,95 2012,96,107,111,116,147,148,152]
- Switzerland[105,121]
- United Kingdom[3,5,62,86,97,113,115,117,134]
- United States[4,6,7,10,12,15,16,20,22,23,25-27,29,30,35,39-44,55-57,61,66,69,77-79,81,83-85,87,90,93,101,108-110,112,118,120,133,135,141,143,144,146,149]

Studies that were conducted in multiple countries are as follows:

- Australia, Greece, Japan, Sweden[106]
- Belgium, Denmark, Finland, France, Greece, Hungary, Italy, Netherlands, Portugal, Spain, Switzerland[46,47]
- Belgium, Denmark, Italy, Netherlands, Portugal, Spain, Switzerland[32]
- Croatia, Finland, Greece, Italy, Japan, Netherlands, Serbia, United States[64]
- Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, United Kingdom[52,68,114]
- Denmark, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, United Kingdom[99]
- Poland, Russian Federation, and Czech Republic[91]; and
- United States and Canada[138]

Across all 153 articles, the analytic sample size ranged from 161[51] to 451,256.[52] The total number of deaths documented ranged from 53 with a follow-up ~4y total[21] to 51,702 with a follow-up ~13 to 18y.[52]

Data from these studies represented 80 established cohorts [e.g., Nurses Health Study (NHS), Health Professional's Follow-up Study (HPFS), Multiethnic Cohort (MEC), Monitoring of trends and determinants in Cardiovascular Disease (MONICA), EPIC, National Institutes of Health-American Association of Retired Persons (NIH-AARP), Healthy Ageing: a Longitudinal study in Europe (HALE; comprised of SENECA and/or FINE cohorts). Although multiple articles from the same cohorts were included, each of the included articles represented unique data by examining different sub-samples, different dietary patterns, or using different dietary pattern methods.

Population/participant characteristics

Studies enrolled healthy, primarily middle-aged or older adults. The PREvención con DIeta MEDiterránea (PREDIMED) randomized-controlled trial enrolled adults at high-risk for cardiovascular disease (CVD), and its primary results were reported by Estruch et al[1] with secondary analyses reported in several other articles.[18,60,122,145]

Fifteen articles exclusively enrolled women.[12,20,29,41,50,57,65,69,82,107,110,111,118,127,146] Sixteen articles exclusively enrolled men.[5,14,23,37,45,63,64,88,89,93,101,113,124,125,130,136] All other studies examined the relationship between dietary patterns and all-cause mortality in combined and/or stratified analyses of men and women. The majority of articles did not report information regarding the race/ethnicity of participants. Of those that did report any information, the majority of studies were conducted in predominantly "White" and/or "non-Hispanic White" participants. One study was conducted in exclusively African-American men,[93] and one in exclusively African-American women.[12]

Intervention/exposure

Dietary patterns were assessed using a variety of different methods. One article randomized participants to consume one of two dietary patterns compared to a control diet.[1] One-hundred ten articles used index or score analysis to examine dietary patterns and/or diets based on macronutrient distribution.[2-111] Twenty-five articles examined the relationship between dietary patterns identified with factor and cluster analysis and/or diets based on macronutrient distribution.[12,19,39,76,92,112-131] Eleven additional articles used other methods, including reduced-rank regression (RRR) only, comparisons based on animal-product consumption or avoidance, or comparisons based on 'ultra-processed' food consumption.[119,132-141] For more information about the components and scoring procedures of the indices/scores used, see **Table 1.** For more details about the dietary patterns derived by factor/cluster analysis, see **Table 2.**

Twenty-eight articles examined diets based on macronutrient distributions, in which macronutrient proportions were outside of the AMDR in at least one of the exposure groups compared.[20,23,28,34,41,43,60,73,74,96,112,115,119,127,128,141-153] Most of these articles reported a proportion of energy from carbohydrate intake below and/or Fat intake above the AMDR in the distributions examined. Of those 28 articles, 16 also described the dietary pattern consumed, using index/score, factor/cluster, and/or other methods.

Across the body of evidence, dietary intake was assessed primarily using validated food frequency questionnaire (FFQ) in the majority of studies. The majority of articles (83 of all) assessed dietary intake using a validated FFQ at one time-point (i.e., baseline).[1,3-5,7-9,11,13,15,18-21,24,25,28-31,33,34,37-41,45,48-50,53,57,58,60,61,65-67,71-77,81,82,86,87,91,92,94,95,98-104,107,109,111-116,119,122,123,126-129,135,138,140,146-148,150,152,153]

Note that within those, three studies had variation in the number of items in the FFQ between the waves/stages of the study.[72,95,104]

Fifteen articles collected dietary intake data using a validated FFQ at more than one time point over the course of the study, i.e., every ~4y,[6,144] every 2y,[59,90,139] every ~2-4y,[118,141] every 1y,[145] or at baseline and subsequent follow-up.[12,35,36,43,69,97,110]

The remaining articles used various other methods to assess dietary intake. Twelve articles used 24-hour recalls at baseline.[10,16,26,27,56,78,79,93,105,120,140,149] Nine articles used weighed food records (1-day, 3-day, 4-day, or 7-day).[14,22,32,62,64,84,89,117,133,136,142,151] Eight articles used dietary histories or questionnaires at baseline that were validated[23,52,63,68,96,124,125,130,137] or administered by trained dietitians,[46,47,55] or unspecified.[121] Several articles used different methods between cohorts or sub-groups such as a 24-hour recalls and diet history[17] or, 24-hour recall and FFQ.[106]

In addition, 13 articles reported using FFQ or other methods that were not specifically validated to assess dietary intake.[42,44,51,54,70,83,85,88,106,108,132,134,143]

Outcomes

Outcome data on all-cause mortality was collected using a variety of validated methods. Methods included obtaining information on total and cause-of deaths from population-level registries (national/local level) and/or electronic databases (e.g., Social Security Death Index, National Death Index). Data were also collected via active follow-up with physicians, relatives, postal authorities, and/or other witnesses, and consultation or confirmation with death certificates, local newspapers, and/or medical records.

Several studies specifically obtained outcome data via linkage between datasets or registries (e.g., National Death Index, longitudinal Medicare data with NHANES assigned sequence number).[12,39,92,117,118,121,126,134,137,146,149]

Several articles did not provide detailed information regarding methods for obtaining mortality data (e.g., "vital status obtained through follow-up").[21,46,47,52,64,76,100,106,119]

A few studies reported unique aspects of all-cause mortality, including years lived or survival,[116] disability-adjusted years lost,[92] life-expectancy,[125] or as population attributable risk[7] or fractions.[97]

Evidence synthesis

Dietary patterns

Summary of results

Dietary patterns were assessed using a variety of different methods. The following sections provide a description of results according to the approach used to examine dietary patterns.

Randomized controlled trial

One article randomized participants to consume two different Mediterranean diets or a control low-fat diet.[1] This study was from a multicenter, trial in Spain that assigned participants at high-risk for CVD to consume a Mediterranean diet with extra-virgin olive oil (EVOO), a Mediterranean diet with mixed nuts, or a control diet with advice to reduce dietary fat (see **Table 3**). Consumption of the Mediterranean diets with EVOO or mixed-nuts were significantly associated with reduced all-cause mortality risk after (median) 4.8y. Results were similar in sub-analyses removing participants subject to protocol deviations and randomization issues.

Observational studies

Index/score analysis

The majority of included studies examining the relationship between dietary patterns and all-cause mortality came from prospective cohort designs that used index or score analysis (see **Table 4**).

Among these studies, nearly 80 different indices or scores were used to examine dietary patterns that included 30 different "Mediterranean" indices, e.g., the "Mediterranean Diet Score" or "Alternate Mediterranean Diet Score", 7 different "Healthy Eating Index (HEI)" or "Dietary Guidelines for Americans" indices e.g., HEI-2010; 1 Dietary Approaches to Stop Hypertension (DASH) score, 16 different country-specific indices e.g., Dutch Healthy Diet Index 2015, and, 24 other indices or scales, e.g., "Recommended Food Score". For more information about the components and scoring procedures within each of these indices/scores (see **Table 1**).

Despite variability between the indices/scores used, the findings across these studies were consistent in the majority of studies that used index or score analysis, suggesting that adherence to dietary patterns generally regarded as "healthier" were associated with reduced risk of all-cause mortality. Only ten of these articles reported null findings between the dietary pattern examined and all-cause mortality.[4,14,16,19,22,25,45,76,85,93]

Nine of these articles also reported dietary pattern indices or scores with macronutrient distributions that had at least one macronutrient proportion outside of the AMDR.[23,28,34,41,43,60,73,74,96] *[For cross-reference, see the section on **Diets based on macronutrient distribution**]*

Mediterranean related indices/scores

Across the patterns examined with indices labelled as "Mediterranean", nearly all studies reported that higher adherence scores were associated with decreased risk of all-cause mortality. Despite modifications to each index, the scores represented similar foods/food groups across the components. Higher "Mediterranean" index adherence scores were characterized by higher consumption of vegetables [with or without potatoes]; legumes; fruit; nuts; either whole grains specifically, cereals unspecified, or non-refined grains; fish; and unsaturated fats relative to saturated fats (either as a ratio (e.g., polyunsaturated fatty acids (PUFA) and monounsaturated fatty acids (MUFA) relative to saturated fats/fatty acids (SFA), MUFA relative to SFA, or Olive Oil specifically). Higher adherence within these patterns was also comprised of relatively lower consumption of red and processed meat, meat and meat products. Most of the scores that included egg and/or dairy products considered greater intake of egg, milk and/or dairy products [particularly full-fat dairy] within particular amounts as negative components to the scores (i.e., lower consumption=higher adherence score). Several scores considered items with added sugars including sugar-sweetened beverages, 'sweets', cakes, pies, and cookies as negative components. Most of the scores considered alcohol, within moderation or between a threshold, as a positive component, although this varied between indices.

Dietary Guidelines indices/scores

Among the dietary patterns examined using Healthy Eating Index (HEI) or Dietary Guidelines for Americans (DGA) indices, nearly all studies reported that higher HEI or DGA adherence scores were associated with decreased risk of all-cause mortality. Despite modifications to each index, the scores represented similar foods/food groups across the components. Higher HEI/DGA adherence scores within these patterns were characterized by: higher intake of vegetables (total, or specifically, dark green/orange, or greens and beans), legumes, fruit (total, or specifically whole), whole grains and/or cereals, seafood and plant proteins, total protein foods and/or lean meat, or white: red meat ratio, and unsaturated fats relative to saturated fats (e.g., PUFA+MUFA/SFA, or PUFA/SFA). Higher adherences within these patterns were also characterized by lower intakes of refined grains, red and processed meat, meat and meat products, added sugars from "empty calories" and/or sugar-sweetened beverages, solid fats and/or saturated and trans-fat specifically. Additional components that were common to these dietary-guidelines related indices but less common in other dietary patterns were sodium (soy-sauce, or salt), cholesterol, and dietary variety. Of the few studies that reported null findings, one study was exclusively in pre-frail or frail older adults,[16] another in Black men only,[93] and the third had a relatively small analytic sample size (n=285).[85]

Dietary Approaches to Stop Hypertension (DASH) score

Among the studies examining adherence to the DASH score, all used the Fung-2008 version of the DASH score, which consisted of positive components of vegetables not including potatoes and legumes, nuts and legumes, fruit and fruit juice, whole grains, low-fat dairy and negative components of red and processed meat, sweetened beverages, and sodium within thresholds. All of these studies reported significant associations between higher adherence to the DASH score and lower risk of all-cause mortality, with mean/median follow-up ranging between 10 and 25 y.[9,12,29-31,35,52,67,71,81,84,90,110] One study reported significant associations when examined continuously, although not categorically.[9]

Country-specific indices/scores

Among the dietary patterns examined using country-specific indices or scores, a few patterns of results emerged. In the studies examining adherence to Japanese diet indices, all reported that higher adherence was significantly associated with decreased risk of all-cause mortality but these findings skewed towards analyses in women only.[48,49,70,73,74,140] Higher Japanese indices adherence scores were characterized by: higher intake of vegetable dishes including pickled vegetables and seaweeds, fruit, grain dishes or rice, fish and/or meat dishes, and/or milk. However, there was less consistency between studies in other components, e.g., miso soup, green tea, eggs, noodles, low-salt soy, and energy from snacks. Several studies examining adherence to Dutch diet indices reported similar findings to those reported for HEI/DGA scores such that, higher adherence was associated with reduced risk of all-cause mortality. Higher adherence scores on several Dutch diet indices were characterized by: higher intake of vegetables, legumes or protein-rich plant foods, fruit, whole grains, fish, lean meat or white meat: red meat ratio, and unsaturated fats relative to saturated fats, either as vegetable, margarine, or unsaturated fats/oils. Negative components of the Dutch indices included red and processed meats, alcohol, and excessive sodium intake.

Other indices/scores

There were a variety of other indices or scores used to examine the relationship between dietary patterns and all-cause mortality. Although there was a wide variety across the indices in the precise type or amount of foods/food groups comprising the components, results tended to be similar in terms of direction and magnitude to those discussed above with other indices and scales. Several articles examined adherence to plant-based diet indices, characterized by higher consumption of plant-based foods (vegetables, fruit, legumes or pulses and/or nuts, fruit, whole grains) and lower consumption of animal-products (i.e., meat products, eggs, “animal foods”, dairy products). These indices were less consistent in scoring procedures for lean meat, low-fat dairy, fruit juices, refined grains, sugar-sweetened beverages, and/or sweets and desserts.

Sub-group and/or sensitivity analyses

Many studies that used index/score analysis to examine dietary patterns and all-cause mortality also conducted sensitivity and/or sub-group analyses as follows by:

- Combining dietary patterns with lifestyle factors of anthropometry, physical activity, and/or smoking[7,18,20,27,36,101]
- Stratification or additional adjustment for anthropometry, sex, age, education, race/ethnicity, and/or smoking[8,17,20,29,30,35,59,66,68-70,78,79,81,82,87,94,96,98,102,108,109]
- Excluding early deaths or first few years of follow-up[8,18,32,40,41,46 2006,48,55,59,65,79,82,94-96,102,108,111]
- Chronic disease status, e.g., diabetes or CVD[11,13,17,20,34,41,47,48,54,55,63,79,94,108]

- Under- or mis-reporting[11,17,89,95]

The associations reported between dietary patterns and all-cause mortality remained despite these sensitivity or sub-group analyses. Notably, when adherence to dietary patterns was combined with other healthier lifestyle factors (e.g., not smoking and recommended physical activity levels), stronger associations were typically observed.

Factor/cluster analysis

Twenty-five articles with prospective cohort study designs examined the relationship between dietary patterns derived from factor or cluster analysis and all-cause mortality (see **Table 4**).

Dietary patterns were identified using factor analysis,[12,19,113,114,117-119,121-131] cluster analysis,[76,92,112,115,116,120] or both factor analysis and cluster analysis.[39] The number of dietary patterns examined within each study ranged from 1 to 6 (see **Table 2**).

Additional information on the macronutrients and/or micronutrients consumed within the dietary patterns was reported in many of the articles.[112,115,118-120,122,124,126-128,131] Of those articles, four studies reported the macronutrient distributions of the dietary patterns had at least one macronutrient proportion outside of the AMDR.[112,115,127,128] *[For cross-reference, see the section on* ***Diets based on macronutrient distribution]****.*

Most studies reported dietary patterns identified by factor/cluster analyses were significantly associated with lower risk of all-cause mortality, when comparing higher vs. lower adherence to the same dietary pattern,[12,39,76,113,114,117,118,122-131] or between different dietary patterns.[92,121] (see Table 4). Labels assigned to these protective dietary patterns varied across studies, such as "Healthy', 'Prudent', and 'Mediterranean-like', but similar factors were emphasized such as higher intake of vegetables, fruits, and/or fish or other seafood, legumes and/or whole grains, and/or vegetable or olive oils, and/or white meat such as chicken. Potatoes and/or root vegetables were frequently included,[92,114,116,123-130] though not necessarily identified as fried or not. The inclusion of dairy, particularly low-fat dairy products, as a beneficial factor was common, though less consistent.[112,122,127,128]

Some dietary patterns identified by factor/cluster analyses were significantly associated with higher risk of all-cause mortality and/or shorter survival.[112,113,116,118,131] Two studies compared higher relative to lower adherence to the same dietary pattern,[113,118] and two studies compared adherence to different dietary patterns.[112,116] The dietary patterns associated with significantly higher risk of all-cause mortality emphasized higher intake of the following components:

- meat or meat products such as beef, pork, sausage[116]; red meat or meat products[113]; red meat and processed meats[118]; fresh and processed meats and seafood,[131] and/or
- high-fat dairy products such as ice cream, cheese, whole milk,[112] and/or
- refined grains[113,118] and flour-based foods such as pastries,[116] and/or
- sweets and desserts[116,118,131] such as cake, cookies, chocolate and candy[112] and/or
- lower intake of low-fat dairy products, rice, and pasta, lower intake of fruit, fish, other seafood, and dark green vegetables.[112]

Conversely, Nanri et al[126] reported higher compared to lower adherence to a 'Westernized' dietary pattern, with high consumption of meat including pork and beef, processed meat, bread, dairy products, coffee, black tea, soft drinks, dressing, sauce, and mayonnaise, was significantly associated with lower risk of all-cause mortality.[126] Hoffman et al[119] reported no significant associations between dietary patterns derived by factor analysis and all-cause mortality, but also examined dietary patters using RRR.[119]

Multiple articles examined dietary patterns using factor/cluster analyses that labelled the patterns as "Mediterranean" or "Mediterranean-like" and were characterized by higher intake of vegetables, fruits, whole-wheat bread or cereals (unspecified), and/or fish and seafood, and/or olive or vegetable oils; none included sweets. There was less consistency among these in terms of significant associations, although they aligned with those that reported significant inverse associations.

Non-significant associations were reported in the articles examining dietary patterns using factor/cluster analysis and all-cause mortality. However, the direction of the effects reported that were non-significant generally aligned with the direction of significant results described above. The lack of statistical significance may be due to a variety of reasons, such as smaller sample sizes,[120] sample examined, e.g., women-only analyses,[121] or the gradient between exposure groups compared, e.g., Q2 vs. Q1 was non-significant, but Q3, Q4, and Q5 vs. Q1 were significant.[118]

Sub-group and/or sensitivity analyses

Few studies that used factor/cluster analysis conducted sensitivity or sub-group analyses.[114,116,121,130,131] Among those that did, results were similar whether stratified by country,[114] after excluding participants with CVD or cancer at baseline,[130] or in models accounting for cotwin pairs.[116] Stratified analyses by sex were less consistent, with one study reporting no significant associations in analyses of women only but significant associations in pooled analyses.[121]

Other methods

Eleven articles used other methods to examine the relationship between dietary patterns and/or diets based on macronutrient distribution and all-cause mortality (see **Table 6**). Three articles used RRR to examine dietary patterns, five articles examined animal-based product consumption and/or avoidance, and three articles examined dietary patterns characterized as 'ultra-processed'.

Reduced rank regression (RRR)

Heroux et al[133] found that adherence to a dietary pattern higher in processed and red meat, white potato products, non-whole grains, and added fat, and lower in non-citrus fruit at 47y was not significantly associated with all-cause mortality after 4-16 y follow-up (f/u). Meyer et al[136] found that consuming a dietary pattern lower in meat and beer, and higher in fresh and cooked vegetables, fresh fruit, wholemeal bread, cereals and muesli, curd, nuts, sweet bread spread, and tea was associated with increased risk of all-cause mortality after 5 y f/u. Hoffman et al[119] examined dietary patterns using both factor analysis and RRR. In this study, adherence to a dietary pattern derived by RRR that was higher in meat, butter, sauces and eggs, and lower in bread, fruits at 63y was associated increased risk of all-cause mortality after 4-8y f/u.

Vegetarian vs. non-vegetarian

Five articles examined dietary patterns based on consumption of animal-based products, e.g., "vegetarian" compared to "non-vegetarian" diets. Several of these articles categorized the exposure groups differently, primarily based on avoidance of select foods/food groups.

- Three of the articles observed no significant associations between groups compared.[132,134,137] .
    - Mihrshahi et al[137] examined participants reported consumption of animal products and categorized groups as 'Vegetarian' - never any beef, lamb, pork, chicken, turkey, duck, processed meat, fish or seafood, 'Semi-vegetarian' - eat meat ≤1 week, 'Pesco-vegetarian' - eats fish or seafood but no beef, lamb, pork, chicken, turkey, duck, or processed meat; or 'Regular meat eater' - consumes meat including fish or seafood.
    - Key et al[134] examined consumption or avoidance of meat, dairy, fruit and vegetables and defined exposure groups as 'Meat eaters' - those that eat meat; 'Fish eaters' - those that do not eat meat but do eat fish; 'Vegetarians' - those that do not eat meat or fish but do eat dairy products or eggs or both; or 'Vegan' - those that eat no animal products. In that study, a sub-set of participants were still following a "vegetarian" diet 5 y after baseline.[134]
    - Chang-Claude et al[132] compared 'Vegetarian', which combined 'Vegan' [avoid meat, fish, eggs, and dairy products] and 'Lacto-ovo Vegetarian' [avoid meat and fish but eat eggs and/or dairy products] groups, to 'Nonvegetarian' participants, who occasionally or regularly eat meat and/or fish.
    - Both Key et al[134] and Chang-Claude et al[132] also reported that consumption of a 'vegetarian' or 'nonvegetarian' diet compared to the general population was associated with significantly lower all-cause mortality.
- Two studies reported a significant association between vegetarian or plant-based patterns and all-cause mortality.
    - Orlich et al[138] reported that 'Vegetarian' (all groups combined, or 'pesco-vegetarian' only) compared to 'Nonvegetarian' dietary patterns were significantly associated with lower risk of all-cause mortality over ~6y f/u in men and women (separate and combined analyses).
    - Song et al[141] reported that higher 'plant-protein' dietary pattern adherence [categorical or per-3% increase] at ~62y was significantly associated with reduced risk of all-cause mortality over a 32y f/u. In that study, higher 'Animal-protein' dietary pattern adherence was weakly associated with all-cause mortality, but not significant.

Ultra-processed dietary patterns

Three articles reported consistent findings, such that higher vs. lower adherence to dietary patterns characterized as 'ultra-processed' were associated with increased risk of all-cause mortality.[135,139,140]

The precise foods/food groups within the dietary patterns compared in both articles varied, although were somewhat overall consistent and similarly defined as the 4th grouping by the "NOVA" classification system. The dietary pattern in Kim et al[135] consisted of highly-palatable foods such as ice cream, milkshakes, processed meats, sweetened foods and beverages. The dietary pattern in Rico-Campa et al[139] was characterized by processed meats, SSB, dairy products, French fries, pastries, cookies, ready to eat soups and purees, fried foods, artificially sugared beverages, breakfast cereals, and pizza. The dietary pattern in Schnabel et al[140] considered items such as carbonated or 'energy' drinks; sweet or savory packaged snacks; ice cream, chocolate, confectionery, mass-produced breads and buns; industrial cookies, pastries, cakes; breakfast 'cereals', flavored milk drinks; cocoa drinks; artificial flavors and texturizing agents; cooked seasoned vegetables with ready-made sauces; meat and chicken extracts and 'instant' sauces; powdered or 'fortified' meal and dish substitutes; ready to heat products; reconstituted meat products; and "instant" noodles/soups.

Assessment of the evidence[ii] : Dietary patterns

Strong evidence demonstrates that dietary patterns in adults and older adults characterized by vegetables, fruits, legumes, nuts, whole grains, unsaturated vegetable oils, and fish, lean meat or poultry when meat was included, are associated with decreased risk of all-cause mortality. These patterns were also relatively low in red and processed meat, high-fat dairy, and refined carbohydrates or sweets. Some of these dietary patterns also included alcoholic beverages in moderation. A greater degree of adherence to this dietary pattern was typically associated with lower risk of all-cause mortality across the body of evidence. Insufficient evidence was available to determine the relationship between dietary patterns and all-cause mortality in younger populations, i.e., ~age <35 y, due to a lack of available evidence.

Multiple databases were used to obtain publications from a large, comprehensive search. Although many of the studies were from large prospective cohorts, studies with smaller sample sizes were also included. Therefore, this risk of publication bias is low. Several included articles were primary or secondary analyses from the PREDIMED trial, which was subject to randomization issues discovered after publication of the initial study. However, the republished results confirmed the initial findings even after accounting for participants that may not have been adequately randomized. As outlined and described below, the body of evidence examining dietary patterns and all-cause mortality was assessed for the following elements used when grading the strength of evidence.

Risk of bias (see Table 8 and Table 9):

- Most studies were well designed and conducted using rigorous methods, with most having low or moderate risks of bias across various domains despite being prospective cohort study designs. However, some studies had serious or critical risks of bias identified.
- Most of the prospective cohort studies accounted for key confounders, with the exception of race/ethnicity. It is difficult to determine the impact that race/ethnicity specifically may have in the relationship between dietary patterns and all-cause mortality due to lack of reporting of race/ethnicity of participants across studies.
- There were several articles that did not account for multiple key confounders, including socioeconomic status (SES), physical activity, smoking, and/or anthropometric factors, e.g., BMI, and are therefore at higher risk of bias due to potential confounding. Alcohol tended to be accounted for as a component of the

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[ii] A detailed description of the methodology used for grading the strength of the evidence is available on the NESR website: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews and in Part C of the following reference: Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.

dietary pattern or through adjustment when not part of the dietary pattern, though few studies did not account for alcohol intake.
- Sensitivity analyses or sub-group analyses based on a variety of key or potential confounding factors were commonly conducted and typically confirmed the robustness of the main results.
- Most of the studies examined dietary intake only once at baseline. Therefore, changes in dietary patterns may have occurred over follow-up that were not accounted for and any of these studies are at a higher risk of bias due to departure from the intended exposure. However, the results from those studies generally aligned with the few studies that did assess change in diet over multiple time points.
- Several studies did not account for missing data, primarily related to missing diet/exposure data at baseline.
- Most of the articles reported low rates of loss to follow-up, but higher overall attrition related to the selection of participants with implausible energy intake, incomplete dietary data, and/or a history or presence of chronic diseases or medical conditions at baseline.

Consistency:
- Multiple approaches were used to assess dietary patterns, including index or score analysis, factor/cluster analysis, RRR, or other methods such as comparisons based on animal-product or ‘ultra-processed’ food consumption. Despite this variety of different methods applied to examine or derive dietary patterns, the majority of studies found statistically significant relationships between dietary patterns consumed and all-cause mortality risk.
- Although the dietary patterns examined were characterized by different combinations of foods and beverages due to the variety of methods used, protective dietary patterns emerged. Patterns that emphasized higher consumption of vegetables, legumes, fruit, nuts, either whole grains specifically, cereals unspecified, or non-refined grains, fish, and unsaturated vegetable oils were associated with decreased risk of all-cause mortality. These patterns were also characterized by lower consumption of animal-products, particularly red and processed meat or meat and meat products and high-fat dairy products. Items with less consistency included refined grains, and “sweets”. Most of the studies that considered these less-consistent components applied them as negative, or negative outside of specific thresholds. Dietary patterns with common labels of “Mediterranean”, “Prudent”, “Healthy”, or dietary-guidelines-related such as the “Healthy Eating Index” or “DASH” scores, or “plant-based” were generally protective against all-cause mortality risk. The labelling of dietary patterns between studies varied widely. This highlights that a high-quality dietary pattern comprised of nutrient-dense foods, regardless of the label, associates with reduced all-cause mortality risk. Scoring procedures and the indices/scores used by studies varied with the use of scores based on median intake cut-offs compared to indices based on recommended intakes, or those applying the concept of adequacy relative to thresholds.

Precision:
- Effects were relatively consistent in magnitude and the width of confidence intervals between studies was relatively narrow, resulting in precision.
- Most of the studies did not report power analyses or sample size calculations.

However, the majority of those studies had large analytic sample sizes to investigate the relationship between dietary patterns and all-cause mortality.
- Although the incident number of deaths differed between studies, the number of events reported within groups confirmed precision across the body of evidence.

Directness:
- The populations, intervention, comparators, and outcomes of interest in the included studies are directly related to the systematic review question.

Generalizability:
- The study participants, interventions and/or exposures, comparators, and outcomes examined in the body of evidence are applicable to the United States population.
- Across the different methods used to examine dietary patterns, the findings are likely generalizable to the United States though some reflect traditional eating patterns of the sample examined. For example, several Japanese diets were examined that include foods such as pickled vegetables, Chrysanthemum, fungi, seaweeds, and Miso soup[70,74,126,140] that may be less generalizable to foods consumed in the contiguous United States. Two articles examined patterns that consisted of only alcohol[128] and eggs.[124]
- The preponderance of evidence suggests that the findings were relatively generalizable between men, women, and socioeconomic status.
    - Only a few studies exclusively enrolled women only, men only, those with high-CVD risk, or those with higher education/SES.
    - Across the body of evidence, race/ethnicity was not commonly reported or accounted for in analyses and thus, it is difficult to confirm the diversity of participants included. However, the results are likely applicable to adults of various race/ethnicity and socioeconomic status due to the amount and consistency of the included evidence.
    - Most of the articles examined dietary patterns in adults or older adults, and therefore, the findings may be less generalizable to younger populations.
    - Given that most studies opted to include only participants without chronic disease or other medical conditions in analysis, it is likely that the reported results are biased towards those individuals who are healthier than the general population.

Diets based on macronutrient distribution

Summary of results

Twenty-eight articles with prospective cohort study designs examined the relationship between diets based on macronutrient distributions and all-cause mortality (see **Table 7**). Most of these articles reported data on multiple foods and/or food groups consumed such as servings or grams per day of whole grains, fruits and vegetables, dairy foods, red/processed meats, fish and shellfish/seafood, and/or eggs. Three studies provided limited information regarding foods and/or food groups consumed, reporting vegetable and fruit intake only and/or alcohol intake[147,148,153] and several did not report any information on foods or food group consumption.[142,143,145,149,152]

- Twenty-one of 28 articles examined macronutrient distributions in which the proportion of energy from carbohydrate was below the AMDR in at least one of the

exposure groups compared. No studies examined a diet based on a macronutrient distribution with the proportion of energy from carbohydrate <35%.
    - Two of the 28 articles also examined an exposure group in which the proportion of energy from carbohydrate was above the AMDR.[73,149]
    - Two of the 28 articles examined exposure groups in which the other macronutrient proportions were within the AMDR.[115,146]
    - In 19 of the 28 articles, the proportion of energy from fat was also outside of the AMDR.[20,23,28,34,41,43,60,119,127,128,141-145,147-149,152]
- Five of 28 articles examined distributions in which carbohydrate was above the AMDR and fat below the AMDR.[73,74,150,151,153]
- One of 28 articles examined carbohydrate within the AMDR and the only proportion outside the AMDR was for fat.[96]
- No studies examined a diet based on a macronutrient distribution with the proportion of energy from protein outside of the AMDR. The proportion of energy from protein across the exposure groups compared ranged from 10% to 22.5%.

Among the macronutrient distributions reported in the 28 articles, proportions of energy falling outside of the AMDR were as follows:

- Carbohydrate below the AMDR ranged between 35.2% up to 44.8%
- Carbohydrate above the AMDR ranged between 65% up to 72.7%
- Fat above the AMDR ranged between 35.1% up to 47.7%
- Fat below the AMDR ranged between 13.1% up to 19.9%

Significant findings from 17 of the articles supported macronutrient distributions within the AMDR for carbohydrate and fat as protective against all-cause mortality, but the precise macronutrient distributions compared within and between studies varied.

- Eight articles reported higher adherence to diets based on a macronutrient distribution within the AMDRs for both carbohydrate and fat was significantly associated with decreased risk of all-cause mortality and/or longer survival compared to distributions slightly below the AMDR for carbohydrate and above the AMDR for fat.[28,34,41,43,60,112,127,141]
- Four articles found that macronutrient distributions below the AMDR for carbohydrate and above the AMDR for fat were associated with an increased risk of all-cause mortality compared to distributions either above the AMDR for carbohydrate,[149] or within the AMDR for carbohydrate.[119,144,145] Fung et al[144] further identified that animal-based scores were associated with increased risk, whereas vegetable-based scores were associated with decreased risk of all-cause mortality in separate analyses of both women and men. In another study, diets were compared that differed by protein intake, e.g., ~19% vs. 16%, exclusively in adults at high-risk for CVD.[145]
- Five articles reported that macronutrient distributions within the AMDRs for all macronutrients were associated with decreased risk of all-cause mortality compared to distributions above the AMDR for carbohydrate and below the AMDR for fat.[73,74,151,153] All five studies were conducted in Japanese participants with significant associations in women, and only one reporting significant association in men.[150] Notably, the proportion of energy reported in one study may lack accuracy due to using the arithmetic vs. geometric mean.[73]

Conversely, several articles reported that distributions above the AMDR for fat were associated with decreased risk of all-cause mortality.[23,96,128,142,147,148] However, the proportion of energy from fat in these articles was modestly above the AMDR and only varied slightly between groups compared within studies, e.g., Q1 ~37.5% fat vs. Q4: ~39% fat. In five articles, the macronutrient distribution categories were also similarly below the AMDR for carbohydrate with slight variation, e.g., 43.2% vs. 43.8%, between the diet groups compared,[23,96,128,142,147,148] and one study reported diet groups within the AMDR at ~46% energy from carbohydrate.[96] Two of the articles examined adherence continuously, therefore the precise distribution of the comparator is unknown.[23,96] Two articles were from the same cohort with significant findings in women only in one article,[147] and in men only in the other.[148] However, each of the two articles reported pooled and separate analyses in men and women from the same sample.

Three studies found no significant associations between the macronutrient distributions examined and all-cause mortality.[115,146,152] In all three studies, there was little distinction between the macronutrient distributions compared. In Brunner et al,[115] the proportion of energy from carbohydrate was 43.4%, 43.2%, 41.4%, and 40.4% between exposure groups, and the distributions were within the AMDR for fat and protein. In Kelemen et al,[146] the proportions of energy fell within the AMDR's among the macronutrient distributions compared although Q5 was just below the AMDR for carbohydrate at 43.9% energy. In Nilsson et al,[152] the proportion of energy from carbohydrate between groups were all within the AMDR for carbohydrate at 56.4%, 51.2%, and 46.8% in women. In Kelemen et al,[146] the proportion of energy was within the AMDR for fat at approximately 34% in quantiles Q2, Q3, Q4, and Q5 compared to 33% in Q1, and within and outside the AMDR for carbohydrate between 53.7% and 43.9%, while protein was within the AMDR between 14.1% and 22%.

Sub-group and/or sensitivity analyses

Several studies conducted sensitivity or sub-group analyses as follows by:

- BMI[149,150]; weight change[96]
- protein/kg body weight/day[145]
- age, < vs. ≥ 55y[149]
- low/high metabolic risk[152]
- excluding those with deaths shortly after start to follow-up[96,147,150] or with history of chronic disease[147]
- low/high saturated fat intake[152]
- animal-, plant-, and/or plant-fish-based sources of the distributions[141,144-146,151]
- “healthy” vs. “unhealthy” lifestyle[141]
- baseline biomarkers or disease status[41,96,141]

Two of the five studies examining sub-analyses of macronutrient distributions from animal-based compared to plant-based sources and all-cause mortality showed similar direction and magnitude of findings.[144,145] In both studies animal-based adherence to diets based on macronutrient distributions that are below the AMDR for carbohydrate and above the AMDR for fat were significantly associated with increased risk of all-cause mortality. Findings from a third study[141] were similar direction for an animal-protein pattern but not statistically significant. In that study, the ‘Plant-protein’ pattern within the AMDR for carbohydrate and fat compared to below the AMDR for carbohydrate and above the AMDR for fat was significantly associated with decreased risk of all-cause mortality. Results were less consistent between other studies regarding sub-analyses of vegetable based macronutrient distributions. One study reported significantly decreased risk of all-cause mortality in separate and combined analyses of men and women,[144] and the other study found no significant associations in analyses between vegetable-based models and risk of all-cause mortality.[145] Kelemen et al[146] found no significant associations between animal-, vegetable-, or vegetable- (with animal-substitution) based macronutrient distributions which primarily fell within the AMDR (although Q4 was below the AMDR for carbohydrate) and relative risk of all-cause mortality in women. Nakamura et al[151] observed no effects when analyzing animal-based or plant-fish based scores based on macronutrient distributions above the AMDR for carbohydrate and below the AMDR for fat compared to within the AMDRs relative to all-cause mortality.

Assessment of the evidence[iii]: Diets based on macronutrient distribution

There is insufficient evidence available to determine the relationship between macronutrient distributions with proportions of energy falling outside of the AMDR for at least one macronutrient and all-cause mortality, due to methodological limitations and inconsistent results.

Multiple databases were used to obtain publications from a large, comprehensive search. Although many of the studies were from large prospective cohorts, studies with smaller sample sizes were also included. Therefore, this risk of publication bias is low.

As outlined and described below, the body of evidence examining diets based on macronutrient distribution and all-cause mortality was assessed for the following elements used when grading the strength of evidence.

Risk of bias (see Table 10):

- Most of these prospective cohort studies accounted for key confounders, with the exception of race/ethnicity due to lack of reporting of race/ethnicity of participants across studies. Few articles did not account for multiple key confounders, including SES, physical activity, smoking, and/or anthropometry (e.g., BMI), and are therefore at higher risk of bias due to potential confounding.
- Sensitivity analyses or sub-group analyses based on a variety of key or potential confounding factor were commonly conducted and typically confirmed the robustness of the main results.
- Most of the studies examined dietary intake only once at baseline. Therefore, changes in dietary patterns may have occurred over follow-up that were not accounted for and therefore, the studies are at a higher risk of bias due to departure from the intended exposure.
- Several studies did not account for missing data, primarily related to missing diet/exposure data at baseline.

[iii] A detailed description of the methodology used for grading the strength of the evidence is available on the NESR website: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews and in Part C of the following reference: Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.

Consistency:

- Results were inconsistent in studies that examined diets based on macronutrient distribution in which proportions of energy falling outside of the AMDR.
- Although macronutrient distributions with proportions of energy from carbohydrate and fat within the AMDR compared to outside the AMDR tended to associate with reduced all-cause mortality risk, there are substantial methodological limitations.
- Comparison of macronutrient distributions with or without the context of the foods/food groups comprising the dietary pattern showed inconsistent findings. This is likely related to the small gradient between proportions compared between distributions (e.g., 41% vs. 41.7%) and the proximity of the reported proportions to the actual AMDR cut-offs (e.g., 44.8% vs. 45%).
- Studies that examined macronutrient distributions using adherence scores applied similar methods to develop the categories of distributions but defined the limits differently within categories. For example, the category limits for the 11 strata in Nakamura et al[151] for % energy from carbohydrate ranged from 17.3% to 53% in women, and 18.8% to 51.6% in men. However, the category limits in the other strata were much smaller (e.g., 51.7% to 54.4%).
- Studies varied in terms of the distribution of macronutrients that were examined and the methods used to estimate nutrient intakes, adjust for total energy intake, and/or derive the proportion of energy from macronutrients.

Precision:

- Most of the studies did not report power analyses or sample size calculations. However, the majority of those studies had large analytic sample sizes.
- Although the incident number of deaths differed between studies, the number of events reported within groups confirmed precision across the body of evidence.
- The duration of follow-up varied across studies, with three articles reporting a relatively short mean or median duration of follow-up at ~4.8y[145] and ~6.6y.[147,148]

Directness:

- Due to the variety of methods used to estimate macronutrient intake and adjust intake for total energy, directness across the body of evidence could not be adequately assessed.
  - Confidence in the estimated proportions falling outside the AMDR is low. For example, the reported macronutrient proportions in many included studies were slightly outside the AMDR (e.g., 35.1% fat, or 44.6% carbohydrate).
  - Several studies reported categories of macronutrient distributions with small gradients between the level of macronutrient proportions reported, e.g., Q5: 41.0% carbohydrate, 38.1% fat, 19.8% protein vs. Q3: 41.7% carbohydrate, 39.6% fat, 16.6% protein.[145] In many cases, the macronutrient distribution gradient between groups compared may not have been large enough to distinguish differences in the outcome between exposure groups.
  - Several studies reported to be examining one particular macronutrient of interest, such as “high-protein” intake, but the proportion for that nutrient was within the AMDR for all categories compared in both women and men.

Generalizability:

- Across the studies that examined diets based on macronutrient distribution, the results may be less generalizable due to differences between countries in terms of national recommendations and distributions compared. For example, Swedish recommendations advise carbohydrate range between 55% to 60% energy. In addition, several of the macronutrient distributions compared in all Japanese participants reported fat below the AMDR and carbohydrate above the AMDR, which is not typical of diets in the United States.

Research recommendations

In order to better assess the relationship between dietary patterns and/or diets based on macronutrient distribution and all-cause mortality, future research may:

1. Conduct systematic reviews on the relationship between dietary patterns and health outcomes using a continuous model to identify and evaluate evidence as it is published in an effort to more efficiently document and update the state of the science on dietary patterns and health.
2. Assess information regarding diet at more than one time-point, preferably during the course of follow-up, to facilitated determining the relationship between dietary patterns over time and all-cause mortality.
3. Examine the relationship between dietary patterns earlier in life and all-cause mortality.
4. Differentiate specific foods and food groups, in particular, between processed meats and red meats as opposed to one category of “meat”.
5. Develop a standardized definition for what constitutes a “low-carbohydrate” and/or “carbohydrate-restricted” dietary pattern. Because there was insufficient evidence available that examined proportions of carbohydrate below 37%, it was not possible to compare distributions in this body of evidence relative to those with commonly referred to as “ketogenic diet”, or other diets with cut-offs at <25% or <10% energy from carbohydrate.
6. Provide sufficient information and repeated measures on the quantification i.e., types and amounts of foods/food groups such as fruits and vegetables, and beverages such as alcohol, consumed when examining the relationship between dietary patterns and/or diets based on macronutrient distribution and all-cause mortality.
7. Identify inadequate or excessive intakes of specific foods/food groups e.g. fruits, vegetables, whole grains, nuts, seafood, and also, sugar sweetened beverages, processed foods including processed meats, added sugars, and salt to better disentangle the contribution of the dietary components impact on any given dietary pattern, e.g., “Mediterranean diet”, aHEI, and DASH scores.
8. Explore the relationship between dietary patterns and all-cause mortality further, particularly in the context of effect modification or mediating factors beyond the capacity of the current review such as
    - weight status/BMI, e.g., to determine the response to dietary patterns in those who are classified as overweight or obese, or those with excess adiposity,
    - physical activity, e.g., to determine the response to dietary patterns in those who may be sedentary compared to active,
    - emerging biomarkers including metabolites and microbes reflecting different food-based patterns of intake and their associations with traditional chronic disease risk factors, such as blood lipids/lipoproteins/apolipoprotein B, blood pressure, and blood glucose to more directly assess the relative preventative merits of various dietary patterns

- racial/ethnic background, e.g., to determine the response to dietary patterns particularly in racial minorities or those of different ethnicity, and
- household food insecurity status, e.g., to determine the response to dietary patterns in those with higher or lower food security, with progressing or persistent household food insecurity, or food security insufficiency.

9. Include diverse populations with varying race/ethnicity, socioeconomic background, and chronic disease status, while ensuring to report the racial/ethnic background of participants studied.

Included articles

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Table. 1 Dietary patterns examined by index or score analysis

INDEX/ SCORE-Mediterranean	Mediterranean Diet Score (MDS)	Mediterranean Diet Score (MDS), modified	Alternate Med Diet Score (aMED)	Mediterranean Diet Score (MDS), modified	relative Mediterranean Diet Score (rMED)	Revised Mediterranean Diet Score (MDS)	modified Mediterranean diet score (mMED)
Total Score	0-9	0-9	0-9	0-9	0-18	0-17	0-8
Vegetables	Vegetables (+)	Vegetables (+)	Vegetables (not potatoes) (+)	Vegetables (+) Salad (+)	Vegetables (not potatoes) (+)	Vegetables (+)	Vegetables and Fruits (not potatoes, fruit juice) (+)
Legumes	Legumes (+)	Legumes (+)	Legumes (+)		Legumes (+)	Legumes (+)	Legumes and Nuts (+)
Fruit	Fruit, Nuts (+)	Fruit, Nuts (+)	Fruit (+)	Fruit (+)	Fruit, Nuts, and Seeds (not juice) (+)	Fruit, Nuts (+)	Included in vegetables
Nuts	Included in fruit	Included in fruit	Nuts (+)	Nuts (+)	Included in fruit	Included in fruit	Included in legumes
Whole Grains			Whole Grains (+)	Whole Grains (+)	Whole Grains, Refined Flour, Pasta, Rice, Bread, Grains (+)		Non-Refined, High Fiber Grains (whole meal bread, crisp bread, oatmeal and bran of wheat) (+)
Grains, unspecified	Cereals (+)	Cereals (+)				Cereals (+)	
Refined Grains							
Fish/Seafood	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)
Meat	Red and Processed Meat (-)	Red and Processed Meat (-)	Red and Processed Meat (-)	Red and Processed Meat (-)	Total and Processed Meat (-)	Meat and Meat Products (-)	Red and Processed Meat (-)
Dairy	Dairy Products (-)	Dairy Products (-)			Low and High Fat Milk, Yogurt, Cheese, Desserts (-)	Dairy Products (-)	Fermented Dairy Products (cultured milk, yogurt, cheese) (+)
Sugar Sweetened Beverages, Sweets							
Fat	MUFA/SFA (+)	Olive Oil (+)	MUFA/SFA (+)	MUFA/SFA (+)	Olive Oil (+)	Olive Oil (+)	Olive Oil, Rapeseed Oil (+)
Carbohydrates							
Protein							
Alcohol	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)
Sodium							
Other							
Articles using Index/Score in all-cause mortality systematic review	**Al Rifai, 2018; Bo, 2016; Bonaccio, 2018; Booth, 2016; Cuenca-; García, 2014; Lagiou, 2006; Lassale, 2016; Martinez-Gonzalez, 2012; McNaughton, 2012; Mitrou, 2007; Prinelli, 2015; Shah, 2018; Trichopolou, 2003; Trichopolou, 2009; Wahlqvist, 2005; Zaslavsky, 2017**	Hodge, 2011 Hodge, 2018	George, 2014; Harmon, 2015; Hashemian, 2019; Neelakantan, 2018; Reedy, 2014; Shvetsov, 2016; Sotos-Prieto, 2017; Zaslavsky, 2018; Beherens, 2013 removed alcohol	Vormund, 2015	Buckland, 2011 Lassale, 2016 Tong, 2016 (mMDS)	Stefler, 2017	Bellavia, 2016
Reference for Index Score	Trichopoulou et al, 2003. Adherence to a Mediterranean diet and survival in a Greek population. N Engl J Med;348:2599-608.	Hodge et al, 2011. Does a Mediterranean diet reduce the mortality risk associated with diabetes: evidence from the Melbourne Collaborative Cohort Study Nutr Metab Cardiovasc Dis, 21(9): 733-9.	Fung et al, 2005. Diet-quality scores and plasma concentrations of markers of inflammation and endothelial dysfunction. Am J Clin Nutr; 82:163–73.	Vormund et al, 2015. Mediterranean diet and mortality in Switzerland: an alpine paradox? Eur J Nutr, 54(1): 139-48.	Buckland et al, 2009. Adherence to the Mediterranean diet and risk of coronary heart disease in the Spanish EPIC Cohort Study.Am J Epidemiol; 170:1518–1529.	Stefler et al, 2017. Mediterranean diet score and total and cardiovascular mortality in Eastern Europe: the HAPIEE study Eur J Nutr, 56(1): 421-429.	Tektonidis et al, 2015. A Mediterranean diet and risk of myocardial infarction, heart failure and stroke: a population-based cohort study. Atherosclerosis; 243(1):93–8.

Key: (+) Postive component of index/score (+m) Postive component in moderation (-) Negative component of index/score

INDEX/ SCORE- Mediterranean	Mediterranean Diet Adherence Screener (MEDAS)	Mediterranean-based Diet Score (MedDietScore)	Adjusted Mediterranean Diet Score (MDS)	modified Mediterranean Diet Score (MDS)	modified Mediterranean Diet Score (MDS)	modified Mediterranean Adequacy Index (MAI)	modified Mediterranean Diet Score (MDS)	Mediterranean-Style Dietary Pattern Score (MSDPS)
Total Score	0-14	0-55	0-7	0-8	0-9		0-8	0-100
Vegetables	Vegetables (+) Dishes with tomato sauce (tomato, garlic, onion, leek, olive oil) (+)	Vegetables (+) Potatoes (+)	Vegetables and Fruits (+)	Vegetables and Potatoes (+)	Vegetables (+)	Vegetables (+) Potatoes (+)	Vegetables (+)	Vegetables (+) Potatoes and other starchy foods (+)
Legumes	Pulses (+)	Legumes (+)	Legumes, Nuts, and Seeds (+)	Legumes (+)	Legumes, Nuts, and Seeds (+)	Legumes (+)	Legumes (+)	Legumes, Olives, Nuts (+)
Fruit	Fruit (+)	Fruit (+)	Included in vegetables	Fruit (+)	Fruit (+)	Fruit (+)	Fruit (+)	Fruit (+)
Nuts	Nuts (+)		Included in legumes	Nuts and Seeds (+)	Included in legumes			Included in legumes
Whole Grains		Whole Grains (+)						Whole Grains (+)
Grains, unspecified			Grains (+)	Grains (+)	Cereals (+)	Cereals (+)	Cereals (including breads, potatoes) (+)	
Refined Grains	Commicial Pastries (-)							
Fish/Seafood	Fish (+)	Fish (+)		Fish (+)	Fish (+)			Fish and Other Seafood (+)
Meat	Red Meat or Sausages (-) White meat over red meat (+)	Red and Processed Meat (-) Poultry (-)	Red and Processed Meat (-)	Meat and Meat Products (-)	Meat and Poultry (-)	Meat and Poultry (-) Eggs (-)	Meat and Meat Products (-)	Poultry (+) Eggs (+) Meat (+)
Dairy		Full-Fat Dairy (-)	Dairy Products (-)	Dairy Products (-)	Dairy Products (-)	Milk and Milk Products (-)	Milk and Dairy Products (-)	Dairy (+)
Sugar Sweetened Beverages, Sweets	Sugar-Sweetened Beverages (-)					Sugar (-)		Sweets (+)
Fat	Olive Oil (+) Olive oil as principal cooking fat (+) Animal Fat (-)	Olive Oil (+)	MUFA/SFA (+)	MUFA/SFA (+)	MUFA/SFA (+)	MUFA (+) SFA (-)	MUFA/SFA (+)	Olive Oil (+)
Carbohydrates								
Protein								
Alcohol	Red Wine (+)	Alcohol (-)	Alcohol (+m)		Alcohol (+m)	Wine (+)	Alcohol (+m)	Wine (+)
Sodium								
Other								
Articles using Index/Score in all-cause mortality systematic review	Cardenas-Fuentes, 2018	Park, 2016 *IJO* Prinelli, 2015	Haveman-Nies, 2002	Knoops, 2004 Tognon, 2014	Knoops, 2006	Knoops, 2006 Menotti, 2017	Lasheras, 2000	Lassale, 2016
Reference for Index Score	Schroder et al, 2011. A short screener is valid for assessing Mediterranean diet adherence among older Spanish men and women. J Nutr Nutr Epidemiol; 141:1140–1145.	Panagiotakos et al, 2007. Adherence to the Mediterranean food pattern predicts the prevalence of hypertension, hypercholesterolemia, diabetes and obesity, among healthy adults; the accuracy of the MedDietScore. Prev Med;44(4):335-340.	van Staveren et al, 2002. The SENECA study: potentials and problems in relating diet to survival over 10 years. Public Health Nutr;5(6a):901-5.	Knoops et al, 2004. Mediterranean diet, lifestyle factors, and 10-year mortality in elderly European men and women: the HALE project JAMA, 292(12): 1433-9.	Knoops et al, 2004. Mediterranean diet, lifestyle factors, and 10-year mortality in elderly European men and women: the HALE project JAMA, 292(12): 1433-9.	Knoops et al, 2004. Mediterranean diet, lifestyle factors, and 10-year mortality in elderly European men and women: the HALE project JAMA, 292(12): 1433-9.	Lasheras et al, 2000. Mediterranean diet and age with respect to overall survival in institutionalized, nonsmoking elderly people Am J Clin Nutr, 71(4): 987-92.	Rumawas et al, 2009. The development of the Mediterranean-style dietary pattern score and its application to the American diet in the Framingham Offspring Cohort. J Nutr 139: 1150–1156

Key: (+) Postive component of index/score (+m) Postive component in moderation (-) Negative component of index/score

INDEX/ SCORE-Mediterranean	Mediterranean Score	Mediterranean Adequacy Index (MAI)	traditional Med Diet Score (tMED)	modified Mediterranean Diet Score (MDS)	modified Mediterranean Diet Score (MDS)	modified Mediterranean Diet Score (MDS), alternative	modified Mediterranean Diet Score (MDS), refined	modified MDS
Total Score	0-44		0-9	0-8	0-9	0-8	0-9	0-8
Vegetables	Vegetables (+)	Vegetables (+)	Vegetables (not potatoes) (+)	Vegetables and Legumes (+)	Vegetables and Potatoes (+)	Vegetables and Potatoes (+)	Vegetables and Potatoes (+)	Vegetables (+)
Legumes	Legumes (+)	Legumes (+)	Legumes (+)	Included in vegetables	Legumes, Nuts, and Seeds (+)	Legumes, Nuts, and Seeds (+)		
Fruit	Fruit (+)	Fruit (fresh and dry) (+)	Fruit and Nuts (+)	Fruit (+)	Fruit and Fresh Juices (+)	Fruit and Fresh Juices (+)	Fruit and Juices (+)	Fruit (+)
Nuts			Included in fruits		Included in legumes	Included in legumes		
Whole Grains	Whole Grain Products (+)				Whole Grain Cereals (+)		Whole Grain Cereals (+)	
Grains, unspecified		Cereals (+)	Grains (+)	Cereals and Potatoes (+)		Cereals (+)		Cereals (+)
Refined Grains		Cakes, Pies, Cookies, and Sugar (-)						
Fish/Seafood	Fish and Seafood (not breaded) (+)	Fish (+)	Fish (+)	Fish (+)	Fish and Fish Products (+)	Fish and Fish Products (+)	Fish and Fish Products (+)	Fish and Fish Products (+)
Meat	Red and Processed Meat (-) Eggs (-) Poultry (not breaded) (+)	Meat and Poultry (-) Eggs (-)	Red and Processed Meat (-)	Meat and Meat Products (-)	Meat, Meat Products, and Eggs (-)	Meat, Meat Products, and Eggs (-)	Meat, Meat Products, and Eggs (-)	Meat, Meat Products, and Eggs (-)
Dairy	Milk and Dairy Products (+m)	Milk (-) Cheese (-)	Dairy Products (-)	Milk and Milk Products (-)	Dairy Products (-)	Dairy Products (-)	Dairy Products (-)	Dairy Products (-)
Sugar Sweetened Beverages, Sweets	Sweets (-)	Sweet Beverages (-)						
Fat	Olive Oil (+)	Virgin Olive Oil (+) Animal Fats and Margarines (-)	MUFA/SFA (+)	PUFA/SFA (+)	MUFA+PUFA/SFA (+)	MUFA/SFA (+)	MUFA+PUFA/SFA (+)	MUFA+PUFA/SFA (+)
Carbohydrates								
Protein								
Alcohol		Wine (+)	Alcohol (+m)	Alcohol (+)	Alcohol (+)		Alcohol (+)	Alcohol (+)
Sodium								
Other								
Articles using Index/Score in all-cause mortality systematic review	Limongi, 2017	Menotti, 2012	Mitrou, 2007	Sjogren, 2010	Tognon, 2011	Tognon, 2011	Tognon, 2012	Tognon, 2014
Reference for Index Score	Goulet et al, 2003. Effect of a nutritional intervention promoting the Mediterranean food pattern on plasma lipids, lipoproteins and body weight in healthy French-Canadian women.Atherosclerosis;170 (1),115-124	Alberti-Fidanza & Fidanza. 2004. Mediterranean adequacy index of Italian diets. Pub Health Nutr;7:937e41.	Mitrou et al, 2007. Mediterranean dietary pattern and prediction of all-cause mortality in a US population: results from the NIH-AARP Diet and Health Study Arch Intern Med, 167(22): 2461-8.	Sjogren 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.	Tognon et al, 2011. Does the Mediterranean diet predict longevity in the elderly? A Swedish perspective Age. 33(3): 439-50.	Tognon et al, 2011. Does the Mediterranean diet predict longevity in the elderly? A Swedish perspective Age, 33(3): 439-50.	Tognon et al, 2012. The Mediterranean diet score and mortality are inversely associated in adults living in the subarctic region J Nutr, 142(8): 1547-53.	Tognon et al, 2014. The Mediterranean diet in relation to mortality and CVD: a Danish cohort study Br J Nutr, 111(1): 151-9.

Key: (+) Postive component of index/score (+m) Postive component in moderation (-) Negative component of index/score

INDEX/ SCORE-Mediterranean	modified Mediterranean Diet Score (mMDS)	tertiles Mediterranean Diet Score (tMDS)	literature Mediterranean Diet Score (LitMDS)	Pyramid Mediterranean Diet Score (PyrMDS)	modified Mediterranean Diet Score (MDS)	Mediterranean Diet Score (MDS)	modified Alternate Med Diet Score (aMED)
Total Score	0-9	0-18	0-18	0-15	0-8	11-55	9-45
Vegetables	Vegetables (+)	Vegetables (+)	Vegetables (+)	Vegetables (+) Potato (-)	Vegetables and Fruits (+)	Vegetables (+)	Vegetables (+)
Legumes	Legumes (+)	Legumes (+)	Legumes (+)	Legumes (+)	Legumes and Nuts (+)		Legumes (+)
Fruit	Fruit (+)	Fruit (+)	Fruit and Nuts (+)	Fruit (+)	Included in vegetables	Fruit (+)	Fruit (+)
Nuts			Included in fruit	Nuts 1-2/d (+) 0/d, 0	Included in legumes	Nuts 1-5, by quintiles (+)	Nuts 1-5, by quintiles (+)
Whole Grains					Non-Refined, High-Fiber Grains (+)		Whole Grains (+)
Grains, unspecified	Cereals (+)	Cereals (+)	Cereals (+)	Cereals (+)		Grains and Starches (+m)	
Refined Grains							
Fish/Seafood	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)	Fish (+)
Meat	Meat (-)	Meat (-)	Meat (-)	Red Meat (-) Processed Meat (-) White Meat (+) Eggs (+)	Red and Processed Meat (-)	Red and Processed Meat (-) Lean Meat (poultry, lean beef) (+)	Red and Processed Meat (-)
Dairy	Dairy Products (-)	Dairy Products (-)	Dairy Products (-)	Dairy (+)	Fermented Dairy Products (+)	Dairy Foods (+m)	
Sugar Sweetened Beverages, Sweets				Sweets (-)			
Fat	MUFA+PUFA/SFA (+)	Olive Oil (+)	Olive Oil (+)	Olive Oil (+)	Olive Oil, Rapeseed Oil (+)		MUFA/SFA (+)
Carbohydrates							
Protein							
Alcohol	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)	Alcohol (-)	Alcohol (+m)	Alcohol (+m)	Alcohol (+m)
Sodium						Sodium (-)	
Other							
Articles using Index/Score in all-cause mortality systematic review	Hulsegge, 2016 Stefler, 2017 Trichopolou, 2005	Tong, 2016	Tong, 2016	Tong, 2016	Warensjo Lemming, 2018	Whalen, 2014 Whalen, 2017	Cheng, 2018 Hu, 2019
Reference for Index Score	Trichopoulou et al, 2005. Modified Mediterranean diet and survival: EPIC-elderly prospective cohort study Bmj, 330(7498): 991.	Tong 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): 135.	Sofi et al, 2014. Mediterranean diet and health status: an updated meta-analysis and a proposal for a literature-based adherence score. Pub Health Nutr;17:2769–82.	Tong 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): 135.	Warensjo Lemming 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 Br J Nutr, 119(7): 836-846.	Whalen et al, 2014. Paleolithic and Mediterranean diet pattern scores and risk of incident, sporadic colorectal adenomas. Am J Epidemiol;180: 1088–97.	Cheng et al, 2018. Associations of evolutionary-concordance diet, Mediterranean diet and evolutionary-concordance lifestyle pattern scores with all-cause and cause-specific mortality Br J Nutr, 1-10.

Key: (+) Postive component of index/score | (+m) Postive component in moderation | (-) Negative component of index/score

INDEX/ SCORE- Dietary Guidelines	Healthy Eating Index (HEI)	Alternative Healthy Eating Index (AHEI)	Healthy Eating Index (HEI)-2005	Healthy Eating Index (HEI)-2010	Alternative HEI (AHEI)-2010	2015 Dietary Guidelines for American Index (2015 DGAI)	Healthy Eating Index (HEI)-2015	INDEX/ SCORE - DASH	DASH Score
Total Score	0-100	2.5-87.5	0-100	0-100	0-110	0-21	0-100	**Total Score**	8-40
Vegetables	Vegetables (+)	Vegetables (not potatoes, French fries) (+)	Total vegetables Dark Green/Orange Vegetables, Legumes (+)	Total Vegetables (+) Greens and Beans (+)	Vegetables (not potatoes, French fries) (+)	Dark Green Vegetables Red/Prange vegetables Starchy Vegetables Other Vegetables Variety of Vegetables and Fruits (+)	Total Vegetables (+) Greens and Beans (+)	**Vegetables**	Vegetables (not potatoes and legumes) (+)
Legumes		Included in nuts	Included in vegetables; meat	Included in vegetables; fish		Legumes (+)	Included in vegetables; fish	**Legumes**	Nuts and Legumes (+)
Fruit	Fruit (+)	Fruit (+)	Total Fruit Whole Fruit (+)	Total Fruit Whole Fruit (+)	Fruit (+)	Fruit (+) Variety -- included in vegetables	Total Fruit (+) Whole Fruit (+)	**Fruit**	Fruit and Fruit Juice (+)
Nuts		Nuts and Soy Protein (+)			Included in legumes			**Nuts**	Included in legumes
Whole Grains		Cereal Fiber (+)	Whole Grains (+)	Whole Grains (+)	Whole Grains (+)	Whole Grains (+)	Whole Grains (+)	**Whole Grains**	Whole Grains (+)
Grains, unspecific	Grains 6-11 serv/d=10 (+)		Total Grains (+)			Cereals (+)		**Grains, unspecified**	
Refined Grains				Refined Grains (-)			Refined Grains (-)	**Refined Grains**	
Fish				Seafood and Plant Proteins (+)		Fish and Seafood (+)	Seafood and Plant Proteins (+)	**Fish/Seafood**	
Meat	Meat (-)	White:Red Meat (+)	Meat and Beans (+)	Total Protein Foods (+)	Red and Processed Meat (-)	Meat and Eggs (+) Low-fat dairy, and Lean Meat Products (+)	Total Protein Foods (+)	**Meat**	Red and Processed Meat (-)
Dairy	Milk (-)		Milk, Yogurt, Cheese, and Soy Beverages (+)	Dairy (+)		Dairy Products (+) Low-Fat Dairy - included in meat	Dairy (+)	**Dairy**	Low-Fat Dairy (+)
Sugar Sweetened Beverages, Sweets				Added sugars in "empty calories" (-)	Sugar Sweetened Beverages and Fruit Juice (-)		Added sugars (-)	**Sugar Sweetened Beverages, Sweets**	Sweetened beverages (-)
Fat	Total Fat SFA Cholesterol (-)	PUFA:SFA (+)	Healthy Oils (+)	Solid fats in "empty calories" (-)	Trans FA (-)	Total Fat SFA Trans FA Cholesterol (+m)	PUFA+MUFA/SFA (+)	**Fat**	
		Trans-UFA (-)	SFA (-) Solid fats, Alcohol, and Added Sugars (-)	Fatty acids (0-10) (+)	Long-Chain Fats (EPA + DHA) (+) PUFA (+)		SFA (-)	**Carbohydrates**	
Carbohydrates			Solid fats, Alcohol, and Added Sugars (-)			Added Sugar (-)		**Protein**	
						Dietary Fiber Density (+)		**Alcohol**	
Protein								**Sodium**	Sodium (-)
Alcohol		Alcohol (+m)	Solid fats, Alcohol, and Added Sugars (-)		Alcohol (+m)	Alcohol (-)		**Other**	
Sodium	Sodium (+m)		Sodium (-)	Sodium (-)	Sodium (-)	Sodium (+m)	Sodium (-)		
Other	Variety (+)	Multivitamin Use (+)							
Articles using Index/Score in all-cause mortality systematic review	Bittoni, 2015 Brown, 2016 Ford, 2011 Ford, 2012 Kappeler, 2013 Park, 2016 Shahar, 2009 Thorpe, 2013	Akbaraly, 2011 Ford, 2014	Loprinzi, 2018	George, 2014 Harmon, 2015 Lassale, 2016 Reedy, 2014	George, 2014 Harmon, 2015 Hashemian, 2019 Hu, 2019 Mursu, 2013 Neelakantan, 2018 Reedy, 2014 Shivappa, 2017 Sotos-Prieto, 2017	Fresan, 2019	Hashemian, 2019 Hu, 2019 Panizza, 2018	**Articles using Index/Score in all-cause mortality systematic review**	Biesbroek, 2017 George, 2014 Harmon, 2015 Hashemian, 2019 Hu, 2019 Lassale, 2016 Mokhtari, 2019 Neelakantan, 2018 Reedy, 2014 Shah, 2018 Sotos-Prieto, 2017 Zaslavsky, 2017
Reference for Index/Score	Kennedy et al, 1995. The Healthy Eating Index: design and applications. J Am Diet Assoc; 95:1103–8.	McCullough et al, 2000. Adherence to the Dietary Guidelines for Americans and risk of major chronic disease in men. Am J Clin Nutr. 2000;72:1223–31.	Guenther et al, 2008. Development of the Healthy Eating Index-2005. J Am Diet Assoc;108:1896–901.	Guenther et al, 2013. Update of the Healthy Eating Index: HEI-2010. J Acad Nutr Diet;113:569–80.	Chiuve et al, 2012. Alternative dietary indices both strongly predict risk of chronic disease. J Nutr;142:1009–18.	Fresan et al, 2019. Adherence to the 2015 Dietary Guidelines for Americans and mortality risk in a Mediterranean cohort: The SUN project Prev Med, 118: 317-324. https://www.ncbi.nlm.nih.gov/pubmed/30468792	Krebs-Smith et al, 2018. Update of the Healthy Eating Index: HEI-2015. J Acad Nutr Diet;118: 1591–602.	**Reference for Index/Score**	Fung et al, 2008. Adherence to a DASH-style diet and risk of coronary heart disease and stroke in women. Arch Intern Med;168:713–20.

Key: (+) Postive component of index/score (+m) Postive component in moderation (-) Negative component of index/score

INDEX/ SCORE - Country specific	Japanese Dietary Index	Japanese Food Guide	modified Japanese Food Guide	Reduced Salt Japanese Diet Score	Japanese Food Guide Spinning Top	Japanese Food Score	Programme National Nutrition Sante Guideline Score - France (PNNS-GS)	Diet Quality Index - Sweden (DQI-SNR)
Total Score	0-9	0-70	0-80	0-7	0-70	0-7	0-15	0-6
Vegetables	Seaweeds, Pickles, Green, Yellow Vegetables (green vegetables, carrot, pumpkin, tomato) (+)	Vegetable Dishes (+)	Vegetable Dishes (+)	Tsukemono (pickled vegetables) (+)	Vegetable Dishes (+)	Vegetables (spinach or garland chrysanthemum, carrots or pumpkin, tomatoes, cabbage or head lettuce and Chinese cabbage) (+) Japanese Pickles (+) Fungi (+) Seaweeds (+)	Vegetables and Fruit (+)	Vegetables and Fruit (+)
Legumes						Beans and Bean Products (boiled beans and tofu) (+)	Included in grains	
Fruit		Fruit (+)	Fruit (+)		Fruit (+)	Fruit (+)	Included in vegetables	Included in vegetables
Nuts								
Whole Grains								
Grains, unspecific	Rice (+)	Grain Dishes (+)	Grain Dishes (+)	Noodles (-)	Grain Dishes (+)		Bread, cereals, potatoes, and legumes (+m)	
Refined Grains								
Fish/Seafood	Fish (rawfish, fish boiled with soy, roast fish, boiled fish paste, dried fish) (+)	Fish and Meat Dishes (+)	Fish and Meat Dishes (+)	Fish (+)	Fish and Meat Dishes (+)	Fish (fresh) (+)	Seafood (+)	Fish and Shellfish (+)
Meat	Beef and Pork (beef, pork, ham, sausage) (+)		White: Red Meat (+)	Eggs (-) Meat (-)	Included in Fish		Meat and Poultry, Seafood, and Eggs (+m)	
Dairy		Milk (+)	Milk (+)		Milk (+)		Milk and Dairy Products (+m)	
Sugar Sweetened Beverages, Sweets							Sweetened Foods (-) Soda (drink water) (-)	Sucrose (-)
Fat							Vegetable Fat (+) Added fat (-)	SFA (-) PUFA (+m)
Carbohydrates								Dietary Fiber (+m)
Protein								
Alcohol		Alcohol and Snacks (-)	Alcohol and Snacks (-)	Ocassional drinking (+m)	Alcohol (+)		Alcohol (+m)	
Sodium				Low-Salt Soy Sauce (-)			Salt (-)	
Other	Miso soup, Green tea, and Coffee (+)	Total Energy Intake (-)	Total Energy Intake (-)		Energy from Snacks (+)		Physical Activity (+)	
Articles using Index/Score in all-cause mortality systematic review	Abe, 2019	Kurotani, 2016 Kurotani, 2019	Kurotani, 2016	Nakamura, 2009	Oba, 2009	Okada, 2018	Bongard, 2016	Drake, 2013
Reference for Index Score	Abe et al, 2019. Japanese diet and survival time: The Ohsaki Cohort 1994 study Clin Nutr, https://www.ncbi.nlm.nih.gov/pubmed/30846323	Kurotani et al, 2016. Quality of diet and mortality among Japanese men and women: Japan Public Health Center based prospective study BMJ, 352: i1209.	Kurotani et al, 2016. Quality of diet and mortality among Japanese men and women: Japan Public Health Center based prospective study BMJ, 352: i1209.	Nakamura et al, 2009. A Japanese diet and 19-year mortality: national integrated project for prospective observation of non-communicable diseases and its trends in the aged, 1980 Br J Nutr, 101(11): 1696-705.	Oba et al, 2009. Diet based on the Japanese Food Guide Spinning Top and subsequent mortality among men and women in a general Japanese population J Am Diet Assoc, 109(9): 1540-7.	Okada et al, 2018. The Japanese food score and risk of all-cause, CVD and cancer mortality: the Japan Collaborative Cohort Study Br J Nutr, 120(4): 464-471.	Estaquio et al, 2009. Adherence to the French Programme National Nutrition Sante Guideline Score Is Associated with Better Nutrient Intake and Nutritional Status. J Am Diet Assoc 109: 1031-1041.	Drake et al, 2011. Development of a diet quality index assessing adherence to the Swedish nutrition recommendations and dietary guidelines in the Malmo¨ Diet and Cancer cohort. Public Health Nutr 14, 835–845.

Key: (+) Postive component of index/score | (+m) Postive component in moderation | (-) Negative component of index/score

INDEX/ SCORE - Country specific	Diet Quality Index - Korea (DQI-K)	Healthy Nordic Food Index (HNFI)	Traditional Sami Diet Score	Dutch Healthy Diet Index 2015	Dutch Healthy Nutrient and Food Score (DHNaFS)	Dutch Undesirable Nutrient and Food Score (DUNaFS)	Dutch Healthy Diet-index (DHD-index), modified	Dutch Dietary Guidelines - 2015
Total Score	0-9	0-6	0-8	0-140	0-22	0-22	0-90	
Vegetables	Vegetables (+)	Cabbage (+) Root Vegetables (+)		Vegetables (+)	Vegetables (+) Potatoes (+)	Processed Vegetables (+)	Vegetable (+)	Vegetables (+)
Legumes				Legumes (+)	Legumes (protein-rich plant foods) (+)			Legumes (+)
Fruit	Fruit (+)	Apples and Pears (+)	Berries (+)	Fruit (+)	Fruit (+)		Fruit (+)	Fruit (+)
Nuts				Nuts (+)				Nuts
Whole Grains	Whole Grain (+)	Rye Bread (+) Oatmeal (+)		Whole Grains (+)	Whole Grains (+)	Refined Grains (+)		Whole grains (+)
Grains, unspecific			Bread (-)					
Refined Grains				Replace refined with whole-grain products (-)				Replace refined with whole-grain products (-)
Fish/Seafood		Fish (+)	Fatty Fish (+)	Fish (+)	Fish (+)		Fish (+)	Fish (+)
Meat			Red Meat (+)	Red Meat (-) Processed Meat (-)	Lean Meat (+) Eggs (+)	High-Fat Meat (+) Processed Meat (+)		Red Meat (-) Processed Meat (-)
Dairy				Dairy Products (+m)	Low-Fat Milk and Yogurt (+)	Full-Fat Milk (+) Cheese (+)		Dairy Products (+)
Sugar Sweetened Beverages, Sweets						Fruit juice and Sugar-Sweetened Beverages (+)		
Fat	Total Fat (-) SFA (-) Cholesterol (-)		Total Fat (+)	Margarines, oils (replace butter, hard fats) (+)	Vegetable Oils and Soft Margarines (+)	Butter and Hard Margarines (+)	SFA (-) Trans FA (-)	Unsaturated Fats and Oils (+)
Carbohydrates			Fiber (-)				Dietary Fiber (-)	
Protein	Protein (-)							
Alcohol				Alcohol (-)			Alcohol (-)	Alcohol (-)
Sodium	Sodium (-)			Sodium (-)			Sodium (-)	Sodium (-)
Other				Tea (+) Filtered coffee (+)	Non-Caloric Drinks (tea, coffee, water) (+)	Ready meals and soups, spreads and snacks (+)	Physical activity (+)	Tea (+)
Articles using Index/Score in all-cause mortality systematic review	Lim, 2018	Lassale, 2016 Olsen, 2011 Roswall, 2015 (whole grain vs. rye bread)	Nilsson, 2012	Biesbrock, 2017	Sijtsma, 2015	Sijtsma, 2015	van Lee, 2016	Voortman, 2017
Reference for Index Score	Lim 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): 258-264.	Olsen et al, 2011. Healthy aspects of the Nordic diet are related to lower total mortality J Nutr, 141(4): 639-44.	Nilsson et al, 2012. A traditional Sami diet score as a determinant of mortality in a general northern Swedish population Int J Circumpolar Health, 71(0): 1-12.	Biesbroek 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? Br J Nutr, 118(1): 69-80.	Sijtsma et al, 2015. Healthy eating and survival among elderly men with and without cardiovascular-metabolic diseases. Nutr Metab Cardiovasc Dis, 25(12): 1117-24.	Sijtsma et al, 2015. Healthy eating and survival among elderly men with and without cardiovascular-metabolic diseases. Nutr Metab Cardiovasc Dis, 25(12): 1117-24.	van Lee et al, 2016. Adherence to the Dutch dietary guidelines is inversely associated with 20-year mortality in a large prospective cohort study Eur J Clin Nutr, 70(2): 262-8.	Voortman 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.

Key: (+) Postive component of index/score | (+m) Postive component in moderation | (-) Negative component of index/score

INDEX/ SCORE - Other	Recommended Food Score (RFS)	Elderly Dietary Index (EDI)	Paleolithic Score	Evolutionary-Concordance Score	Non-Recommended Food Score (non-RFS)	Moderation-Quantified Healthy Diet (MQHD)	alternative Moderation-Quantified Healthy Diet (aMQHD)	Ideal Diet Index (IDI)
Total Score	0-23	9-36	14-70	14-70	0-16	0-100	0-100	0-8
Vegetables	Tomatoes; broccoli; spinach; mustard, turnip, collard greens; carrots or mixed vegetables & carrots; green salad; sweet potatoes, yams; other potatoes (+)	Vegetables (+)	Vegetables(+) Fruit and Vegetable Diversity (+)	Vegetables(+) Fruit and Vegetable Diversity (+)		Vegetables (+) Potatoes (+)	Vegetables (+) Potatoes (+)	Vegetables and Fruit (+)
Legumes	Dried Beans (+)	Legumes (+)						Legumes, Nuts, and Seeds (+)
Fruit	Apples or pears; oranges; cantaloupe; orange or grapefruit juice; grapefruit; other fruit juices (+)	Fruit (+)	Fruit (+) Diversity included in vegetables (+)	Fruit (+) Diversity included in vegetables (+)		Fruit (+)	Fruit (+)	
Nuts			Nuts (+)	Nuts (+)			Nuts (+)	Included in legumes
Whole Grains	Dark breads (whole wheat, rye, pumpernickel); cornbread, tortillas & grits; high-fiber cereals; cooked cereals (+)	Whole Grain Bread (+)						Whole Grains (+)
Grains, unspecified		Cereals (+)	Grains and Starches (-)	Grains and Starches (-)		Grains (+)	Grains (+)	
Refined Grains		Included in whole grains	Baked goods (-)	Baked goods (-)	White bread, sweets (combined buns/cakes and biscuits/wafers/rusks and gateau/pastries) (-)			
Fish/Seafood	Fish (baked or broiled) (+)	Fish (+)	Fish (+)	Fish (+)		Fish and Shellfish (+)	Fish and Shellfish (+)	Fish (+)
Meat	Chicken or Turkey (baked or stewed) (+)	Meat (+m)	Lean Meat (+) Red and Processed Meat (-)	Lean Meat (+) Red and Processed Meat (-)	Pork, beef/veal, minced meat/hamburgers/ meatballs, Sausage as main dish, meat/sausage on sandwiches, liver/kidney, blood pudding, liver pate (-)	Poultry (+) Red meat (+) Eggs(+)	Poultry (+) Red Meat (+) Eggs (+) Lamb or Veal (+) White/Red Meat (+)	Processed Meat (-)
Dairy	Milk (skim, 1%, 2%) (+)	Dairy (+)	Dairy Foods (-)	Dairy Foods (-)	Cheese (28% fat), Butter (80% fat), Cream/Creme Fraiche (-)	Dairy Products (+)	Dairy Products (+) Skimmed Milk (+) Ice cream: dairy products (+)	
Sugar Sweetened Beverages, Sweets			Sugar-Sweetened Beverages (-)	Sugar-Sweetened Beverages (-)				Added Sugar (-)
Fat		Olive Oil (+)				Unsaturated fatty acids : SFA (+) Fried foods:non-fried foods (+)	Unsaturated fatty acids : SFA (+) Fried foods:non-fried foods (+)	SFA (-)
Carbohydrates								
Protein								
Alcohol		Wine (-)	Alcohol (-)	Alcohol (-)		Alcohol (+)	Alcohol (+)	
Sodium			Sodium (-)	Sodium (-)				Sodium (-)
Other			Calcium (from non-dairy foods) (+)	Calcium (from non-dairy foods) (+)	Potato chips/ popcorn and fried potatoes/ French fries, mayonnaise, ice cream (-)			
Articles using Index/Score in all-cause mortality systematic review	Kaluza, 2009; Kant, 2000; Mai, 2005; McNaughton, 2012; Michels, 2002	Atkins, 2014	Whalen, 2017 Whalen, 2014	Cheng, 2018	Kaluza, 2009 Michels, 2002	Dai, 2016	Dai, 2016	Cuenca-García, 2014
Reference for Index Score	Kant et al, 2000. A prospective study of diet quality and mortality in women. JAMA 283, 2109–2115.	Kourlaba et al, 2009. Development of a diet index for older adults and its relation to cardiovascular disease risk factors: the Elderly Dietary Index. J Am Diet Assoc.109:1022–30.	Whalen et al, 2014 Paleolithic and Mediterranean diet pattern scores and risk of incident, sporadic colorectal adenomas. Am J Epidemiol 180, 1088–1097.	Cheng et al, 2018. Associations of evolutionary-concordance diet, Mediterranean diet and evolutionary-concordance lifestyle pattern scores with all-cause and cause-specific mortality Br J Nutr: 1-10.	Kaluza et al, 2009. Diet quality and mortality: a population-based prospective study of men Eur J Clin Nutr, 63(4): 451-7.	Dai et al, 2016. Midlife moderation-quantified healthy diet and 40-year mortality risk from CHD: the prospective National Heart, Lung, and Blood Institute Twin Study Br J Nutr, 116(2): 326-34.	Dai et al, 2016. Midlife moderation-quantified healthy diet and 40-year mortality risk from CHD: the prospective National Heart, Lung, and Blood Institute Twin Study Br J Nutr, 116(2): 326-34.	Cuenca-Garcia et al, 2014. Dietary indices, cardiovascular risk factors and mortality in middle-aged adults: findings from the Aerobics Center Longitudinal Study Ann Epidemiol, 24(4): 297-303.e2.

Key: (+) Postive component of index/score; (+m) Postive component in moderation; (-) Negative component of index/score

INDEX/ SCORE - Other	Overall Dietary Index- Revised (ODI-R)	WCRF/AICR Score - Diet Only	adapted WCRF/AICR Score - Diet Only	Diet Quality Index (DQI)	Healthy diet score	Healthy diet score	Healthy diet score	Healthy Diet Score (HDS), adapted
Total Score	0-100	0-7	0-3	0-16	0-5	0-5	0-9	0-12
Vegetables	Vegetables (+)	Vegetables and Fruit (+)	Vegetables and Fruit (+)	Vegetables and Fruit (+)	Vegetables and Fruit (+)	Vegetables (+)	Vegetables and Fruit (+) Fruit and Vegetable Variety (+)	Vegetables and Fruit (+)
Legumes	Soybeans (+)			Included in grains				Pulses and Nuts (+)
Fruit	Fruit (+)	Included in vegetables	Included in vegetables	Included in vegetables	Included in vegetables	Fruit (+)	Fruit (+) Variety included in vegetables (+)	Included in vegetables
Nuts								Included in legumes
Whole Grains	Whole Grains (+)				Brown Rice (+)	Whole Grains (+)	Whole Grains (+)	
Grains, unspecified	Grains and Starchy Tubers (+)			Breads, Cereal, and Legumes (+)				
Refined Grains								
Fish/Seafood	Fish (+)				Fish (+)	Fish (+)		Fish (+)
Meat	Eggs, Soy, Fish, and Meats (+)	Red and Processed Meat (-)	Red and Processed Meat (-)			Red and Processed Meat (-)	Red and Processed Meat (-)	Red and Meat Products (-)
Dairy	Dairy Products (+)							
Sugar Sweetened Beverages, Sweets	Refined Sugar (-)	Sugary Drinks (-)	Sugary Drinks (-)		Sugar-Sweetened Beverages (coffee and soft drinks) (-)			Total Non-Milk Extrinsic Sugars (-)
Fat	PUFA/SFA (+) Cholesterol (-)			Total Fat (-) SFA (-) Cholesterol (-)		Vegetable Fats (+) Animal Fats (-)		PUFA (+m) SFA (-) Cholesterol (-)
Carbohydrates		Dietary Fiber (+)	Dietary Fiber (+)					Carbohydrates (+m) Dietary Fiber (+)
Protein				Protein (-)				Protein (+m)
Alcohol	Alcohol (+m)	Alcohol (-)						
Sodium	Sodium (-)	Sodium (-)		Sodium (-)	Sodium (-)			
Other	Dietary Diversity (+)	Energy-Dense Foods (-)	Energy-Dense Foods (-)	Calcium (+)				Calcium (+)
Articles using Index/Score in all-cause mortality systematic review		Muller, 2016	Muller, 2016	Cuenca-García, 2014 Seymour, 2003	Kim, 2013	Martinez-Gomez, 2013	McCullough, 2011	McNaughton, 2012
Reference for Index Score	Lee et al, 2008. A global overall dietary index: ODI-R revised to emphasize quality and over quantity. Asia Pac J Clin Nutr; 17(S1):82-6.	Romaguera et al, 2012. Is concordance with World Cancer Research Fund/American Institute for Cancer Research guidelines for cancer prevention related to subsequent risk of cancer? Results from the EPIC study. Am J Clin Nutr;96(1):150–63.	(modified) Romaguera et al, 2012. Is concordance with World Cancer Research Fund/American Institute for Cancer Research guidelines for cancer prevention related to subsequent risk of cancer? Results from the EPIC study. Am J Clin Nutr;96(1):150–63.	Patterson et al, 1994. Diet Quality Index: capturing a multidimensional behavior. J Am Diet Assoc 1994;94: 57–64.	Kim et al, 2013. Cardiovascular health metrics and all-cause and cardiovascular disease mortality among middle-aged men in Korea: the Seoul male cohort study J Prev Med Public Health, 46(6): 319-28.	Martinez-Gomez et al, 2013. Combined impact of traditional and non-traditional health behaviors on mortality: a national prospective cohort study in Spanish older adults BMC Med, 11: 47.	McCullough et al, 2011. Following cancer prevention guidelines reduces risk of cancer, cardiovascular disease, and all-cause mortality Cancer Epidemiol Biomarkers Prev, 20(6): 1089-97.	Maynard et al, 2005. Selecting a healthy diet score: lessons from a study of diet and health in early old age (the Boyd Orr cohort). Public Health Nutr; 8: 321–6.

Key: (+) Postive component of index/score | (+m) Postive component in moderation | (-) Negative component of index/score

INDEX/ SCORE - Other	Dietary Behavior Score (DBS)	Plant-Based Diet Index (PDI)	Healthy Plant-Based Diet Index (hPDI), unhealthy PDI (uPDI)	Provegetarian Food Pattern	"a priori diet quality score"	Anti-inflammatory diet index (AIDI)	Diet Quality Index (DQI) - International	Healthy Lifestyple Index (HLI)-diet
Total Score	0-36	0-85	0-85	12-60	0-81	0-16	0-100	0-63
Vegetables	Vegetables (+)	Vegetables (+) Potatoes (+)	Vegetables (+) Potatoes (-)	Vegetables (+) Potatoes (+)	Green Vegetables, Other Vegetables, Tomato (+) Potatoes (+m) Fried potatoes (-)	Vegetables and Fruit (+)	Vegetables (+)	Vegetables (+)
Legumes		Legumes (+)	Legumes (+)	Legumes (+)	Legumes, Beans, Soy Products (+)			
Fruit	Fruit (+)	Fruit (+) Fruit Juices (+)	Fruit (+) Fruit Juices (-)	Fruit (+)	Fruit (+) Fruit Juices (+m)	Included in vegetables	Fruit (+)	Fruit (+)
Nuts		Nuts (+)	Nuts (+)	Nuts (+)	Nuts, Seeds (+)	Nuts (+)		
Whole Grains	Whole Grains (+)	Whole Grains (+)	Whole Grains (+)		Whole Grains (+)	Whole Grain Bread (+)		
Grains, unspecified				Cereals (+)		Breakfast Cereal (+)	Cereals (+)	
Refined Grains		Refined Grains	Refined Grains (-)		Refined Grains (+m)	Chips (-)		
Fish/Seafood		Fish or Seafood (-)	Fish or Seafood (-)	Fish and other Seafood (-)	Fish (+)			Fatty Fish (+)
Meat	Lean Meat (+)	Meat (-) Egg (-) Misc. Animal Foods (-)	Meat (-) Egg (-) Misc. Animal Foods (-)	Meats and Meat Products (-) Eggs (-)	Poultry (+) Eggs (+m) Red Meat, Liver, Processed Meat, Butter (-)	Processed Meat (-) Unprocessed Meat (-) Offal (-)		
Dairy	Low-Fat Dairy (+)	Dairy (-)	Dairy (-)	Dairy Products (-)	Low-Fat Dairy (+) Whole-Fat Dairy (-)	Low-Fat Cheese (+)		
Sugar Sweetened Beverages, Sweets		Sugar-Sweetened and Artificially Sweetened Beverages (+) Sweets and Desserts (+)	Sugar-Sweetened and Artificially Sweetened Beverages (+) Sweets and Desserts (+)		Soft Drinks, Sweets (-)	Soft Drinks (-)		
Fat	Added Solid Fat (-)	Animal Fat (-)	Animal Fat (-)	Olive Oil (+) Animal Fats (-)	Oil (+) Margarine (+m)	Olive and Canola Oil (+)	PUFA/SFA (+) Total fat, SFA, Cholesterol (-)	PUFA/SFA (+) Margarine (-)
Carbohydrates							Carbohydrate:Protein:Fat ratio (+m)	
Protein							Protein (+)	
Alcohol					Beer, Wine, Liquor (+)	Red Wine (+)		
Sodium					Salty Snacks (-)		Sodium (-)	
Other		Tea and Coffee (+)	Tea and Coffee (+)		Tea, Coffee (+) Chocolate, Diet Soft Drinks (+m) Fried Foods (-)	Tea (+) Chocolate (+)	Calcium, Iron, vitamin C (+) Empty-energy foods (-)	
Articles using Index/Score in all-cause mortality systematic review	Kant, 2009	Baden, 2019 Kim, 2018 Kim, 2019	Baden, 2019 Kim, 2018 Kim, 2019	Kim, 2018 Kim, 2019 Martinez-Gonzalez, 2014	Mursu, 2013	Kaluza, 2019	Lassale, 2016	Lassale, 2016
Reference for Index Score	Kant et al, 2009. Patterns of recommended dietary behaviors predict subsequent risk of mortality in a large cohort of men and women in the United States J Nutr, 139(7): 1374-80.	Kim et al, 2018. Healthy Plant-Based Diets Are Associated with Lower Risk of All-Cause Mortality in US Adults J Nutr, 148(4): 624-631.	Kim et al, 2018. Healthy Plant-Based Diets Are Associated with Lower Risk of All-Cause Mortality in US Adults J Nutr, 148(4): 624-631.	Martinez-Gonzalez et al, A provegetarian food pattern and reduction in total mortality in the Prevencion con Dieta Mediterr anea (PREDIMED) study. Am J Clin Nutr. 2014;100:320S–328S.	Mursu et al, 2013. Diet quality indexes and mortality in postmenopausal women: the Iowa Women's Health Study Am J Clin Nutr, 98(2): 444-53.	Kaluza et al, 2018. Questionnaire-Based Anti-Inflammatory Diet Index as a Predictor of Low-Grade Systemic Inflammation. Antioxidants & Redox Signaling; 28: 78-84.	Kim et al, 2003. The Diet Quality Index-International (DQI-I) provides an effective tool for cross-national comparison of diet quality as illustrated by China and the United States. J Nutr 133: 3476–3484 PMID: 14608061	McKenzie et al, 2015. Healthy lifestyle and risk of breast cancer among postmenopausal women in the European Prospective Investigation into Cancer and Nutrition cohort study. Int J Cancer 136: 2640–2648.

Key: (+) Postive component of index/score (+m) Postive component in moderation (-) Negative component of index/score

Table 2: Dietary patterns identified by factor or cluster analyses

Article	Dietary patterns assessed by factor/cluster analysis
Anderson et al., 2011[112]	• 'Healthy foods': higher intake of low-fat dairy products, fruit, whole grains, poultry, fish and vegetables, and lower consumption of meat, fried foods, sweets, high-energy drinks, and added fat • 'High-Fat Dairy Products': higher intake of foods such as ice cream, cheese, and 2% and whole milk and yogurt, and lower intake of poultry, low-fat dairy products, rice, and pasta • 'Meat, Fried Foods, and Alcohol': NR; higher intake of meat, fried poultry, beer, liquor, rice, pasta, and mixed dishes, snacks, nuts, high-energy-density drinks, mayonnaise and salad dressing • 'Breakfast Cereal': NR; higher intake of cold breakfast cereal, fiber/bran and other cold breakfast cereal; lower intake of dark yellow vegetables, refined grains, and nuts • 'Refined Grains': NR; higher intake of processed meat; lower intake of liquor, whole grains, cold breakfast cereal, fiber/bran and other cold breakfast cereal • 'Sweets and Desserts': higher intake of doughnuts, cake, cookies, pudding, chocolate, and candy, and lower intake of fruit, fish, other seafood, and dark green vegetables
Atkins et al, 2016[113]	• ‘High-fat/low-fibre’: high in red meat, meat products, white bread, fried potato, and eggs • ‘Prudent’: high in poultry, fish, fruits, vegetables, legumes, pasta, rice, wholemeal bread, eggs, and olive oil • ‘High sugar’: high in biscuits, puddings, chocolates, sweets, sweet spreads, breakfast cereals
Bamia et al, 2007[114]	• Plant-based dietary pattern: higher plant foods such as vegetables and vegetable oils, fruit, pasta/rice/other grains and legumes; poor in potatoes, margarine and non-alcoholic beverages
Boggs et al, 2015[12]	• 'Prudent': High intake of vegetables and fruits • 'Western': High Intake of red and processed meat and fried foods
Brunner et al, 2008[115]	• 'Unhealthy': Higher than average consumption of meat and sausages, white bread, fries, and full-cream milk. Average consumption of wine and beer; very low consumption of fruit and vegetables. • 'Sweet': Higher than average consumption of biscuits, cakes, meat, sausages and savory pies, white bread, full-cream milk, butter, and wine and beer. Average intake of fruit and vegetables. • 'Mediterranean-like': Higher than average consumption of whole-meal bread, fruit, vegetables, pasta and rice, and wine and beer. Low intake of full-cream milk but high intake of butter. Average consumption of white bread. • 'Healthy': Higher than average consumption of whole-meal bread, fruit and vegetables, and polyunsaturated margarine. Average to low consumption of red meat, sweet foods, and wine and beer

Article	Dietary patterns assessed by factor/cluster analysis
Chan et al, 2019[19]	• 'Vegetable-fruits' pattern (data NR) • 'Snacks-Drinks-Milk products' pattern (data NR) • 'Meat-fish' pattern (data NR)
Granic et al, 2013[116]	• Class 1, 'Moderate Intake and Starch Diet': medium intake of all foods: beef, pork, sausage, egg and egg dishes, fish and seafood, fruits and vegetables, potatoes, sweets, and milk; except for high intake of flour-based foods, pastries and sandwiches. • Class 2, 'Moderate Intake with Low Flour-Based Food Diet', ref: moderate consumption of 8 food items: beef, pork, sausage, egg and egg dishes, fish and seafood, fruits and vegetables, potatoes, coffee cake and pastries, sweets, sandwich, and milk; minimal intake of flour-based dishes, low in refined starch • Class 3, 'Meat and Starch Diet': higher consumption of potatoes, milk, sandwiches, pork and sausage-based dishes • Class 4, 'Low Meat Intake Diet': lower intake of eight food groups including meat-based, egg-based and potato-based dishes
Hamer et al, 2010[117]	• 'Mediterranean': High consumption of fruits and raw vegetables, oily fish, coffee and wine • 'Health aware': High consumption of low-fat/high fiber foods, such as boiled potatoes, green vegetables and wholemeal bread • 'Traditional': High consumption of white bread, eggs, bacon and ham • 'Sweet and fat': High consumption of butter, whole milk, preserves, cream, buns/cakes/puddings and pastries.
Heidemann et al, 2008[118]	• 'Prudent': High consumption of vegetables, fruit, legumes, fish, poultry, and whole grains, • 'Western': High consumption of red meat, processed meat, refined grains, french fries, and sweets and desserts.
Hoffmann et al, 2005[119]	• PCA Pattern 1: higher in potatoes, vegetables, legumes, bread, all types of meat, eggs, sauces, soups • PCA Pattern 2: higher in vegetables, fruits, dairy products, other cereals, vegetable oils non-alcoholic beverages, and lower in alcoholic beverages other than wine
Hsiao et al, 2013[120]	• 'Sweets & dairy': High consumption of baked goods, milk, sweetened coffee and tea, and dairy-based desserts food groups and lower intakes of poultry • 'Western': High consumption of bread, eggs, fats, fried vegetables, miscellaneous (sauces, condiments, etc.), alcohol and soft drinks, and lower intakes of milk and whole fruit. • 'Health-conscious': High consumption of pasta, noodles, rice, whole fruit, poultry, nuts, fish, and vegetables, and lower intakes of fried vegetables, processed meats, and soft drinks

Article	Dietary patterns assessed by factor/cluster analysis
Kant et al, 2004[39]	• 'fruit, vegetable, whole grain': emphasized fruit, vegetable, whole grain • 'ethnic': emphasized beans, corn bread/tortillas, and mustard greens loaded on this factor • 'low-fat': emphasized skim milk and behavior-related items • 'cluster 1': less likely to mention whole grains, low-fat or skim milk, and to remove fat from meat and poultry • 'cluster 2': less likely to mention most fruits and vegetables • 'cluster 3': less likely to mention most fruits, and high-fiber cereals • 'cluster 4': highest proportion reporting weekly use of most items
Krieger et al, 2018[121]	• 'Sausage and Vegetables': High consumption of sausages and cooked vegetables and overall low dietary variety • 'Meat and salad': High consumption of meat and salad and overall low dietary variety • 'Fish': High consumption of fish and absence of meat-based products • 'Traditional': High consumption of dairy products, eggs, chocolate, dark bread and sausages with overall high dietary variety • 'High-fiber foods': High consumption of yogurt, salad, vegetables, fruits, and dark bread with overall high dietary variety
Martinez-Gonzalez et al, 2015[122]	• 'Western': High consumption of high-fat processed meats and red meats, alcohol, refined grains, canned fish, whole-fat dairy products, sauces, eggs, processed meals, commercial bakery and chocolates, and lower consumption of low-fat dairy products • 'Mediterranean': High consumption of vegetables, EVOO, walnuts, oily fish and canned fish, fruits, other nuts, whole-wheat bread, white fish and low-fat dairy products, and low consumption of refined grains, other olive oils different from EVOO
Masala et al, 2007[123]	• 'Prudent': high consumption of cooked vegetables, legumes, fish, and seed oil • 'Pasta & Meat': high consumption of pasta and other grains, tomato sauce, red and processed meats, added animal fat, white bread and wine; low consumption of yogurt. • 'Olive Oil & Salad': high consumption of olive oil, raw vegetables (tomatoes, leafy and root vegetables), soups and white meat such as chicken and turkey • 'Sweet & Dairy': high consumption of added sugar, cakes, ice-cream, coffee, eggs, butter, milk and cheese
Menotti et al, 2012[63]	• 'Factor 1': High consumption of sugar, milk, meat, fruit, pastries and cheese • 'Factor 2': High consumption of bread, cereals, vegetables, fish, potatoes and oils • 'Factor 3': High consumption of eggs and alcoholic beverages

Article	Dietary patterns assessed by factor/cluster analysis
Menotti et al, 2014[130]	• 'Factor 2': High consumption of bread, cereals, vegetables, fish, potatoes and oils
Menotti et al, 2016[125]	• 'Factor 2': High consumption of bread, cereals, vegetables, fish, potatoes and oils; Adherence divided into quintiles and, arbitrarily named as follows: ○ Q1: 'non-Mediterranean Diet', ref ○ Q2, Q3, Q4: 'Prudent Diet' ○ Q5: 'Mediterranean Diet'
Nanri et al, 2017[126]	• 'Prudent': High consumption of vegetables, fruit, soy products, potatoes, seaweed, mushrooms, and fish including oily fish, seafood other than fish, and fish products • 'Westernized': High consumption of meat including pork and beef, processed meat, bread, dairy products, coffee, black tea, soft drinks, dressing, sauce, and mayonnaise • 'Traditional Japanese': High consumption of salmon, salty fish, oily fish, seafood other than fish, and pickles
Odegaard et al, 2014[131]	• "Vegetable-fruit-and soy-rich (VFS)": predominantly vegetables, fruit, and soy-based items • "Dim sum- and meat-rich": prominent contributors were a variety of foods, predominantly dim sum, fresh and processed meats and seafood, noodle and rice dishes, sweetened foods, and deep-fried foods
Osler et al, 2001[76]	• 'Prudent': wholemeal bread (and inversely with other types), pasta, rice, oatmeal products, fruits, vegetables, and fish • 'Western': high intakes of meat, sausages, potatoes, butter and white bread
Struijk et al, 2014[92]	• 'Prudent': high intakes of fish and shellfish, raw vegetables, wine, and high-fiber cereals • 'Western': high intakes of French fries, fast food, low-fiber products, alcoholic drinks (except wine), and sugar-sweetened drinks
Waijers et al, 2006[127]	• 'Mediterranean-like' - High consumption of pasta and rice, sauces, fish, and vegetables in combination with vegetable oils, wine, and other cereals; potatoes, bread, and margarine, contributed negatively to this component • 'Traditional Dutch dinner' - High consumption of meat, potatoes, vegetables, eggs, and alcoholic beverages. Low consumption of dairy products, sweets, and pastries. • 'Healthy Traditional' - High consumption of vegetables, fruit, dairy products, potatoes, and legumes, and also nonalcoholic beverages. Low consumption in intakes of butter and alcoholic beverages.

Article	Dietary patterns assessed by factor/cluster analysis
Zazpe et al, 2014[128]	• 'Western': High consumption of red meat, processed meats, potatoes, processed meals, fast food, full-fat dairy products, sauces, commercial bakery, eggs, sugar-sweetened sodas, refined grains, and sugary products and low consumption of low-fat dairy products. • 'Mediterranean': High consumption of vegetables, fish and seafood, fruits, olive oil, low-fat dairy products, poultry, whole-wheat bread, nuts, juices, and legumes. • 'Alcoholic Beverages': High consumption of alcohol i.e., wine, beer, and other alcoholic beverages
Zhao et al, 2019[129]	• 'Meat-fat pattern': High consumption of oils and fats, other cereals, meat, seasoning, potatoes, sugar and noodles • 'Healthy pattern': High consumption of vegetables, fruits, mushrooms, algae, seafood, beans, and seasoning • 'Dairy-bread pattern': High consumption of dairy products and bread, and a low intake of rice

Table 3. Randomized controlled trial examining dietary patterns and all-cause mortality[iv]

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Estruch et al, 2018[1] **RCT**, Prevencio´ n con Dieta Mediterra´ nea (PREDIMED) Spain Analytic N: 7237 Attrition: 3% Sex: 59% female Race/ethnicity: White:~97%, Hispanic:1.6%, Other: 1.5% SES: NR Alcohol intake: NR All participants at high-CVD risk	**Dietary pattern(s):** Other: Participants were randomized to one of three diet groups: • Control: advice to reduce dietary fat • Mediterranean (Med) + EVOO: abundant olive oil, vegetables, fresh fruit and juices, legumes, fish or seafood, nuts and seeds, select white meat instead of red or processed meats, cook regularly with tomato, garlic and onion; wine preferred (if consuming alcohol); ad libitum nuts, eggs, fish, seafood, low-fat cheese, chocolate, whole-grain cereals + 15L EVOO • Med + Nuts: abundant olive oil, vegetables, fresh fruit and juices, legumes, fish or seafood, nuts and seeds, select white meat instead of red or processed meats, cook regularly with tomato, garlic and onion; wine preferred (if consuming alcohol); ad libitum nuts, eggs, fish, seafood, low-fat cheese, chocolate, whole-grain cereals; + 15g/d walnuts, 7.5g/d almonds, and 7.5g/d hazelnuts **Dietary assessment methods:** 137-item validated FFQ at age 67y	**Significant:** Incident ACM rate/1000 persons-y at 4.8y f/u: • Control, n= 114 deaths, 11.7, 95% CI: 9.6, 14.0 • Med + EVOO, n=118 deaths, 10.0, 95% CI: 8.2, 11.9 • Med + Nuts, n=116 deaths, 11.2, 95% CI: 9.3, 13.4 Absolute 5y ACM risk at 4.8y f/u: • Control, n= 114 deaths, 5.4%, 95% CI: 4.4, 6.7 • Med + EVOO, n=118 deaths, 4.4%, 95% CI: 3.6, 5.4 • Med + Nuts, n=116 deaths, 5.4%, 95% CI: 4.4, 6.6 ITT analyses: ACM risk at 4.8y f/u: • Control, n= 114 deaths, ref • Med + EVOO, n=118 deaths, 0.90, 95% CI: 0.69, 1.18 • Med + Nuts, n=116 deaths, 1.12, 95% CI: 0.86, 1.47 ITT analyses: ACM risk at 4.8y f/u: • Control, ref, HR: 1 • Mediterranean diets (combined), HR: 0.98, 95% CI: 0.77, 1.24	**Key confounders accounted for:** N/A **Other:** **Limitations:** • Did not account for key confounders: N/A • Republished analysis from PREDIMED trial • Randomization procedures deviated from protocol in some participants; Site D showed large imbalance of baseline characteristics	Mediterranean diet with nuts or EVOO compared to controls was significantly associated with lower risk of ACM at 4.8y f/u in individuals at high-risk for cardiovascular disease. **Funding:** Instituto de Salud Carlos III, Spanish Ministry of Health; Centro de Investigación Biomédica en Red de Fisiopatología de la Obesidad y Nutrición; Centro Nacional de Investigaciones Cardiovasculares; Fondo de Investigación Sanitaria–Fondo Europeo de Desarrollo Regional; Ministerio

[iv] Abbreviations: ACM, all-cause mortality; CI, confidence interval; CVD, cardiovascular disease; EVOO, extra virgin olive oil; FFQ, food frequency questionnaire; f/u, follow-up; HR, hazard ratio; N/A, not applicable; NR, not reported; NS, not significant; ref, reference (referent group); y, years

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: National Death Index	**Non-Significant:** Sensitivity analyses combining both intervention diets vs. control: • Mediterranean diet adherence score < 10, n=128 deaths, vs. Control, n=85 deaths: HR: 0.76, 95% CI: 0.57, 1.00; • Mediterranean diet adherence score ≥ 10, n=51 deaths, vs. Control, n=24 deaths: HR: 0.69, 95% CI: 0.42, 1.14; • p=0.66; NS • Additional analyses by sex, age, diabetes, hypertension, dyslipidemia, smoking, family history of CHD, BMI, anthropometry, or cause-specific death were generally NS		de Ciencia e Innovación; Fundación Mapfre 2010; Consejería de Salud de la Junta de Andalucía; Public Health Division of the Department of Health of the Autonomous Government of Catalonia, Generalitat Valenciana; Regional Government of Navarra

Table 4. Studies examining the relationship between dietary patterns by index or score analysis and all-cause mortality[v]

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Abe et al, 2020[2] PCS, Ohsaki Cohort 1994 Study Japan Analytic N: 14764 Attrition: 52% Sex: 51% female Race/ethnicity: NR SES: 10% education ≥19y Alcohol intake: 50% current drinkers	**Dietary pattern:** Japanese Diet Index (JDI) **Dietary assessment methods:** 40-item validated FFQ at baseline, age 58.1 y **Outcome assessment methods:** Residential Registry of Ohsaki City	**Significant:** JDI score at 58y and all-cause mortality (ACM) after 20y f/u: • Q1, n=1388, HR: 1.00 • Q2, n=949 deaths, HR: 0.92, 95% CI: 0.85, 1.00, NS • Q3, n=1049 deaths, HR: 0.91, 95% CI: 0.83, 0.99 • Q4, n=1233 deaths, HR: 0.91, 95% CI: 0.83, 0.99 • p-trend=0.027 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age: Part of JDI, Race/ethnicity: all Japanese, SES: Education, Alcohol, Physical activity: Walking, Anthropometry: BMI, Smoking **Other:** Total energy intake, History of disease **Limitations:** Japanese diet index may be less generalizable to the U.S population	Higher JDI score at 58y is significantly associated with lower risk for ACM after 20y f/u. **Funding:** NARO Bio-oriented Technology Research Advancement Institution
Akbaraly et al, 2011[3] PCS, Whitehall II Study United Kingdom Analytic N: 7319	**Dietary pattern:** Alternative HEI (AHEI)-2010 (McCullough, 2000) **Dietary assessment methods:** 127-item validated FFQ at baseline,	**Significant:** AHEI-2010 score (continuous) at 50y and risk of ACM, n=534 deaths after 18y f/u: B:-0.012, SE: 0.0004, p<0.001 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking	Higher AHEI-2010 score at age 50y was associated with significantly lower risk of ACM after 18y f/u.

[v] Abbreviations: ACM, all-cause mortality; CI, confidence interval; CVD, cardiovascular disease; DALY, disability-adjusted lost years; D, decile; FFQ, food frequency questionnaire; f/u, follow-up; HR, hazard ratio; HTN, hypertension; Hx, history of; MUFA, monounsaturated fats/fatty acids; N/A, not applicable; NR, not reported; NS, not significant; % E, percentage of energy; PCS, prospective cohort study design; PUFA, polyunsaturated fats/fatty acids; Q, quantile (quartile or quintile as appropriate); ref, reference (referent group); RR, relative risk; SD, standard deviation; SES: Socioeconomic status; SFA, saturated fats/fatty acids; SMR, standardized mortality ratio; T, tertile; y, years

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Attrition: 29% Sex: 30% female Race/ethnicity: 92% White, 5% South Asian, 3% Black SES: 30% high occupational grade Alcohol intake: NR	age 50y **Outcome assessment methods:** National Health Services death and electronic patient records		**Other:** Total energy intake, Other: prevalent CVD, type 2 diabetes, hypertension, dyslipidemia, metabolic syndrome, inflammatory markers **Limitations:** Did not account for key confounders: N/A	**Funding:** British Medical Research Council, British Heart Foundation, British Health and Safety Executive, British Department of Health, NIH, British United Provident Association Foundation, Medical Research Council, the Academy of Finland and the New European Union New and Emerging Risks in Occupational Safety and Health research programme, European Science Foundation
Al Rifai et al, 2018[4] PCS, Multi-Ethnic Study of Atherosclerosis study (MESA) United States Analytic N: 1601 Attrition: 75% Sex: 36% female Race/ethnicity: 49% White, 22% African-	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 120-item validated FFQ at baseline, age 69y **Outcome assessment methods:** National Death Index	**Significant:** N/A **Non-Significant:** MDS adherence [Q4 vs. Q1-Q3] at 69y and ACM after 12y f/u: HR: 0.84, 95% CI: 0.64,1.11; NS MDS adherence [Q4 vs. Q1-Q3] at 69y and relative delay in ACM (accelerated failure-time model) after 12y f/u: HR: 1.09, 95% CI: 0.95, 1.26; NS	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking: Design **Other:** Family history: CVD, Time-varying use of statins, aspirin, anti-hypertensives, and	MDS score at 69y was not significantly associated with risk of ACM after 12y f/u. **Funding:** NHLBI; National Center for Research Resources

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
American, 18% Hispanic, 10% Chinese SES: 34% Income ≥50K; 35% ≥ graduate degree; 60% married Alcohol intake: NR			glucose-lowering medications **Limitations:** Used baseline dietary data but adjusted for time-varying confounders	
Atkins et al, 2014[5] PCS, British Regional Heart Study United Kingdom Analytic N: 3133 Attrition: 59% Sex: 0% female Race/ethnicity: >99% White SES: 48.7% manual social class Alcohol intake: 2.8% heavy drinkers	**Dietary pattern:** Elderly Dietary Index (EDI) **Dietary assessment methods:** 86-item validated FFQ at baseline, age 68.2 y **Outcome assessment methods:** National Health Service Central Registers.	**Significant:** EDI adherence at 68.2y and ACM after 11.3y f/u: • Q1, n=314, HR: 1.00 • Q2, n=233 deaths, HR: 0.85, 95% CI: 0.70, 1.03, NS • Q3, n=200 deaths, HR: 0.89, 95% CI: 0.72, 1.10, NS • Q4, n=160 deaths, HR: 0.75, 95% CI: 0.60, 0.94 • p-trend=0.03 **Non-Significant:** N/A	**Key confounders accounted for:** Sex:, Age, SES, Race/ethnicity, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: HDL Cholesterol, SBP, diabetes, C-reactive protein, von willebrand factor **Limitations:** Elderly may have increased risk of non-response and underreporting.	Higher EDI score at 68.2y was significantly associated with lower risk of ACM after 11.2y f/u. **Funding:** British Heart Foundation Research Group

Baden et al, 2019[6]
 	
PCS, Nurses' Health Study (NHS); Health Professionals Follow-Up Study (HPFS)
United States
	Dietary pattern:
	Healthy plant-based diet index [hPDI], Less healthy [unhealthy] plant-based diet index [uPDI], Plant-based Diet Index [PDI]
	
	Dietary assessment methods: Up to 152-item
		Significant:
		Nurses' Health Study:
		• Δ in PDI per-10-point increase and ACM over 16y f/u:
		  ○ Q3, HR: 1, ref
		  ○ Q1: HR: 1.07, 95% CI: 1.01, 1.14
		  ○ Q2: HR: 1.02, 95% CI: 0.96, 1.09, NS
		  ○ Q4: HR: 0.96, 95% CI: 0.91, 1.02, NS
		  ○ Q5: HR: 0.95, 95% CI: 0.89, 1.01, NS
			Key confounders accounted for:
			Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry: BMI, Smoking
				Increased adherence over ~12y to the PDI or hPDI in women, men, or pooled analyses was significantly associated with lower risk of ACM at

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 47455 Attrition: 73% Sex: 67.7% female Race/ethnicity: 97.5% white race SES: NR Alcohol intake: mean 3.2 g/d	validated FFQ at baseline, age 63.1y, and every 4 y after **Outcome assessment methods:** Deaths were identified from state vital statistics records and the National Death Index or were reported by the participants' families and the US postal system	○ p-trend<0.001 • ∆ in hPDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 1.09, 95% CI: 1.03, 1.16 ○ Q2: HR: 1.00, 95% CI: 0.95, 1.07, NS ○ Q4: HR: 0.97, 95% CI: 0.91, 1.03, NS ○ Q5: HR: 0.90, 95% CI: 0.85, 0.96 ○ p-trend<0.001 • ∆ in uPDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 0.91, 95% CI: 0.85, 0.98 ○ Q2: HR: 0.97, 95% CI: 0.91, 1.03, NS ○ Q4: HR: 1.07, 95% CI: 1.01, 1.14 ○ Q5: HR: 1.14, 95% CI: 1.08, 1.21 ○ p-trend<0.001 Health Professionals Follow-up Study: • ∆ in PDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 1.13, 95% CI: 1.04, 1.23 ○ Q2: HR: 1.03, 95% CI: 0.95, 1.12, NS ○ Q4: HR: 0.93, 95% CI: 0.85, 1.01, NS ○ Q5: HR: 0.96, 95% CI: 0.88, 1.04, NS ○ p-trend<0.001 • ∆ in hPDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 1.10, 95% CI: 1.02, 1.19 ○ Q2: HR: 1.04, 95% CI: 0.96, 1.12, NS ○ Q4: HR: 0.92, 95% CI: 0.85, 1.00, NS ○ Q5: HR: 0.90, 95% CI: 0.82, 0.98	**Other:** Total energy intake, Family history, of MI, Supplement use, multivitamin use, menopausal therapy, margarine intake, weight change, history of hypertension, hypercholesterolemia, or type 2 diabetes mellitus, antihypertensives, or cholesterol-lowering medication. **Limitations:** Misclassification of plant/animal foods due to the variability of mixed dishes possible	16y f/u (overall p-trend; and select quintile comparisons). Decreased adherence over ~12y to the uPDI at age ~63y was significantly associated with lower risk of ACM at 16y f/u (overall p-trend; select quintiles) in women, or in pooled analyses, but the associations between quintiles were not significant in men. **Funding:** NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		○ p-trend<0.001 Pooled: • Δ in PDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 1.09, 95% CI: 1.04, 1.15 ○ Q2: HR: 1.03, 95% CI: 0.98, 1.08, NS ○ Q4: HR: 0.95, 95% CI: 0.91, 1.00, NS ○ Q5: HR: 0.95, 95% CI: 0.90, 1.00, NS ○ p-trend<0.001 • Δ in hPDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 1.10, 95% CI: 1.05, 1.15 ○ Q2: HR: 1.02, 95% CI: 0.97, 1.07, NS ○ Q4: HR: 0.95, 95% CI: 0.90, 1.00, NS ○ Q5: HR: 0.90, 95% CI: 0.85, 0.95 ○ p-trend<0.001 • Δ in uPDI per-10-point increase and ACM over 16y f/u ○ Q3, HR: 1, ref ○ Q1: HR: 0.93, 95% CI: 0.88, 0.98 ○ Q2: HR: 1.00, 95% CI: 0.95, 1.05, NS ○ Q4: HR: 1.06, 95% CI: 1.01, 1.11 ○ Q5: HR: 1.12, 95% CI: 1.07, 1.18 ○ p-trend<0.001 * Similar results were found when analyzing 8y Δ and 16y Δ in PDI, hPDI, and uPDI. • hPDI, Risk: 16%, 95% CI: 13, 18% • uPDI, Risk: 20%, 95% CI: 16, 24% *Results remained similar in sensitivity analyses excluding early deaths <4y f/u, or straitifed by major		

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings

		confounding factors (initial PDI score, sex, age, BMI, physical activity, smoking status, weight change, smoking status change).
		
		Non-significant:
		Health Professionals Follow-up Study:
		• Δ in uPDI and ACM over 16y f/u
		  ○ Q3, HR: 1, ref
		  ○ Q1: HR: 0.96, 95% CI: 0.88, 1.05, NS
		  ○ Q2: HR: 1.05, 95% CI: 0.97, 1.13, NS
		  ○ Q4: HR: 1.03, 95% CI: 0.95, 1.12, NS
		  ○ Q5: HR: 1.09, 95% CI: 1.00, 1.17, NS
		  ○ p-trend=0.03		

Behrens et al, 2013[7]
 	
PCS, NIH-AARP Diet and Health Study (NIH-AARP)
United States
 	
Analytic N: 170672
Attrition: 49%
 	
Sex: 42% female
Race/ethnicity: 94% Caucasian; 6% Non-Caucasian
SES: Education: 24% 12y or less; 54% college/vocational; 22% postgrad; Marital status 68% married
Alcohol intake: ~14.2g/d
	Dietary pattern: Alternative Mediterranean Diet Score (aMED) (Fung, 2005)
	
	Dietary assessment methods: 124-item validated FFQ at baseline, age 63y
	
	Outcome assessment methods: Linkage to the Social Security Administration Death Master File and National Death Index Plus; Potential avoidance of death assessed as population attributable risk (PAR) reduction
		Significant:
		aMED adherence [categorical] and relative risk (RR) of ACM over ~12.5y f/u
		• ≤Q3, n=13,907 deaths, RR:1 ref
		• Pooled, n=6,996 deaths, RR: 0.86, 95% CI: 0.83, 0.88; and PAR: 10, 95% CI: 8, 11
		• In men,
		  ○ ≤Q3, n=9,297 deaths, RR: 1 ref:
		  ○ ≥Q4, n=4,662 deaths, RR: 0.85, 95% CI: 0.82, 0.88
		    ▪ PAR: 10, 95% CI: 8, 12
		• In women,
		  ○ ≤Q3, n=4,610 deaths, RR: 1 ref:
		  ○ ≥Q4, n=2,334 deaths, RR: 0.87, 95% CI: 0.82, 0.91
		    ▪ PAR: 9, 95% CI: 6, 12
		
		*Results combining higher aMED adherence with 1, 2, or all 3 other lifestyle factors [waist circumference <88cm women or 102cm in men, non-smoking, and/or recommended physical activity] resulted in similar inverse associations that remained significant in sub-analyses
			Key confounders accounted for: Sex, Age, Race/ethnicity, SES: Education; Marital Status, Alcohol, Physical activity, Anthropometry, Smoking
			
			Other: Total energy intake: energy-adjusted nutrient intake
			
			Limitations:
			Did not account for key confounders: N/A
				Higher alternate Mediterranean diet score (without legumes, potatoes, fruit juice, or alcohol; nuts separate component, and MUFA:SFA ratio) was significantly associated with ~14% lower risk of ACM and PAR ~10% over mean 12.5 year f/u in analyses pooled with men and women. Sex-stratified analyses remained significant with similar inverse associations. Combining adherence to the alternate

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Non-Significant: N/A		Mediterranean diet with other beneficial lifestyle factors conferred greater beneficial risk reduction (~38% relative risk, ~33% avoidance of death). **Funding:** NR
Bellavia et al, 2016[8] PCS, Cohort of Swedish Men (COSM); Swedish Mammography Cohort (SMC) Sweden Analytic N: 71333 Attrition: 19% Sex: 47% female Race/ethnicity: NR SES: 29% high-school/university Alcohol intake: ~85% current; 5% former, 10% never drinkers	**Dietary pattern:** modified Mediterranean Diet Score (Tektonidis, 2015) **Dietary assessment methods:** 96-item validated FFQ at baseline, age ~60y **Outcome assessment methods:** Swedish Cause of Death Register	**Significant:** mMDS [categorical] at 60y and ACM after 15y f/u: • Lowest MDS (0-2), HR: 1.00 • Middle mMDS (3–5), HR: 0.90, 95% CI: 0.86, 0.95; • Highest mMDS (6–8), HR: 0.81 , 95% CI: 0.75, 0.86; mMDS [categorical] at 60y and survival based on 50th percentile of age at death (PD) after 15y f/u: • Lowest MDS (0-2), HR: 1.00 • Middle mMDS (3–5), 50th PD: 8 months, 95% CI: 5, 11 • Highest mMDS (6–8), 50th PD: 14 months, 95% CI: 10, 18 mMDS adherence [continuous] and: • survival, PD: 3 months, 95% CI: 2, 4 • ACM, HR: 0.96, 95 %CI: 0.95, 0.97 mMDS adherence [categorical extremes, 0 vs. 8] and: • survival, PD: 23 months, 95% CI: 16, 29 • ACM, HR: 0.71, 95 %CI: 0.65, 0.79	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking, **Other:** Other: Diabetes **Limitations:** Did not account for key confounders: Race/ethnicity	Higher adherence to a modified Mediterranean dietary pattern at age ~60 years was significantly associated with lower risk of ACM and longer survival over a 15y f/u. **Funding:** Young Scholar Awards from Karolinska Institutet's Strategic Program in Epidemiology

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		*Sensitivity analyses yielded similar results stratified by sex, age (< or >= 60y), education level (primary, secondary), and smoking (current, never); or excluding all early deaths <3y f/u. **Non-Significant:** N/A		
Biesbroek et al, 2017[9] PCS, EPIC-Prospect; EPIC-MORGEN Netherlands Analytic N: 35031 Attrition: 12% Sex: 73.8% female Race/ethnicity: NR SES: 21% high educational level Alcohol intake: mean 11.1 g/d	**Dietary pattern:** DASH Score (Fung, 2008), Dutch Healthy Diet Index (DHD15-Index; (Kromhout, 2016) **Dietary assessment methods:** 178-item validated FFQ at baseline, age ~48.7y **Outcome assessment methods:** Vital status obtained through linkage with municipal population registries.	**Significant:** DHD15-Index and ACM in men at 19.2 y f/u: • T1, n= 293 deaths, HR: 1 ref • T2, n=329 deaths, HR: 1.04, 95% CI: 0.88, 1.21, NS • T3, n=269 deaths, HR: 0.84, 95% CI: 0.69, 0.98 • p-trend=0.04 DHD15-Index and ACM in women at 19.2 y f/u: • T1, n=1000 deaths, HR: 1 • T2, n=964 deaths, HR: 0.86, 95% CI: 0.78, 0.93 • T3, n=990 deaths, HR: 0.85, 95% CI: 0.78, 0.94 • p-trend=0.001 Continuous DHD15-Index and ACM at 19.2 y f/u: • Men: HR: 0.88, 95% CI: 0.82, 0.95 • Women: HR: 0.92, 95% CI: 0.88, 0.96 Continuous DASH score and ACM at 19.2 y f/u: • Men: HR: 0.92, 95% CI: 0.86, 0.99 • Women: HR: 0.96, 95% CI: 0.92, 0.99 **Non-Significant:** DASH score and ACM in men at 19.2 y f/u: • T1, n=388 deaths, HR: 1 ref • T2, n=294 deaths, HR: 1.04, 95% CI: 0.89, 1.22 • T3, n=259 deaths, HR: 0.87, 95% CI: 0.74, 1.04 • p-trend=0.15 DASH score and ACM in women at 19.2 y f/u: • T1, n=980 deaths, HR: 1 ref • T2, n=900 deaths, HR: 0.94, 95% CI: 0.85, 1.03	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity	Higher adherence to Dutch Healthy Diet Index was significantly associated with reduced risk of ACM in men and women aside from men with T2 scores vs. T1. DASH scores (continuous) were significantly associated with reduced risk of ACM, but categorical analyses were not significant. **Funding:** Strategic Program of the RIVM

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• T3, n=1074 deaths, HR: 0.94, 95% CI: 0.86, 1.03		
Bittoni, 2015[10] PCS, Third National Health and Nutrition Examination Survey (NHANES) United States Analytic N: 8950 Attrition: 17% Sex: 52% female Race/ethnicity: 73% White, 26.7% Non-white SES: ~48% < high-school, 52% > high-chool Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** Household interview [24-hour recall, validated] at baseline, age 40->80y **Outcome assessment methods:** Linkage with the National Death Index	**Significant:** HEI score and ACM over 12y f/u: • <50 vs. >80, HR: 1.58 95% CI: 1.45,1.77; p<0.0001 **Non-Significant:** N/A	**Key confounders accounted for:** Age, Sex, Race, SES: Education, Smoking, Anthropometry: BMI, CRP **Other:** N/A **Limitations:** • Did not account for key confounders: Alcohol, Physical Activity • Primary exposure of interest was insurance status	Lower HEI adherence in middle-aged adults was significantly associated with increased risk of ACM over 12y f/u. **Funding:** Ohio State University Food Innovation Center and the Molecular Carcinogenesis and Chemoprevention Program of the Ohio State University Comprehensive Cancer Center
Bo et al, 2016[11] PCS Italy Analytic N: 1658 Attrition: 0% Sex: 53% female Race/ethnicity: NR SES: ~8% University; 18% secondary school; 75% primary school Alcohol intake: ~17g/d	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 148-item validated FFQ at age ~55y **Outcome assessment methods:** Records from town of residence	**Significant:** In those with low CVD risk, MED score at 55y (per-unit increase) and ACM (n=90 deaths) over 12y f/u: HR: 0.83, 95% CI: 0.72, 0.96; p=0.01 **Non-Significant:** MED score (per-unit increase) at 55y and ACM over 12y f/u: • All, n=220 deaths, HR: 0.94, 95% CI: 0.85, 1.03; p=0.20; NS • High CV risk (≥10), n=130 deaths, HR: 1.02, 95% CI: 0.90, 1.15; p=0.81; NS MED score (categorical) at 55y and ACM over12y f/u: • Low MED, n=116 deaths, HR: 1.00 • Medium MED, n=82 deaths, HR: 0.80, 95% CI: 0.60, 1.06; p=0.12; NS	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking **Other:** Total energy intake: Components energy-adjusted, Rural area; systolic and diastolic blood pressure, fasting glucose, TC and HDL; Baseline CVD score	Adherence to a Mediterranean dietary pattern at 55y was not significantly associated with ACM over 12y f/u in all subjects and in those high CVD risk. In subjects with low CVD risk, greater to a Mediterranean diet was significantly associated with lower ACM risk.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• High MED, n=22 deaths, HR: 0.85, 95% CI: 0.54, 1.35; p=0.50; NS In those at low CVD risk, MED score [categorical] at 55y and ACM over 12y f/u: • Low MED, n=50 deaths, HR: 1.00 • Medium MED, n=30 deaths, HR: 0.65, 95% CI: 0.41, 1.03; p=0.06; NS • High MED, n=9 deaths, HR: 0.66, 95% CI: 0.32, 1.35; p=0.26; NS In those at high CVD risk, MED score [categorical] at 55y and ACM over 12y f/u: • Low MED, n=66 deaths, HR: 1.00 • Medium MED, n=51 deaths, HR: 0.88, 95% CI: 0.61, 1.29; p=0.52; NS • High MED, n=13 deaths, HR: 1.0, 95% CI: 0.54, 1.83; p=0.99; NS *Results did not differ after excluding those with CVD or diabetes at baseline, under-reporters, or those on aspirin and/or on statin treatment.	**Limitations:** • Did not account for key confounders: Race/ethnicity • Data tables are difficult to interpret • Residual method used to adjust for total energy intake	However, when analyzed categorically, the results were not significant. **Funding:** Foundation for the Study of Endocrine and Metabolic Diseases, Turin, Italy
Boggs et al, 2015[12] PCS, Black Women's Health Study (BWHS) United States Analytic N: 37001 Attrition: 37% Sex: 100% female Race/ethnicity: 100% African-American SES: ~47% ≥ 16 y of education, ~43%	**Dietary pattern(s):** Index analysis: Adherence to (categorical; Q1, Q2, Q3, Q4, Q5) DASH score at age 42 y (Fung, 2008) Factor analysis: see Table 5 **Dietary assessment methods:** Validated FFQ at baseline, mean age 42y and again 6y later	**Significant:** Adherence to the DASH score at 42y and ACM at 6y f/u: • Q1, n=336 deaths, HR: 1, ref • Q2, n=433 deaths, HR: 0.86, 95% CI: 0.75, 1.00, NS • Q3, n=357 deaths, HR: 0.83, 95% CI: 0.71, 0.97 • Q4, n=285 deaths, HR: 0.75, 95% CI: 0.63, 0.89 • Q5, n=267 deaths, HR: 0.75, 95% CI: 0.63, 0.89 • p-trend<0.001 Stratification by BMI <30, ever smokers, vigorous exercise <3 h/wk, ages <55y and ≥55y, and education <16y and ≥ 16y: • DASH score adherence was still associated with	**Key confounders accounted for:** Sex: All women, Age, Race/ethnicity: All black, SES: Education, marital status, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake **Limitations:**	Higher adherence to the DASH score was significantly associated with a reduced risk of ACM. **Funding**: NCI

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
married or living as married Alcohol intake: ~6.5% ≥7 drinks/wk	**Outcome assessment methods:** Deaths identified by linkage with the National Death Index	significantly reduced risk of ACM **Non-significant:** see factor analysis data	Did not account for key confounders: N/A	
Bonaccio et al, 2018[13] PCS, Moli-sani Study cohort Italy Analytic N: 5200 Attrition: 11% Sex: 48% female Race/ethnicity: NR SES: Education: 74% < secondary, 19% upper secondary, 7% post-secondary Alcohol intake: 49% moderate consumers	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** validated FFQ at baseline, age ~72y **Outcome assessment methods:** Italian mortality registry	**Significant:** MDS adherence [categorical] at 72y and ACM over 8.1y f/u: • 'poor' (0-3), n= 288 deaths: HR: 1.00 • 'average' (4–6), n=527 deaths, HR: 0.87, 95% CI: 0.75, 1.01; NS • 'high' (7–9), n=85 deaths, HR: 0.75, 95% CI: 0.58, 0.97 MDS adherence [continuous] at 72y and ACM over 8.1y f/u, • 1-unit increase, HR: 0.94, 95% CI: 0.90, 0.98 • 2-unit increase, HR: 0.887, 95% CI: 0.814, 0.968 • Excluding early deaths <1y f/u, n=5154; n=854 deaths, HR: 0.95, 95% CI: 0.91, 0.99; p=0.016 In Men, MDS adherence [continuous] at 72y and ACM over 8.1y f/u: • 1-unit increase, HR: 0.94, 95% CI: 0.89, 0.99 • 2-unit increase, HR: 0.881, 95% CI: 0.791, 0.981 By age (<80, >80y), MDS adherence [continuous per] and ACM over 8.1y f/u: • 2-unit increase, <80y, HR: 0.866, 95% CI: 0.783, 0.958 • 2-unit increase, ≥80 y, HR: 0.94, 95% CI: 0.787, 1.122; NS • 1-unit increase, <80y, HR: 0.93, 95% CI: 0.88, 0.98, p-trend=0.0052 • 1-unit increase, ≥80 y, HR: 0.94, 95% CI: 0.787, 1.122; p-trend=0.57; NS	**Key confounders accounted for:** Sex, Age, SES: Education; Income, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: cancer, CVD, diabetes, hypercholesterolemia, hypertension, use of anti-depressants **Limitations:** Did not account for key confounders: Race/ethnicity: NR	Higher adherence to Mediterranean diet at72y was significantly associated with lower risk of ACM over 8.1y f/u. When analyzed by sex, results were not significant for women (categorical or continuous), or men (categorical). However, higher MDS adherence was associated with lower risk of ACM in men when analyzed continuously. When analyzed by age, results were significant in subjects <80y, but not in subjects >80y. **Funding:** Associazione Cuore Sano Onlus; Pfizer Foundation; Italian Ministry of

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Non-Significant: In Men, MDS adherence at 72y and ACM over 8.1y f/u: • 'poor' (0-3), n= 166 deaths, HR: 1.00 • 'average' (4–6), n= 348 deaths, HR: 0.83, 95% CI: 0.69, 1.01; NS • 'high' (7–9), n= 66 deaths, HR: 0.75, 95% CI: 0.56, 1.01; NS In Women, MDS adherence at 72y [categorical] and ACM over 8.1y f/u: • 'poor' (0-3), n= 122 deaths, HR: 1.00 • 'average' (4–6), n= 179 deaths, 12293 person-years, HR: 0.88, 95% CI: 0.69, 1.12; NS • 'high' (7–9), n= 19 deaths, 1967 person-years, HR: 0.71, 95% CI: 0.42, 1.17; NS In Women, MDS adherence at 72y [continuous] and ACM over ~8.1y f/u: • 1-unit increase, HR: 0.95, 95% CI: 0.88, 1.02; NS • 2-unit increase, HR: 0.896, 95% CI: 0.773, 1.04; NS *Additional sensitivity analyses of MDS adherence per 1-unit increase by sub-groups of education, diabetes, CVD, cancer, hypercholesterolaemia, and hypertension showed inverse associations with ACM, but most were NS with the exception of diabetes at baseline (p interaction=0.035)		University and Research; Programma Triennale di Ricerca; Instrumentation Laboratory, Milan, Italy
Bongard et al, 2016[14] PCS, Monitoring of trends and determinants in Cardiovascular Disease (MONICA) France Analytic N: 960 Attrition:	**Dietary pattern:** French National Nutrition and Health Program Guideline Score (PNNS-GS) **Dietary assessment methods:** 3-d food record at baseline, mean age 55.5	**Significant:** N/A **Non-Significant:** PNNS-GS per 1 unit increase at 56y and ACM after 14.8 y f/u: RR: 0.96, 95% CI: 0.83, 1.12, p=0.63	**Key confounders accounted for:** Sex: All men, Age, SES: Income tax, Alcohol, Physical activity, Anthropometry: Obesity, Smoking **Other:** Center,	PNNS-Guidelines Score at age ~56y was not significantly associated with risk of all-cause after 14.8y f/u. **Funding:** Centre National

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
3% Sex: 0% female Race/ethnicity: NR SES: 22.8% baccalaureate or higher qualification Alcohol intake: 7.5% of caloric intake from alcohol	y **Outcome assessment methods:** French national database		Presence of chronic condition **Limitations:** • Did not account for key confounders: Race/ethnicity • Physical activity may be over-adjusted as component of PNNS-GS	Interprofessionnel del'Economie Laitière
Booth et al, 2016[15] PCS, Reason for Geographic and Racial Differences in Stroke (REGARDS) study United States Analytic N: 5709 Attrition: 81% Sex: 44% female Race/ethnicity: 43% "Black" SES: 11% <high-school; 11% income <20K Alcohol intake: NR	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 98-item validated FFQ at baseline, age ~66y **Outcome assessment methods:** Identified through active participant f/u including via medical records in the last year of life, death certificates, autopsy reports, online sources (e.g., Social Security Death Index) and the National Death Index.	**Significant:** MDS adherence [categorical] at 66y and ACM over 6y f/u: • Q1, n=177 events, HR: 1.00 • Q2, n=111 events, HR: 0.95, 95% CI: 0.73, 1.22 • Q3, n=83 events, HR: 0.7, 95% CI: 0.52, 0.94 • Q4, n=100 events, HR: 0.61, 95% CI: 0.46, 0.82 • p-trend<0.0001 **Non-Significant:** NA	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education; Income, Alcohol: Part of dietary pattern **Other:** Total energy intake, Other: Region of residence; Total and HDL-cholesterol; CRP; Systolic and diastolic blood pressure; Anti-hypertensive medication use; Albuminuria; eGFR **Limitations:** Did not account for key confounders: Physical activity, Anthropometry, Smoking	Greater adherence to a Mediterranean diet at 66y was significantly associated with lower risk of ACM over 6y f/u. **Funding:** NIH: NINDS, NHLBI
Brown et al, 2016[16]	**Dietary pattern:**	**Significant: N/A**	**Key confounders accounted for:**	In older adults (>65y) who were

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
PCS, Third National Health and Nutrition Survey (NHANES) United States Analytic N: 1487 Attrition: 67% Sex: 67% female Race/ethnicity: 86% White, 12% Black, 3% Other SES: NR Alcohol intake: NR	Healthy Eating Index (HEI) (Kennedy, 1995) **Dietary assessment methods:** One, 24-hr recall, validated, at baseline, age 75y **Outcome assessment methods:** National Death Index	**Non-Significant:** HEI score at 75y and risk of ACM, n=1307 total deaths after 8.9y f/u: • Poor, HEI<51, HR: 1.00, ref: • Fair, HEI 51-80, HR: 0.74, 95% CI: 0.52, 1.04 • Good HEI>80, HR: 0.70, 95% CI: 0.47, 1.04 • p-trend = 0.077	Sex, Age, Race/ethnicity, Physical activity, Anthropometry, Smoking **Other:** Cognitive function, hypertension, hyperlipidemia, COPD, cancer, arthritis, myocardial infarction, stroke, heart failure, kidney disease, self-rated health, hospitalization, falls, hemoglobin, c-reactive protein, glycated hemoglobin, **Limitations:** Did not account for key confounders: SES, Alcohol	prefrail or frail, HEI score was not significantly associated with risk of ACM after median 9y f/u. **Funding:** NIH, NCI, NHLBI, NIDDK
Buckland et al, 2011[17] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC-Spain) Spain Analytic N: 40622 Attrition: 2% Sex: 62% female Race/ethnicity: NR	**Dietary pattern:** Adapted Relative Med Diet Score (arMED) (Buckland, 2009) **Dietary assessment methods:** Twelve 24-h diet recalls and second diet history, at baseline, age 49.3y	**Significant:** rMED adherence at 49y [categorical] and ACM after 13.4y f/u: • Low, n=431 deaths, HR: 1.00 • Medium, n=967 deaths, HR: 0.88, 95%CI: 0.79, 0.99 • High, n=457 deaths, HR: 0.79, 95%CI: 0.69, 0.91 • p-trend=0.001 rMED adherence [continuous] n=1855 deaths, HR: 0.94, 95%CI: 0.90, 0.97; p-trend<0.001 Results were similar from sensitivity analyses adjusted for alcohol; diabetes, hypertension and hyperlipidaemia or on medication; excluding first 2y f/u, excluding	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Sensitivity analyses, Physical activity, Anthropometry: BMI; WC, Smoking **Other:** Total energy intake, Family history: Sensitivity analyses: Diabetes, HTN, Hyperlipidemia and/or medication for them	Higher adherence to the relative Mediterranean Diet score at 49y was significantly associated with lower risk of ACM after ~13y f/u. **Funding:** European Commission [DG-SANCO], the International Agency for Research on Cancer, the Health

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: Education: 31% none, 39% primary, 39% secondary, 8% technical or professional, 12% university, 5% not specified Alcohol intake: 38% 0 g/d, 26% <10 g/d., 11% 10-<20 g/d, 12% 20-<40 g/d, 13% 40g/d	**Outcome assessment methods:** Spanish National Statistics Institute	subjects with chronic disease at baseline, and excluding energy mis-reporters. No evidence of modification of the association from sex, age at recruitment, smoking status, BMI, or waist circumference. **Non-Significant:** NA	**Limitations:** Did not account for key confounders: Race/ethnicity: NR	Research Funds of the Spanish Ministry of Health from the 'Instituto de Salud Carlos III'; the Spanish Regional Governments of Andalucı´a, Asturias, Basque Country, Murcia and Navarra and the Catalan Institute of Oncology, and Red Tema´tica de Investigacio´n Cooperativa en Ca´ncer
Cardenas-Fuentes et al, 2019[18] PCS, PREvención con DIeta MEDiterránea (PREDIMED) Spain Analytic N: 7356 Attrition: 1% Sex: 42% female Race/ethnicity: NR SES: Education: 22% > primary Alcohol intake: NR	**Dietary pattern:** Mediterranean Diet Adherence Screener (MEDAS) (Schroder, 2011) **Dietary assessment methods:** 12-item food consumption frequency form to assess MedDiet and 137-item validated FFQ to assess energy intake at baseline and annually during f/u **Outcome assessment methods:** National Death Registry, review of medical records, and contacts with family physicians	**Significant:** Adherence to the MedDiet [categorical] and ACM over 6.8y f/u: • T1, n=2583 deaths, HR: 1, ref • T2, n=131 deaths, HR: 0.56, 95% CI: 0.45, 0.70 • T3, n=127 deaths, HR: 0.47, 95% CI: 0.37, 0.59; p-trend <0.001 *Excluding those with early deaths revealed NS differences *Risk reductions were similar but with stronger magnitude, when MedDiet adherence was combined with physical activity i.e., higher tertiles of MedDiet adherence and higher tertiles of physical activity vs. lowest tertiles. **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: diabetes, hyperlipidaemia, hypertension, intervention group **Limitations:** Did not account for key confounders: Race/ethnicity	Higher MEDAS adherence in participants at high-CVD-risk at age 67y was significantly associated with lower risk of ACM at 6.8y f/u. **Funding:** FEDER funds, ISCIII, grants, Centro Nacional de Investigaciones Cardiovasculare, Fondo de Investigación Sanitaria-Fondo Europeo de Desarrollo Regional, Ministerio de

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				Ciencia e Innovación, Fundación Mapfre 2010, Consejería de Salud de la Junta de Andalucía, Public Health Division of the Department of Health of the Autonomous Government of Catalonia, Generalitat Valenciana, Navarra Regional Government; Nuts were donated by: The Fundación Patrimonio Comunal Olivarero and Hojiblanca SA, California Walnut Commission, Borges SA, and Morella Nuts SA
Chan et al, 2019[19] PCS, NR Hong Kong, China Analytic N: 2802 Attrition: 30% Sex: 50% female Race/ethnicity: NR SES: ~73% primary school or below, ~27%	**Dietary pattern(s):** Index analysis: Adherence to [categorical, T1, T2, T3] to four dietary patterns at age 73y: • Diet quality index-international (DQI-I; Kim, 2003) • Mediterranean Diet Score [Categorical: 0-3, 4-5, 6-9] (MDS; Trichopoulou, 2003)	**Significant:** Adherence to DQI-I score and ACM in women • T1, n=147 deaths, HR: 1, ref: • T2, n=110 deaths, HR: 0.74, 95% CI: 0.58, 0.96 • T3, n=106 deaths, HR: 0.77, 95% CI: 0.59, 0.998 • p-trend=0.038 Adherence to Okinawan diet score and ACM in women • T1, n=143 deaths, HR: 1, ref: • T2, n=102 deaths, HR: 0.72, 95% CI: 0.56, 0.93 • T3, n=118 deaths, HR: 0.78, 95% CI: 0.61, 1.002, NS	**Key confounders accounted for:** Sex, Age, SES: Education, marital status, living alone, Alcohol, Physical activity: PASE, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: medical	In women, higher adherence to both the DQI-I and Okinawan diet score was significantly associated with a decrease risk of ACM. There were no significant associations between adherence to the MIND, or

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
secondary school or above; 70% married Alcohol intake: NR	• Mediterranean-Dash Intervention for Neurodegenerative Delay diet (MIND; Morris, 2015) • Okinawan Diet Score (Wilcox, 2007) Factor analysis: see Table 5 **Dietary assessment methods:** 280-item validated FFQ at baseline, mean age 73y **Outcome assessment methods:** Hong Kong Government Death Registry	• p-trend=0.046 **Non-Significant:** Adherence to DQI-I score and ACM in men • T1, n=202 deaths, HR: 1, ref: • T2, n=188 deaths, HR: 0.93, 95% CI: 0.76, 1.14 • T3, n=202 deaths, HR: 0.9, 95% CI: 0.73, 1.10 • p-trend=0.291 Adherence to MIND score and ACM in men • T1, n=264 deaths, HR: 1, ref: • T2, n=209 deaths, HR: 0.95, 95% CI: 0.78, 1.14 • T3, n=119 deaths, HR: 0.85, 95% CI: 0.67, 1.07 • p-trend=0.173 Adherence to MDS score and ACM in men • 0-3, n=212 deaths, HR: 1, ref: • 4-5, n=272 deaths, HR: 0.86, 95% CI: 0.71, 1.03 • 6-9, n=108 deaths, HR: 0.96, 95% CI: 0.75, 1.22 • p-trend=0.477 Adherence to Okinawan diet score and ACM in men • T1, n=211 deaths, HR: 1, ref: • T2, n=140 deaths, HR: 0.81, 95% CI: 0.65, 1.01 • T3, n=241 deaths, HR: 0.95, 95% CI: 0.78, 1.16 • p-trend=0.698 WOMEN: Adherence to MIND score and ACM in women • T1, n=144 deaths, HR: 1, ref: • T2, n=138 deaths, HR: 0.88, 95% CI: 0.69, 1.11 • T3, n=81 deaths, HR: 0.84, 95% CI: 0.63, 1.12 • p-trend=0.195 Adherence to MDS score and ACM in women • 0-3, n=141 deaths, HR: 1, ref:	history of HT, DM, and heart disease, Serum 25OHD level, season of blood taking, log hsCRP, geriatric depression scale category, CSID category **Limitations:** • Did not account for key confounders: Race/ethnicity • Sample of higher education compared with the general population	MDS dietary patterns and ACM. In men, there were no significant associations between adherence to any of the dietary patterns examined and ACM. **Funding:** Research Council of Hong Kong (HK); Health and Medical Research Fund of the Food and Health Bureau of HK; HK Jockey Club Charities Trust; Centre for Nutritional Studies, The Chinese University of HK.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• 4-5, n=164 deaths, HR: 0.97, 95% CI: 0.77, 1.22 • 6-9, n=58 deaths, HR: 0.89, 95% CI: 0.65, 1.22 • p-trend=0.484		
Cheng et al, 2018[20] PCS, Iowa Women's Health Study United States Analytic N: 35221 Attrition: 16% Sex: 100% female Race/ethnicity: ~99% 'White' SES: 40% >high school education; 78% married Alcohol intake: ~4g/d	**Dietary pattern:** modified alternate Med Diet Score (mMDS) (modified Fung, 2005), Evolutionary-concordance diet score (Whalen, 2014, 2016, 2017) **Dietary assessment methods:** 127-item validated FFQ at baseline, age ~62y **Outcome assessment methods:** State Health Registry of Iowa, National Death Index	**Significant:** mMDS adherence at 62y and ACM over 26y f/u: • Q1, n=4774 deaths, HR: 1.00 • Q2, n=3753 deaths, HR: 0.95, 95%CI: 0.91, 0.99 • Q3, n=3785 deaths, HR: 0.93, 95%CI: 0.89, 0.98 • Q4, n=3113 deaths, HR: 0.91, 95%CI: 0.87, 0.96 • Q5, n=3262 deaths, HR: 0.85, 95%CI: 0.82, 0.90 • p-trend=<0.01 *Sensitivity analyses (age ≤ vs. > 61y; Education ≤ vs. > high school; total energy intake ≤ vs. >1717 kcal/d; chronic disease yes vs. no; current vs. never use of hormone-replacement therapy) yielded similar results ** Significant interactions were also reported between lifestyle scores, dietary pattern adherence, and ACM. **Non-Significant:** Evolutionary-concordance diet adherence at 62y and ACM over 26y f/u: • Q1, n=4243 deaths, HR: 1.00 • Q2, n=3874 deaths, HR: 0.98, 95% CI: 0.94, 1.03 • Q3, n=4062 deaths, HR: 0.97, 95% CI: 0.92, 1.01 • Q4, n=3316 deaths, HR: 0.96, 95% CI: 0.91, 1.01 • Q5, n=3192 deaths, HR: 0.95, 95% CI: 0.91, 1.00 • p-trend=0.04	**Key confounders accounted for:** Sex, Age, Race/ethnicity: 99% White, SES: Education; Marital status, Physical activity, Anthropometry: BMI, Smoking, Alcohol **Other:** Total energy intake, Family history of chronic disease, hormone-replacement therapy use **Limitations:** • Did not account for key confounders: N/A	Greater adherence to a Mediterranean diet pattern in women at age 62y was significantly associated with lower risk of ACM after 26y f/u. Adherence to the evolutionary-concordant diet score at 62y was not signficantly associated with risk of ACM after 26y f/u. **Funding:** NCI, NIH
Chrysohoou et al, 2016[21] PCS, Ikaria study Greece Analytic N: 673 Attrition:	**Dietary pattern:** Mediterranean Diet Score (Med Diet Score) (Panagiotakas, 2007) **Dietary assessment methods:** Validated FFQ (#	**Significant:** Energy intake per 100kcal (data NR) and ACM at 4y f/u, HR: 0.92, 95% CI: 0.86, 1.00 **Non-Significant:** MedDietScore adherence and ACM at 4y f/u, p>0.30; NS	**Key confounders accounted for:** Sex, Age, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: diabetes,	No significant association was observed between adherence to a Mediterranean diet score and ACM at 4y f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
0% Sex: 51% female Race/ethnicity: NR SES: Education: ~8y school Alcohol intake: NR	of items NR) at baseline, age 76y **Outcome assessment methods:** Vital status via exam or f/u	Macronutrient intake (data NR) and ACM at 4y f/u, p>0.20; NS	HTN, hyper-cholesterolemia, pulse pressure, heart rate, history of CVD **Limitations:** • Did not account for key confounders: Race/ethnicity, SES, Alcohol • Unclear how/which confounders accounted for; • Limited generalizability of sample: 10% of a Greek island population • Unclear if exposure was assessed continuously or categorically and/or how adjustments were made in models • Data NR for results related to macronutrient and total energy intake	**Funding:** None
Cuenca-Garcia et al, 2014[22] PCS, Aerobics Center Longitudinal Study (ACLS) United States	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003), Ideal Diet Index (IDI) (Ceunca-Garcia, 2014), Diet Quality Index (DQI) (Patterson, 1994)	**Non-Significant:** IDI score at age 46y and risk of ACM after 11.6y f/u: • Q1, n=84 deaths, HR: 1.00 • Q2, n=114 deaths, HR: 1.09, 95% CI: 0.82, 1.45 • Q3, n=96 deaths, HR: 1.04, 95% CI: 0.77, 1.41 • Q4, n=64 deaths, HR: 0.96, 95% CI: 0.68, 1.34 • p-trend = 0.848	**Key confounders accounted for:** Sex, Age, Race/ethnicity, Alcohol, Physical activity, Smoking **Other:** Total energy	No significant associations were observed between IDI, DQI, or MDS at age 46y and risk of ACM after 11.6 of f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 12449 Attrition: 19% Sex: 23% female Race/ethnicity: >95% non-Hispanic white SES: "Well-educated, middle to upper socioeconomic strata" Alcohol intake: 11% heavy drinkers	**Dietary assessment methods:** 3-d diet record at ~46y **Outcome assessment methods:** National Death Index	DQI score at age 46y and risk of ACM after 11.6y f/u: • Q1, n=71 deaths, HR: 1.00 • Q2, n=94 deaths, HR: 1.21, 95% CI: 0.88, 1.65 • Q3, n=99 deaths, HR: 1.03, 95% CI: 0.75, 1.42 • Q4, n=94 deaths, HR: 1.24, 95% CI: 0.90, 1.74 • p-trend = 0.390 MDS score at age 46y and risk of ACM after 11.6y f/u: • Q1, n=60 deaths, HR: 1.00 • Q2, n=69 deaths, HR: 1.17, 95% CI: 0.83, 1.66 • Q3, n=156 deaths, HR: 1.21, 95% CI: 0.89, 1.64 • Q4, n=73 deaths, HR: 1.15, 95% CI: 0.81, 1.65 • p-trend = 0.675	intake, Family history, Other: Abnormal EKG **Limitations:** • Did not account for key confounders: SES [all middle-upper SES], Anthropometry	**Funding:** NIH; Coca-Cola Company; Spanish Ministry of Economy and Competitiveness
Dai et al, 2016[23] PCS, National Heart, Lung, and Blood Institute (NHLBI) Twin Study United States Analytic N: 910 Attrition: 11% Sex: 0% female Race/ethnicity: 100% white SES: Education: mean 13y; Marital status: 5% never married, 6% not married currently, 89% married currently Alcohol intake: NR	**Dietary pattern:** Moderation Quantified Healthy Diet (MQHD) (Dai, 2016, modified from Rumawas, 2009) **Dietary assessment methods:** Validated diet history at baseline, mean age 48 y **Outcome assessment methods:** Vital status via National Death Index and follow-up exams.	**Significant:** MQHD score at 48y and ACM over 40y f/u: • Overall Association, n=610 deaths, HR: 0.95, 95% CI: 0.91, 0.996, p=0.03 **Non-Significant:** MQHD score at 48y and ACM over 40y f/u: • Within Pair Association, n=301 monozygotic twin deaths, and n=309 dizygotic twin deaths: HR: 0.96, 95% CI: 0.90, 1.03, p=0.24 • Between Pair Association: HR: 0.95, 95% CI: 0.89, 1.003, p=0.07	**Key confounders accounted for:** Sex, Age: Framingham risk score component, Race/ethnicity, SES: Education, marital status, Alcohol: Part of dietary pattern, Anthropometry: BMI, Smoking: Framingham risk score component **Other:** Total energy intake, Other: Antihypertensives, Framingham risk score **Limitations:** • Did not account for key confounders: Physical activity	Increased adherence to the MQHD score ay 48y was significantly associated with slightly reduced ACM risk during a 40y f/u. However, when evaluating this relationship of diet and ACM within twin pairs and between pairs, there was no significant association. **Funding:** American Heart Association

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			• Participants were only white, male, twins (may not be generalizable)	
Drake et al, 2013[24] PCS, Malmo Diet and Cancer (MDC) Cohort Sweden Analytic N: 17126 Attrition: 39% Sex: 59.5% female Race/ethnicity: NR SES: Education: 40.3% primary, 26.8% secondary, 18.2% upper secondary, 14.6% university degree; Socio-economic status: 33.6% blue-collar workers, 54.9% white-collar workers, 11.5% employers/self-employed Alcohol intake: 4.9% zero, 71% low, 19.3% medium, 4.8% high	**Dietary pattern:** Diet Quality Index-Swedish Dietary Guidelines (DQI-SNR) (Drake, 2011) **Dietary assessment methods:** Validated combined method of 7d menu book and 168-item FFQ at baseline, mean age 58.2 y **Outcome assessment methods:** Vital status via Swedish National Death Registry and the National Tax Board.	**Significant:** DQI-SNR [Model 1 pre-defined cutoffs] and ACM in men • Low adherence, n=246 deaths, HR:1, ref: • Medium, n=861 deaths, HR: 0.90, 95% CI: 0.78, 1.03, NS • High, n=253 deaths, HR: 0.79, 95% CI: 0.66, 0.95 • p-trend=0.001 DQI-SNR [Model 3, quintile-based cutoffs] and ACM in men: • Low adherence, n=554 deaths, HR:1, ref: • Medium, n=426 deaths, HR: 0.91, 95% CI: 0.80, 1.04, NS • High, n=380 deaths, HR: 0.84, 95% CI: 0.73, 0.97 • p-trend=0.023 **Non-Significant:** DQI-SNR [Model 1 pre-defined cutoffs] and ACM in women: • Low adherence, n=197 deaths, HR:1, ref: • Medium, n=615 deaths, HR: 1.03, 95% CI: 0.87, 1.21 • High, n=278 deaths, HR: 0.93, 95% CI: 0.77, 1.12 • p-trend=0.362 DQI-SNR [Model 2 median-based cutoffs] and ACM in: Men • Low adherence, n=258 deaths, HR:1, ref: • Medium, n=874 deaths, HR: 0.90, 95% CI: 0.78,	**Key confounders accounted for:** Sex. Age, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: Score method version, season of data collection **Limitations:** • Did not account for key confounders: Race/ethnicity, SES	In men, high vs. low adherence to DQI-SNR using pre-defined or quintile-based cut-offs and the trend across scores (continuous) was significantly associated with reduced ACM risk. In men or women, associations between DQI-SNR using median-based cutoffs and ACM were not statistically significant. In women, medium vs. low DQI-SNR scores using quintile-based cutoffs showed an inverse associated with ACM risk, but the overall trend was not significant. **Funding**: Swedish Heart–Lung

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		1.04 • High, n=228 deaths, HR: 0.92, 95% CI: 0.77, 1.11 • p-trend=0.073 Women • Low adherence, n=197 deaths, HR:1, ref: • Medium, n=709 deaths, HR: 0.99, 95% CI: 0.84, 1.17 • High, n=184 deaths, HR: 0.92, 95% CI: 0.74, 1.13 • p-trend=0.324 DQI-SNR [Model 3, quintile-based cutoffs] and ACM in women: • Low adherence, n=350 deaths, HR:1, ref: • Medium, n=408 deaths, HR: 0.86, 95% CI: 0.74, 0.99 • High, n=332 deaths, HR: 0.86, 95% CI: 0.73, 1.01 • p-trend=0.176		Foundation, the Ernhold Lundstrom Foundation, Region Skane and Skane University Hospital
Ford et al, 2011[27] PCS, National Health and Nutrition Examination Survey III Mortality Study United States Analytic N: 16958 Attrition: 15% Sex: 52% female Race/ethnicity: 76% White, 11% African American, 5% Mexican American, 8% other SES: 12.3y education Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** 24-hour recall, validated, at baseline, age >17y (60% <45y, 25% 45-64y, 15% >65y) **Outcome assessment methods:** National Death Index	**Significant:** "Healthy diet" vs. "unhealthy diet" HEI score at >17y and risk of ACM, n=3953 deaths, after 0-18y f/u: HR: 0.85, 95% CI: 0.75, 0.96, p<0.05 * Additional analyses suggested that "Healthy diet" HEI score combined with other healthy behaviors (e.g., non-smoking, adequate physical activity, and moderate alcohol) may further reduce risk of ACM: • Total, HR: 0.38, 95% CI: 0.29, 0.49 • Men, HR: 0.37, 95% CI: 0.24, 0.58 • Women, HR: 0.38, 95% CI: 0.29, 0.49 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Smoking **Other:** Other: History of myocardial infarction, stroke, congestive heart failure, cancer, or diabetes **Limitations:** • Did not account for key confounders: Anthropometry	Higher HEI score at ages >17y was significantly associated with reduced risk of ACM after 0-18y f/u. **Funding:** CDC
Ford et al, 2012[26]	**Dietary pattern:**	**Significant:**	**Key confounders accounted for:**	Higher HEI score at ~46y was

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
PCS, National Health and Nutrition Examination Survey 1999–2002 United States Analytic N: 8375 Attrition: 12% Sex: 51% female Race/ethnicity: 72% White SES: 52% >high school Alcohol intake: 11.3g	Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** 24-hour recall, validated, at baseline, age 46y **Outcome assessment methods:** National Death Index	"Healthy diet" vs. "unhealthy diet" HEI score at 46y and risk of ACM, n=745 deaths after 5.7y f/u: HR: 0.74, 95% CI: 0.58, 0.96 **Non-Significant:** N/A	Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Smoking **Other:** Total energy intake, Other: histories of diabetes, cardiovascular disease, and cancer **Limitations:** • Did not account for key confounders: Anthropometry	significantly associated with reduced risk of ACM after 5.7y f/u. **Funding:** CDC
Ford et al, 2014[25] PCS, Geisinger Rural Aging Study (GRAS) United States Analytic N: 2995 Attrition: 50% Sex: 58% female Race/ethnicity: Primarily non-Hispanic white SES: 73% >high school Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index (HEI)-2005 (McCullough, 2000) **Dietary assessment methods:** 25-item, validated Dietary Screening Tool (DST) at age ~81y **Outcome assessment methods:** Electronic medical records, the Social Security Death Index, and/or National Death Index	**Significant:** N/A **Non-Significant:** DST score at ~81y and risk of ACM, n=360 total deaths after ~3y f/u: • Healthy, DST >75: HR: 1.00 ref • Unhealthy, DST <60: HR: 1.34, 95% CI: 0.91, 1.97, p=0.14 • Borderline, DST 60-75: HR: 1.13, 95% CI: 0.76, 1.68, p=0.39	**Key confounders accounted for:** Sex, Age, Physical activity, Anthropometry, Smoking **Other:** **Limitations:** • Did not account for key confounders: Race/ethnicity, SES, Alcohol	DST score at age ~81y was not significantly associated with risk of ACM after 3y f/u. **Funding:** USDA
Fresan et al, 2019[28] PCS, Seguimiento Universidad de Navarra (SUN) Project Spain	**Dietary pattern:** Modified 2015 Dietary Guidelines for Americans Index (2014 DGAI)	**Significant:** Modified 2015 DGAI score and ACM after 10.4y f/u: • Q1, n=51 deaths, HR: 1.00 • Q2, n=49 deaths, HR: 0.92, 95% CI: 0.61, 1.39, NS • Q3, n=47 deaths, HR: 0.89, 95% CI: 0.58, 1.38, NS • Q4, n=30 deaths, HR: 0.42, 95% CI: 0.25, 0.70	**Key confounders accounted for:** Sex, Age, Race/ethnicity: Design: Spanish participants, SES: marital status,	Higher adherence to the modified 2015 DGAI at 36.5y was significantly associated with lower ACM over

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 16866 Attrition: 24% Sex: 38.3% female Race/ethnicity: NR SES: Studies: 6% technical, 75.3% graduated, 18.8% Master/doctoral; Civil Status: 47.3% Single, 48% Married, 5% other Alcohol intake: mean 6.5 g/d	**Dietary assessment methods:** 136-item validated FFQ at baseline, age 36.5y **Outcome assessment methods:** Mortality was assessed through the National Death Index	• p-trend<0.001 **Non-Significant:** N/A	Alcohol: Part of the score, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Prevalent HTN and hypercholesterolemia, hours watching TV **Limitations:** • Did not account for key confounders: • Cohort only includes university graduates; absolute mortality risk in our cohort was very low	10.4y f/u. **Funding:** Spanish Government-Instituto de Salud Carlos III; European Regional Development Fund; Navarra Regional Government; University of Navarra
George et al, 2014[29] PCS, Women's Health Initiative (WHI-OS) United States Analytic N: 63805 Attrition: 32% Sex: 100% female Race/ethnicity: ~83% Non-hispanic white, ~10% Black, ~4% Hispanic	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008), Healthy Eating Index 2010 (HEI)(Guenther, 2013) **Dietary assessment methods:** 122-item validated FFQ at age ~63y	**Significant:** HEI score at ~63y and risk of ACM at 12.9y f/u: • Q1, n=1292 deaths, HR: 1.00 • Q2, n= 1192 deaths, HR: 0.93, 95% CI: 0.86, 1.01 • Q3, n= 1047 deaths, HR: 0.82, 95% CI: 0.75, 0.89 • Q4, n= 1100 deaths, HR: 0.84, 95% CI: 0.77, 0.92 • Q5, n= 1061 deaths, HR: 0.76, 95% CI: 0.70, 0.83 • p-trend <0.0001 AHEI score at ~63y and risk of ACM at 12.9y f/u: • Q1, n= 1296 deaths, HR: 1.00 • Q2, n= 1207 deaths, HR: 0.93, 95% CI: 0.86, 1.01 • Q3, n= 1162 deaths, HR: 0.90, 95% CI: 0.83, 0.98 • Q4, n= 1000 deaths, HR: 0.79, 95% CI: 0.72, 0.86	**Key confounders accounted for:** Sex, Age: All women, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: postmenopausal hormone replacement therapy, diabetes status	Higher scores on the Healthy Eating Index 2010 (HEI), Alternative Healthy Eating Index 2010 (AHEI), Alternate Mediterranean Diet (aMED), and Dietary Approaches to Stop Hypertension (DASH) score at age ~63y were significantly associated with

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: ~40% college graduates, ~62% married Alcohol intake: ~5 g/d	**Outcome assessment methods:** National Death Index, annual follow-up of participants and proxies	• Q5, n= 1027 deaths, HR: 0.82, 95% CI: 0.76, 0.90 • p-trend <0.0001 aMED score at ~63y and risk of ACM at 12.9y f/u: • Q1, n= 1263 deaths, HR: 1.00 • Q2, n= 1056 deaths, HR: 0.87, 95% CI: 0.80, 0.94 • Q3, n= 1142 deaths, HR: 0.84, 95% CI: 0.77, 0.91 • Q4, n= 1020 deaths, HR: 0.80, 95% CI: 0.73, 0.87 • Q5, n= 1211 deaths, HR: 0.74, 95% CI: 0.68, 0.81 • p-trend <0.0001 DASH score at ~63y and risk of ACM at 12.9y f/u: • Q1, n= 1400 deaths, HR: 1.00 • Q2, n= 832 deaths, HR: 0.91, 95% CI: 0.83, 0.99 • Q3, n= 1410 deaths, HR: 0.86, 95% CI: 0.80, 0.93 • Q4, n= 869 deaths, HR: 0.86, 95% CI: 0.79, 0.94 • Q5, n= 1181 deaths, HR: 0.76, 95% CI: 0.70, 0.83 • p-trend <0.0001 Results were similar when stratified by waist circumference (<88cm, >88cm). When results were stratified by BMI (<25, 25-29.9, >30), higher HEI score was associated with lower risk of ACM across all BMI categories. However, higher AHEI, aMED, and DASH scores were associated with lower risk of ACM among those with BMI<25 and 25-29.9, but there was no significant association in those with BMI>30.	**Limitations:**	lower risk of ACM at 12.9y f/u. **Funding:** NIH
Harmon et al, 2015[30] PCS, Multiethnic Cohort (MEC) United States Analytic N: 156804 Attrition: 27% Sex: 55% female	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008), HEI-2010 (Guenther, 2013) **Dietary assessment methods:** 182-item	**Significant:** MEN HEI-2010 score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3896 deaths, HR: 1.00, ref: • Q2, n=3535 deaths, HR: 0.89, 95% CI: 0.85, 0.93 • Q3, n=3633 deaths, HR: 0.85, 95% CI: 0.81, 0.89 • Q4, n=3580 deaths, HR: 0.82, 95% CI: 0.78, 0.86	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Diabetes,	Higher HEI, AHEI, Alternate Mediterranean Diet (aMED), and DASH scores at ~59y were significantly associated with lower risk of ACM at 13-18y f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: 24% White, 16% African American, 7% Native Hawaiian, 23% Latino, 29% Japanese American SES: ~30% graduated from college Alcohol: NR	validated FFQ at baseline, age ~59y **Outcome assessment methods:** National Death Index	• Q5, n=3619 deaths, HR: 0.75, 95% CI: 0.71, 0.79 • p-trend <0.0001 AHEI-2010 score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3630 deaths, HR: 1.00, ref: • Q2, n=3675 deaths, HR: 0.92, 95% CI: 0.88, 0.96 • Q3, n=3664 deaths, HR: 0.90, 95% CI: 0.86, 0.94 • Q4, n=3749 deaths, HR: 0.88, 95% CI: 0.84, 0.93 • Q5, n=3545 deaths, HR: 0.78, 95% CI: 0.74, 0.82 • p-trend <0.0001 aMED score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3978 deaths, HR: 1.00, ref: • Q2, n=3344 deaths, HR: 0.92, 95% CI: 0.88, 0.97 • Q3, n=3549 deaths, HR: 0.86, 95% CI: 0.82, 0.90 • Q4, n=3211 deaths, HR: 0.83, 95% CI: 0.79, 0.87 • Q5, n=4181 deaths, HR: 0.76, 95% CI: 0.73, 0.80 • p-trend <0.0001 DASH score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=4115 deaths, HR: 1.00, ref: • Q2, n=4288 deaths, HR: 0.95, 95% CI: 0.91, 1.00 • Q3, n=3084 deaths, HR: 0.91, 95% CI: 0.87, 0.96 • Q4, n=3879 deaths, HR: 0.86, 95% CI: 0.82, 0.90 • Q5, n=2897 deaths, HR: 0.81, 95% CI: 0.77, 0.85 • p-trend <0.0001 WOMEN HEI-2010 score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3170 deaths, HR: 1.00, ref • Q2, n=3107 deaths, HR: 0.91, 95% CI: 0.86, 0.95 • Q3, n=3267 deaths, HR: 0.90, 95% CI: 0.86, 0.95 • Q4, n=3164 deaths, HR: 0.80, 95% CI: 0.76, 0.84 • Q5, n=3459 deaths, HR: 0.79, 95% CI: 0.75, 0.83	hormone replacement therapy **Limitations:** • Did not account for key confounders: Alcohol in AHEI-2010	 **Funding:** NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• p-trend <0.0001 AHEI-2010 score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3184 deaths, HR: 1.00, ref • Q2, n=3259 deaths, HR: 0.94, 95% CI: 0.90, 0.99 • Q3, n=3275 deaths, HR: 0.88, 95% CI: 0.84, 0.93 • Q4, n=3274 deaths, HR: 0.85, 95% CI: 0.81, 0.90 • Q5, n=3175 deaths, HR: 0.78, 95% CI: 0.74, 0.82 • p-trend <0.0001 aMED score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3587 deaths, HR: 1.00, ref • Q2, n=2958 deaths, HR: 0.90, 95% CI: 0.86, 0.94 • Q3, n=2946 deaths, HR: 0.83, 95% CI: 0.79, 0.87 • Q4, n=2889 deaths, HR: 0.84, 95% CI: 0.79, 0.88 • Q5, n=3787 deaths, HR: 0.78, 95% CI: 0.74, 0.82 • p-trend <0.0001 DASH score at ~59y and risk of ACM over 13-18y f/u: • Q1, n=3447 deaths, HR: 1.00, ref • Q2, n=3672 deaths, HR: 0.92, 95% CI: 0.88, 0.97 • Q3, n=2805 deaths, HR: 0.89, 95% CI: 0.84, 0.94 • Q4, n=3602 deaths, HR: 0.83, 95% CI: 0.79, 0.87 • Q5, n=2641 deaths, HR: 0.80, 95% CI: 0.75, 0.84 • p-trend <0.0001 When results were stratified by ethnicity, the results were the same, except in Native Hawaiians, in whom all associations were no longer statistically significant.		
Hashemian et al, 2019[31] PCS, Golestan Cohort study Iran (Islamic Rep. of)	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008),	**Significant:** HEI-2015 score at ~52y and risk of ACM at 10.6y f/u: • Q1, n= 1201 deaths, HR: 1.00 • Q2, n= 844 deaths, HR: 0.96, 95% CI: 0.87, 1.05 • Q3, n= 878 deaths, HR: 1.05, 95% CI: 0.96, 1.15 • Q4, n= 724 deaths, HR: 0.92, 95% CI: 0.84, 1.01 • Q5, n= 772 deaths, HR: 0.92, 95% CI: 0.83, 1.01	**Key confounders accounted for:** Sex, Age, SES, Physical activity, Anthropometry, Smoking	Higher HEI-2015, AHEI-2010, aMED, DASH score-Fung, and WCRF/AICR diet only scores at ~52y were associated with

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 42373 Attrition: 15% Sex: 57% female Race/ethnicity: 74% Turkmen SES: 70% no formal education, 34% high wealth score Alcohol?	HEI-2015 (Krebs-Smith, 2018) **Dietary assessment methods:** 116-item validated FFQ at age 52y **Outcome assessment methods:** Reports by health workers, family or friends, medical reports	• p-trend = 0.051 AHEI-2010 score at ~52y and risk of ACM at 10.6y f/u: • Q1, n= 1038 deaths, HR: 1.00 • Q2, n= 965 deaths, HR: 0.95, 95% CI: 0.88, 1.05 • Q3, n= 805 deaths, HR: 0.98, 95% CI: 0.89, 1.07 • Q4, n= 864 deaths, HR: 0.94, 95% CI: 0.86, 1.03 • Q5, n= 750 deaths, HR: 0.88, 95% CI: 0.80, 0.97 • p-trend = 0.013 aMED score at ~52y and risk of ACM at 10.6y f/u: • Q1, n= 1633 deaths, HR: 1.00 • Q2, n= 1126 deaths, HR: 0.97, 95% CI: 0.90, 1.05 • Q3, n= 842 deaths, HR: 0.87, 95% CI: 0.79, 0.95 • Q4, n= 533 deaths, HR: 0.87, 95% CI: 0.78, 0.96 • Q5, n= 290 deaths, HR: 0.80, 95% CI: 0.70, 0.91 • p-trend <0.0001 DASH (Fung) score at ~52y and risk of ACM at 10.6y f/u: • Q1, n= 1205 deaths, HR: 1.00 • Q2, n= 998 deaths, HR: 0.97, 95% CI: 0.89, 1.05 • Q3, n= 953 deaths, HR: 0.90, 95% CI: 0.82, 0.98 • Q4, n= 732 deaths, HR: 0.92, 95% CI: 0.84, 1.01 • Q5, n= 534 deaths, HR: 0.77, 95% CI: 0.70, 0.86 • p-trend <0.0001 WCRF/AICR score at ~52y and risk of ACM at 10.6y f/u: • Q1, n= 460 deaths, HR: 1.00 • Q2, n= 1075 deaths, HR: 0.91, 95% CI: 0.81, 1.01 • Q3, n= 1073 deaths, HR: 0.87, 95% CI: 0.78, 0.98 • Q4, n= 868 deaths, HR: 0.87, 95% CI: 0.77, 0.98 • Q5, n= 940 deaths, HR: 0.79, 95% CI: 0.70, 0.90 • p-trend <0.001 **Non-significant:** N/A	**Other:** Total energy intake, Other: Rural/urban, opium use, history of hypertension **Limitations:** • Did not account for key confounders: Race/ethnicity, Alcohol • Subject recruitment occurred between 2004-2008, and Iran was ranked "Medium" in 2004-5 and "High" in 2006 and beyond on the HDI	lower risk of ACM at 10.6y f/u. **Funding:** World Cancer Research Fund International, Tehran University of Medical Sciences, Cancer Research UK, NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Haveman-Nies et al, 2002[32] PCS, Survey in Europe on Nutrition and the Elderly: a Concerted Action study (SENECA) Belgium, Denmark, Italy, Netherlands, Portugal, Spain, Switzerland Analytic N: 1251 Attrition: 2% Sex: 38% female Race/ethnicity: NR SES: NR Alcohol intake: NR	**Dietary pattern:** adjusted Mediterranean Diet Score (van Staveren et al, 2002) **Dietary assessment methods:** 3-d food record, with frequency checklist at baseline, age 73y **Outcome assessment methods:** Municipal registers, or physician and family contact	**Significant:** Adjusted Mediterranean Diet Score (low (MDS<4) vs. high) at 73y and risk of ACM after ~10y f/u: • Men, HR: 1.25, 95% CI: 0.93, 1.68 • Women, HR: 1.26, 95% CI: 0.88, 1.81 *Exclusion of those with early deaths <3y of f/u did not change the main results **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: did not influence results, Physical activity: exposure in other analyses, Anthropometry: BMI did not influence results, Smoking: exposure in other analyses, Alcohol **Other:** Total energy intake: components were energy-adjusted, number of chronic diseases, region **Limitations:** • Did not account for key confounders: Race/ethnicity • Lack of full data reporting in results (not all 95% CI are included; unclear if models were single vs. combined effects).	Higher adherence to the adjusted Mediterranean diet at 73y was associated with lowerrisk of ACM after ~10y f/u. **Funding:** Haak Bastiaanse-Kuneman Foundation
Hodge et al, 2011[34] PCS, Melbourne	**Dietary pattern:** Mediterranean Diet Score (MDS), modified from	**Significant:** MDS adherence [per-unit increase] at 55y and ACM over 12.3y f/u,	**Key confounders accounted for:**	Higher adherence to the Mediterranean diet at 55y was

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Collaborative Cohort Study (MCCS) Australia Analytic N: 40470 Attrition: 3% Sex: 59% female Race/ethnicity: NR SES: Education: 21% beyond primary school Alcohol intake: ~4.2 g/d	(Trichopolou, 2003) **Dietary assessment methods:** 121-item validated FFQ at baseline, age 55y **Outcome assessment methods:** Victorian Registry of Births, Deaths and Marriages, and the National Death Index	• Men, HR: 0.96, 95% CI: 0.93, 0.99 • Women, HR: 0.94, 95% CI: 0.92, 0.97 *Results were the same when subjects with diabetes at baseline were excluded. **Non-Significant:** N/A	Sex, Age, SES, Alcohol, Physical activity, Anthropometry: BMI; WHR, Smoking: Women only **Other:** Family history of heart attack, Past history of illness, Living alone, Country of birth, Hypertension, Cholesterol **Limitations:** • Did not account for key confounders: Race/ethnicity, Smoking: Not in men	significantly associated with lower risk of ACM at 12.3y f/u. **Funding:** VicHealth, The Cancer Council Victoria and the National Health and Medical Research Council
Hodge et al, 2018[33] PCS, Melbourne Collaborative Cohort Study (MCCS) Australia Analytic N: 39532 Attrition: 5% Sex: ~60% female Race/ethnicity: NR SES: ~18% most disadvantaged; ~27% least disadvantaged Alcohol intake: ~29% never; ~11% former	**Dietary pattern:** Mediterranean Diet Score (MDS), modified from (Trichopolou, 2003), using olive oil instead of MUFA/SFA ratio **Dietary assessment methods:** 121-item validated FFQ at baseline, age 55y **Outcome assessment methods:** Victorian Registry of Births, Deaths and Marriages, and the National Death Index	**Significant:** MDS adherence at 55y and ACM over 19y f/u, • 0-3, n= 2755 deaths, HR: 1 ref • 4-6, n= 4098 deaths, HR: 0.91, 95% CI: 0.87, 0.96 • 7-9, n= 904 deaths, HR: 0.86, 95% CI: 0.80, 0.93 • Linear, n=7757 deaths, HR: 0.96, 95% CI: 0.95, 0.98 • p-trend<0.0001 • Northern European: • 0-3, n= 2073 deaths, HR: 1 ref • 4-6, n= 3050 deaths, HR: 0.90, 95% CI: 0.85, 0.95 • 7-9, n= 663 deaths, HR: 0.83, 95% CI: 0.76, 0.90 • Linear, n=5786 deaths, HR: 0.96, 95% CI: 0.94, 0.97 • p-trend<0.0001	**Key confounders accounted for:** Sex, Age, SES, Alcohol, **Other:** Total energy intake, Family history of CVD, CVD or diabetes, Region **Limitations:** Did not account for key confounders: Physical activity, Anthropometry, Smoking	Higher adherence to a modified Mediterranean diet at 55y was significantly associated with lower risk of ACM at 19y f/u. **Funding:** VicHealth, The Cancer Council Victoria and the National Health and Medical Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		*Results were similar in sensitivity analyses by adjusting for cholesterol, blood pressure, excluding those with CVD, not adjusting for CVD or diabetes, and excluding first 2y of f/u. **Non-Significant:** MDS adherence at 55y and ACM over 19y f/u: Southern European • 0-3, n= 682 deaths, HR: 1 ref • 4-6, n= 1048 deaths, HR: 0.94, 95% CI: 0.86, 1.04 • 7-9, n= 241 deaths, HR: 0.98, 95% CI: 0.84, 1.13 • Linear, n=1971 deaths, HR: 0.98, 95% CI: 0.96, 1.01 • p-trend=0.21		
Hu et al, 2020[35] PCS, Atherosclerosis Risk in Communities (ARIC) Study United States Analytic N: 12413 Attrition: 21% Sex: 55% female Race/ethnicity: ~22% Black SES: ~35% >College; ~25% >$50,000 household income Alcohol intake: ~59% current drinkers	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008), HEI-2015 (Krebs-Smith, 2018) **Dietary assessment methods:** 66-item validated FFQ at age 55y and 61y **Outcome assessment methods:** Calls to participants/proxies, local hospital discharge records, state death records, and the National Death Index	**Significant:** HEI-2015 score at ~55y and risk of ACM over 25y f/u: • Q1, n= 1333 deaths, HR: 1.00 • Q2, n= 1225 deaths, HR: 0.90, 95% CI: 0.83, 0.97 • Q3, n= 1096 deaths, HR: 0.85, 95% CI: 0.78, 0.92 • Q4, n= 1063 deaths, HR: 0.87, 95% CI: 0.80, 0.95 • Q5, n= 1030 deaths, HR: 0.82, 95% CI: 0.75, 0.89 • p-trend <0.0001 AHEI-2010 score at ~55y and risk of ACM over 25y f/u: • Q1, n= 1203 deaths, HR: 1.00 • Q2, n= 1214 deaths, HR: 0.95, 95% CI: 0.88, 1.03 • Q3, n= 1148 deaths, HR: 0.92, 95% CI: 0.85, 1.00 • Q4, n= 1107 deaths, HR: 0.84, 95% CI: 0.78, 0.92 • Q5, n= 1075 deaths, HR: 0.80, 95% CI: 0.73, 0.87 • p-trend <0.0001 aMED score at ~55y and risk of ACM over 25y f/u: • Q1, n= 1123 deaths, HR: 1.00 • Q2, n= 1046 deaths, HR: 0.93, 95% CI: 0.86, 1.01	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Smoking **Other:** Total energy intake **Limitations:** • Did not account for key confounders: Anthropometry	Higher scores on the Healthy Eating Index 2015 (HEI-2015), Alternative Healthy Eating Index 2010 (AHEI-2010), Alternate Mediterranean Diet (aMED), and Dietary Approaches to Stop Hypertension (DASH) score at ~55y were significantly associated with lower risk of ACM at 25y f/u. **Funding:** NIH; HHS

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• Q3, n= 1191 deaths, HR: 0.93, 95% CI: 0.86, 1.01 • Q4, n= 1040 deaths, HR: 0.84, 95% CI: 0.77, 0.91 • Q5, n= 1347 deaths, HR: 0.76, 95% CI: 0.70, 0.83 • p-trend <0.0001 DASH score at ~55y and risk of ACM over 25y f/u: • Q1, n= 1637 deaths, HR: 1.00 • Q2, n= 1156 deaths, HR: 0.94, 95% CI: 0.87, 1.02 • Q3, n= 1221 deaths, HR: 0.96, 95% CI: 0.88, 1.03 • Q4, n= 729 deaths, HR: 0.93, 95% CI: 0.85, 1.02 • Q5, n= 1004 deaths, HR: 0.88, 95% CI: 0.80, 0.96 • p-trend <0.01 When results were stratified by race, results were similar for white subjects. Among black subjects, the HEI-2015, AHEI-2010 and aMed were similarly associated with risk of ACM, but the DASH score was not significantly associated with risk of ACM.		
Hulsegge et al, 2016[36] PCS, Doetinchem Cohort Study Netherlands Analytic N: 5623 Attrition: 28% Sex: 54% female Race/ethnicity: NR SES: Education: 50% low education Alcohol intake: 36% moderate	**Dietary pattern:** modified Mediterranean Diet Score (mMDS) (Trichopoulou, 2005) **Dietary assessment methods:** 178-item validated FFQ at baseline, age 46y, and at 5y f/u **Outcome assessment methods:** Municipal population registers	**Significant**:** ** Additional analyses combining mMDS sustained from ≥5 at baseline and at f/u with beneficial factors vs. 'unhealthy profile' ref: HR: 0.45, 95% CI: 0.24, 0.83; All other combinations were NS **Non-Significant:** Δ in mMDS adherence and ACM at ~10y f/u: • Increased mMDS, Δ from <5 at baseline to ≥5 at f/u: HR: 1.09, 95% CI: 0.73, 1.63 • Decreased mMDS, Δ ≥5 at baseline and <5 at f/u: HR: 1.19, 95% CI: 0.72, 1.96 * Complete case analysis returned similar results; Combined lifestyle scores with increased mMDS and (beneficial) factors combined: HR: 0.96, 95% CI: 0.75, 1.23; NS; or decreased mMDS and (detrimental) factors combined: HR: 1.40, 95% CI: 1.12, 1.76; NS	**Key confounders accounted for:** Sex, Age, SES: Education; Employment, Alcohol: Lifestyle score, Physical activity: Lifestyle score, Anthropometry: Lifestyle score, Smoking: Lifestyle score **Other:** Hypertension, Hypercholesterolemia, Diabetes **Limitations:**	Change in adherence over 5y to the mMDS was not significantly associated with ACM. Greater maintained adherence to the mMDS (≥5 at baseline and at f/u compared to <5 at both) was significantly associated with lower risk of ACM at ~10y f/u. **Funding:** Ministry of

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			• Did not account for key confounders: Race/ethnicity	Health, Welfare and Sport of the Netherlands and the National Institute for Public Health and the Environment
Kaluza et al, 2009 [37] PCS, Sweden Analytic N: 40837 Attrition: 16% Sex: 0% female SES: ~17% university education	**Dietary pattern:** Non-recommended Food Score (Kant, 2000), Recommended Food Score (RFS) (Kaluza, 2009) **Dietary assessment methods:** 96-item validated FFQ at age ~59y **Outcome assessment methods:** Swedish Death and Population registers	**Significant:** RFS score at ~59y and risk of ACM after 7.7y fu: • Low (n= 2313 deaths): HR: 1.00 • Medium (n= 1688 deaths): HR: 0.92, 95% CI: 0.85, 1.00 • High (n= 467 deaths): HR: 0.81, 95% CI: 0.71, 0.91 • p-trend = 0.001 Non-RFS score at ~59y and risk of ACM after 7.7y fu: • Low (n= 1739 deaths): HR: 1.00 • Medium (n= 1532 deaths): HR: 1.04, 95% CI: 0.96, 1.14 • High (n= 741 deaths): HR: 1.21, 95% CI: 1.09, 1.34 • p-trend = 0.001 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Supplement usage, Other: self-reported health status **Limitations:**	Higher scores on the Recommended Food Score (RFS) at age ~59y were significantly associated with decreased risk of ACM after 7.7y of f/u. Higher scores on the Non-Recommended Food Score (Non-RFS) at age ~59y were significantly associated with increased risk of ACM after 7.7y of f/u. **Funding:** Swedish Council for Working Life and Social Research, Swedish Research Council
Kaluza et al, 2019[38] PCS, Australia	**Dietary pattern:** Adherence to an Anti-inflammatory diet index (AIDI)	**Significant:** AIDI adherence at 60y and ACM at 16y f/u: Men and women: • Q1, n=7308 deaths, HR: 1.00 • Q2, n=3540 deaths, HR: 0.93, 95% CI: 0.89, 0.97 • Q3, n=2717 deaths, HR: 0.89, 95% CI: 0.85, 0.93	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol, Physical activity,	Higher adherence (Q4 vs. Q1 and per-1 point increase) to an anti-inflammatory dietary pattern at 60y was significantly

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 68273 Attrition: 23% Sex: ~48% female Race/ethnicity: NR SES: 19% university education Alcohol intake: Wine ~1 serving/wk; Beer: ~4 servings/wk	**Dietary assessment methods:** 96-item validated FFQ at baseline, age 60y **Foods/Food groups:** Anti-inflammatory foods (servings/d or week): total fruits and vegetables; tea; coffee; wholegrain bread; breakfast cereal, low-fat cheese, olive and canola, oil; nuts; chocolate; red wine; and beer; Pro-inflammatory foods (servings/d or week): unprocessed red meat; processed red meat; offal; chips; soft drinks **Outcome assessment methods:** Swedish Cause of Death Register	• Q4, n=2523 deaths, HR: 0.82, 95% CI: 0.78, 0.86 • p-trend <0.001 • Per 1-point increase, n=16088 deaths, HR: 0.96, 95% CI: 0.95, 0.97 • Per 1-point increase and 20th survival, PD: 0.2, 95% CI: 0.2, 0.3 Men n = 35749 • Q1, n= 4399 deaths, HR: 1, ref • Q2, n= 1879 deaths, HR: 0.89, 95% CI: 0.85, 0.94 • Q3, n= 1424 deaths, HR: 0.86, 95% CI: 0.81, 0.92 • Q4, n= 1130 deaths, HR: 0.80, 95% CI: 0.75, 0.86 • p-trend <0.001 • Per 1-point increase, n=8832 deaths, HR: 0.95, 95% CI: 0.94, 0.96 • Per 1-point increase and 20th survival, PD: 0.2, 95% CI: 0.1, 0.3; NS Women n = 32524 • Q1, n= 2909 deaths, HR: 1, ref • Q2, n= 1661 deaths, HR: 0.97, 95% CI: 0.91, 1.03; NS • Q3, n= 1293 deaths, HR: 0.93, 95% CI: 0.87, 0.99 • Q4, n= 1393 deaths, HR: 0.85, 95% CI: 0.80, 0.91 • p-trend <0.001 • Per 1-point increase, n= 7256 deaths, HR: 0.96, 95% CI: 0.95, 0.98 • Per 1-point increase and 20th survival, PD: 0.2, 95% CI: 0.1, 0.3; NS *Results were stronger in current smokers, although the association remained significant in former or never smokers (current vs. never was strongest). Adjusting for lag-period of f/u did not impact results. **Non-Significant:** See Q2, women above	Anthropometry: BMI, Smoking **Other:** Total energy intake, Supplement usage, cortisone use, History of hypertension, hypercholesterolaemia **Limitations:** Did not account for key confounders: Race/ethnicity	associated with lower risk of ACM and longer survival at 16y f/u. In separate analyses of men and women, the significant association remained. **Funding:** Swedish Research Council for Health, Working Life and Welfare; Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning; Swedish Research Council; Swedish Infrastructure for Medical Population-based Life-course Environmental Research

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Kant et al, 2000[41] PCS, Breast Cancer Detection and Demonstration Project (BCDDP) United States Analytic N: 42254 Attrition: 18% Sex: 100% female Race/ethnicity: ~87% White SES: ~89% >12y education Alcohol intake: ~50% drink alcohol	**Dietary pattern:** Recommended Food Score (RFS) (Kant, 2000; McCullough, 2002) **Dietary assessment methods:** 62-item, validated FFQ at age 61y **Outcome assessment methods:** Death certificates	**Significant:** RFS adherence [categorical; Q1 vs. Q2, Q3, Q4] at 61y and ACM after 5.6y f/u: • Q1, n=559 deaths: 1.00 • Q2, n=621 deaths, HR: 0.82, 95% CI: 0.73, 0.92 • Q3, n=389 deaths, HR: 0.71, 95% CI: 0.62, 0.81 • Q4, n=496 deaths, HR: 0.69, 95% CI: 0.61, 0.78 • X^2-trend 35.64, p-trend <0.001 Results were similar when excluding subjects with missing covariates, subjects with baseline disease, first 2y of f/u, first 3y of f/u	**Key confounders accounted for:** Sex: All women, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: history of cancer/CVD/type 2 diabetes, postmenopausal hormone use **Limitations:**	Higher adherence to the Recommended Food Score at age 61y was significantly associated with lower risk of ACM after 5.6y of f/u. **Funding:** None
Kant et al, 2004[39] PCS, National Health Interview Surveys (NHIS) United States Analytic N: 10084 Attrition: 32% Sex: 59% female Race/ethnicity: NR SES: 65% income < $50K Alcohol intake: ~57% consume	**Dietary pattern(s):** Index Analysis: Recommended Food and Behavior Score (RFBS) adherence [9-11, 12-14, ≥15 vs. 0-8] Factor/cluster Analysis: see Table 5 **Dietary assessment methods:** 60-item validated FFQ at baseline, age 60y **Foods/food groups:** RFBS is a modifed RFS (USDA, 2000) to include meat	**Significant:** RFBS, Men and ACM at ~6y f/u:: • 0-8, RR: 1 ref • 9-11, RR: 0.88, 95% CI: 0.72, 1.08 • 12-14, RR: 0.84, 95% CI: 0.68, 1.03 • 15, RR: 0.72, 95% CI: 0.56, 0.92 • p-trend=0.001 RFBS, Women and ACM at ~6y f/u: • 0-8, RR: 1.0 ref • 9-11, RR: 0.95, 95% CI: 0.76, 1.18 • 12-14, RR: 0.80, 95% CI: 0.64, 1.02 • 15, RR: 0.80, 95% CI: 0.61, 1.04 • p-trend=0.04 Sensitivity analyses examining missing/invalid FFQ data, age, or early deaths, n=193, in <1y f/u did not change results	**Key confounders accounted for:** Sex, Age, SES: education, Race/ethnicty, Anthropometry: BMI, Alcohol intake, Smoking **Other:** Total energy intake, Supplement use **Limitations:** Did not account for key confounders: Physical activity	Higher adherence [15 vs. 0-8] to the RFBS score was significantly associated with lower risk of all-cause mortality after ~6y f/u in men, but the association in women was attenuated. **Funding:** NCI

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	alternates and removal of fat from meat or poultry skins as desirable **Outcome assessment methods:** Linkage with National Death Index	**Non-Significant:** see factor analysis data		
Kant et al, 2009[40] PCS, NIH AARP Diet and Health Study United States Analytic N: 350886 Attrition: 43% Sex: 43% female Race/ethnicity: ~92.1% Non-Hispanic white, ~3.6% Non-Hispanic Black, ~1.8% Hispanic, ~1.5% others SES: ~39.8% college and postgraduate Alcohol intake: median ~2.8 g/d	**Dietary pattern:** Dietary Behavior Score (DBS) **Dietary assessment methods:** 124-item validated FFQ at baseline, at about age 62 y **Outcome assessment methods:** Vital status ascertained via Social Security Administration's Master Death File.	**Significant:** Higher adherence to Dietary Behavior Score at 62y and ACM in men with Q1, n=5884 deaths, RR: 1, ref: • Q2, n=4469 deaths, RR: 0.90, 95% CI: 0.86, 0.94 • Q3, n=3778 deaths, RR: 0.88, 95% CI: 0.85, 0.92 • Q4, n=2922 deaths, RR: 0.83, 95% CI: 0.79, 0.87 • Q5, n=2382 deaths, RR: 0.79, 95% CI: 0.75, 0.83 • p-trend<0.0001 Higher adherence to Dietary Behavior Score at 62y and ACM in women with Q1, n=2328 deaths, RR: 1, ref: • Q2, n=2101 deaths, RR: 0.90, 95% CI: 0.85, 0.95 • Q3, n=2119 deaths, RR: 0.87, 95% CI: 0.82, 0.93 • Q4, n=1924 deaths, RR: 0.80, 95% CI: 0.75, 0.86 • Q5, n=1931 deaths, RR: 0.75, 95% CI: 0.70, 0.80 • p-trend<0.0001 Results were similar when assessing those with length of f/u <5y or ≥ 5y **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education level, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Hormone use **Limitations:**	Higher adherence to Dietary Behavior Score was significantly associated with reduced ACM risk in both men and women over ~10.5y f/u. **Funding:** NCI; NIH
Kappeler et al, 2013 [42] PCS, Third National Health and Nutrition Examination Survey (NHANES III) United States Analytic N: 17611	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** 81-item FFQ at baseline, age 40y	**Significant:** HEI score at ~40y and risk of ACM, n=3683, after 22y f/u: All: • HEI <51, Poor: HR: 1.00 • HEI 51-80, Needs Improvement: HR: 0.90, 95% CI: 0.75, 1.08 • HEI >80, Good: HR: 0.77, 95% CI: 0.63, 0.94 • p-trend = 0.01	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Family history,	Higher HEI score at ~40y was significantly associated with reduced risk of ACM after 22y f/u in the full sample of men and women. When women and men

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Attrition: 48% Sex: 53% female Race/ethnicity: ~45% men, ~75% women White SES: ~35% middle income Alcohol intake: NR	**Outcome assessment methods:** National Death Index	Men: • HEI <51, Poor: HR: 1.00 • HEI 51-80, Needs Improvement: HR: 0.85, 95% CI: 0.70, 1.04 • HEI >80, Good: HR: 0.70, 95% CI: 0.52, 0.96 • p-trend = 0.02 **Non-Significant:** HEI score at ~40y and risk of ACM, n=3683, after 22y f/u: Women: • HEI <51, Poor: HR: 1.00 • HEI 51-80, Needs Improvement: HR: 1.00, 95% CI: 0.73, 1.36 • HEI >80, Good: HR: 0.88, 95% CI: 0.65, 1.20 • p-trend = 0.29	Supplement usage, Other: history of hypertension, diabetes, hypercholesterolemia, use of aspirin and ibuprofen, hormone replacement therapy and oral contraceptive use **Limitations:** • Did not account for key confounders: N/A	were analyzed separately, the significant association was only observed in men. **Funding:** NR
Kim et al, 2013[45] PCS, The Seoul Male Cohort Study Korea Analytic N: 12538 Attrition: 14% Sex: 0% female Race/ethnicity: NR, Korean participants SES: Education: 53.7% ≥ college, 46.3% ≤ high school Alcohol intake: 23.9% never, 8.2% former, 65.3% current	**Dietary pattern:** Healthy Diet Score **Dietary assessment methods:** Validated FFQ at baseline, mean age 47.5y **Outcome assessment methods:** Mortality microdata were collected from the National Statistics Office.	**Significant:** N/A **Non-Significant:** Healthy Diet Score at 47.5y and risk of ACM: • <2 components, n=1016 deaths, HR:1, ref • ≥2 components, n=38 deaths, HR: 0.81, 95% CI: 0.57, 1.14; NS Healthy Diet Score at 47.5y and incidence of ACM,: • <2 components, 3.6% vs. 4.4% alive • ≥2 components, 96.4% vs. 95.6%, p=0.21; NS	**Key confounders accounted for:** Sex: All male, Age, Race/ethnicity: Korean participants, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Family history: of CVD, Other: Sleep hours, total cholesterol, BP, fasting blood **Limitations:** • Did not account for key confounders: N/A • Baseline FFQ	The inverse association between higher Healthy diet score (≥2 vs. <2) and ACM was not significant. **Funding:** National R&D Program for Cancer Control, Ministry of Health & Welfare, Republic of Korea

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			was not consistent with then AHA's healthy diet definition. • Insufficient information about the standard ideal healthy diet associated with CVD mortality in the Korean population.	

Kim et al, 2018[44]
 	
PCS, National Health and Nutrition Examination Survey (NHANES III)
United States
 	
Analytic N: 11879
Attrition: 31%
 	
Sex: 52.7% female
Race/ethnicity: ~75% Non-Hispanic white, ~10% Non-Hispanic black, ~6.3% Mexican American, ~8.7% other
SES: ~23% less than high school, ~33.3% high school, ~43% more than high school;
Federal Poverty Level: ~17.7% <130%, ~45%
	Dietary pattern:
	Healthy plant-based diet index [hPDI], Less healthy [unhealthy] plant-based diet index [uPDI], Plant-based Diet Index (PDI)
	
	Dietary assessment methods: 81-item FFQ (non-validated) and 24 h recall at mean age 41.3 y
	
	Outcome assessment methods: Vital status tracked through the National Center for Health Statistics and linked with NHANES III data
		Significant:
		Dietary indices by 10 unit increase at 41y and ACM over 19y f/u:
		• hPDI:
		  ○ Overall, n=1518 deaths, ≥ median: HR: 0.95, 95% CI: 0.91, 0.98
		  ○ Women: ≥ median, n=726 deaths, HR: 0.94, 95% CI: 0.88, 0.99
		
		Non-Significant:
		Dietary indices by 10 unit increase at 41y and ACM over 19y f/u:
		• PDI:
		  ○ Overall, n=2228 deaths, HR: 1.01, 95% CI: 0.98, 1.03
		  ○ Men, n=1258 deaths, HR: 1.04, 95% CI: 0.99, 1.07
		  ○ Women, n=970 deaths, HR: 0.98, 95% CI: 0.95, 1.00
		• hPDI:
		  ○ Overall: < median, n=710 deaths, HR: 1.04, 95% CI: 0.97, 1.12
		  ○ Men:
			Key confounders accounted for:
			Sex, Age, Race/ethnicity, SES: education, federal poverty level, marital status, Alcohol, Physical activity, Anthropometry: BMI, Smoking
			
			Other: Total energy intake, Other: Margarine intake, baseline HTN, serum cholesterol, eGFR, menopause
			
			Limitations:
			• Did not account for key confounders: N/A
				There were no significant associations between a 10 unit increase for the plant-based diet index (PDI), and the unhealthy plant-based diet index (uPDI) the overall sample or sex-specific analyses.
				
				Higher adherence to the healthy plant-based index (hPDI) was signficantly associated with a slight decrease in risk of ACM in the overall sample and women with a median or higher

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
130-350%, ~37% >350% Alcohol intake: mean intake ~5.7 times/mo		▪ < median, n=466 deaths, HR: 1.01, 95% CI: 0.92, 1.10 ▪ ≥ median, n=792 deaths, HR: 0.95, 95% CI: 0.89, 1.01 ○ Women: <median, n=244 deaths, HR: 1.09, 95% CI: 0.98, 1.19 • uPDI: ○ Overall, n=2228 deaths, HR: 1.00, 95% CI: 0.98, 1.04 ○ Men, n=1258 deaths, HR: 1.01, 95% CI: 0.98, 1.06 ○ Women, n=970 deaths, HR: 1.01, 95% CI: 0.98, 1.05		hPDI score. **Funding:** NIDDK; Johns Hopkins Bloomberg School of Public Health
Kim et al, 2019[43] *AHA* PCS, Atherosclerosis Risk in Communities (ARIC) United States Analytic N: 12168 Attrition: 23% Sex: ~56% female Race/ethnicity: ~27% black SES: ~77.8% high school graduate Alcohol intake: mean ~43 g/wk	**Dietary pattern:** Healthy plant-based diet index [hPDI] (Kim, 2018), Less healthy [unhealthy] plant-based diet index [uPDI] (Kim, 2018), Provegetarian Diet Index, Plant-based Diet Index (PDI) (Kim, 2018) **Dietary assessment methods:** 66-item validated FFQ at baseline (mean age 54 y) and at visit 3 (~6 y post-baseline) **Outcome assessment methods:** National Death Index	**Significant:** PDI index at ~54-60y and ACM (n=5436) over 25y f/u: • Q1, HR: 1.00 • Q2, HR: 0.89, 95% CI: 0.83, 0.97 • Q3, HR: 0.82, 95% CI: 0.76, 0.89 • Q4, HR: 0.82, 95% CI: 0.75, 0.89 • Q5, HR: 0.76, 95% CI: 0.69, 0.83 • p-trend<0.001 hPDI index at ~54-60y and ACM (n=5436) over 25y f/u: • Q1, HR: 1.00 • Q1, Q2, HR: 0.99, 95% CI: 0.91, 1.07, NS • Q3, HR: 0.99, 95% CI: 0.91, 1.08, NS • Q4, HR: 0.93, 95% CI: 0.85, 1.02, NS • Q5, HR: 0.91, 95% CI: 0.83, 1.00 • p-trend=0.03 Provegetarian diet index at ~54-60y and ACM (n=5436) over 25 y f/u: • Q1, HR: 1.00 • Q2, HR: 0.92, 95% CI: 0.85, 0.99 • Q3, HR: 0.89, 95% CI: 0.82, 0.97 • Q4, HR: 0.84, 95% CI: 0.77, 0.91	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Margarine intake, cholesterol, diabetes, hypertension, lipid-lowering med use, baseline kidney function **Limitations:** • Did not account for key confounders: N/A • Dietary intake may not reflect	Higher adherence to the overall plant-based diet index (PDI), the healthy plant-based diet index (hDPI), and the provegetarian diet index at 54-60y were each significantly associated with lower mortality over ~25y f/u. There were no significant associations between the unhealthy plant-based diet index (uPDI) and ACM, as well as the lower quintiles of the hDPI and ACM.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• Q5, HR: 0.82, 95% CI: 0.76, 0.89 • p-trend<0.001 **Non-Significant:** uPDI index at ~54-60y and ACM over 25y f/u: • Q1, HR: 1.00 • Q2, HR: 1.04, 95% CI: 0.96, 1.12, NS • Q3, HR: 0.97, 95% CI: 0.89, 1.05, NS • Q4, HR: 1.01, 95% CI: 0.93, 1.10, NS • Q5, HR: 1.02, 95% CI: 0.94, 1.11, NS • p-trend=0.67	the modern food supply • BMI incorrectly reported by authors	**Funding:** NIH: NHLBI; HHS
Knoops et al, 2004[46] PCS, Healthy Ageing: a Longitudinal study in Europe (HALE): Survey in Europe on Nutrition and the Elderly: a Concerned Action (SENECA) and Finland, Italy, the Netherlands, Elderly (FINE) cohorts Belgium, Denmark, Finland, France, Greece, Hungary, Italy, Netherlands, Portugal, Spain, Switzerland Analytic N: 2339 Attrition: 52% Sex: 36% female Race/ethnicity: NR; ~50% Northern Europe SES: ~8y education Alcohol intake: 71.3%	**Dietary pattern:** modified MDS (mMDS) **Dietary assessment methods:** Diet history from trained dietitian, at age: ~75y **Outcome assessment methods:** Vital status	**Significant:** mMDS adherence and ACM over 10y f/u: HR: 0.77, 95% CI: 0.68, 0.88 Sensitivity analyses excluding early deaths in 2y f/u: HR: 0.77, 95% CI: 0.67, 0.89 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity: Adjusted for and examined as an exposre, Anthropometry, Smoking: Adjusted for and examined as an exposure **Other:** Total energy intake: Components adjusted, Other: Study population **Limitations:** • Did not account for key confounders: Race/ethnicity	Adherence to a modified Mediterranean dietary pattern (mMDS ≥ 4) at mean age ~75 years was associated with lower ACM over 10 y f/u. **Funding:** European Union

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Knoops et al, 2006[47] PCS, Healthy Ageing: a Longitudinal study in Europe (HALE) Survey in Europe on Nutrition and the Elderly: a Concerned Action (SENECA) and Finland, Italy, the Netherlands, Elderly (FINE) cohorts Belgium, Denmark, Finland, France, Greece, Italy, Netherlands, Portugal, Spain, Switzerland Analytic N: 3117 Attrition: 36% Sex: 33% female SES: ~8y education Alcohol intake: 71.3%	**Dietary pattern:** Modified Mediterranean Diet Score [(MDS) modified from Trichopoulou, 2003), Mediterranean Adequacy Index (MAI) (Fidanza, 2004) **Dietary assessment methods:** Diet history from trained dietitian at age: ~73y (70-90y) **Outcome assessment methods:** NR	**Significant:** Modified MDS and risk of ACM after 10y f/u: • All subjects: HR: 0.82, 95% CI: 0.75, 0.91, p<0.05 • Northern European: HR: 0.83, 95% CI: 0.74, 0.93, p<0.05 • Southern European: HR: 0.88, 95% CI: 0.78, 0.98, p<0.05 Modified MDS without alcohol and risk of ACM after 10y f/u: • All subjects: HR: 0.78, 95% CI: 0.71, 0.87, p<0.05 MAI and risk of all cause mortality after 10y f/u: • All subjects: HR: 0.83, 95% CI: 0.75, 0.92, p<0.05 • Northern European: HR: 0.79, 95% CI: 0.74, 0.85, p<0.05 MAI without alcohol and risk of ACM after 10y f/u: • All subjects: HR: 0.87, 95% CI: 0.79, 0.97, p<0.05 • Northern European: HR: 0.83, 95% CI: 0.74, 0.92, p<0.05 Similar results were obtained in analyses excluding subjects (n=977) with chronic diseases at baseline or early deaths <2y f/u **Non-Significant:** Modified MDS without alcohol at 73y and risk of ACM after 10y f/u: • Northern European: HR: 0.89, 95% CI: 0.77, 1.02, p=NS • Southern European: HR: 0.92, 95% CI: 0.84, 1.02, p=NS MAI at 73y and risk of ACM after 10y f/u • Southern European: HR: 0.96, 95% CI: 0.86, 1.08, p=NS	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Chronic disease at baseline, study center **Limitations:** • Did not account for key confounders: Race/ethnicity	In all subjects, higher modified Mediterranean Diet Score (MDS) and modified Mediterranean Adequacy Index (MDI) adherence at 73y were significantly associated with lower risk of all cause mortality after 10y of f/u. In northern and southern Europe separately, all diet scores were also inversely associated with mortality, but only the MDS was significantly related to mortality in northern and southern Europe, and the MAI and MAI without alcohol in northern Europe. The association between the MAI and mortality was stronger in northern than in southern Europe.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		MAI without alcohol at 73y and risk of ACM after 10y f/u • Southern European: HR: 0.97, 95% CI: 0.86, 1.10, p=NS		**Funding:** European Union
Kurotani et al, 2016[48] PCS, Japan Public Health Center based prospective study Japan Analytic N: 79594 Attrition: 43% Sex: 46% female Race/ethnicity: NR SES: 16.8% Occupation (agriculture, forestry, fishery) Alcohol intake: 34.1% ≥1 d/wk	**Dietary pattern:** Japanese Food Guide Score, Modified Japanese Food Guide Score **Dietary assessment methods:** 147-item validated FFQ at baseline, ~51y **Outcome assessment methods:** Residential registry	**Significant:** Japanese Food Guide Score at 51y and ACM over 15y f/u: • Q1, n=3497 deaths, HR: 1.00 • Q2, n=2463 deaths, HR: 0.92, 95%CI: 0.87, 0.97 • Q3, n=2470 deaths, HR: 0.88, 95%CI: 0.83, 0.93 • Q4, n=1753 deaths, HR: 0.85, 95%CI: 0.79, 0.91 • p-trend<0.001 Japanese Food Guide Score (per 10 point increment) at51y and ACM over 15y f/u: • HR: 0.93, 95%CI: 0.91, 0.95 Modified Japanese Food Guide Score 51y and ACM over median f/u 15 y: • Q1, n=3364 deaths, HR: 1.00 • Q2, n=2731 deaths, HR: 0.93, 95%CI: 0.89, 0.98 • Q3, n=2260 deaths, HR: 0.84, 95%CI: 0.79, 0.89 • Q4, n=1828 deaths, HR: 0.82, 95%CI: 0.77, 0.88 • p-trend<0.001 Modified Japanese Food Guide Score continuous by 10 point increment at age 51.0 y and ACM over median f/u 15 y: • HR: 0.93, 95%CI: 0.91, 0.95 Sensitivity analyses: • Excluding early deaths <3y f/u (n=1031) had no effect on associations. • Excluding those with Hx of HTN, diabetes, or dyslipidemia (n=20080) strengthened the association between the Japanese Food Guide Score and ACM with Q1 ref: Q4: HR: 0.82, 95%CI:	**Key confounders accounted for:** Sex, Age, SES (occupation), Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Other: Hx of HTN, diabetes, and dyslipidemia, coffee consumption, green tea consumption **Limitations:** • Did not account for key confounders: Race/ethnicity: though subjects were Japanese • FFQ adapted for usage with created scoring system	Higher adherence to both the Japanese Food Guide and the modified Japanese food guide at 51y was significantly associated with lower ACM over ~15 y f/u. **Funding:** National Cancer Centre research and development fund; Ministry of Health, Labour and Welfare of Japan; Practical Research Project for Life-Style related Diseases; National Centre for Global Health and Medicine

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		0.75, 0.89, and the modified Japanese Food Guide score and ACM with Q1 ref: Q4: HR: 0.80, 95% CI: 0.73, 0.87. **Non-Significant:** N/A		
Kurotani et al, 2019[49] PCS, Japan Public Health center-based Prospective Study (JPHC) Japan Analytic N: 61267 Attrition: 56% Sex: 54.3% female Race/ethnicity: NR, Japanese SES: range of area deprivation index: 165.8-983.3; Occupation (agriculture, forestry and fishery): 20.3% Alcohol intake: ≥ 1 d/wk: 30.1%	**Dietary pattern:** Japanese Food Guide, according to Japanese Areal Deprivation Index (ADI) tertiles **Dietary assessment methods:** 147-item validated FFQ at baseline (5y f/u for this study) at age 51.1y **Outcome assessment methods:** Residency and vital status of participants determined using the residential registry.	**Significant:** Low diet quality [< median Japanese Food Guide] and ACM at ~17y f/u: • T1 ADI, HR: 1.00 ref • T2 ADI, HR: 1.17, 95% CI: 1.08, 1.27 • T3 ADI, HR: 1.19, 95% CI: 1.08, 1.32 • Across ADI tertiles: p-trend=0.03 **Non-Significant:** High diet quality [≥ median Japanese Food Guide] and ACM at ~17y f/u: • T1 ADI: HR: 1.09, 95% CI: 0.999, 1.19 • T2 ADI: HR: 1.01, 95% CI: 0.93, 1.10 • T3 ADI: HR: 1.05, 95% CI: 0.96, 1.16 • Across ADI tertiles: p-trend=0.92	**Key confounders accounted for:** Sex, Age, Race/ethnicity: design, SES: ADI, study area, population density, occupation, living status, Physical activity, Anthropometry, Smoking **Other:** Hx of diabetes, Hx of HTN, Hx of dislipidemia, coffee intake, green tea intake **Limitations:** • Did not account for key confounders: Alcohol • Metropolitan areas excluded; misclassification as a result of being unable to consider emigration	Low adherence (< median) to the Japanese Food Guide by ADI tertile was associated with increased ACM risk at mean f/u of 17y. High diet quality was not significantly associated with ACM regardless of ADI. **Funding:** National Cancer Center Research and Development Fund; Grant-in-Aid for Cancer Research from the Ministry of Health, Labour and Welfare of Japan; Japan Agency for Medical Research and Development
Lagiou et al, 2006[50] PCS, Scandinavian	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003)	**Significant:** (see below)	**Key confounders accounted for:**	Adherence to Mediterranean diet in women age 30-

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Women's Lifestyle and Health Cohort Sweden Analytic N: 42237 Attrition: 14% Sex: 100% female Race/ethnicity: NR SES: Education: 30% 0-10y, 39% 11-13y, 31% >13y Alcohol intake: 75% <5 g/d, 25% 5-25 g/d, <1% >25 g/d	**Dietary assessment methods:** 80-item validated FFQ at baseline, age 30-49y **Outcome assessment methods:** Swedish nationwide health registers	**Non-Significant:** By age, MDS adherence [per 2-unit increase] at 30-49y and ACM over ~12y f/u: • <40 y, n=173 deaths, HR: 1.09, 95% CI: 0.90, 1.32; NS • ≥ 40y, n=399 deaths, **HR: 0.87, 95% CI: 0.76, 0.98**; p-interaction=0.056 MDS adherence [per 2-unit increase] at 30-49y and ACM over ~12y f/u, n=572 deaths, HR: 0.93, 95% CI: 0.83, 1.03; p-trend=0.18; NS MDS adherence [categorical] at 30-49y and ACM over ~12y f/u: low (0-3), n=217 deaths, HR: 1.00 • middle (4-5), n=245 deaths/, HR: 0.93, 95% CI: 0.78, 1.13; NS • high (6-9), n=110 deaths, HR: 0.85, 95% CI: 0.67, 1.08; NS	Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: Height; BMI, Smoking **Other:** Total energy intake, Intake of non-MDS components: potato, egg, PUFA, sweet and sugar, and non-alcoholic beverage **Limitations:** • Did not account for key confounders: Race/ethnicity, Alcohol: NR or adjusted for	40y was not significantly associated with ACM over 12y f/u. In sub-group analyses by age, higher adherence to the Mediterranean diet per 2-unit increase in women age ≥ 40 years was associated with a statistically significant reduction in ACM over 12y f/u. **Funding**: Swedish Cancer Society and the Swedish Research Council
Lasheras et al, 2000[51] PCS, Spain Analytic N: 161 Attrition: 0% Sex: 70% female Race/ethnicity: NR SES: Education: 55% none, 27% technical/secondary, 19% university Alcohol intake: ~9g in <80y; ~6g in ≥ 80y	**Dietary pattern:** Modified Mediterranean Diet Score [(MDS), modified from Trichopolou, 2003 **Dietary assessment methods:** FFQ via trained dietitians at baseline, at age ~80y **Outcome assessment methods:** Institutions communicated mortality data to study personnel	**Significant:** MDS adherence [per-unit increase] at 80y and ACM over ~9.5y f/u, • < 80y, n=74, **HR: 0.69, 95% CI: 0.43, 0.93; p=0.03** • ≥ 80y, n=87, HR: 1.24, 95% CI: 0.60, 2.53; p=0.55; NS **Non-Significant:** MDS adherence at ≥ 80y, NS (see above)	**Key confounders accounted for:** Sex, Age, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking: Design (non-smokers) **Other:** Total energy intake, total MDS, albumin concentration, self-assessment of health, and dieting for chronic condition	Higher adherence to a modified Mediterranean at 80y was associated with a statistically significant reduction in ACM over ~9.5y f/u. The association in those ≥ 80y was in the opposite direction (i.e., increased mortality risk) with a wide confidence interval and did not reach significance.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			Limitations: • Did not account for key confounders: Race/ethnicity, SES: Insitutionalized • Inconsistent sample sizes for descriptive data on dietary pattern; Funding NR; • Adjustment for total MDS and dieting for chronic conditions	**Funding:** NR
Lassale et al, 2016[52] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC) Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, United Kingdom Analytic N: 451256 Attrition: 13% Sex: 71% female SES: 30% primary education, 25% college or more	**Dietary pattern:** DASH Score (Fung, 2008), Mediterranean-style Dietary Pattern Score (MSDPS) (Rumawas, 2009), Relative Mediterranean diet score (rMED) (Buckland, 2009 and 2011), Diet Quality Index-International (DQI-I) (Kim, 2003), HEI-2010, MDS (Trichopolou, 2003), Healthy Nordic Food Index [HNFI], Healthy Lifestyle Index-Diet (HLI-diet) **Dietary assessment methods:** Validated, country-specific dietary questionnaires, ~age ~51y	**Significant:** MDS and risk of ACM, n=24994 deaths, at 10y f/u: • Q1: HR: 1.00 • Q2: HR: 0.90, 95% CI: 0.86, 0.94 • Q3: HR: 0.84, 95% CI: 0.81, 0.88 • Q4: HR: 0.79, 95% CI: 0.76, 0.83 • Q5: HR: 0.91, 95% CI: 0.90, 0.93 • p-trend <0.0001 rMED score and risk of ACM, n=24994 deaths, at 10y f/u: • Q1: HR: 1.00 • Q2: HR: 0.87, 95% CI: 0.83, 0.91 • Q3: HR: 0.81, 95% CI: 0.77, 0.84 • Q4: HR: 0.77, 95% CI: 0.73, 0.81 • Q5: HR: 0.89, 95% CI: 0.88, 0.91 • p-trend <0.0001 MSDPS and risk of ACM, n=24994 deaths, at 10y f/u:	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Other: dietary score at baseline, study center **Limitations:** Did not account for key confounders: N/A	Higher scores on the Mediterranean Diet Scale, relative Mediterranean diet score (rMED), Mediterranean Style Dietary Pattern Score (MSDPS), Diet Quality Index–International (DQI-I), Healthy Nordic Food Index (HNFI), Healthy Eating Index 2010 (HEI-2010), Dietary Approaches to Stop Hypertension (DASH), and Healthy Lifestyle

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake:	**Outcome assessment methods:** NR; Due to differences across participating centers in time to reporting the causes of deaths, f/u length was truncated at the date when 80% of causes were known (~10y)	• Q1: HR: 1.00 • Q2: HR: 0.92, 95% CI: 0.89, 0.96 • Q3: HR: 0.88, 95% CI: 0.84, 0.92 • Q4: HR: 0.80, 95% CI: 0.76, 0.84 • Q5: HR: 0.92, 95% CI: 0.90, 0.93 • p-trend <0.0001 DQI-I score and risk of ACM, n=24994 deaths, at 10y f/u: • Q1: HR: 1.00 • Q2: HR: 0.89, 95% CI: 0.85, 0.93 • Q3: HR: 0.81, 95% CI: 0.77, 0.85 • Q4: HR: 0.75, 95% CI: 0.72, 0.79 • Q5: HR: 0.90, 95% CI: 0.88, 0.91 • -p-trend <0.0001 HNFI score and risk of ACM, n=24994 deaths, at 10y f/u • Q1: HR: 1.00 • Q2: HR: 0.94, 95% CI: 0.90, 0.98 • Q3: HR: 0.87, 95% CI: 0.83, 0.91 • Q4: HR: 0.83, 95% CI: 0.79, 0.87 • Q5: HR: 0.93, 95% CI: 0.92, 0.95 • p-trend <0.0001 HEI-2010 score and risk of ACM, n=24994 deaths, at 10y f/u: • Q1: HR: 1.00 • Q2: HR: 0.89, 95% CI: 0.85, 0.93		Index-Diet (HLI-diet) at ~51y were significantly associated with decreased risk of ACM after 10y f/u. **Funding:** European Commission and the International Agency for Research on Cancer, Danish Cancer Society…[vi]

[vi] Additional funding sources reported in Lassale et al, 2016 are: Ligue Contre le Cancer, Institut Gustave Roussy, Mutuelle Générale de l'Education Nationale, Institut National de la Santé et de la Recherche Médicale ; German Cancer Aid, German Cancer Research Center, Federal Ministry of Education and Research, Deutsche Krebshilfe, Deutsches Krebsforschungszentrum and Federal Ministry of Education and Research; the Hellenic Health Foundation; Associazione Italiana per la Ricerca sul Cancro-AIRC-Italy and National Research Council; Dutch Ministry of Public Health, Welfare and Sports, Netherlands Cancer Registry, LK Research Funds, Dutch Prevention Funds, Dutch ZON [Zorg Onderzoek Nederland], World Cancer Research Fund, Statistics Netherlands; Health Research Fund [Spain]; Swedish Cancer Society, Swedish Research Council and County Councils of Skåne and Västerbotten; Cancer Research UK, Medical Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• Q3: HR: 0.84, 95% CI: 0.80, 0.88 • Q4: HR: 0.82, 95% CI: 0.78, 0.86 • Q5: HR: 0.91, 95% CI: 0.90, 0.93 • p-trend = 0.0004 DASH score and risk of ACM, n=24994 deaths, at 10y f/u • Q1: HR: 1.00 • Q2: HR: 0.90, 95% CI: 0.87, 0.94 • Q3: HR: 0.85, 95% CI: 0.81, 0.89 • Q4: HR: 0.82, 95% CI: 0.78, 0.86 • Q5: HR: 0.92, 95% CI: 0.90, 0.93 • p-trend <0.0001 HLI-Diet score and risk of ACM, n=24994 deaths, at 10y f/u • Q1: HR: 1.00 • Q2: HR: 0.91, 95% CI: 0.88, 0.96 • Q3: HR: 0.86, 95% CI: 0.83, 0.90 • Q4: HR: 0.83, 95% CI: 0.79, 0.87 • Q5: HR: 0.93, 95% CI: 0.92, 0.95 • p-trend <0.0001 **Non-Significant:** N/A		
Lim et al, 2018[53] PCS, Health Examinees (HEXA) Study Korea Analytic N: 134541 Attrition: 21% Sex: 66.4% female Race/ethnicity: NR	**Dietary pattern:** Diet Quality Index for Koreans (DQI-K) (original Patterson, 1994; modified Lim, 2018) **Dietary assessment methods:** 106-item validated FFQ at baseline, age ~53 y	**Significant:** DQI-K at ~53y and ACM at ~7y f/u: • Higher diet quality, 0-4, n=1888 deaths, HR: 1 ref • Poorer diet quality, 5-9, n=277 deaths, HR: 1.23, 95% CI: 1.06, 1.43 • Per-unit increase, n=2165 deaths,: HR: 1.06, 95% CI: 1.02, 1.11 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity: Design, Korean participants, SES: Income, Alcohol, Anthropometry: BMI, Smoking **Other:** Total energy intake	Poor diet quality (higher DQI-K scores) at ~53y was significantly associated with an increased risk of ACM over mean f/u of 6.6y. **Funding:** National Genome Research Institute; Korea

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: 59.5% Income ≥ 2000000 won; 25.2% college or above Alcohol intake: 48.3% ever drinkers	**Outcome assessment methods:** Mortality data were obtained from Statistics Korea		**Limitations:** Did not account for key confounders: Physical activity	Center for Disease Control and Prevention; Seoul National University Hospital
Limongi et al, 2017[54] PCS, Italian Longitudinal Study on Aging (ILSA) Italy Analytic N: 2665 Attrition: 53%) Sex: ~43% female Race/ethnicity: NR SES: Education: ~71% <5y; Married: ~60% Alcohol intake: median 0.13 L/d	**Dietary pattern:** Mediterranean Score (Goulet, 2003) **Dietary assessment methods:** 49-item non-validated FFQ age: ~73y **Outcome assessment methods:** Death certificates	**Significant:** MD adherence [categorical; tertiles] at 73y and ACM at ~4y f/u • T1: HR: 1.00 • T2: data NR • T3, HR:0.62, 95% CI: 0.42, 0.92 • p=0.0324 MD adherence [categorical; tertiles] at 73y and ACM at ~8y f/u*: • T1: HR: 1.00 • T2: HR: 0.72, 95% CI: 0.54, 0.97 • T3: HR: 0.66, 95% CI: 0.49, 0.90 • p<0.01 *Excluding those with CVD or diabetes at baseline yielded similar results. MD adherence [categorical; tertiles] at 73y and incidence of ACM at 7y f/u: • T1: n=740 alive, n=316 deaths (ref) • T2: n=619 alive, n=189 deaths • T3: n=652 alive, n=150 deaths • p<0.0001 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Anthropometry: BMI **Other:** Diabetes, myocardial infarction, disability in 1+ ADL, Mini-mental state exam score, geriatric depression scale score **Limitations:** Did not account for key confounders: Race/ethnicity: NR, SES: NS, Alcohol: did not differ at baseline, Physical activity: NR, Smoking: did not differ at baseline	Higher adherence to the Mediterranean diet at 73y was associated with a statistically significant reduction in ACM over mean 4-7.1y f/u. **Funding:** Italian National Research Council, the Biology of Aging Strategic Project and the Ministero della Sanità, through the program Epidemiology of the Elderly of the Istituto Superiore di Sanità and the Estimates of Health Needs of the Elderly Special Programme of the Tuscany Region
Liu et al, 2019[55] PCS, Geisinger Rural Aging Study United States	**Dietary pattern:** Dietary Screening Tool (DST)	**Significant:** DST score at ~84y and risk of ACM after 8y f/u: • Low, n=485/957, HR: 1.00 • Moderate, n=371/830, HR: 0.93, 95% CI: 0.81, 1.07 • High, n=75/213, HR: 0.76, 95% CI: 0.59, 0.97	**Key confounders accounted for:** Sex, Age, Race/ethnicity, Anthropometry,	Higher DST score at age ~84y was associated with lower risk of ACM after 8y f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 1990 Attrition: 49%) Sex: 59% female Race/ethnicity: 99% White SES: NR Alcohol intake: NR	**Dietary assessment methods:** 25-item DST survey questionnaire at baseline, ~84y **Outcome assessment methods:** Electronic medical records and Social Security Death Index	• p-trend =0.04 Results were similar when excluding individuals with Charlson index score >5 at baseline, self-reported oral problems, or died within 2y f/u or 4y f/u. **Non-Significant:** N/A	Smoking **Other:** Dentition, Other: self- or proxy-reporting, living arrangement, Charlson index score **Limitations:** • Did not account for key confounders: SES, Alcohol, Physical activity • Dietary Screening Tool items may be less comparable to other indices/scores	**Funding:** USDA
Loprinzi et al, 2018[56] PCS, National Health and Nutrition Examination Survey (NHANES) United States Analytic N: 1369 Attrition: 29%) Sex: ~62% female Race/ethnicity: ~79% Non-Hispanic White, ~9% Non-Hispanic Black, ~4% Mexican American, ~8% Other SES: NR Alcohol intake: NR	**Dietary pattern:** AHEI-2005 **Dietary assessment methods:** 2, 24-hr recalls, validated, at baseline, age ~60y **Outcome assessment methods:** National Death Index	**Significant:** AHEI-2005 at ~60y and risk of ACM, n=1369, after 5-8y f/u: • AHEI, 1 unit increase: HR: 0.97, 95% CI: 0.96, 0.99; p=0.004 • Meeting dietary guidelines vs. not: HR: 0.60, 95% CI: 0.38, 0.97, p=0.03	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Other: C-reactive protein, cholesterol medication, hypertension, diabetes **Limitations:** Did not account for key confounders: N/A	In adults with mobility limitations, higher scores on the AHEI-2005 at ~60y were associated with significantly lower risk of ACM after 5-8y of f/u. **Funding:** None

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Mai et al, 2005[57] PCS, Breast Cancer Detection and Demonstration Project (BCDDP) United States Analytic N: 42254 Attrition: 31%) Sex: 100% female Race/ethnicity: ~87% White SES: ~89% >12y education Alcohol intake: ~50% drink alcohol	**Dietary pattern:** Recommended Food Score (RFS) (Kant, 2000) **Dietary assessment methods:** 62-item, validated FFQ at age 61y **Outcome assessment methods:** Death certificates	**Significant:** RFS adherence [categorical] at 61y and ACM after 9.5y f/u: • Q1, n=941 deaths: HR: 1.00 ref • Q2, n=1092 deaths, HR: 0.87, 95% CI: 0.80, 0.95 • Q3, n=718 deaths, HR: 0.78, 95% CI: 0.71, 0.86 • Q4, n=973 deaths, HR: 0.80, 95% CI: 0.73, 0.88 • p for trend <0.001	**Key confounders accounted for:** Sex, Age: Didn't differ between groups, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: history of cancer, heart disease, or diabetes; postmenopausal hormone use **Limitations:** Did not account for key confounders: N/A	Higher adherence to the Recommended Food Score at age 61y was significantly associated with lower risk of ACM after 9.5y of f/u. **Funding:** NR
Martinez-Gomez et al, 2013[58] PCS, NR Spain Analytic N: 3465 Attrition: 14%) Sex: 56.0% female Race/ethnicity: NR SES: Educational Attainment: 51.6% no education, 35.3% primary, 13.2% secondary or higher	**Dietary pattern:** Healthy Diet Score (Martinez-Gomez, 2013) **Dietary assessment methods:** 14-item validated FFQ at baseline, mean age 71.8 y **Outcome assessment methods:** Mortality was determined through the National Death Index	**Significant:** Adherence to healthy diet score at 71.8y and ACM with Score < median, n=695 deaths, HR: 1, ref: Score ≥ Median, n=549 deaths, HR: 0.79, 95% CI: 0.79, 0.89 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity: Design - Spanish participants, SES: Education, Occupation, Alcohol, Physical activity, Anthropometry: BMI, WC, Smoking **Other:** systolic blood pressure, hypercholesterolemia, CHD, stroke, diabetes, hip fracture, cancer, sleep duration, interation with friends	Greater adherence to the Healthy Diet Score was significantly associated with a reduction in ACM risk. **Funding:** FIS; Plan Nacional sobre Drogas; Cátedra UAM de Epidemiología y Control del Riesgo Cardiovascular

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake: mean 14.6 g/d; 12.1% former drinkers			**Limitations:** • Did not account for key confounders: N/A • Diet score was dichotomized, which is simplified and may result in misclassification.	
Martinez-Gonzalez et al, 2012[59] PCS, Seguimiento Universidad de Navarra (SUN) Project Spain Analytic N: 15535 Attrition: 23%) Sex: 60% female Race/ethnicity: NR SES: Education: ~5y university Alcohol intake: NR	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 136-item validated FFQ at baseline, mean age 38y, and every 2y thereafter **Outcome assessment methods:** Active f/u, next of kin, professional associations, and postal system confirmed by death certificates, medical records, and/or National Death Index	**Significant:** MDS adherence [categorical] at 38y and ACM at mean 6.8y f/u: • Low, n=19 deaths, HR: 1, ref • Moderate, n=74 deaths, HR: 0.58, 95% CI: 0.34, 0.99 • High, n=32 deaths, HR: 0.38, 95% CI: 0.21, 0.70 MDS adherence [per-unit increase] at 38y and ACM at mean 6.8yy f/u: • HR: 0.72, 95% CI: 0.58, 0.91; p-trend=0.006 *Excluding early deaths in first 2y; n=15,535; n=95 deaths, HR: 0.74, 95% CI: 0.57, 0.96; p= 0.02 *Main results remained significant in all additional sensitivity analyses, with exception to attenuation in analyses of women-only and cancer-deaths only **Non-Significant:** Sensitivity analyses: • Including only women, n= 9264, n=37 deaths, HR: 0.83, 95% CI: 0.53, 1.29; p=0.41; NS • Including only cancer deaths, n=15,535; n= 48 deaths, HR: 1.03, 95% CI: 0.73, 1.45; p=0.88; NS	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, hours per day spent watching television (continuous), history of depression, baseline hypertension, baseline hypercholesterolemia **Limitations:** • Did not account for key confounders: Race/ethnicity • Limited generalizability due to university education of entire sample	Higher adherence to Mediterranean diet [moderate or high vs. low and per-unit increase] was significantly associated with lower risk of ACM at mean ~7y f/u. **Funding:** Instituto De Salud Carlos III, Official Agency of the Spanish Government for biomedical research, the Navarra Regional Government, and the University of Navarra

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Martinez-Gonzalez et al, 2014[60] PCS, PREDIMED Spain Analytic N: 7216 Attrition: 3% Sex: 57% female Race/ethnicity: NR SES: Education: 22% > primary Alcohol intake: NR	**Dietary pattern:** Provegetarian Diet Index **Dietary assessment methods:** 137-item validated FFQ at age 67y **Outcome assessment methods:** Basis of clinical records, death certificate, and linkage to the National Death Index	**Significant:** 'provegetarian FP' adherence [categorical] at 67y and ACM at 4.8y f/u, with very low <30, n=44 deaths ref • low 30-34, n= 97 deaths, HR: 0.71, 95% CI: 0.50, 1.02; NS • moderate 35-39, n=118 deaths, HR: 0.68, 95% CI: 0.48, 0.96; • high 40+, n= deaths, n=64 deaths, HR: 0.59, 95% CI: 0.40, 0.88; p-trend=0.027 'provegetarian FP' adherence [categorical, quintiles] at 67y and ACM at 4.8y f/u, with Q1, <33, n=44 deaths, 2951 person-years, ref • Q2, 33-35, n= 80 deaths, HR: 0.98, 95% CI: 0.72, 1.32; NS • Q3, 36-37, n= 51 deaths, HR: 0.81, 95% CI: 0.57, 1.14; NS • Q4, 38-40, n= 50 deaths, HR: 0.70, 95% CI: 0.49, 0.99 • Q5, >40, n= 46 deaths, HR: 0.66, 95% CI: 0.46, 0.96; p-trend=0.006 'provegetarian FP' adherence [categorical, yearly updated] at 67y and ACM at 4.8y f/u, with very low <30, n=42 deaths, ref • low 30-34, n= 2055, n=96 deaths, RR: 0.76, 95% CI: 0.53, 1.10; NS • moderate 35-39, n=2761, n=125 deaths, RR: 0.79, 95% CI: 0.55, 1.13; NS • high 40+, n= 1731, n=60 deaths, RR: 0.59, 95% CI: 0.39, 0.89; p-trend=0.028 *Inclusion of eggs and dairy products in the score did not attenuate the main results	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Smoking **Other:** Total energy intake, Other: intervention group **Limitations:** • Did not account for key confounders: Race/ethnicity, Anthropometry • Secondary analysis from PREDIMED trial subject to randomization issues	Highest compared to lowest categories of adherence to 'provegetarian FP' at 67y were significantly associated with lower risk of ACM at 4.8y f/u in individuals at high-risk for cardiovascular disease. **Funding:** Biomedical Research of the Spanish Government, Instituto de Salud Carlos III

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		*Sensitivity analyses based on absolute servings, with low <4, n=3763, n=184 deaths, 15964 person-years, HR: 1 ref • Moderate 4, n=1904, n=81 deaths, HR: 0.85, 95% CI: 0.65, 1.11; NS • High >4, n=1549, n=58 deaths, HR: 0.70, 95% CI: 0.51, 0.95 **Non-Significant:** (see above)		
McCullough et al, 2011[61] PCS, Cancer Prevention Study II (CPS-II) Nutrition Cohort United States Analytic N: 111966 Attrition: 39% Sex: 54.7% female Race/ethnicity: 97.7% white SES: 42.3% college graduate Alcohol intake: 38.4% nondrinker, 61.6% drinker, 12.5 g/d among drinkers	**Dietary pattern:** Healthy Diet Score based on American Cancer Society **Dietary assessment methods:** 68-item validated FFQ at baseline, mean age 62.7y **Outcome assessment methods:** Vital status was determined through linkage with the National Death Index	**Significant:** In men, healthy diet score and ACM: • <3 score, n=2544 deaths, RR: 1, ref • 3 5 score, n=3327 deaths, RR: 0.90, 95% CI: 0.86, 0.95 • 6+ score, n=4498 deaths, RR: 0.89, 95% CI: 0.84, 0.93 • p-trend<0.0001 • In women, higher adherence to healthy diet score and ACM • <3 score, n=1398 deaths, RR: 1, ref • 3 -5 score, n=2171 deaths, RR: 0.91, 95% CI: 0.85, 0.98 • 6+ score, n=3044 deaths, RR: 0.85, 95% CI: 0.79, 0.90 • p-trend<0.0001 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity: 98% white, SES: education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** N/A **Limitations:** Did not account for key confounders: N/A Sample may be less generalizable	Higher adherence to the healthy diet score is significantly associated with a reduced ACM risk in both men and women. **Funding:** American Cancer Society
McNaughton et al, 2012[62] PCS, British Diet and Nutrition Survey United Kingdom	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopoulou, 2003), Recommended Food Score (RFS) (Kant, 2000), Healthy Diet Score (Maynard, 2005)	**Significant:** MDS score at ~76y and risk of ACM at 14y f/u: • Q1, n= 337 deaths: HR: 1.00 • Q2, n= 230 deaths: HR: 1.04, 95% CI: 0.85, 1.27 • Q3, n= 194 deaths: HR: 0.77, 95% CI: 0.61, 0.97 • Q4, n= 211 deaths: HR: 0.78, 95% CI: 0.62, 0.98 • p-trend = 0.006	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Anthropometry, Smoking	Higher scores on the Recommended Food Score (RFS) and the Mediterranean Diet Score (MDS) at age 76y were associated

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 972 Attrition: 55% Sex: ~47% female SES: ~50% non-manual social class Alcohol intake: ~7 g/d	**Dietary assessment methods:** 4-d weighed food record at ~76y **Outcome assessment methods:** National Health Service administrative mortality data	RFS score at ~76y and risk of ACM at 14y f/u: • Q1, n= 371 deaths: HR: 1.00 • Q2, n= 224 deaths: HR: 0.90, 95% CI: 0.74, 1.10 • Q3, n= 190 deaths: HR: 0.76, 95% CI: 0.61, 0.96 • Q4, n= 187 deaths: HR: 0.67, 95% CI: 0.52, 0.86 • p-trend = 0.001 RFS-median score at ~76y and risk of ACM at 14y f/u: • Q1, n= 278 deaths: HR: 1.00 • Q2, n= 319 deaths: HR: 0.78, 95% CI: 0.64, 0.94 • Q3, n= 203 deaths: HR: 0.85, 95% CI: 0.68, 1.07 • Q4, n= 172 deaths: HR: 0.63, 95% CI: 0.48, 0.83 • p-trend = 0.003 **Non-Significant:** HDS at ~76y and risk of ACM at 14y f/u: • Q1, n= 348 deaths: HR: 1.00 • Q2, n= 230 deaths: HR: 1.10, 95% CI: 0.90, 1.35 • Q3, n= 190 deaths: HR: 0.98, 95% CI: 0.79, 1.22 • Q4, n= 204 deaths: HR: 0.99, 95% CI: 0.79, 1.24 • p-trend = 0.8	**Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity	with lower risk of ACM after 14y of f/u. Healthy Diet Score (HDS) and ACM were not significantly associated. **Funding:** Department of Health and the Ministry of Agriculture, Fisheries and Food
Menotti et al, 2017[64] PCS, Seven Countries Study Croatia, Finland, Greece, Italy, Japan, Netherlands, Serbia, United States Analytic N: 12696 Attrition: 1% Sex: 0% female Race/ethnicity: NR SES: 18% high SES	**Dietary pattern:** Mediterranean Adequacy Index (MAI) (Fidanza, 2004; Menotti, 2012) **Dietary assessment methods:** Weighed food records or surveys at age 40-59y **Outcome assessment methods:** Vital status via f/u	**Significant:** lnMAI adherence was correlated with death rates over 50y f/u, r= -0.62, p<0.05 lnMAI adherence was correlated with death rates over 50y f/u, using 25y rates, r=0.98, p NR lnMAI adherence was correlated with death rates over 50y f/u, using 45y rates, r=0.99, p NR **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES **Other:** N/A **Limitations:** • Did not account for key confounders: Race/ethnicity, Alcohol, Physical activity, Anthropometry, Smoking	Higher adherence to the Mediterranean Adequacy Index was significantly associated with lower risk of ACM over 50 year f/u. **Funding:** NR

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake:			• Duration of f/u time varied across cohorts; Baseline dietary data only collected in sub-samples of each cohort, therefore, ecological analysis required	
Menotti et al, 2012[124] PCS, Seven Countries Study Italy Analytic N: 1139 Attrition: 33% Sex: 0% female Race/ethnicity: NR SES: NR Alcohol intake: NR	**Dietary pattern:** Mediterranean Adequacy Index (MAI) (Fidanza, 2004) **Dietary assessment methods:** Dietary history administered by dietitians, validated, at baseline, mean age: 55y **Outcome assessment methods:** Death certificates, hospital and medical records, interviews with physicians, relatives, or other witnesses	**Significant:** lnMAI adherence [continuous per-unit] and ACM, • 20y f/u, HR: 0.74, 95% CI: 0.55, 0.99 • 40y f/u, HR: 0.79, 95% CI: 0.64, 0.97 *Excluding those with CHD events in 5y of f/u did not impact magnitude of results (p=0.516 vs. p=0.504) **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Other: systolic blood pressure, serum cholesterol, **Limitations:** Did not account for key confounders: Race/ethnicity, SES	Higher adherence to Mediterranean Adequacy Index per-unit was significantly associated with lower risk of ACM at 20 and at 40 year f/u. **Funding:** None
Michels & Wolk, 2002[65] PCS, Mammography Screening Cohort Sweden Analytic N: 59038 Attrition: 11% Sex: 100% female	**Dietary pattern:** Non-recommended Food Score (Kant, 2000), Recommended Food Score (RFS) (Kant, 2000; McCullough, 2002) **Dietary assessment methods:** 60-item validated FFQ at ~53y	**Significant:** RFS score at ~53y and risk of ACM after 9.9y fu: • Q1 , n= 500 deaths, HR: 1.00 • Q2 , n= 906 deaths, HR: 0.79, 95% CI: 0.70, 0.88 • Q3 , n= 1036 deaths, HR: 0.71, 95% CI: 0.63, 0.80 • Q4 , n= 947 deaths, HR: 0.64, 95% CI: 0.57, 0.72 • Q5 , n= 321 deaths, HR: 0.58, 95% CI: 0.50, 0.68 • p-trend<0.0001 **Non-Significant:** Non-RFS score at ~53y and risk of ACM after 9.9y fu:	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Anthropometry **Other:** Total energy intake, Other: number of children, age at first birth, simultaneous adjustment for RFS/NRFS	Higher scores on the Recommended Food Score (RFS) at age ~53y were associated with decreased risk of ACM after 9.9y of f/u. Scores on the Non-Recommended Food Score (Non-

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: ~11% >10y education; ~76% married or living with partner Anthropometry: 25 kg/m2 BMI	**Outcome assessment methods:** Swedish Death Register	• Q1 , n= 578 deaths, HR: 1.00 • Q2 , n= 896 deaths, HR: 1.00, 95% CI: 0.90, 1.11 • Q3 , n= 1236 deaths, HR: 0.98, 95% CI: 0.88, 1.09 • Q4 , n= 859 deaths, HR: 0.98, 95% CI: 0.87, 1.11 • Q5 , n= 141 deaths, HR: 1.07, 95% CI: 0.88, 1.31 • p-trend=0.92 Results were the same when the first 5 years of follow-up were excluded.	**Limitations:** Did not account for key confounders: Race/ethnicity, Physical activity, Smoking	RFS) at age ~59y were not associated with risk of ACM after 9.9y of f/u. **Funding:** NIH
Mitrou et al, 2007[66] PCS, NIH-AARP Study (NIH-AARP) United States Analytic N: 380296 Attrition: 38% Sex: 44% female Race/ethnicity: 91% White, 4% Black, 4% Other SES: Education: 5% <high school, 19% high school, 33% some college, 40% college/postgraduate; Marital status: 65% married, 34% not married Alcohol intake: ~7g	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003), traditional Med Diet Score (tMED) (modified, alternative MDS of Fung, 2005) **Dietary assessment methods:** 124-item validated FFQ at baseline, median age 62y **Outcome assessment methods:** Social Security Administration Death Master File; Linkage with the National Death Index	**Significant:** In men, tMED adherence [categorical] at 62y and ACM over ~10y f/u: • 0-3, n= 7616 deaths, HR: 1, ref • 4-5, n= 6903 deaths, HR: 0.91, 95% CI: 0.88, 0.94; • 6-9, n= 3607 deaths, HR: 0.79, 95% CI: 0.76, 0.83; p-trend<0.001 • Sub-group results remained similar among men who never smoked In women, tMED adherence [categorical] at 62y and ACM over ~10y f/u: • 0-3, n= 4073 deaths, HR: 1, ref • 4-5, n= 3891 deaths, HR: 0.89, 95% CI: 0.85, 0.93; • 6-9, n= 1709 deaths, HR: 0.80, 95% CI: 0.75, 0.85; p-trend<0.001 • Sub-group results remained similar among women who never smoked MDS adherence [categorical, high vs. low] and ACM over ~10y f/u, • Men, HR: 0.79, 95% CI, 0.76, 0.82 • Women, HR: 0.84, 95% CI, 0.79, 0.89 *Sex-specific analyses stratified by smoking and BMI showed tMED and ACM were significantly, inversely	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education; Marital status, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking: stratification; dose and time **Other:** Total energy intake, Other: Menopausal hormone therapy in women only **Limitations:** Did not account for key confounders: N/A	Higher tMED and MDS scores at 62y were associated with significantly lower risk of ACM after 10y f/u. **Funding:** NIH; NCI

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		associated in all sub-groups, except never smokers with BMI ≥ 25 **Non-Significant:** Among men who never smoked, 4-5 vs. 0-3 NS (see above)		
Mokhtari et al, 2019[67] PCS, Golestan Cohort Study (GCS) Iran Analytic N: 48633 Attrition: 3% Sex: 58% female Race/ethnicity: NR, Iranian SES: Wealth score, ~25% per quartile Alcohol intake: 3.4% alcohol ever used	**Dietary pattern:** DASH Score (Fung, 2008) **Dietary assessment methods:** 150-item validated FFQ at baseline, age 52y **Outcome assessment methods:** Yearly phone call or home visit, confirmed by physician visits and medical records	**Significant:** Total Sample: DASH Score at 52y and ACM over 10.6y f/u: • DS 9-20: HR: 1.00 • DS 21-25, HR: 0.94, 95% CI: 0.88, 1.00, NS • DS 26-30, HR: 0.87, 95% CI: 0.81, 0.94 • DS 31-39, HR: 0.86, 95% CI: 0.75, 0.98 • p-trend=<0.001 Women: DASH Score at 52y and ACM over 10.6y f/u: • DS 9-20, n=579 deaths: HR: 1.00 • DS 21-25, n=1418 deaths, HR: 0.92, 95% CI: 0.84, 1.02, NS • DS 26-30, n=845 deaths, HR: 0.86, 95% CI: 0.77, 0.97 • DS 31-39, n=161 deaths, HR: 0.90, 95% CI: 0.75, 0.99 • p-trend=0.034 Men: DASH Score at 52y and ACM over 10.6y f/u: • DS 9-20, n=819 deaths: HR: 1.00 • DS 21-25, n=1795 deaths, HR: 0.94, 95% CI: 0.86, 1.02, NS • DS 26-30, n=990 deaths, HR: 0.87, 95% CI: 0.79, 0.96 • DS 31-39, n=156 deaths, HR: 0.82, 95% CI: 0.68, 0.98 • p-trend=0.003	**Key confounders accounted for:** Sex, Age, Race/ethnicity: all Iranian, SES, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Opium use, Hx of diabetes, HTN **Limitations:** Did not account for key confounders: Alcohol	Higher adherence to the DASH Score at 52y was significantly associated with a reduced risk of ACM after 10.6y f/u in men, women, and pooled analyses. **Funding:** Digestive Disease Research Center

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Muller et al, 2016[68] PCS, EPIC Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, United Kingdom Analytic N: 264906 Attrition: 49% Sex: 71% female Alcohol intake: 0 (12%), 0-0.5 (30%), 0.5-1 (16%), 1-2 (19%), 2-6 (20%), >5 (3%) drinks/d	**Dietary pattern:** WCRF/AICR (Diet only) Score **Dietary assessment methods:** Validated, country-specific dietary questionnaires, age: ~51y (35-70y) **Outcome assessment methods:** Record linkages with cancer registries, boards of health and death indices, or through active f/u	**Significant:** WCRF/AICR (diet only) score at ~51y and risk of death before 70y: • Unhealthy, n=NR, HR: 1.00 • Moderately unhealthy, n=NR, HR: 0.88, 95% CI 0.83, 0.93 • Moderately healthy, n=NR, HR: 0.81, 95% CI 0.76, 0.87 • Healthy, n=NR, HR: 0.87, 95% CI: 0.72, 0.83 • p for trend = NR Results were similar when analyses were conducted separately for men and women.	**Key confounders accounted for:** Sex, Age, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Other: Blood pressure **Limitations:** Did not account for key confounders: Race/ethnicity, SES	Higher WCRF/AICR (diet only) scores at ~51y were associated with lower risk of death before age 70y. **Funding:** French Social Affairs & Health Ministry, Cancer Council Australia, National Institute of Health Research of UK[vii] (see additional reported funding sources in footnote)
Mursu et al, 2013[69] PCS, Iowa Women's Health Study United States Analytic N: 29634 Attrition: 29% Sex: 100% female	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), A priori diet quality score (Mursu, 2013) **Dietary assessment methods:** 127-item validated FFQ at baseline, age 61y, and at 18y f/u	**Significant:** AHEI-2010 score at 61y and risk of ACM after 20y f/u: • Q1, n=2797, HR: 1.00 • Q2, n=2631, HR: 0.98, 95% CI: 0.92, 1.03 • Q3, n=2534, HR: 0.90, 95% CI: 0.85, 0.95 • Q4, n=2281, HR: 0.82, 95% CI: 0.77, 0.87 • p for trend <0.0001 AHEI-2010 score per SD increase at 61y and risk of ACM after 20y f/u: HR: 0.92, 95% CI: 0.91, 0.94, p=NR	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: place of residence, high blood	Higher AHEI-2010 score and "a priori diet quality score" at age 61 were associated with reduced risk of ACM after 20y f/u. **Funding:** NIH, Academy of Finland, Finnish Cultural

[vii] Additional funding sources reported by Muller, 2016 included: European Commission and the International Agency for Research on Cancer, Danish Cancer Society; Ligue Contre le Cancer, Institut Gustave Roussy, Mutuelle Générale de l'Education Nationale, Institut National de la Santé et de la Recherche Médicale; German Cancer Aid, German Cancer Research Center , Federal Ministry of Education and Research , Deutsche Krebshilfe, Deutsches Krebsforschungszentrum and Federal Ministry of Education and Research; the Hellenic Health Foundation; Associazione Italiana per la Ricerca sul Cancro-AIRC-Italy and National Research Council; Dutch Ministry of Public Health, Welfare and Sports, Netherlands Cancer Registry, LK Research Funds, Dutch Prevention Funds, Dutch Zorg Onderzoek Nederland, World Cancer Research Fund, Statistics Netherlands; Health Research Fund [Spain]; Swedish Cancer Society, Swedish Research Council and County Councils of Skåne and Västerbotten; Cancer Research UK, Medical Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: 99% White SES: ~40% >high school Alcohol intake: NR	**Outcome assessment methods:** State Health Registry of Iowa or National Death Index	"A priori diet quality score" (categorical, Q1, Q2, Q3, Q4) at 61y and risk of ACM after 20y f/u: • Q1, n=2785, HR: 1.00 • Q2, n=2889, HR: 0.93, 95% CI: 0.88, 0.98 • Q3, n=2225, HR: 0.87, 95% CI: 0.82, 0.92 • Q4, n=2444, HR: 0.80, 95% CI: 0.76, 0.85 • p for trend <0.0001 "A priori diet quality score" per SD increase at 61y and risk of ACM after 20y f/u: HR: 0.92, 95% CI: 0.90, 0.94, p=NR *Results were similar when diet at 79y and risk of ACM after 20y f/u was examined.	pressure, hormone replacement therapy **Limitations:** Did not account for key confounders: N/A	Foundation, Fulbright Program
Nakamura et al, 2009[70] PCS, National Integrated Project for Prospective Observation of Non-Communicable Diseases and its Trends in the Aged Japan Analytic N: 9086 Attrition: 14% Sex: 55.8% female Race/ethnicity: NR SES: NR Alcohol intake: 21.3% daily drinkers, 34.8% occasional drinking	**Dietary pattern:** Reduced-Salt Japanese Diet Score (Nakamura, 2009) **Dietary assessment methods:** 31-item non-validated survey at baseline, mean age 50.6 y **Outcome assessment methods:** Deaths were confirmed through the National Vital Statistics records.	**Significant:** Reduced-Salt Japanese Diet Score [categorical, Score 0-2, 3, 4-7] at age 50.6y and ACM over 19 y f/u • Score 0-2, n=556 deaths, HR: 1, ref • Score 3, n=634 deaths, HR: 0.92, 95% CI: 0.83, 1.04, NS • Score 4-7, n=633 deaths, HR: 0.78, 95% CI: 0.70, 0.88 • p-trend<0.0001 **Non-Significant:** N/A Similar results were obtained in sensitivity analyses stratified by age or sex for ACM.	**Key confounders accounted for:** Sex, Age, Race/ethnicity: all Japanese, Anthropometry: BMI, Smoking **Other:** Other: HTN, Diabetes **Limitations:** • Did not account for key confounders: SES, Alcohol, Physical activity • Did not collect enough data to report energy or total dietary intake	Higher adherence to the Reduced-Salt Japanese diet score (Scores 4-7 vs. Scores 0-2) was significantly associated with decreased risk of ACM after 19 years f/u. **Funding:** Research Grant for Cardiovascular Diseases from the Ministry of Health, Labour and Welfare and a Health and Labour Sciences Research Grant, Japan [Comprehensive

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				Research on Aging and Health] and by the Japan Society for the Promotion of Science Invitation Fellowship Programmes for Research
Neelakantan et al, 2018[71] PCS, Singapore Chinese Heath Study (SCHS) Singapore Analytic N: 57078 Attrition: 10%) Sex: ~55% female Race/ethnicity: 100% Hokkein or Cantonese SES: ~30% with higher education Alcohol intake: ~20% alchohol consumers	**Dietary pattern:** Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008), Alternative HEI (AHEI) (Chiuve, 2012) **Dietary assessment methods:** 165-item validated FFQ at age 56y **Outcome assessment methods:** National registry of births and deaths in Singapore	**Significant:** AHEI score at 56y [categorical] and risk of ACM after 17y f/u: • Q1, n=3521 deaths, HR: 1.00 • Q2, n=3265 deaths, HR: 0.93, 95% CI: 0.88, 0.98 • Q3, n=3055 deaths, HR: 0.89, 95% CI: 0.85, 0.93 • Q4, n=2864 deaths, HR: 0.86, 95% CI: 0.82, 0.90 • Q5, n=2557 deaths, HR: 0.82, 95% CI: 0.78, 0.86 • p-trend<0.001 aMED score at 56y [categorical] and risk of ACM after 17y f/u: • Q1, n=3866 deaths, HR: 1.00 • Q2, n=3352 deaths, HR: 0.96, 95% CI: 0.92, 1.01 • Q3, n=3252 deaths, HR: 0.93, 95% CI: 0.89, 0.98 • Q4, n=2496 deaths, HR: 0.88, 95% CI: 0.83, 0.92 • Q5, n=2296 deaths, HR: 0.80, 95% CI: 0.76, 0.85 • p-trend<0.001 DASH score at 56y [categorical] and risk of ACM after 17y f/u: • Q1, n=2418 deaths, HR: 1.00 • Q2, n=3710 deaths, HR: 0.91, 95% CI: 0.86, 0.96 • Q3, n=2849 deaths, HR: 0.87, 95% CI: 0.82, 0.92 • Q4, n=3460 deaths, HR: 0.85, 95% CI: 0.80, 0.89 • Q5, n=2825 deaths, HR: 0.80, 95% CI: 0.75, 0.84 • p-trend<0.001	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry: NS between groups at baseline, Smoking **Other:** Total energy intake, Other: Sleep duration, history of diabetes mellitus, history of hypertension **Limitations:** Did not account for key confounders: N/A	Higher aHEI, aMED, and DASH score adherence at age 56y were associated with reduced risk of ACM after 17y f/u. **Funding:** NIH; National Medical Research Council, Singapore
Nilsson et al, 2012[72] PCS, Va¨sterbotten	**Dietary pattern:** Sami diet score	**Significant:** Sami diet score at 49y and risk of ACM at 10y f/u: • Men, n=1460, HR: 1.04, 95% CI: 1.01, 1.07,	**Key confounders accounted for:**	Higher Sami diet score at 49y was significantly

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Intervention Program (VIP) cohort Sweden Analytic N: 77319 Attrition: 32% Sex: 51% female SES: ~75% no post secondary education Alcohol intake: ~4.8g/d men, ~1.9 g/d women	**Dietary assessment methods:** 84-item, 65-item validated FFQs at ~49y **Outcome assessment methods:** Swedish national cause-of-death registry.	p=0.018 • Men, low metabolic risk, n=721, HR: 1.04, 95% CI: 1.01, 1.07. p=0.018 • Men, low PAL, n=868, HR: 1.05, 95% CI: 1.01, 1.09, p=0.019 • Women, high PAL, n=372, HR: 1.06, 95% CI: 1.00, 1.13, p=0.050 **Non-Significant:** Sami diet score at 49y and risk of ACM at 10y f/u: • Women, n=923, HR: 1.03, 95% CI: 0.99, 1.07, p=0.130 • Men, high metabolic risk, n=739, HR: 1.02, 95% CI: 0.97, 1.06, p=0.455 • Women, low metabolic risk, n=521, HR: 1.02, 95% CI: 0.97, 1.08, p=0.350 • Women, high metabolic risk, n=402, HR: 1.03, 95% CI: 0.97, 1.10, p=0.262 • Men, high PAL, n=592, HR: 1.03, 95% CI: 0.98, 1.08, p=0.216 • Women, low PAL, n=551, HR: 1.01, 95% CI: 0.96, 1.06, p=0.702	Sex, Age, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity	associated with increased risk of ACM at 10y f/u in men, men with low metabolic risk, men with low PAL, and women with high PAL. Sami diet score at 49y was not significantly associated with increased risk of ACM at 10y f/u in women, men at high metabolic risk, women at low and high metabolic risk, men with high PAL, and women with low PAL. **Funding:** HELGA/Nordforsk, the Joint Committee of Northern Sweden Healthcare Region, a¨sterbotten County Council, and The Swedish Research Council, The Swedish Council for Working Life and Social Research

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Oba et al, 2009[73] PCS, Takayama Study Japan Analytic N: 29079 Attrition: 21%) Sex: 54.1% female Race/ethnicity: NR SES: 82.7% currently married; 55.5% education 12 years or longer Alcohol intake: NR	**Dietary pattern:** Japanese Food Guide Spinning Top Score (Oba, 2009) **Dietary assessment methods:** 169-item validated FFQ at baseline, age 54.6 y **Outcome assessment methods:** Office of the National Vital Statistics.	**Significant:** In women, Japanese Food Guide Spinning Top adherence (categorical) at 55y and ACM over ~7y f/u: Q1, n=240 deaths, HR: 1.00 • Q2, n=227 deaths, HR: 0.87, 95% CI: 0.73, 1.05 NS • Q3, n=221 deaths, HR: 0.86, 95% CI: 0.72, 1.04 NS • Q4, n=211 deaths, HR: 0.78, 95% CI: 0.65, 0.94 • p-trend=0.01 **Non-Significant:** Japanese Food Guide Spinning Top adherence in men (categorical) at 55y and ACM over 7y f/u: Q1, n=287 deaths, HR: 1.00 • Q2, n=257 deaths, HR: 0.90, 95% CI: 0.76, 1.06 NS • Q3, n=274 deaths, HR: 0.87, 95% CI: 0.73, 1.02 NS • Q4, n=345 deaths, HR: 1.01, 95% CI: 0.86, 1.19 NS • p-trend=0.91	**Key confounders accounted for:** Sex; Age; Race/ethnicity: Japanese, SES: Education; Physical activity; Anthropometry: BMI; Smoking; Alcohol **Other:** Menopausal status, hx of HTN and diabetes **Limitations:** • FFQ not designed for adherence to the Japanese Food Guide Spinning Top; • Total energy intake reported with arithmetic mean but other macronutrients with geometric mean	In women, higher adherence to the Japanese Food Guide Spinning Top at 55y was significantly associated with a lower risk of ACM over 7y f/u. In men, there was no significant association between adherence to the Japanese Food Guide Spinning Top and the risk of ACM. **Funding:** Ministry of Education, Science, Sports, and Culture, Japan
Okada et al, 2018[74] PCS, Japan Collaborative Cohort (JACC) Study Japan Analytic N: 58767 Attrition: 47% Sex: 61% female Race/ethnicity: NR	**Dietary pattern:** Japan Food Score (Okada, 2018) **Dietary assessment methods:** 39-item validated FFQ at baseline, mean age: 56.2y **Outcome assessment methods:** Ministry of Health and Welfare.	**Significant:** In women, Japanese food scores at 56y and ACM over 18.9 y f/u: • 'Score 0-2', n= 677 deaths, HR: 1.00 • 'Score 3', n=627 deaths, HR: 0.92, 95% CI: 0.82, 1.03; NS • 'Score 4', n=999 deaths, HR: 0.99, 95% CI: 0.89, 1.09; NS • 'Score 5', n=1173 deaths), HR: 0.85, 95% CI: 0.77, 0.94 • 'Score 6-7', n=1907 deaths, HR: 0.82, 95% CI: 0.75, 0.90	**Key confounders accounted for:** Sex; Age; Race/ethnicity: Japanese; SES: Education, geographic region; Alcohol, Physical activity; Anthropometry: BMI; Smoking **Other:** Total energy	In women, higher adherence to Japanese food scores at 56y was significantly associated with ACM over ~19 y f/u. In men, there was no significant association between Japanese food

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: 79% <13 years of education, 21% ≥13 years of education Alcohol intake: 43% Current drinker, 3% Former Drinker, 51% Never Drinker		• p-trend<0.001 **Non-Significant:** In men, Japanese food scores at 56y and ACM over 18.9 y f/u: • 'Score 0-2', n=1186 deaths, HR: 1.00 • 'Score 3', n=925 deaths, HR: 0.96, 95% CI: 0.88, 1.04; NS • 'Score 4', n=1090 deaths, HR: 0.92, 95% CI: 0.84, 1.00; NS • 'Score 5', n=1370 deaths, HR: 0.95, 95% CI: 0.88, 1.03; NS • 'Score 6-7', n=1738 deaths, HR: 0.93, 95% CI: 0.86, 1.01; NS • p-trend=0.067	intake, Sleeping duration, Hx of HTN, Hx of diabetes **Limitations:** Did not account for key confounders: N/A	scores and ACMover ~19 y f/u. **Funding:** Ministry of Education, Culture, Sports, Science and Technology of Japan [MEXT]
Olsen et al, 2011[75] PCS, Diet, Cancer and Health study Denmark Analytic N: 50290 Attrition: 12%) Sex: 52% female Race/ethnicity: NR SES: Education: 33% low, 46% medium, 22% high Alcohol intake: ~ 15g/d	**Dietary pattern:** Healthy Nordic Food Index (HNFI) **Dietary assessment methods:** 192-item validated FFQ at age 56y **Outcome assessment methods:** Vital status from Central Population Registry	**Significant:** In men, HNFI adherence per 1-point and ACM over 12y f/u: n=2383 deaths, Rate Ratio: 0.96, 95% CI: 0.92, 0.99; p-trend=0.005; Categorical: • 0, Rate ratio: 1, ref • 1, n=414 deaths, Rate Ratio: 0.76, 95% CI: 0.61, 0.94; • 2, n=568 deaths, Rate Ratio: 0.69, 95% CI: 0.55, 0.85; • 3, n=532 deaths, Rate Ratio: 0.68, 95% CI: 0.55, 0.85; • 4, n=425 deaths, Rate Ratio: 0.64, 95% CI: 0.51, 0.81; • 5, n=276 deaths, Rate Ratio: 0.67, 95% CI: 0.52, 0.85; • 6, n=65 deaths, Rate Ratio: 0.64, 95% CI: 0.46, 0.89 In women, HNFI adherence per 1-point and ACM over 12y f/u: n=1743 deaths, Rate Ratio: 0.96, 95% CI: 0.92, 1.00; p-trend=0.03	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol, Physical activity, Anthropometry, Smoking: status, duration, consumption, and cessation time **Other:** Total energy intake, Other: red meat intake, and processed meat intake **Limitations:** Did not account for key confounders: Race/ethnicity	Higher HNFI adherence per-unit increase in middle-aged men and women separately was significantly associated with lower risk of ACM over 12 year f/u. This inverse association remained significant in analyses for each category higher in men, but was not significant in women. **Funding:** The Danish Cancer Society and NordForsk [the

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Non-Significant: In women, HNFI adherence [categorical] and ACM over 12y f/u: • 0, Rate Ratio: 1, ref • 1, n=344 deaths, Rate Ratio: 0.96, 95% CI: 0.75, 1.23; NS • 2, n=423 deaths, Rate Ratio: 0.87, 95% CI: 0.68, 1.10; NS • 3, n=395 deaths, Rate Ratio: 0.81, 95% CI: 0.63, 1.04; NS • 4, n=299 deaths, Rate Ratio: 0.81, 95% CI: 0.62, 1.05; NS • 5, n=170 deaths, Rate Ratio: 0.84, 95% CI: 0.63, 1.12; NS • 6, n=32 deaths, Rate Ratio: 0.75, 95% CI: 0.49, 1.15; NS		Nordic Centres of Excellence HELGA and SysDiet
Osler et al, 2001[76] PCS, MONICA I, II, III Denmark Analytic N: 5872 Attrition: 20% Sex: 49% female Race/ethnicity: NR (all Danish) SES: NR Alcohol intake: NR	**Dietary pattern(s):** <u>Index analysis:</u> Adherence [categorical, 0, 1, 2, 3+4 points] to the 'Healthy food index' <u>Factor/cluster analysis:</u> see <u>Table 5</u> **Dietary assessment methods:** 28-item validated FFQ at baseline, age 30-70y **Foods/food groups:** 'Healthy diet index': 1) not consuming butter, lard or margarine daily, 2) consuming either raw or boiled vegetables at least	**Significant:** *In men, 1 vs. 0 point adherence to the "Healthy food index" was significantly associated with reduced ACM risk but the continuous and other categories were NS **Non-Significant:** 'Healthy food index' and ACM at ~15y f/u: • Men, per-SD, HR: 0.86, 95% CI: 1.05, 0.86 • 0 points, n= 109 deaths, HR: 1 ref • 1 point, n=134 deaths, HR: 0.73, 95% CI: 0.56, 0.98 • 2 points, n=100 deaths, HR: 0.78, 95% CI: 0.59, 1.02 • 3+4 points, n=55 deaths, HR: 0.82, 95% CI: 0.58, 1.14 • Women, per-SD, HR: 0.96, 95% CI: 0.85, 1.09 • 0 points, n=36 deaths, HR: 1 ref • 1 point, n=68 deaths, HR: 0.80, 95% CI: 0.53, 1.20	**Key confounders accounted for:** Sex, SES, Anthropometry, Alcohol intake, Physical activity, Smoking **Other:** N/A **Limitations:** Did not account for key confounders: Age, Race/ethnicty	Adherence to a priori 'healthy food index' was not significantly associated with ACM in women, or in most analyses of men. **Funding:** Medical Research Council; Danish Health Insurance foundation

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	once daily, 3) consuming either coarse white or coarse rye bread at least once daily, and 4) consuming fruit at least once **Outcome assessment methods:** "via f/u"	• 2 points n=62 deaths, HR: 0.71, 95% CI: 0.46, 1.07 • 3+4 points, n=65 deaths, HR: 0.82, 95% CI: 0.54, 1.25		
Panizza et al, 2018[77] PCS, Multiethnic Cohort (MEC) United States Analytic N: 156804 Attrition: 27% Sex: 55% female Race/ethnicity: ~20% Japanese American, 23% Latino, 19% White, 19% African American, 19% Native Hawaiian SES: ~29% graduated college Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index-2015 (Krebs-Smith, 2018) **Dietary assessment methods:** 182-item validated FFQ at baseline, age 59y **Outcome assessment methods:** National Death Index	**Significant:** Men, HEI-2015 at ~59y and risk of ACM after 17-22y f/u: • Q1: HR: 1.00 • Q2: HR: 0.93, 95% CI: 0.90, 0.97 • Q3: HR: 0.89, 95% CI: 0.85, 0.92 • Q4: HR: 0.85, 95% CI: 0.81, 0.88 • Q5: HR: 0.79, 95% CI: 0.76, 0.82 • p<0.05 Women, HEI-2015 at ~59y and risk of ACM after 17-22y f/u: • Q1: HR: 1.00 • Q2: HR: 0.92, 95% CI: 0.89, 0.96 • Q3: HR: 0.87, 95% CI: 0.84, 0.91 • Q4: 0.82, 95% CI: 0.79, 0.86 • Q5: 0.79, 95% CI: 0.76, 0.82 • p<0.05 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: History of diabetes, hormone replacement therapy **Limitations:** Did not account for key confounders: N/A	Higher score on the HEI-2015 at age ~59y was significantly associated with lower risk of ACM after 17-22y f/u. **Funding:** NIH
Park et al, 2016[79] *Mayo* PCS, National Health and Nutrition Examination Survey (NHANES III) United States	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** 24-hr dietary recall at age 48.1 y	**Significant:** HEI Score adherence at 48y and ACM over ~19y f/u in MONW phenotype with T1, n=105 deaths, HR: 1, ref: • T2, n=106 deaths: HR: 0.59, 95% CI: 0.44, 0.79 • T3, n=133 deaths: HR: 0.54, 95% CI: 0.39, 0.75 • p-trend<0.001	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education, Income, Alcohol, Physical activity, Anthropometry: Design; Smoking	Within the Metabolically Obese Normal Weight (MONW) phenotype, a higher HEI score was significantly associated with a reduction of ACM.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 2103 Attrition: 16% Sex: 57.5% female Race/ethnicity: 79.4% Non-Hispanic white SES: 80% education attainment >12 y; 85.8% poverty income ratio > 1.3 Alcohol intake: 55.6% moderate drinkers	**Outcome assessment methods:** Vital status determined by linking NHANES data with the National Death Index	HEI Score 1 unit increase at 48y and ACM over ~19y f/u in those with MONW phenotype: • HR: 0.78, 95% CI: 0.68, 0.90 *Sensitivity analyses yielded similar results stratified by age and smoking; Analyses by sex, race/ethnicity, physical activity were NS. **Non-Significant:** HEI Score adherence at 48y and ACM over ~19y f/u in MHNW phenotype with T1, n=100 deaths, HR: 1, ref: • T2, n=96 deaths, HR: 0.64, 95% CI: 0.39, 1.05 • T3, n=100 deaths, HR: 0.68, 95% CI: 0.44, 1.05 • p-trend=0.09 HEI Score 1 unit increase at 48y and ACM over ~19y f/u in those with MHNW phenotype: • HR: 0.83, 95% CI: 0.70, 1.00	**Other:** Total energy intake, Other **Limitations:** Did not account for key confounders: N/A	However, within the Metabolically Healthy Normal Weight (MHNW) phenotype there was no significant association between HEI score tertiles and ACM over median ~19 years f/u. **Funding:** NR
Park et al, 2016[78] *IJO* PCS, National Health and Nutrition Examination Survey (NHANES III) United States Analytic N: 1739 Attrition: 31% Sex: 67% metabolically healthy obese (MHO) females; 50% metabolically unhealthy obese (MUO) female Race/ethnicity: ~70% Non-Hispanic white;	**Dietary pattern:** Mediterranean Diet Score (MedDietScore) (Panagiotakas, 2007) **Dietary assessment methods:** 24-h recall and validated FFQ at age ~ 44y **Outcome assessment methods:** National Death Index	**Significant:** In MHO, MedDietScore adherence [categorical] at 41y and ACM after 18.5y f/u: • T1, n=35 deaths, HR:1.00 • T2, n=26 deaths, HR: 0.35, 95% CI: 0.19, 0.64; • T3, n=16 deaths, HR: 0.44, 95% CI: 0.26, 0.75; • p-trend<0.001 In MHO, MedDietScore adherence [continuous 5-pt increase] at 41y and ACM: HR: 0.59, 95% CI: 0.37, 0.94 *Sensitivity analyses yielded similar results stratified by age, sex, race/ethnicity, BMI, smoking, physical activity, chronic disease or excluding all early deaths <5y f/u **Non-Significant:**	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education; Income; Living with spouse, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Family history: CHD **Limitations:** Did not account for key confounders: N/A	In metabollically healthy women, higher adherence to a Mediterranean dietary pattern (MedDietScore) at mean age ~41y was associated with a lower risk of ACM after 18.5y f/u. In metabollically unhealthy women, MedDietScore adherence at 47y was not significantly associated with ACM after 18.5y f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
16% Non-Hispanic black; 6% Mexican-American; 7% Other SES: Education: 25% < 12y; 38% 12y, 36% ≥13y; Income: 19% PIR ≤13; 45% PIR ≤3.5; 36% PIR >3.5;		In MUO, MedDietScore adherence [categorical] at 47y and ACM after 18.5y f/u: • T1, n=105 deaths, HR:1.00 • T2, n=116 deaths, HR: 0.74, 95% CI: 0.58, 0.95; • T3, n=88 deaths, HR: 0.92, 95% CI: 0.48, 1.76; • p-trend=0.66 In MUO, MedDietScore adherence [continuous 5-pt increase] at 47y and ACM after 18.5y f/u: HR: 0.96, 95% CI: 0.78, 1.17		**Funding:** NR
Prinelli et al, 2015[80] PCS, Italy Analytic N: 974 Attrition: 42%) Sex: 50% female Race/ethnicity: NR SES: Education: 56% primary school or less, 46.6% medium school or graduate Alcohol intake: 30% light or less, 32% moderate, 27% heavy	**Dietary pattern:** Mediterranean Diet Score (MedDietScore) (Panagiotakas, 2007), Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 158-item FFQ (modified from previously validated FFQ of the NHS) at baseline, age 56y **Outcome assessment methods:** Regional Registries of the Informative System of the Local Health Authority of Milan 1 and regional Registry of Mortality	**Significant:** MedDietScore adherence [categorical] at 56y and ACM over mean 17.4 y f/u: • 'Low;, n=80 deaths, HR: 1.00 • 'Medium', n= 61 deaths, 5220 person-years, HR: 0.79, 95% CI: 0.43, 1.12; NS • 'High', n=52 deaths, 5109 person-years, HR: 0.62, 95% CI: 0.43, 0.89, p-trend=0.01 MedDietScore adherence [per-unit increase] at 56y and ACM over 17.4y f/u, n=193 deaths: HR: 0.95, 95% CI: 0.92, 0.98, **Non-Significant:** MDS adherence [categorical, tertiles ref NR] at 56y and ACM over 17.4 y f/u: deaths NR, HR: 0.69, 95% CI: 0.46, 1.03, p-trend=0.07	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern; separate analysis, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, TV time **Limitations:** Did not account for key confounders: Race/ethnicity	Higher adherence to the MedDietScore at 56y was significantly associated with lower risk of ACM over a 17.4y f/u. Adherence to the (original) MDS at 56y was non-significantly associated with ACM over 17.4y f/u. **Funding:** NR
Reedy et al, 2014[81] PCS, NIH-AARP Diet and Health Study (AARP) United States	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012), Alternate Med Diet Score (aMED) (Fung, 2009),	**Significant:** MEN: HEI sore at ~62y and risk of ACM at 15y f/u: • Q1, n=13746 deaths, HR: 1.00 • Q2, n=11449 deaths, HR: 0.91, 95% CI: 0.88, 0.93 • Q3, n=10523 deaths, HR: 0.86, 95% CI: 0.83, 0.88	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry,	Higher scores HEI-2010, AHEI-2010, aMED, and DASH scores at ~62y were associated with lower risk of ACM at

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 424662 Attrition: 14%) Sex: 43% female Race/ethnicity: ~90% white SES: ~44% men, ~30% women are college graduates Alcohol intake: ~3 g/d for men, ~1 g/d for women	DASH Score (Fung, 2008), HEI-2010 **Dietary assessment methods:** 124-item validated FFQ at age ~62y **Outcome assessment methods:** Social Security Administration Death Master File, National Death Index, cancer registry linkage, outreach to subjects/proxies	• Q4, n=9908 deaths, HR: 0.83, 95% CI: 0.81, 0.85 • Q5, n=9245 deaths, HR: 0.78, 95% CI: 0.76, 0.80 • p-trend <0.05 AHEI score at ~62y and risk of ACM at 15y f/u: • Q1, n=13109 deaths, HR: 1.00 • Q2, n=11665 deaths, HR: 0.91, 95% CI: 0.89, 0.93 • Q3, n=10976 deaths, HR: 0.88, 95% CI: 0.86, 0.91 • Q4, n=10157 deaths, HR: 0.83, 95% CI: 0.81, 0.86 • Q5, n=8964 deaths, HR: 0.76, 95% CI: 0.76, 0.80 • p-trend <0.05 aMED score at ~62y and risk of ACM at 15y f/u: • Q1, n=11980 deaths, HR: 1.00 • Q2, n=10448 deaths, HR: 0.92, 95% CI: 0.90, 0.94 • Q3, n=11182 deaths, HR: 0.88, 95% CI: 0.85, 0.90 • Q4, n=9791 deaths, HR: 0.83, 95% CI: 0.81, 0.85 • Q5, n=11470 deaths, HR: 0.77, 95% CI: 0.75, 0.79 • p-trend <0.05 DASH score at ~62y and risk of ACM at 15y f/u: • Q1, n=12884 deaths, HR: 1.00 • Q2, n=9346 deaths, HR: 0.95, 95% CI: 0.92, 0.97 • Q3, n=10287 deaths, HR: 0.90, 95% CI: 0.88, 0.93 • Q4, n=13188 deaths, HR: 0.87, 95% CI: 0.85, 0.90 • Q5, n=9166 deaths, HR: 0.83, 95% CI: 0.80, 0.85 • p-trend <0.05 WOMEN: HEI score at ~62y and risk of ACM at 15y f/u: • Q1, n=8038 deaths, HR: 1.00 • Q2, n=6481 deaths, HR: 0.88, 95% CI: 0.85, 0.91 • Q3, n=6141 deaths, HR: 0.88, 95% CI: 0.85, 0.91 • Q4, n=5639 deaths, HR: 0.82, 95% CI: 0.79, 0.85 • Q5, n=5249 deaths, HR: 0.77, 95% CI: 0.74, 0.80 • p-trend <0.05 AHEI score at ~62y and risk of ACM at 15y f/u: • Q1, n=7685 deaths, HR: 1.00 • Q2, n=6716 deaths, HR: 0.91, 95% CI: 0.88, 0.94	Smoking **Other:** Total energy intake, Other: Diabetes **Limitations:** Did not account for key confounders: N/A	15y f/u. **Funding:** NR

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• Q3, n=6146 deaths, HR: 0.85, 95% CI: 0.83, 0.88 • Q4, n=5877 deaths, HR: 0.85, 95% CI: 0.82, 0.88 • Q5, n=5124 deaths, HR: 0.76, 95% CI: 0.74, 0.79 • p-trend <0.05 aMED score at ~62y and risk of ACM at 15y f/u: • Q1, n=6734 deaths, HR: 1.00 • Q2, n=6075 deaths, HR: 0.94, 95% CI: 0.90, 0.97 • Q3, n=6608 deaths, HR: 0.89, 95% CI: 0.86, 0.92 • Q4, n=5711 deaths, HR: 0.83, 95% CI: 0.80, 0.86 • Q5, n= 6420 deaths, HR: 0.76, 95% CI: 0.73, 0.79 -p-trend <0.05 DASH score at ~62y and risk of ACM at 15y f/u: • Q1, n=7940 deaths, HR: 1.00 • Q2, n=5347 deaths, HR: 0.93, 95% CI: 0.90, 0.96 • Q3, n=8378 deaths, HR: 0.87, 95% CI: 0.84, 0.89 • Q4, n=4667 deaths, HR: 0.82, 95% CI: 0.79, 0.85 • Q5, n=5216 deaths, HR: 0.78, 95% CI: 0.75, 0.81 • p-trend <0.05 • Results were similar when analyzed with and without adjustment for BMI.		
Roswall et al, 2015[82] PCS, Swedish Women's Lifestyle and Health cohort Sweden Analytic N: 44961 Attrition: 9% Sex: 100% female Race/ethnicity: NR SES: Education: 30% 0-10y, 39% 10-13y, 31% >13y Alcohol intake: 2.9g/d	**Dietary pattern:** Healthy Nordic Food Index (HNFI) (Olsen, 2011) **Dietary assessment methods:** 80-item validated FFQ at age 39y **Outcome assessment methods:** Swedish Bureau of Statistics and Cause of Death Registry	**Significant**: HNFI adherence [per-unit increase] and ACM over median 21.3y f/u: Mortality rate ratio, MMR: 0.94 , 95% CI: 0.91, 0.97, p=0.0004 HNFI adherence [categorical] and ACM over median 21.3y f/u, with • low, 0-1, MMR: 1, ref: • middle, 2-3, MMR: 0.88, 95% CI: 0.79, 0.99 • high, 4-6, MMR: 0.82, 95% CI: 0.71, 0.93 *Excluding first 2y of f/u did not change results; Effects were not modified by smoking, BMI, or age **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking: status, tobacco consumption, and time to cessation **Other:** Total energy intake, Other: red meat intake, and processed meat intake **Limitations:**	Higher adherence to the HNFI categorical and per-unit increase in a cohort of women was significantly associated with lower risk of ACM over median 21 year f/u. **Funding:** Swedish Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			Did not account for key confounders: Race/ethnicity	
Seymour et al, 2003[83] PCS, American Cancer Society Cancer Prevention Study II (CPS II) United States Analytic N: 115833 Attrition: 37%) Sex: 54.5% female Race/ethnicity: Only white and African-American participants SES: NR Alcohol intake: NR	**Dietary pattern:** Diet Quality Index (Patterson, 1994) **Dietary assessment methods:** 68-item FFQ at age 50-79y **Outcome assessment methods:** Linkage with the National Death Index	**Significant:** Diet Quality Index and ACM in women • High, n=114 deaths, Rate Ratio: 1, ref • Medium-High, n=206 deaths, Rate Ratio: 1.09, 95% CI: 0.87, 1.38, NS • Medium, n=222 deaths, Rate Ratio: 1.15, 95% CI: 0.91, 1.45, NS • Medium-Low, n=290 deaths, Rate Ratio: 1.31, 95% CI: 1.04, 1.65 • Low, n=37 deaths, Rate Ratio: 1.23, 95% CI: 0.84, 1.81, NS • p-trend=0.02 Diet Quality Index and ACM in men • High, Rate Ratio: 1, n=117 deaths, ref: • Medium-High, n=293 deaths, Rate Ratio: 1.06, 95% CI: 0.85, 1.31, NS • Medium, n=418 deaths, Rate Ratio: 1.08, 95% CI: 0.88, 1.33, NS • Medium-Low, n=659 deaths, Rate Ratio: 1.17, 95% CI: 0.96, 1.44, NS • Low, n=249 deaths, Rate Ratio: 1.19, 95% CI: 0.94, 1.49, NS • p-trend=0.04 **Non-Significant:** • Medium, medium-low, low vs. high; men (above) • Medium, medium-high, low, vs. high; women (above)	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education, Occupation, Alcohol, Physical activity, Smoking **Other:** Supplement usage, Other: Aspirin use, mammography history, hormone replacement therapy **Limitations:** Did not account for key confounders: Anthropometry	Lower compared to higher DQI scores (p-trend) were significantly associated with a higher rate of ACM in separate analyses of men and women. Medium-low compared to High index adherence was associated with a significant increase in mortality rate in women only. Associations between other categories of DQI adherence in women or all catgories in men and ACM did not reach significance. **Funding:** CDC
Shah et al, 2018[84] PCS, Cooper Center Longitudinal Study United States	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003), modified DASH Score	**Significant:** modified DASH diet score at 46.5y and ACM over 18 y f/u: HR: 0.94, 95% CI: 0.89, 0.99 **Non-Significant:**	**Key confounders accounted for:** Sex, Age, Physical activity, Anthropometry: BMI, Smoking	No significant association between the MDS at ~47y and ACM. Greater modified DASH diet

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 11376 Attrition: 27%) Sex: 24.6% female Race/ethnicity: NR, (predominantly non-Hispanic white) SES: NR Alcohol intake: mean 5.9 drinks/wk	(Shah, 2018; modified Fung, 2008) **Dietary assessment methods:** 3-d diet record at baseline, mean age 46.5 y **Outcome assessment methods:** National Death Index records were used to determine ACM.	MDS at 46.5 y and ACM over 18 y f/u: HR: 0.99, 95% CI: 0.94, 1.04	**Other:** Total energy intake, Family history, Other: CVD, baseline glucose, LDL, SBP **Limitations:** • Did not account for key confounders: Race/ethnicity, SES, Alcohol • Sample from preventative medicine clinic may be less generalizable to those less likely to follow health prevention guidance	score adherence at ~47y was significantly associated with a reduction of ACM risk (though slight) during 18y f/u. **Funding:** The Cooper Institute
Shahar et al, 2009[85] PCS, Health, Aging, and Body Composition study United States Analytic N: 285 Attrition: 12%) Sex: 51% female Race/ethnicity: 48% Black, 52% White SES: 71% completed high school, 36% HHI >$50K Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** modified Block Food Frequency Questionnaire at baseline, age ~75y **Outcome assessment methods:** Telephone contact, verification by death certificate	**Significant: N/A** **Non-Significant:** HEI score at ~75y and risk of ACM, n=71 deaths, after 9y f/u: • HEI < 51, Poor: HR: 1.00 • HEI 51-80, Fair: HR: 1.52, 95% CI: 0.7, 3.5 • HEI ≥ 80, Good: HR: 1.9, 95% CI: 0.7, 5.2 • p-trend = 0.26	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Anthropometry, Smoking **Other:** Total energy intake, Other: subjective health evaluation, cognitive function score, site **Limitations:** Did not account for key confounders: Physical	HEI score at ~75y was not significantly associated with risk of ACM after 9y f/u. **Funding:** NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			activity	
Shivappa et al, 2017[86] PCS, Whitehall II study. United Kingdom Analytic N: 7627 Attrition: 26%) Sex: 30% female Race/ethnicity: 91% White SES: 30% high occupational grade Alcohol intake: NR	**Dietary pattern:** Alternative HEI (AHEI)-2010 (Chiuve, 2012) **Dietary assessment methods:** 127-item validated FFQ at baseline, age 50y **Outcome assessment methods:** National Health Services death and electronic patient records	**Significant:** AHEI-2010 score at 50y and risk of ACM at 22y f/u: n=1001 deaths, HR= 0.82, 95% CI: 0.76, 0.88, P<0.001 **Non-Significant: N/A**	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: antecedent of CVD, use of lipid-lowering drugs, HDL, hypertension, type 2 diabetes, longstanding illness **Limitations:** Did not account for key confounders: N/A	Higher AHEI-2010 score at age 50y was associated with significantly lower risk of ACM after 22y f/u. **Funding:** British Medical Research Council, British Heart Foundation, British Health and Safety Executive, British Department of Health, NIH, British United Provident Association Foundation, Medical Research Council, the Academy of Finland and the New European Union New and Emerging Risks in Occupational Safety and Health research programme, European Science Foundation
Shvetsov et al, 2016[87] PCS, Multiethnic Cohort (MEC) United States	**Dietary pattern:** Alternative Mediterranean Diet Score (aMED) (Fung, 2005)	**Significant:** aMED adherence [categorical, Q5 vs. Q1] and ACM over 13-18y f/u: All races, HR: 0.77, 95% CI: 0.74, 0.80 aMED-e adherence [categorical, Q5 vs. Q1] and ACM over 13-18y f/u: All races, HR: 0.79, 95% CI:0.76, 0.82	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education; Marital status, Alcohol: Part of	Highest vs. lowest adherence scores on the aMED (with or without energy-adjustment or -standardization) in

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 193527 Attrition: 10%) Sex: 55% female Race/ethnicity: African-American 16.3%, Latino 22%, Japanese-American 26%, Native Hawaiian 7%, White 23%, and other ancestry 6% SES: Education: ≤8y 11%, 9–12y 36% , Vocational 8% , Some college 46% Alcohol intake: NR	**Dietary assessment methods:** 182-item validated FFQ at age 45-75y **Outcome assessment methods:** State death files and the National Death Index	**Non-Significant:** N/A *Analyses by race/ethnicity and sex revealed similar associations across all ethnic groups with exception to Native-Hawaiian men and women (similar inverse relation but NS). Age-as-time analyses and restricting to 5y f/u, or 10y f/u yielded estimates of 3%, 6% and 8% (data NR).	dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake: with and without, Other: hormone-replacement therapy; History of diabetes, heart disease and cancer **Limitations:** Did not account for key confounders: N/A	men and women across ethnic groups at age ~45-75y was significantly associated with lower risk of ACM after 13-18 years f/u. **Funding:** NIH; NCI
Sijtsma et al, 2015[88] PCS, Zutphen Elderly Study Netherlands Analytic N: 826 Attrition: 12%) Sex: 0% female Race/ethnicity: NR SES: 26.4% high, 62.9% medium, 10.6% low Alcohol intake: 22.9% 0 g/day, 50.7% <20 g/day, 26.4% ≥ 20 g/day	**Dietary pattern:** Dutch Healthy Nutrient and Food Score (DHNaFS), Dutch Undesirable Nutrient and Food Score (DUNaFS) (Sijtsma, 2015) **Dietary assessment methods:** 782-food item FFQ at baseline, mean age 71.9 y **Outcome assessment methods:** Vital status obtained from municipal registries.	**Significant:** In men with CVD-disease, DHNaFS at 71.9 y and ACM over ~10.7 y f/u: • T1, n=46 deaths, HR: 1, ref: • T2, n=39 deaths, HR: 0.58, 95% CI: 0.39, 0.86 • T3, n=44 deaths, HR: 0.67, 95% CI: 0.45, 0.99 • p-trend=0.11; NS In men with CVD-disease, DHNaFS at 71.9 and life-years gained: • T1, 0y ref • T2, 2.6y, 95% CI: 0.6, 4.6 • T3, 2.4y, 95% CI: 0.4, 4.5 **Non-Significant:** In healthy, non-CVD men, DHNaFS at age 71.9 y and ACM over ~10.7 y f/u: • T1, n=187 deaths, HR: 1, ref: • T2, n=227 deaths, HR: 1.04, 95% CI: 0.84, 1.29, NS • T3, n=168 deaths, HR: 0.97, 95% CI: 0.76, 1.23, NS	**Key confounders accounted for:** Sex: All men, Age, Race/ethnicity: All Dutch, SES, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: Medications **Limitations:** Did not account for key confounders: Anthropometry	Among all men, adherence to the Dutch Healthy Nutrient and Food Score (DHNaFS) or the Dutch Undesirable Nutrient and Food Score was not significantly associated with ACM. Among men with CVD only, higher vs. lower (T3, T2 vs. T1) DHNaFS adherence was associated with lower risk of ACM over ~10y f/u and ~2.4y longer years lived.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		p-trend=0.82 In healthy, non-CVD men, DHNaFS at 71.9 and life-years gained: • T1, 0y ref: • T2, 0.0y, 95% CI: -1.3, 1.2, NS • T3, 0.4y, 95% CI: -0.90, 1.8, NS DUNaFS at age 71.9 and ACM over ~10.7 y f/u: In men with CVD-disease, • T1, n=84 deaths, HR: 1, ref • T2, n=74 deaths, HR: 0.98, 95% CI: 0.67, 1.42, NS • T3, n=49 deaths, HR: 0.79, 95% CI: 0.50, 1.24, NS • p-trend=0.5258 In healthy, non-CVD men, • T1, n=191 deaths, HR: 1, ref • T2, n=208 deaths, HR: 0.81, 95% CI: 0.65, 1.00, NS • T3, n=183 deaths, HR: 0.86, 95% CI: 0.67, 1.10, NS • p-trend=0.1588		**Funding:** Royal Netherlands Academy of Arts and Sciences
Sjogren et al, 2010[89] PCS, Uppsala Longitudinal Study of Adult Men cohort Sweden Analytic N: 924 Attrition: 24% Sex: 0% female Race/ethnicity: NR SES: NR Alcohol intake: NR	**Dietary pattern:** Modified Mediterranean Diet Score [(MDS) modified from Trichopolou, 2003 **Dietary assessment methods:** 7-d diet record, based on validated menu book at baseline, age 70y **Outcome assessment methods:** Swedish National Registry	**Significant:** Modified MDS adherence [per-SD increase] at 70y and ACM after 10.2 y f/u, HR: 0.83, 95% CI: 0.70, 0.99 Modified MDS adherence [categorical] at 70y and ACM after 10.2 y f/u: • Low, 0-2, HR: 1.00 • Medium, 3–5, HR: 0.73, 95% CI: 0.52, 1.00; NS • High, 6–8, HR: 0.56, 95% CI: 0.33, 0.96, p-trend=0.018 Results from sensitivity analyses in adequate reporters only were similar. **Non-Significant:** N/A	**Key confounders accounted for:** Age, Sex, SES, Alcohol, Physical activity, Anthropometry: WC, Smoking **Other:** Total energy intake, type 2 diabetes, metabolic syndrome, lipid-lowering treatment, blood pressure–lowering treatment, diastolic blood pressure, insulin, and C-reactive protein	Higher adherence to a modified MDS at 70y was significantly associated with lower risk of ACM at median 10y f/u. **Funding:** Uppsala University; Uppsala City Council Research Fund; Swedish Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			Limitations: • Did not account for key confounders: Race/ethnicity • High degree of unacceptable reporting (close to 50%)	
Sotos-Prieto et al, 2017[90] PCS, Nurses' Health Study (NHS), Health Professionals Follow-up Study, HPFS United States Analytic N: 73739 Attrition: 57% Sex: 65% female Race/ethnicity: 98% White SES: NR (All trained health professionals) Alcohol intake: ~9g/d	**Dietary pattern:** Alternate Med Diet Score (aMED) (Fung, 2005), DASH Score (Fung, 2008), Alternative HEI (AHEI) (Chiuve, 2012) **Dietary assessment methods:** validated FFQ, every 2y from 1986-1998, when subjects were age ~63y **Outcome assessment methods:** Vital statistics records, the National Death Index, reported by families, and the postal system	**Significant:** Alternate Healthy Eating Index (AHEI) at ~63y and ACM after 12y of f/u (model 2): • Q1 (n=2452, HR: 1.12, 95% CI: 1.05, 1.19 • Q2, n=2150, HR: 1.06, 95% CI: 1.00, 1.13 • Q3, n=1914, HR: 1.00 • Q4, n=1754, HR: 0.94, 95% CI: 0.88, 1.01 • Q5, n=1676, HR: 0.91, 95% CI: 0.85, 0.97 • p for trend <0.001 Alternate Mediterranean Diet score (aMed) [categorical, quintile of change, Q1, Q2, Q3, Q4, Q5] at ~63y and ACM after 12y of f/u (model 2): • Q1, n=2325, HR: 1.06, 95% CI: 0.99, 1.13 • Q2, n=1805, HR: 0.97, 95% CI: 0.91, 1.04 • Q3, n=2114, HR: 1.00 • Q4, n=2522, HR: 0.93, 95% CI: 0.87, 0.98 • Q5, n=1180, HR: 0.84, 95% CI: 0.78, 0.91 • p for trend <0.001 DASH score (DASH) [categorical, quintile of change, Q1, Q2, Q3, Q4, Q5] at ~63y and ACM after 12y of f/u (model 2): • Q1, n=2425, HR: 1.06, 95% CI: 1.00, 1.12 • Q2, n=1605, HR: 1.01, 95% CI: 0.94, 1.07 • Q3, n=2694, HR: 1.00 • Q4, n=1390, HR: 0.93, 95% CI: 0.87, 1.00 • Q5, n=1832, HR: 0.89, 95% CI: 0.84, 0.95	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Family history, Supplement usage, Other: Menopausal status; history of CVD, diabetes, or medication use **Limitations:** Did not account for key confounders: N/A	Higher adherence to the Alternate Healthy Eating Index (AHEI), Alternate Mediterranean Diet score (aMed), DASH score (DASH) at age ~63y was associated with lower risk of ACM after 12y of f/u. **Funding:** NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• p for trend <0.001		
Stefler et al, 2017[91] PCS, Health Alcohol and Psychosocial Factors in Eastern Europe (HAPIEE) Poland, Russian Federation, Czhec Republic Analytic N: 19333 Attrition: 33% Sex: 55% female Race/ethnicity: NR SES: Education: 10% primary or less; 26% university; Marital status: 75% married Alcohol intake: NR	**Dietary pattern:** Revised Mediterranean diet score [(MDS) modified (Sofi, 2014), modified Mediterranean Diet Score (mMDS) (Trichopoulou, 2005, modified from Trichopoulou, 2003) **Dietary assessment methods:** 136-, 148-, or 147-item validated FFQ at age 57y **Outcome assessment methods:** Linkage with regional or national death registers	**Significant:** Revised MDS score [per-SD increase] at 57y and ACM after 7y f/u: HR: 0.93, 95 % CI: 0.88, 0.98, p-trend=0.012 Revised MDS score [categorical] at 57y and ACM after 7y f/u: • Low, 0-7: HR: 1.00 • Moderate, 8–10: HR: 0.85, 95% CI: 0.75, 0.9 • High, 11–17: HR: 0.85, 95% CI: 0.73, 1.00; p-trend=0.027 Revised MDS score [categorical] at 57y and ACM, per 1000 person-years: • Low 12.2, • Moderate 9.0, • High 7.3, • p<0.001 **Non-significant*:** mMDS score [per-SD increase] at 57y and ACM after 7y f/u: • Low, 0–3, HR: 1.00 • Moderate, 4–5, HR: 0.90, 95% CI: 0.79, 1.02; NS • High, 6–9, HR: 0.88, 95% CI: 0.76, 1.03; NS mMDS score [per-SD increase] at 57y and ACM after 7y f/u, HR: 0.95, 95% CI: 0.90, 1.01, p=0.108 *Country-specific analyses revealed inverse associations but tended to be NS	**Key confounders accounted for:** Sex, Age, SES: Education; Marital status; Household amenity, Alcohol: Part of dietary pattern, Physical activity, Smoking **Other:** Total energy intake, Supplement usage, cohort **Limitations:** Did not account for key confounders: Race/ethnicity, Anthropometry	Higher adherence to the MDS was significantly associated with lower risk of ACM at 7y f/u.. Adherence to the mMDS was not significantly associated with ACM after 7y f/u. **Funding:** Wellcome Trust; NIA; MacArthur Foundation Initiative on Social Upheaval and Health
Struijk et al, 2014[92] PCS, European Prospective Investigation into Cancer	**Dietary pattern(s):** <u>Index analysis:</u> Adherence [categorical, tertiles; continuous per-SD	**Significant:** mMDS score at 49y and disability-adjusted life years, DALY, at ~13y f/u: • 0-3, n=521 deaths, ref • 4-5, n=667 deaths, DALY: -0.16, 95% CI:-0.32, -	**Key confounders accounted for:** Sex, Age, SES: Education, Anthropometry,	Higher vs. lower adherence to a priori mMDS and a posteriori 'Prudent' pattern showed the

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
and Nutrition (EPIC-Prospect; EPIC-MORGEN) Netherlands Analytic N: 33066 Attrition: 17.4% Sex: 74% female Race/ethnicity: NR SES: 21% high education Alcohol intake: 5 g/d	increase] to the mMDS: 0-3, 4-5, 6-9; and DHD: T1, T2, T3 at age 49y <u>Factor/cluster analysis:</u> see <u>Table 5</u> **Dietary assessment methods:** 178-item validated FFQ at baseline, age 49y **Foods/food groups:** mMDS: vegetables, fruit, legumes and nuts, grains, fish and seafood, the MUFA+PUFA: SFA, meat, dairy, and alcohol DHD: vegetables, fruit, fiber, fish, SFAs, trans fatty acids, salt, and alcohol **Outcome assessment methods:** Survival status as Disability-Adjusted Life Years (DALY) via linkageof vital status from municipal registries	0.01 • 6-9, n=294 deaths, DALY: -0.34, 95% CI:-0.52, -0.16p-trend=0.01per-SD increase: -0.13, 95% CI:-0.20, -0.06 Sensitivity analysis of excluding early deaths <2y f/u did not change results; Interaction with age was NS **Non-Significant:** DHD [categorical] at 49y and DALY at ~13y f/u: • T1, n=443 deaths, ref • T2, n=523 deaths, DALY: 0.07, 95% CI: -0.09, 0.23; NS • T3, n=516 deaths, DALY: -0.08, 95% CI: -0.25, 0.09; NS • p-trend=0.31 • per-SD increase: -0.05, 95% CI: -0.11, 0.01; NS	Alcohol, Physical activity, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity: all Dutch	strongest association with lower disease burden of years lost at ~13y f/u **Funding:** Dutch Research Council; Europe against Cancer Program of the European Commission, the Dutch Ministry of Health, the Dutch Cancer Society, the Netherlands Organisation for Health Research and Development, and the World Cancer Research Fund
Thorpe et al, 2013[93] PCS, Third National Health and Nutrition Examination Survey United States Analytic N: 2029	**Dietary pattern:** Healthy Eating Index (Kennedy, 1995) **Dietary assessment methods:** 24-hour recall, validated, at baseline	**Non-Significant:** Fair/poor HEI score and risk of ACM after 14.3y f/u: • 25-44y: HR: 0.49, 95% CI: 0.14, 1.76, p=NS • 45-64y: HR: 1.40, 95% CI: 0.44, 4.45, p=NS • >65y: HR: 1.22, 95% CI: 0.48, 3.14, p=NS	**Key confounders accounted for:** Sex: All men, Age, Race/ethnicity, SES **Other:** Other: insurance status, self-rated health, chronic conditions	HEI in Black men >25y was not significantly associated with risk of ACM after 14.3y of f/u **Funding**: NIH

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Attrition: 94% Sex: 0% female Race/ethnicity: 100% non-Hispanic Black SES: ~10y education, 2.4 poverty income ratio Alcohol intake: ~40% moderate drinkers	**Outcome assessment methods:** National Death Index		**Limitations:** Did not account for key confounders: Alcohol, Physical activity, Anthropometry, Smoking	
Tognon et al, 2011[96] PCS, Gerontological and Geriatric Population Studies in Gothenburg Sweden Analytic N: 1037 Attrition: 19% Sex: 52.1% female Race/ethnicity: NR SES: Education >6y: 31%; Married at 70y: 62% Alcohol intake: 6g/d	**Dietary pattern:** modified MDS [modified MDS], modified MDS, alternative MDS [alternative MDS] **Dietary assessment methods:** Validated diet history at baseline, age 70y **Outcome assessment methods:** National death registration system	**Significant:** Modified MDS [refined MDS] at 70y and ACM over ~38y f/u • Continuous, HR: 0.93, 95% CI: 0.89, 0.98; • Categorical, highest 4 levels vs. the others, HR: 0.82, 95% CI: 0.67, 0.99. Sensitivity analyses yielded similar results after exclusions for early death; exclusion of MDS components item-by-item; Replacing total alcohol with red wine, HR: 0.92, 95% CI: 0.87; 0.97; Adjusting for weight change HR: 0.95, 95% CI: 0.93, 0.97; waist circumference change HR: 0.98, 95% CI: 0.97, 1.00; baseline biomarkers (BP, glucose, cholesterol, triglycerides) categorical HR=0.85, 95% CI: 0.70; 1.04; activities of daily living. **Non-Significant:** Alternative mMDS [HALE mMDS] at 70y and ACM over ~38y f/u: • Continuous, HR: 0.97, 95% CI: 0.92, 1.02; NS • Categorical, highest 4 levels vs. the others, HR: 0.94, 95% CI: 0.79, 1.11; NS	**Key confounders accounted for:** Sex, Age: Design, SES: Marital status; Education, Alcohol, Physical activity, Anthropometry: BMI; WC, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity	Adherence to a refined mMDS index at 70y were associated with lower risk of ACM over ~38y f/y, with sensitivity analyses confirming robustness of results. **Funding:** Swedish Council on Working Life and Social Research [FAS; EpiLife Centre]
Tognon et al, 2012[95] PCS, Va¨sterbotten	**Dietary pattern:** Modified Mediterranean Diet Score (MDS), refined	**Significant*:** Refined MDS adherence [continuous, per 1-unit] at 30-70y and ACM over 10y f/u:	**Key confounders accounted for:**	Greater adherence to a modified, refined MDS at 30-

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Intervention Program (VIP) Cohort Sweden Analytic N: 77151 Attrition: 32% Sex: 51% female Race/ethnicity: NR SES: 27% university Alcohol intake: 2.5 g/d men; 1.5 g/d women	**Dietary assessment methods:** 84-item (n=25,864; n=4130) or 65-item (n=47,157) validated FFQ at age ~ 30-70y **Outcome assessment methods:** Swedish national cause-of-death registry	• Pooled, n=2,376 deaths, HR: 0.96 , 95% CI: 0.93, 0.98; • Men, n=1453 deaths, HR: 0.96, 95% CI: 0.93, 0.99; Sub-group analyses stratified by BMI <30: • Pooled, n=1,970 deaths, HR: 0.95, 95% CI: 0.92, 0.97; • Men, n=1225 deaths, HR: 0.95, 95% CI: 0.91, 0.98; • Women, n=745 deaths, HR: 0.95, 95% CI: 0.91, 0.99; **Non-significant*:** Refined MDS adherence [continuous, per 1-unit] at 30-70y and ACM over 10y f/u: • Women, n=923 deaths, HR: 0.96, 95% CI: 0.92, 1.00; NS • Sub-group analyses stratified by BMI≥ 30: • Pooled, n=406 deaths, HR: 0.99, 95% CI: 0.93, 1.06; NS • Men, n=228 deaths, HR: 1.03, 95% CI: 0.95, 1.12; NS • Women, n=178 deaths, HR: 0.95, 95% CI: 0.87, 1.05; NS *Sensitivity analyses did not reveal major differences in results; excluding early deaths <2y f/u attenuated relationship in men (NS) but results were similar: HR: 0.97, 95% CI: 0.94, 1.00. *Sub-group analyses of adequate reporters did not materially change results (thought attenuation occurred due to restricted sample size)	Sex, Age, SES, Alcohol: Part of dietary pattern, Physical activity, Anthropometry, Smoking **Other:** Sensitivity analyses for presence of diabetes or glucose impairment, hypertension, or pharmacological treatment for heart disease or high cholesterol at baseline **Limitations:** • Did not account for key confounders: Race/ethnicity • Nutrient/ macronutrient data NR	70y was significantly associated with lower risk of ACM over 10y f/u. Obesity was an effect modifier, with significant inverse associations in those with BMI <30 kg/m2, but not significant in those with BMI ≥ 30 kg/m2. **Funding:** Swedish Council for Working Life and Social Research [EpiLife Center]; Swedish Research Council
Tognon et al, 2014[94] PCS, MONItoring trends and determinants of Cardiovascular disease (MONICA) Cohort	**Dietary pattern:** modified MDS (modified MDS) (Tognon, 2012 ;Knoops, 2004)	**Significant:** Modified MDS adherence [categorical] at 30-59y and ACM after 14 y f/u: • Score 1, HR: 0.95, 95% CI: 0.91, 1.00; NS • Score 2, HR: 0.94, 95% CI: 0.88, 0.99; • Score 3, HR: 0.93, 95% CI: 0.87, 0.98;	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern; Score 3, Physical	Higher modified MDS adherence at 30-59y was associated with lower risk of ACM over 14y f/u.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Denmark Analytic N: 1849 Attrition: 62% Sex: 51% female Race/ethnicity: NR SES: NR Alcohol intake: 15.5 g/d	**Dietary assessment methods:** 7-d validated, weighed food record at baseline, age ~30-59y **Outcome assessment methods:** National Patient Registry of Hospital Discharges, the Cause of Death Register and the Central Person Register	Survival analysis of modified MDS score 3 adherence at 30-59y and ACM after 14 y f/u, adjusting for • CV-risk covariates, n=1849, HR: 0.93, 95% CI: 0.87, 0.98 • Weight change: n=1348, HR: 0.90, 95% CI:0.83, 0.98 • Excluding early deaths in 2y f/u, n=1822, HR: 0.93, 95% CI: 0.88, 0.99 **Non-Significant:**	activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Sensitivity analyses: BP; TG; Total cholesterol; HDL:Total Cholesterol ratio **Limitations:** Did not account for key confounders: Race/ethnicity	**Funding:** Freja programme from the Danish medical research foundation
Tong et al, 2016[97] PCS, European Prospective Investigation of Cancer (EPIC)-Norfolk United Kingdom Analytic N: 23902 Attrition: 7% Sex: 44% female Race/ethnicity: NR SES: Education: 10% school until age 16y; 40% school until age 16y, 13% Bachelors; Marital status 42% married; Occupation: 5% unskilled, 57% skilled, 34% manager, 5% professional Alcohol intake: ~4g/d	**Dietary pattern:** Mediterranean diet score (MDS) (Sofi, 2014), modified Mediterranean Diet Score (mMDS) (Trichopoulou, 2005); Mediterranean Diet Pyramid Score (PyrMDS) (Gronbaek, 2000), tertiles of the MDS (tMDS) (EPIC, InterAct Consorium, 2011) **Dietary assessment methods:** 130-item validated FFQ at baseline, age 59y, and at f/u **Outcome assessment methods:** Death certificates	**Significant:** MDS score [per-SD increase] and ACM over mean 17y f/u, • 'PyrMDS' adherence, n= 5660 deaths, 382,765 person-years, HR: 0.93, 95% CI: 0.93, 0.98 • 'LitMDS' adherence, n= 5660 deaths, 382,765 person-years, HR: 0.97, 95% CI: 0.94, 0.99 • 'mMDS' adherence, n= 5660 deaths, 382,765 person-years, HR: 0.96, 95% CI: 0.93, 0.98 • 'tertiles of MDS' adherence, n= 5660 deaths, 382,765 person-years, HR: 0.97, 95% CI: 0.94, 0.99 Increasing 'PyrMDS' score and ACM over mean 17y f/u: • Top 5% 'PyrMDS', n=23,902: incidence: 138.4/10000 person-years. 7.5% cases preventable, PAF% 5.4, 95% CI: 1.3, 9.5 • Top 5% 'PyrMDS' at high-risk, n=15,767: incidence: 191.3/10000 person-years. 10.9% cases preventable, PAF% 5.7, 95% CI: 1.6, 9.8 • Top 30% 'PyrMDS': incidence: 138.4/10000 person-years. 5.2% cases preventable, PAF% 3.8, 95% CI: 0.8, 6.8 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: Education; Marital Status, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI; WC, Smoking **Other:** Total energy intake: residual method, Family Hx: Diabetes, MI, Stroke, Other: Season (FFQ), prevalent diabetes, medication (anti-HTN drugs, lipid-lowering drugs), and hormone replacement therapy **Limitations:** Did not account for key confounders:	Higher adherence per-SD increase to four versions of the MDS [PyrMDS; LitMDS; mMDS; tertiles of MDS] were each significantly associated with lower risk of ACM over mean 17y f/u. **Funding:** Medical Research Council and Cancer Research UK

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			Race/ethnicity	

Trichopoulou et al, 2003[98]
 	
PCS, European Prospective Investigation into Cancer and Nutrition (EPIC-Greece)
Greece
 	
Analytic N: 22043
Attrition: 23%
 	
Sex: 60% female
Race/ethnicity: NR, All Greek
SES: Education, 19% ≤5y; 81% ≥6y
Alcohol intake: <10g/d; 10-30 g/d; ≥ 30g/d
	Dietary pattern: Mediterranean Diet Score (MDS) (Trichopolou, 2003)
	
	Dietary assessment methods: 150-item validated FFQ at baseline, ages 20-86y
	
	Outcome assessment methods: Follow-up with subjects
		Significant:
		MDS score [per 2-pt increase] at 20-86y and ACM after 3.7y f/u: n=275 deaths, HR: 0.75, 95% CI: 0.64, 0.87; p<0.001
		
		Sub-group analyses of MDS score by:
		• Sex
		  ○ Male, 179 deaths, HR: 0.78, 95% CI: 0.65, 0.94;
		  ○ Female, 96 deaths, HR: 0.69, 95% CI: 0.53, 0.90;
		• Age
		  ○ <55y, n=46 deaths, HR: 0.89, 95% CI: 0.62, 1.27; NS
		  ○ ≥55y, n=229 deaths, HR: 0.7, 95% CI: 0.61, 0.86;
		• Smoking status
		  ○ Never, n=121 deaths, HR: 0.67, 95% CI: 0.53, 0.84;
		  ○ Ever, n=154 deaths, HR: 0.82, 95% CI: 0.67, 1.00; NS
		• BMI
		  ○ <28.06, n=122 deaths, HR: 0.77, 95% CI: 0.61, 0.97;
		  ○ ≥28.06, n=153 deaths, HR: 0.73, 95% CI: 0.60, 0.89;
		• Waist-to-hip ratio
		  ○ ≥0.87, n=204 deaths, HR: 0.79, 95% CI: 0.66, 0.94;
		  ○ <0.87, n=71 deaths, HR: 0.64, 95% CI: 0.48, 0.88;
		• Education
		  ○ ≥6y, n=164 deaths, HR: 0.77, 95% CI: 0.63, 0.93;
		  ○ <6y, n=111 deaths, HR: 0.72, 95% CI: 0.56, 0.91;
			Key confounders accounted for:
			Sex, Age, SES, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI; WHR, Smoking
			
			Other: Total energy intake: Components of dietary pattern
			
			Limitations:
			Did not account for key confounders:
			Race/ethnicity: NR; All Greek
				Greater adherence to the traditional MDS at ages 20-86y was associated with a significant reduction in ACM over ~3.7y f/u.
				
				Funding: Europe against Cancer Program of the European Commission, the Greek Ministry of Health, and the Greek Ministry of Education

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings

		• Level of physical activity
		  ○ ≥35.01 MET-h/d, n=79 deaths, HR: 0.83 95% CI: 0.63, 1.09; NS
		  ○ <35.01 MET-hr/d, n=196 deaths, HR: 0.74, 95% CI: 0.61, 0.88
		
		Non-Significant:
		Sub-group analyses by age ≥55y NS; smoking ever NS; physical activity ≥35.01 MET-hr/d NS (see above)		

Trichopoulou et al, 2005[99] PCS, European Prospective Investigation into Cancer and Nutrition elderly (EPIC-Elderly) Denmark, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, United Kingdom Analytic N: 74607 Attrition: 26% Sex: 66% female	**Dietary pattern:** modified Mediterranean Diet Score (mMDS) **Dietary assessment methods:** Validated FFQ, 7-d or 14-d diet records at baseline (age 60-75y +; 63% 60-64y; 26% 65-69y; 9% 70-74y; 2% ≥ 75y); 24-h recall in sub-sample **Outcome assessment methods:** Follow-up with subjects and mortality registries	**Significant:** MDS adherence continuous at >60y, per 2-pt increase, and ACM after 7.4 y f/u: HR: 0.93, 95% CI: 0.88, 0.99; p =0.091 **Non-Significant:** MDS adherence [categorical] at >60y and ACM after 7.4y f/u: • Low (0-3), HR: 1.00 • Middle (4-5), HR: 0.93, 95% CI: 0.87, 1.01; p-for H=0.742 • Highest (6-9), HR: 0.91, 95% CI: 0.82, 1.02; p-for H=0.376	**Key confounders accounted for:** Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI; WHR, Smoking **Other:** Total energy intake, Diabetes at baseline **Limitations:** Did not account for key confounders: Race/ethnicity: NR	Greater adherence to the mMDS was associated with a significant reduction in ACM over ~7.4y f/u, when analyzed continuously. When analyzed categorically, results were not significant. **Funding:** European Commission Department of Hygiene and Epidemiology, University of Athens Medical School…[viii]

[viii] Additional funding sources reported by Trichopolou, 2005 include: the Europe against cancer programme of the European Commission coordinated by the International Agency for Research on Cancer; the Greek Ministry of Health and the Greek Ministry of Education; the fellowship "Vasilios and Nafsika Tricha"; Danish Cancer Society; Ligue contre le Cancer [France]; Société 3M [France]; Mutuelle Générale de l'Education Nationale [France]; Institut National de la Santé et de la Recherche Médicale [France]; Gustave Roussy Institute and several general councils in France; German Cancer Aid; German Cancer Research Centre; German Federal Ministry of Education and Research; Associazione Italiana per la Ricerca contro il Cancro; Compagnia di San Paolo [Italy]; Regione Sicilia, Provincia Regionale Sicilia, Comune di Ragusa, AIRE-ONLUS and AVIS-Ragusa [Italy]; national cancer registry and comprehensive cancer centres east Amsterdam and Limburg [Netherlands]; Dutch Ministry of Public Health,Welfare and Sports; health research fund [FIS]

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: NR SES: Education: 45% none, 20% technical/professional, 17% secondary, 17% university Alcohol intake: NR				
Trichopoulou et al, 2009[100] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC-Greece) Greece Analytic N: 23349 Attrition: 18%) Sex: 59.3% female Race/ethnicity: NR SES: Education: 55% none, 27% technical/secondary, 19% university Alcohol intake: 66% low, 30% moderate, 4% high	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 150-item validated FFQ at baseline, age 20-86y **Outcome assessment methods:** Follow-up with subjects	**Significant:** MDS adherence [per 2-pt increase] at 20-86y and ACM over ~8.5y f/u, HR: 0.86, 95% CI: 0.802, 0.932, p<0.001 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, WHR, Smoking **Other:** Total energy intake **Limitations:** • Did not account for key confounders: Race/ethnicity: NR • Overlapping data from EPIC-Greece	Higher adherence to Mediterranean diet per 2-unit increase at age 20-86 years was associated with a statistically significant reduction in ACM over 8.5y f/u. **Funding:** Europe against Cancer Program of the European Commission, the Greek Ministries of Health and Education, and a grant to the Hellenic Health Foundation by the Stavros Niarchos Foundation
van Dam et al, 2008[101]	**Dietary pattern:**	**Significant:** aHEI and ACM over 24y f/u:	**Key confounders accounted for:**	Higher adherence to the aHEI-2010 was

of the Spanish Ministry of Health [Spain]; the Spanish Regional governments of Andalucia, Asturias, Basque country, Murcia, and Navarra [Spain]; ISCIII Network RCESP [Spain]; Swedish Cancer Society; Swedish Scientific Council, Malmö; regional government of Skåne; Cancer Research United Kingdom; Medical Research Council United Kingdom.

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
PCS, Nurses' Health Study United States Analytic N: 77782 Attrition: 36%) Sex: 100% female Race/ethnicity: NR SES: NR Alcohol intake: NR	Alternative HEI (AHEI)-2010 (Chiuve, 2012) **Dietary assessment methods:** 61-item validated FFQ at baseline, age 34-59 **Outcome assessment methods:** Reported by next of kin, the postal authorities, or both or were ascertained through searching for non-responders in the National Death Index	• Q1, n=2122 deaths, RR: 1, ref: • Q2, n=1848 deaths, RR: 0.85, 95% CI: 0.79, 0.90 • Q3, n=1766 deaths, RR: 0.80, 95% CI: 0.75, 0.85 • Q4, n=1701 deaths, RR: 0.76, 95% CI: 0.71, 0.81 • Q5, n=1445 deaths, RR: 0.65, 95% CI: 0.61, 0.70 **Non-Significant:** aHEI (Q1, Q2, Q3 vs. Q4 or Q5) and ACM over 24y f/u: RR: 1.25, 95% CI: 1.19, 1.30; PAR: 12.9%, 95% CI: 9.6, 16.2 *Additional analyses combining higher aHEI adherence with other "healthy" lifestyle factors (i.e., smoking, BMI, physical activity, alcohol intake) showed further reduction in risk of ACM	Sex: All women, Age, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** **Limitations:** • Did not account for key confounders: Race/ethnicity, SES • Population may not be generalizable	significantly associated with a reduction ACM risk over 24y f/u. However, when comparing the lower three quintiles vs. upper two quintiles, there was no significant association. **Funding:** NIH; Peanut Foundation

van den Brandt, 2011[102]
 	
PCS, Netherland Cohort Study (NLCS)
Netherlands
 	
Analytic N: 120852
Attrition: 0%
 	
Sex: 53% female
Race/ethnicity: NR
SES: Education: 27% primary, 21% low vocational, 36% secondary or medium vocational, 15% university or high vocational
Alcohol intake: NR
	Dietary pattern: Alternative Mediterranean Diet Score (aMED) (Fung, 2005)
	
	Dietary assessment methods: 150-item validated FFQ at age 55y-69y
	
	Outcome assessment methods: Linkage to the Dutch Central Bureau of Genealogy
		Significant:
		In women, aMED adherence and ACM over ~10y f/u
		• Per-2-point increase, HR: 0.84, 95% CI: 0.79, 0.91, p<0.001
		  ○ Excluding first 2y f/u in women, per-2-point increase, HR: 0.84, 95% CI: 0.78, 0.91; p<0.001
		• Categorical, with 0-3, n= 1398 deaths, HR: 1 ref:
		  • 4-5, n= 1392 deaths, HR: 0.80, 95% CI: 0.69, 0.93
		  • 6-9, n= 572 deaths, HR: 0.69, 95% CI: 0.58, 0.82
		  • Excluding first 2y f/u in women:
		    • 4-5, HR: 0.81, 95% CI: 0.70, 0.94
		    • 6-9, HR: 0.69, 95% CI: 0.58, 0.82
		
		Non-significant:
		In men, aMED adherence and ACM over ~10y f/u:
		○ Per-2-point increase, HR: 0.94, 95% CI: 0.87, 1.02, p=0.129; NS
		  ○ Excluding first 2 y of follow-up in men, per-2-point increase, HR: 0.93, 95% CI: 0.86, 1.01;
			Key confounders accounted for:
			Sex, Age, SES: Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking: status, cigarettes/d, and years of smoking
			
			Other: Total energy intake, Other: HTN
			
			Limitations:
			• Did not account for key confounders: Race/ethnicity
			• Sample size unclear due to nested case-cohort design; Descriptive
				Higher adherence to alternate Mediterranean diet [categorical and per-2-point increase] in women at age 55-69y was significantly associated with lower risk of ACM over ~10 y f/u. Associations were inverse, but not significant, in men.
				
				Funding: Dutch Cancer Society

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		p=0.109 ○ Categorical, 0-3, n= 2315 deaths, HR: 1 ref: ○ 0-3, n= 2315 deaths, HR: 1 ref ○ 4-5, n= 2662 deaths, HR: 0.90, 95% CI: 0.77, 1.06; NS ○ 6-9, n= 1352 deaths, HR: 0.89, 95% CI: 0.74, 1.07; NS ○ Excluding first 2y f/u in men: • 4-5, HR: 0.89, 95% CI: 0.75, 1.04; NS • 6-9, HR: 0.87, 95% CI: 0.72, 1.05; NS * Analyses stratified by smoking, BMI, physical activity, educational level, and history of hypertension yielded no significant interactions	data on full baseline sample not provided (only for subcohort control)	
van Lee et al, 2016[103] PCS, Rotterdam Study Netherlands Analytic N: 3593 Attrition: 45% Sex: 59.5% female Race/ethnicity: NR SES: Education: 30.3% low, 59.6% intermediate, 10.1% high Alcohol intake: NR	**Dietary pattern:** Dutch Healthy Diet Index (DHD-Index, without physical activity component) (van Lee, 2012) **Dietary assessment methods:** 170-item validated FFQ at baseline, mean age 65.4 y **Outcome assessment methods:** Vital status was obtained through municipal population registries	**Significant:** DHD-Index at 65y and ACM 20y f/u.: • Q1, n=517 deaths, HR: 1, ref: • Q2, n=476 deaths, HR: 0.94, 95% CI: 0.82, 1.06, NS • Q3, n=449 deaths, HR: 0.93, 95% CI: 0.82, 1.06, NS • Q4, n=389 deaths, HR: 0.81, 95% CI: 0.71, 0.93 • p-trend=0.006 DHD-Index per-10-point increment and ACM: HR: 0.94, 95% CI: 0.90, 0.98 **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: Education level, Alcohol: Part of dietary pattern, Physical activity, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity, Anthropometry	Greater adherence to DHD-Index (Q4 vs. Q1 and continuously) at 65y was significantly associated with lower risk of ACM over 20y f/u. **Funding:** Erasmus University Medical Center and Erasmus University Rotterdam; Netherlands Organization for Scientific Research; Netherlands Organization for Health Research and Development; Research Institute

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				for Diseases in the Elderly; Netherlands Genomics Initiative; Ministry of Education, Culture and Science; Ministry of Health, Welfare and Sports; European Commission; Municipality of Rotterdam
Voortman et al, 2017[104] PCS, Rotterdam Study (RS) Netherlands Analytic N: 9701 Attrition: 35%) Sex: 58% female Race/ethnicity: NR, Dutch participants SES: Education Level: 16% Primary, 41% Lower, 28% Intermediate, 16% Higher; 28% Paid Employment Alcohol intake: 61% ≤ 10 g/d	**Dietary pattern:** Dutch Dietary Guidelines score (Voortman, 2017) **Dietary assessment methods:** RS-I and RS-II: Stage 1: 170-item validated FFQ at baseline; RS-III: 389-item validated FFQ at baseline; age 64.1y **Outcome assessment methods:** Municipal population registries, general practitioners, hospital databases	**Significant:** Adherence to Dutch dietary guidelines (continuous) at 64y and ACM after 13.5y f/u: HR: 0.97, 95% CI: 0.95, 0.98 Adherence to Dutch dietary guidelines (categorical) at 64y and ACM (n=4592) after 13.5y f/u: • Q1: HR: 1.00 • Q2: HR: 0.95, 95% CI: 0.86, 1.04 • Q3: HR: 0.93, 95% CI: 0.85, 1.02 • Q4: HR: 0.88, 95% CI: 0.80, 0.97 • Q5: HR: 0.86, 95% CI: 0.78, 0.95 • p-trend<0.001 **Non-Significant:** NA	**Key confounders accounted for:** Sex, Age, SES: Employment, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Cohort **Limitations:** Did not account for key confounders: Race/ethnicity	Higher adherence to the Dutch dietary guidelines at 64y was significantly associated with lower risk of ACM over 13.5y f/u. **Funding:** Erasmus University; Netherlands Organization for Health Research and Development; Research Institute for Diseases in the Elderly; Netherlands Genomics Initiative; Ministry of Education, Culture and Science; Ministry of Health, Welfare and Sports; European Commission;

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				Municipality of Rotterdam; Nestle Nutrition; Metagenics Inc. and 'AXA'
Vormund et al, 2015[105] PCS, The National Research Program 1A (NRP 1A); MONItoring of trends and determinants in Cardiovascular disease (MONICA) Switzerland Analytic N: 17861 Attrition: 27%) Sex: 51% female Race/ethnicity: NR SES: Marital status: 16.9% single, 73% married, 4.5% widowed, 5.6% divorced/separated Alcohol intake: 45% consumed on previous day	**Dietary pattern:** modified Mediterranean Diet Score (Vormund, 2015) **Dietary assessment methods:** 24-h recall at age 45y **Outcome assessment methods:** Anonymous record linkage with the Swiss National Cohort	**Significant:** "classic" MDS score at 45y with dairy products as harmful [per-1-point increase] and ACM over 32y: • Pooled men and women, HR: 0.97, 95%CI: 0.95, 1.00; NS • Men, HR: 0.96, 95% CI: 0.93, 0.98 • Women, HR: 1.00, 95% CI: 0.97, 1.04; NS alternative MDS score at 45y with dairy products as protective [per-1-point increase] at 45y and ACM over 32y: • Pooled men and women, HR: 0.94, 95% CI: 0.92, 0.97 • Men, HR: 0.98, 95% CI: 0.95, 1.02; NS • Women, HR: 0.96, 95% CI: 0.94, 0.98 Modified MDS score [categorical: with <4, HR: 1 ref] at 45y and ACM over 32y: • 4-6, Pooled men and women, HR: 0.86, 95% CI: 0.79, 0.93 • 6-9, Pooled men and women, HR: 0.86, 95% CI: 0.78, 0.94 • 4-6, Men, HR: 0.83, 95% CI: 0.74, 0.92 • 6-9, Men, HR: 0.83, 95% CI: 0.73, 0.94 • 4-6, Women, HR: 0.90, 95% CI: 0.80, 1.02; NS • 6-9, Women, HR: 0.92, 95% CI: 0.80, 1.05; NS **Non-Significant:** (see above)	**Key confounders accounted for:** Sex, Age, SES: Marital status, Alcohol: Part of dietary pattern, Anthropometry: BMI, Smoking **Other:** Other: survey wave, region, nationality **Limitations:** Did not account for key confounders: Race/ethnicity, Physical activity	Higher adherence to the "classic" Mediterranean diet (dairy as detrimental; including legumes; combining fruit and nuts) at 45y per-unit increase in men was significantly associated with lower risk of ACM, but analyses in women or pooled were not significant. Higher adherence to a modified Mediterranean diet in which dairy was beneficial (including raw vegetables as separate component, and fruit only without nuts, excluding legumes) at 45y per-unit increase and categorical in pooled analyses was significantly associated with

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				lower risk of ACM. **Funding:** Swiss National Science Foundation
Wahlqvist et al, 2005[106] PCS, Food Habits in Later Life (FHILL) Australia, Greece, Japan, Sweden Analytic N: 636 Attrition: 22%) Sex: 56% female Race/ethnicity: Ethnicity: 14% Japanese, 34% Swedes, 22% Anglo-Celtic, 30% Greeks SES: NR Alcohol intake: NR	**Dietary pattern:** Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 3d, 24-h recall (Japan); or FFQ (all others, validation NR) at age 77y **Outcome assessment methods:** NR	**Significant:** MDS adherence at 77y and reduced death risk of 13%, 95% CI: 1%, 24% [i.e., HR: 0.87, 95% CI: 0.76, 0.99] **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity: Ethnicity, SES: Education, Alcohol: Part of dietary pattern **Other:** Total energy intake **Limitations:** Did not account for key confounders: Physical activity, Anthropometry, Smoking	Higher MDS adherence at 77y was significantly associated with lower risk of ACM over mean 17y f/u. **Funding:** NR
Warensjo Lemming et al, 2018[107] PCS, Swedish Mammography Cohort Sweden Analytic N: 38428 Attrition: 31% Sex: 100% female Race/ethnicity: NR	**Dietary pattern:** Modified, alternate Mediterranean Diet Score (alternate mMED) (Tektonidis, 2015), Healthy Nordic Food Index (HNFI) **Dietary assessment methods:** 96-item validated FFQ at age 61y **Outcome assessment**	**Significant:** Alternate mMED adherence and ACM over 17y f/u, with • Low, n=2706 deaths, HR: 1 ref: • Medium, n=6365 deaths, HR: 0.87, 95% CI: 0.82, 0.91 • High, n=1407 deaths, HR: 0.76, 95% CI: 0.82, 0.90 • Per-category, HR: 0.87, 95% CI: 0.82, 0.90 • Per-unit increase, HR: 0.94, 95% CI: 0.92, 0.95 Alternate mMED stratified on each adherence of HNFI and ACM over 17y f/u: • low HNFI, n= 8197: ○ medium mMED HR: 0.80, 95% CI: 0.74,	**Key confounders accounted for:** Sex, SES: Education; Living alone, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: Charlson's comorbidity index (continuous; 1–	Higher adherence to modified Mediterranean diet [categorical or per-unit increase] in a sample of women was significantly associated with lower risk of ACM at 17 y f/u. Medium adherence of the Health Nordic

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: Education: other 0.3%, <9y 73%, 9-12y 7%, >12y 19% Alcohol intake: ~1%	**methods:** Swedish cause of death registry	0.87; ○ high mMED HR: 0.63, 95% CI: 0.44, 0.90 • medium HNFI, n= 24704: ○ medium mMED HR: 0.89 0.84, 0.94; ○ high mMED HR: 0.75, 95% CI: 0.69, 0.82 • high HNFI, n= 5527: ○ medium mMED HR: 0.85, 95% CI: 0.62, 1.16; NS; ○ high mMED HR: 0.70, 95% CI: 0.51, 0.97 Alternate mMED stratified by education and ACM over 17y f/u,: • 9y, HR: 0.76, 95% CI: 0.70, 0.83 • >9y, HR: 0.70, 95% CI: 0.56, 0.86 HNFI stratified on each alternate mMED adherence and ACM over 17y f/u, with • Low HNFI-mMED HR: 1 ref: • Low mMED, n= 7993 and medium HNFI HR: 0.89, 95% CI: 0.83, 0.97 (note other categories were NS, see below). **Non-Significant:** HNFI adherence and ACM over 17y f/u • Low, n=2179 deaths, HR: 1 ref • Medium, n=6708 deaths, HR: 0.96, 95% CI: 0.91, 1.00; NS • High, n=1591 deaths, HR: 0.98, 95% CI: 0.91, 1.06; NS • per category: HR: 0.98, 95% CI: 0.95, 1.02; NS • per-unit increase: HR: 1.00, 95% CI: 0.99, 1.02; NS HNFI stratified on each alternate mMED adherence and ACM over 17y f/u: • Low mMED, n= 7993: ○ high HNFI HR: 0.94, 95% CI: 0.69, 1.29; NS • Medium mMED, n=23470:	16), other diet score (mMED or HNFI **Limitations:** • Did not account for key confounders: Age, Race/ethnicity, Alcohol • Residual method used to adjust nutrient intakes for total energy intake; • This HNFI may differ from "healthy Nordic" diets in use of rapeseed oil	Food Index combined with low adherence to the modified Mediterranean diet was significantly associated with lower risk ACM. No significant association was observed in main analyses of adherence to the Health Nordic Food Index and ACM, but the direction was similarly inverse. **Funding:** Swedish Research Council

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		○ medium HNFI HR: 0.97, 95% CI: 0.90, 1.04; NS; ○ high HNFI HR: 0.99, 95% CI: 0.90, 1.09; NS • High mMED, n= 6965: ○ medium HNFI HR: 1.00, 95% CI: 0.70, 1.44; NS; ○ high HNFI HR: 1.00, 95% CI: 0.69, 1.43; NS		
Whalen et al, 2017[108] PCS, REasons for Geographic and Racial Differences in Stroke (REGARDS) United States Analytic N: 21423 Attrition: 29% Sex: 56% female Race/ethnicity: 67% White; 33% Black SES: 16% Income <$20K/y; Marital status: 61% married, 17% widowed Alcohol intake: ~90g/wk	**Dietary pattern:** Mediterranean-based Diet Score (MedDietScore), Paleolithic Diet Score (Whalen, 2014) **Dietary assessment methods:** 109-item FFQ at age (validation NR), at age 65y **Outcome assessment methods:** F/u, review of death certificates and medical records, Social Security Death Index, National Death Index	**Significant:** Paleolithic diet score at 65y and ACM over 11y f/u: • Q1, n=5073, n=626 deaths, HR: 1.00 • Q2, n=3728, n=482 deaths, HR: 0.95, 95% CI: 0.84, 1.08; NS • Q3, n=4137, n=500 deaths, HR: 0.94, 95% CI: 0.83, 1.07; NS • Q4, n=4666, n=536 deaths, HR: 0.87, 95% CI: 0.77, 0.99 Q5, n=3819, n=369 deaths, HR: 0.77, 95% CI: 0.67, 0.89 Mediterranean diet score at 65y and ACM over 11y f/u: • Q1, n=5073, n=706 deaths, HR: 1.00 • Q2, n=3728, n=595 deaths, HR: 0.90 , 95% CI: 0.80, 1.02; NS • Q3, n=4137, n=525 deaths, HR: 0.82 , 95% CI: 0.72, 0.92 • Q4, n=4666, n=398 deaths, HR: 0.79, 95% CI: 0.69, 0.90 • Q5, n=3819, n=289 deaths, HR: 0.64 95% CI: 0.55, 0.74 *Stratification analyses for both scores by comorbidities, race, sex, age at baseline, self-reported health, BMI, years of f/u, exercise habits, smoking status, or region did not yield significant associations. *Sensitivity analyses removing BMI from the models, or excluding those with chronic diseases at baseline, or	**Key confounders accounted for:** Sex, Age: "age-as-time", Race/ethnicity, SES, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: hormone-replacement therapy **Limitations:** Did not account for key confounders: Alcohol differed at baseline	Higher adherence to the Paleolithic diet and the Mediterranean diet at 65y was significantly associated with lower risk of ACM over an 11y f/u. **Funding:** NIH: NINDS; HHS

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		early deaths <3 y f/u did not materially affect associations. *Modifying the scores from quintiles to dichotomous sex- and race-specific cut-offs did not materially affect associations (data NR). **Non-Significant:** N/A		
Yu et al, 2015[109] PCS, Southern Community Cohort Study United States Analytic N: 77572 Attrition: 8% Sex: 55% female Race/ethnicity: 65% African American, 31% White, 4% Other SES: 55% with household income <%15,000, ~30% Education <12y Alcohol intake: NR	**Dietary pattern:** Healthy Eating Index 2010 (HEI-2010) **Dietary assessment methods:** 89-item validated FFQ at baseline, age ~52y **Outcome assessment methods:** National Death Index	**Significant** HEI-2010 score at ~52y and risk of ACM (n=6916) after 6.2y f/u: • Q1: HR: 1.00 • Q2: HR: 0.99, 95% CI: 0.92, 1.06 • Q3: HR: 0.95, 95% CI: 0.89, 1.03 • Q4: HR: 0.93, 95% CI: 0.86, 1.00 • Q5: HR: 0.80, 95% CI: 0.73, 0.86 • p for trend <0.001 Results were similar when analyzed by sex, race/ethnicity, and household income.	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: medical insurance, menopausal status and hormone therapy in women, baseline disease status **Limitations:** Did not account for key confounders: N/A	HEI-2010 score at ~52y was associated with significantly lower risk of ACM after 6.2y f/u. **Funding:** NIH
Zaslavsky et al, 2017[110] PCS, Women's Health Initiative United States Analytic N: 10431	**Dietary pattern:** DASH Score (Fung, 2008), "aMED", Mediterranean Diet Score (MDS) (Trichopolou, 2003) **Dietary assessment methods:** 122-item	**Significant:** MDS at 72.8 y and ACM over 12y f/u • Q1, HR: 1, ref: • Q2: HR: 0.98, 95% CI: 0.89, 1.08, NS • Q3: HR: 0.91, 95% CI: 0.81, 1.03 NS • Q4: HR: 0.86, 95% CI: 0.76, 0.97 • p-trend=0.006	**Key confounders accounted for:** Sex: All female, Age, Race/ethnicity, SES: Income, Education, Physical activity, Anthropometry: BMI, Smoking	Higher MDS adherence and DASH scores at ~73y were significantly associated with decreased rates of mortality, Q4 vs. Q1

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Attrition: 6% Sex: 100% female Race/ethnicity: ~86% White, ~7.3% Black, ~1.9% Hispanic, ~4.9% other SES: Income ~28% <$20K, ~29% $20K-$35, ~20% $35K-$50, ~14% $50K-$75K, ~10% >$75K; Education: ~8% ≤high school, ~59% ≥college Alcohol intake: NR	validated FFQ at baseline and 3y f/u, utilized for calibrated intakes **Outcome assessment methods:** Vital statistics were verified through the National Death Index	DASH score at 72.8 y and ACM over 12y f/u • Q1, HR: 1, ref: • Q2: HR: 0.97, 95% CI: 0.88, 1.07, NS • Q3: HR: 0.95, 95% CI: 0.86, 1.05, NS • Q4: HR: 0.88, 95% CI: 0.79, 0.98 • p-trend=0.02 DII score at 72.8 y and ACM over 12y f/u • Q1, HR: 1, ref: • Q2: HR: 1.15, 95% CI: 1.03, 1.27 • Q3: HR: 1.28, 95% CI: 1.15, 1.42 • Q4: HR: 1.24, 955 CI: 1.12, 1.38 • p-trend=0.35, NS **Non-Significant:** N/A	**Other:** Total energy intake, Other: Protein intake, Frailty **Limitations:** Did not account for key confounders: Alcohol	and across the quartiles. **Funding:** NIH: NHLBI; HHS
Zaslavsky et al, 2018[111] PCS, Women's Health Initiative (WHI-OS) Sweden Analytic N: 10431 Attrition: 81% Sex: 100% female Race/ethnicity: White 86%; Black 7%; Hispanic 2%; Other race: 4% SES: Education: 7% ≤ high-school; 59% college Income: 24% ≤$20K; 28% $20–$35K, 13% ≥$50-$75, 10% >$75 Alcohol intake: 0.06 g/d	**Dietary pattern:** Alternate Med Diet Score (aMED) (Fung, 2005) **Dietary assessment methods:** 122-item validated FFQ at baseline, age 73.7y **Outcome assessment methods:** Hospital records, autopsy or coroner reports, death certifications, and the National Death Index.	**Significant:** aMED adherence [per-unit increase] at 73.7y and ACM over 12.4y f/u: HR: 0.96, 95% CI: 0.943, 0.985; p=0.001 *Results were similar when early deaths <3y f/u were excluded, and with item-by-item removal of individual components of the aMED score. **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Income; Education, Alcohol: Part of dietary pattern, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Frailty score; aMED components **Limitations:** Did not account for key confounders: N/A	Higher adherence to the alternative Mediterranean diet score at 73.7y in frail older women was significantly associated with lower risk of ACM over ~12y f/u. **Funding:** NIH: NHLBI; HHS

Study and Participant Characteristics	Intervention/ Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings

Table 5. Studies examining the relationship between dietary patterns by factor/cluster analysis and all-cause mortality[ix]

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Anderson et al., 2011[112] PCS, Health, Aging, and Body Composition (Health ABC) Study, United States Analytic N: 2582 Attrition: 16% Sex: ~43% female Race/ethnicity: ~65% "White" SES: ~79% completed high-school Alcohol intake: ~53% any	**Dietary pattern(s):** Adherence to 6 dietary patterns identified by cluster analysis: • 'Healthy foods': higher intake of low-fat dairy products, fruit, whole grains, poultry, fish and vegetables, and lower consumption of meat, fried foods, sweets, high-energy drinks, and added fat • 'High-Fat Dairy Products': higher intake of foods such as ice cream, cheese, and 2% and whole milk and yogurt, and lower intake of poultry, low-fat dairy products, rice, and pasta • 'Meat, Fried Foods, and Alcohol': NR; higher intake of meat, fried poultry, beer, liquor, rice, pasta, and mixed dishes, snacks, nuts, high-energy-density drinks, mayonnaise and salad dressing • 'Breakfast Cereal': NR; higher intake of cold breakfast cereal, fiber/bran and other cold breakfast cereal; lower intake of dark yellow vegetables, refined grains, and nuts	**Significant:** Dietary patterns and risk of all-cause mortality (ACM) at 8.4y f/u with 'Healthy foods', n=77 deaths, RR: 1 ref • 'High-fat dairy products', n=109 deaths, RR: 1.40, 95% CI: 1.04, 1.88 • 'Sweets and desserts', n=104 deaths, RR: 1.37, 95% CI: 1.02, 1.86 **Non-significant:** Dietary patterns and risk of ACM at 8.4y f/u with 'Healthy foods', n=77 deaths, RR: 1 ref • 'Meat, fried foods, and alcohol', n=209 deaths, RR: 1.21, 95% CI: 0.92, 1.60 • 'Breakfast cereal', n=105 deaths, RR: 1.16, 95% CI: 0.86, 1.56 • 'Refined grains', n=135 deaths, RR: 1.08, 95% CI: 0.80, 1.45	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Smoking **Other:** Total energy intake; Other: clinical site **Limitations:** • Did not account for key confounders: Anthropometry • Dietary variables from year 2 of study, not true baseline	Consumption of the 'Healthy Foods' cluster (higher intake of low-fat dairy products, fruit, whole grains, poultry, fish and vegetables, and lower consumption of meat, fried foods, sweets, high-energy drinks, and added fat) compared to the 'High-fat dairy products' or 'Sweets and desserts' clusters was associated with signifcantly lower risk of ACM at 8.4 y f/u. No significant associations observed when comparing the 'Healthy Foods' cluster to the 'Meat, Fried Foods, and Alcohol', 'Breakfast Cereal', or 'Refined Grains' clusters and ACM risk.

[ix] Abbreviations: ACM, all-cause mortality; CI, confidence interval; CVD, cardiovascular disease; DALY, disability-adjusted lost years; D, decile; FFQ, food frequency questionnaire; f/u, follow-up; HR, hazard ratio; HTN, hypertension; Hx, history of; MUFA, monounsaturated fats/fatty acids; N/A, not applicable; NR, not reported; NS, not significant; % E, percentage of energy; PCS, prospective cohort study design; PUFA, polyunsaturated fats/fatty acids; Q, quantile (quartile or quintile as appropriate); ref, reference (referent group); RR, relative risk; SD, standard deviation; SES: Socioeconomic status; SFA, saturated fats/fatty acids; SMR, standardized mortality ratio; T, tertile; y, years

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	• 'Refined Grains': NR; higher intake of processed meat; lower intake of liquor, whole grains, cold breakfast cereal, fiber/bran and other cold breakfast cereal • 'Sweets and Desserts': higher intake of doughnuts, cake, cookies, pudding, chocolate, and candy, and lower intake of fruit, fish, other seafood, and dark green vegetables **Dietary assessment methods:** 108-item validated FFQ at age ~76y (study year 2) **Outcome assessment methods:** Participant contact, proxy, hospital records, local newspaper obituaries, Social Security Death Index data, and confirmed by death certificates			**Funding**: NIH: NIA
Atkins et al, 2016[113] PCS, British Regional Heart Study (BRHS) United Kingdom Analytic N: 3226 Attrition: 58% Sex: 0% female Race/ethnicity: 99% "white European" SES: ~49.3% manual social class Alcohol intake: ~2.8% heavy drinkers	**Dietary pattern(s):** Adherence to 3 dietary patterns identified by factor analysis (PCA): • 'High-fat/low-fibre': high in red meat, meat products, white bread, fried potato, and eggs • 'Prudent': high in poultry, fish, fruits, vegetables, legumes, pasta, rice, wholemeal bread, eggs, and olive oil • 'High sugar': high in biscuits, puddings, chocolates, sweets, sweet spreads, breakfast cereals	**Significant:** 'High-fat/low-fibre' adherence and ACM over ~11.3y f/u: • Q1, n=187 deaths, HR: 1, ref • Q2, n=199 deaths, HR: 1.1, 95% CI: 0.88, 1.38 • Q3, n=239 deaths, HR: 1.11, 95% CI: 0.88, 1.39 • Q4, n=274 deaths, HR: 1.44, 95% CI: 1.13, 1.84 • p-trend=0.007 • Rate/1000 person years (Q1, Q2, Q3, Q4): 22.65, 24.62, 30.59, 35.69	**Key confounders accounted for:** Sex: Design; Age; Race/ethnicity: Design; SES; Alcohol; Physical activity; Anthropometry; Smoking **Other:** Total energy intake; Family history: Diabetes (self); HDL cholesterol; Systolic	Highest compared to lowest adherence (Q4 vs. Q1) to a 'high-fat/low-fibre' pattern (a high intake of red meat, meat products, white bread, fried potato and eggs) was associated with significantly higher risk of ACM at mean f/u of 11.3 y in men. Higher adherence (Q2 vs. Q1) to a 'Prudent' dietary pattern, high in poultry, fish, fruits,

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Dietary assessment methods: 86-item validated FFQ at age 68.3y **Outcome assessment methods:** National Health Service Central Register	'Prudent' diet adherence and ACM over ~11.3y f/u: • Q1, n=280 deaths, HR: 1 ref • Q2, n=214 deaths, HR: 0.77, 95% CI: 0.63, 0.95 • Q3, NS (see below) • Q4, NS (see below) • p-trend=0.28 **Non-significant:** 'Prudent' diet adherence and ACM over ~11.3y f/u: • Q1, n=280 deaths, HR: 1 ref • Q3, n=202 deaths, HR: 0.93, 95% CI: 0.75, 1.14; NS • Q4, n=203 deaths, HR: 0.83, 95% CI: 0.66, 1.04; NS • p-trend=0.28 • Rate/1000 person years (Q1, Q2, Q3, Q4): 36.66, 26.64, 25.15, 24.97 'High-sugar' adherence and ACM over ~11.3y f/u: • Q1, n=219 deaths, HR: 1 ref • Q2, n=222 deaths, HR: 1.06, 95% CI: 0.85, 1.31 • Q3, n=214 deaths, HR: 0.91, 95% CI: 0.72, 1.15 • Q4, n=244 deaths, HR: 1, 95% CI: 0.77, 1.29 • p-trend=0.71 • Rate/1000 person years (Q1, Q2, Q3, Q4): 27.32, 28, 26.56, 31.18	BP; CRP; von Willebrand factor **Limitations:** Dietary patterns assessed only at baseline, thus at risk for departure in intended exposure	vegetables, legumes, pasta, rice, wholemeal bread, eggs, and olive oil, was associated with significantly lower risk of ACM over a mean f/u of 11.3 years, however, the p-trend across quartiles did not reach significance in men. No significant associations were observed between quartiles of adherence to the 'High-sugar' dietary pattern, high in biscuits, puddings, chocolates, sweets, sweet spreads, breakfast cereals, and risk of ACM in men. **Funding:** National Institute for Health Research School for Primary Care Research

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Bamia et al, 2007[114] PCS, European Prospective Investigation into Cancer and Nutrition elderly (EPIC-elderly) Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, United Kingdom Analytic N: 74607 Attrition: 26% Sex: 67% female Race/ethnicity: SES: No school: ~23%; Technical school: ~10%; Secondary school: ~9%; University: ~9% Alcohol intake:	**Dietary pattern(s):** Adherence [categorical, tertiles] to a plant-based dietary pattern identified by factor analysis: • 'Plant-based diet': higher plant foods such as vegetables and vegetable oils, fruit, pasta/rice/other grains and legumes; poor in potatoes, margarine and non-alcoholic beverages **Dietary assessment methods:** Validated FFQ at age ≥ 60y **Outcome assessment methods:** Population mortality registries (at the national or regional level), as well as by active f/u	**Significant:** Plant-based dietary pattern by 1 SD increment and ACM during ~7.5y f/u:: HR: 0.86, 95% CI: 0.77, 0.95, p=0.06 Analyses by country: • In Greece, plant-based dietary pattern and ACM during ~7.5y f/u:: T3 vs. T1: HR: 0.55, 95% CI: 0.36, 0.85; By 1 SD increment HR: 0.67, 95% CI: 0.50, 0.89 • In Netherlands, plant-based dietary pattern and ACM during ~7.5y f/u:: By 1 SD increment HR: 0.55, 95% CI: 0.37, 0.82 **Non-significant:** Plant-based dietary pattern by tertiles with the first tertile ref and ACM during ~7.5y f/u: • T2: HR: 0.90, 95% CI: 0.84, 0.98, p=0.502; NS • T3: HR: 0.89, 95% CI: 0.79, 0.99, p=0.124; NS	**Key confounders accounted for:** Sex; Age; SES: Education; Alcohol; Physical activity; Anthropometry: Waist-to-hip ratio; BMI; Smoking **Other:** Total energy intake; Other: Diabetes; Country/center **Limitations:** Did not account for key confounders: Race/ethnicity	Adherence to a 'plant-based diet', higher in vegetables and vegetable oils, fruit, pasta/rice/other grains and legumes; poor in potatoes, margarine and non-alcoholic beverages, by 1 SD increment was associated with a significantly lower risk of ACM in older adults during ~7.5 y f/u. In analyses by country, this association remained such that greater adherence to a plant-based diet was associated with lower overall ACM in Greece and Netherlands, but not in other countries/ centers. **Funding:** 'Quality of Life and Management of Living Resources' Programme of the European Commission[x]

[x] Additional funding sources reported in Bamia et al, 2007 include: 'Europe against Cancer' Programme of the European Commission for the project EPIC coordinated by the International Agency for Research on Cancer (WHO); Greek Ministry of Health and the Greek Ministry of Education; The Danish

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Analyses by country in Denmark, France, Germany, Italy, Spain, Sweden, or the United Kingdom for plant-based dietary pattern adherence (by tertile, or 1 SD increment) at age ≥ 60y and ACM during ~7.5y f/u; all NS		(see footnote for additional funding sources)
Boggs et al, 2015[12] PCS, Black Women's Health Study (BWHS) United States Analytic N: 37001 Attrition: 37% Sex: 100% female Race/ethnicity: 100% Black SES: ~47% ≥ 16 y of education, ~43% married or living as married Alcohol intake: ~6.5% ≥7 drinks/wk	**Dietary pattern(s):** Index analysis: see Table 4 Factor analysis: Adherence to two dietary patterns identified using factor analysis as follows: -'Prudent': High intake of vegetables and fruits -'Western': High Intake of red and processed meat and fried foods **Dietary assessment methods:** Validated FFQ at baseline, mean age 42y and again 6y later **Outcome assessment methods:** Deaths identified by linkage with the National Death Index	**Significant:** Adherence to the Western dietary pattern at 42y and ACM at 6y f/u: • Q1, n=283 deaths, HR: 1, ref • Q2, n=311 deaths, HR: 1.10, 95% CI: 0.93, 1.29, NS • Q3, n=329 deaths, HR: 1.16, 95% CI: 0.99, 1.37, NS • Q4, n=335 deaths, HR: 1.18, 95% CI: 1.00, 1.39 • Q5, n=420 deaths, HR: 1.37, 95% CI: 1.17, 1.60 • p-trend<0.001 Stratification by BMI <30, ever smokers, vigorous exercise <3 h/wk, ages <55y and ≥55y, and education <16y and ≥ 16y: • Western dietary pattern adherence ssociated with significantly increased risk of ACM	**Key confounders accounted for:** Sex: All women, Age, Race/ethnicity: all Black, SES: Education, marital status, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: N/A	Higher adherence to the Western diet pattern was significantly associated with an increased risk of ACM. There was no significant association between the Prudent dietary pattern and ACM. **Funding**: NCI

Cancer Society; Ligue contre le Cancer; Socie´te´ 3M; Mutuelle Ge´ne´rale de l'Education Nationale (France); Institut National de la Sante´ et de la Recherche Me´dicale; Gustave Roussy Institute and several General Councils in France; German Cancer Aid; German Cancer Research Center; German Federal Ministry of Education and Research (Germany); Associazione Italianaper la Ricerca sulCancro; Associazione Italiana per la Ricerca contro il Cancro in Florence; Compagnia di San Paolo; Regione Sicilia, Associazione Italiana Ricerca Cancro and Avis-Ragusa; Dutch Ministry of Public Health, Welfare and Sports; Health Research Fund of the Spanish Ministry of Health; the Spanish Regional Governments of Andalucia, Asturias, Basque Country, Murcia and Navarra; the ISCIII Network Red de Centros; Swedish Cancer Society; Swedish Scientific Council, City of Malmo¨; Regional Governmentof Ska°ne; Cancer Research UK; Medical Research Council

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Non-significant: Adherence to the Prudent dietary pattern at 42y and ACM at 6y f/u: • Q1, n=301 deaths, HR: 1, ref • Q2, n=334 deaths, HR: 1.05, 95% CI: 0.90, 1.23 • Q3, n=310 deaths, HR: 0.92, 95% CI: 0.78, 1.08 • Q4, n=357 deaths, HR: 0.99, 95% CI: 0.85, 1.17 • Q5, n=376 deaths, HR: 1.01, 95% CI: 0.86, 1.20 • p-trend=0.98		
Brunner et al, 2008[115] PCS, Whitehall II study United Kingdom Analytic N: 7731 Attrition: 25% Sex: ~30% female Race/ethnicity: NR, data not shown for self-report status as "white, South Asian, Afro-Caribbean, or other" SES: low employment grade 2.5% Alcohol intake: NR	**Dietary pattern(s):** Adherence to 4 dietary patterns identified by cluster analysis: • 'Unhealthy': Higher than average consumption of meat and sausages, white bread, fries, and full-cream milk. Average consumption of wine and beer; very low consumption of fruit and vegetables. • 'Sweet': Higher than average consumption of biscuits, cakes, meat, sausages and savory pies, white bread, full-cream milk, butter, and wine and beer. Average intake of fruit and vegetables. • 'Mediterranean-like': Higher than average consumption of whole-meal bread, fruit, vegetables, pasta and rice, and wine and beer. Low intake of full-cream milk but high intake of butter.	**Significant:** N/A **Non-significant:** Dietary patterns and risk of ACM during ~15y f/u with 'Unhealthy' dietary pattern, n=147 deaths, HR: 1 ref • 'Sweet', n=52 deaths, HR: 0.90, 95% CI: 0.63, 1.27, p=0.55, NS • 'Mediterranean-type', n= 51 deaths: HR: 0.81, 95% CI: 0.57, 1.15, p=0.23, NS • 'Healthy', n=126 deaths: HR: 0.95, 95% CI: 0.74, 1.22, p=0.69, NS	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES; Alcohol: Part of dietary pattern; Physical activity; Anthropometry: EI/EE; Smoking **Other:** Total energy intake: EI/EE **Limitations:** Data on additional confounders NR (e.g., marital class, car ownership); Missing data on	No significant associations were observed between dietary patterns consumed at age 50 y and ACM during 15 y of f/u. **Funding:** United Kingdom Medical Research Council (MRC); British Heart Foundation; Health and Safety Executive; Department of Health; NHLBI; NIA; Agency for Health Care Policy Research; MacArthur Foundation Research Network on SES and Health

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Average consumption of white bread. • 'Healthy': Higher than average consumption of whole-meal bread, fruit and vegetables, and polyunsaturated margarine. Average to low consumption of red meat, sweet foods, and wine and beer **Dietary assessment methods:** 127-item validated FFQ at age 50y **Outcome assessment methods:** National Health Service Central Registry		exposures and outcomes	
Chan et al, 2019[19] PCS, NR Hong Kong, China Analytic N: 2802 Attrition: 30% Sex: 50% female Race/ethnicity: NR SES: ~73% primary school or below, ~27% secondary school or above; 70% married Alcohol intake: NR	**Dietary pattern(s):** Index analysis: see Table 4 Factor analysis: Adherence to 3 dietary patterns: • 'Vegetable-fruits' pattern (data NR) • 'Snacks-Drinks-Milk products' pattern (data NR) • 'Meat-fish' pattern (data NR) **Dietary assessment methods:** 280-item validated FFQ at baseline, mean age 73y **Foods/food groups:** factor analysis patterns, NR **Outcome assessment methods:** Hong Kong Government Death Registry	**Significant:** see Table 4 **Non-Significant:** 'Vegetables-Fruits' and ACM in men • T1, n=216 deaths, HR: 1, ref: • T2, n=186 deaths, HR: 0.82, 95% CI: 0.67, 1.001 • T3, n=190 deaths, HR: 0.86, 95% CI: 0.7, 1.05 • p-trend=0.122 'Snacks-drinks-milk products' and ACM in men • T1, n=214 deaths, HR: 1, ref: • T2, n=187 deaths, HR: 0.82, 95% CI: 0.67, 1.002 • T3, n=191 deaths, HR: 0.98, 95% CI: 0.79, 1.20 • p-trend=0.793 'Meat-fish' and ACM in men • T1, n=194 deaths, HR: 1, ref:	**Key confounders accounted for:** Sex, Age, SES: Education, marital status, living alone, Alcohol, Physical activity; Anthropometry: BMI, Smoking **Other:** Total energy intake, Other: medical history of HTN, Diabetes, and CVD, Serum 25OHD level, season of blood taking, log hsCRP, geriatric depression scale category, CSID category **Limitations:** • Did not account	No significant associations were observed between dietary patterns derived by factor analysis and ACM in women or men. **Funding:** Research Council of Hong Kong (HK); Health and Medical Research Fund of the Food and Health Bureau of HK; HK Jockey Club Charities Trust; Centre for Nutritional Studies, The Chinese University of HK.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• T2, n=201 deaths, HR: 0.93, 95% CI: 0.76, 1.14 • T3, n=196 deaths, HR: 0.87, 95% CI: 0.7, 1.07 • p-trend=0.172 'Vegetables-Fruits' and ACM in women • T1, n=132 deaths, HR: 1, ref: • T2, n=119 deaths, HR: 1.04, 95% CI: 0.81, 1.35 • T3, n=111 deaths, HR: 1.04, 95% CI: 0.8, 1.36 • p-trend=0.741 'Snacks-drinks-milk products' and ACM in women • T1, n=120 deaths, HR: 1, ref: • T2, n=149 deaths, HR: 1.25, 95% CI: 0.97, 1.6 • T3, n=94 deaths, HR: 0.83, 95% CI: 0.62, 1.11 • p-trend=0.254 Adherence to the 'Meat-fish' and ACM in women • T1, n=126 deaths, HR: 1, ref: • T2, n=116 deaths, HR: 0.94, 95% CI: 0.73, 1.22 • T3, n=121 deaths, HR: 1.0002, 95% CI: 0.77, 1.3 • p-trend=0.990	for key confounders: Race/ethnicity • Sample was of higher education vs. general population	
Granic et al, 2013[116] PCS, Swedish Twin Registry cohort	**Dietary pattern(s):** Adherence to 4 dietary patterns identified by cluster analysis:	**Significant:**	**Key confounders accounted for:**	Adherence to the 'Moderate Intake and Starch' or the 'Meat and Refined Starch' dietary

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Sweden Analytic N: 12830 Attrition: 23% Sex: ~56% female Race/ethnicity: NR SES: ~76% married Alcohol intake: ~64.8% in past year	• 'Moderate Intake and Starch Diet': medium intake of all foods (Beef, pork, sausage, egg and egg dishes, fish and seafood, fruits and vegetables, potatoes, sweets, and milk) except for high intake of flour-based foods, pastries and sandwiches. • 'Moderate Intake with Low Flour-Based Food Diet', ref: moderate consumption of 8 food items (Beef, pork, sausage, egg and egg dishes, fish and seafood, fruits and vegetables, potatoes, coffee cake and pastries, sweets, sandwich, and milk), minimal intake of flour-based dishes, low in refined starch • 'Meat and Starch Diet': higher consumption of potatoes, milk, sandwiches, pork and sausage-based dishes • 'Low Meat Intake Diet': lower intake of eight food groups including meat-based, egg-based and potato-based dishes **Dietary assessment methods:** 12-item FFQ (non-validated) at age 56y **Outcome assessment methods:** National death registry	Dietary patterns and risk of ACM at f/u 20+y or more past baseline*, with Class 2, HR: 1, ref: • 'Moderate Intake and Starch Diet': HR: 1.09 , 95% CI: 1.02 , 1.17, p=0.011 • 'Meat and Starch Diet': HR: 1.07, 95% CI: 1.00, 1.14, p=0.054 *Sub-analyses in cotwin control model (n=2034 pairs) yielded similar results **Sub-analyses by sex were not fully-adjusted, but yielded similar results in women Dietary patterns and survival time, with 'Moderate Intake with Low Flour-Based Food Diet' ref, Mantel-Cox χ2=115.49, p<0.001: • 'Moderate Intake with Low Flour-Based Food Diet': 28.65y; 95% CI 28.26 to 29.05 • 'Meat and Starch Diet': 26.09y; 95% CI: 25.67 to 26.51 • 'Low Meat Intake Diet': 25.76y; 95% CI 25.35 to 26.17 Sub-analyses by sex of 'Moderate Intake with Low Flour-Based Food Diet': • Men: 25.87 y; 95% CI 25.24 to 26.50; Mantel-Cox χ2=24.52, p<0.001 • Women: 30.33 y; 95% CI 29.84 to 30.83; Mantel-Cox χ2=96.97, p<0.001	Sex; Age; SES: Model 3; Alcohol: Model 5; Physical activity: Model 5; Anthropometry: Model 4; Smoking: Model 5 **Other:** Total energy intake: Model 4 **Limitations:** • Did not account for key confounders: Race/ethnicity • Accounted for different confounders in different models • FFQ was not validated and lacked precision; • Limited generalizability due to sample being twin pairs; • Missing exposure data	patterns compared the 'Moderate Intake with Low Flour-Based Food' diet at mid-life were associated with significantly higher risk of ACM at f/u of 20+ y past baseline. Similar results were obtained in sub-group analyses of cotwin models. **Funding:** European Regional Development Fund Project; Swedish Council for Work Life and Social Research by the Future Leaders of Ageing Research in Europe

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		Non-significant: Dietary patterns and risk of ACM at f/u 20+y or more past baseline*, with 'Moderate Intake with Low Flour-Based Food Diet' ref (HR: 1): • 'Low Meat Intake Diet', HR: 1.03, 95% CI: 0.97, 1.10, p=0.394; NS Dietary patterns and risk of ACM at f/u 10+y past baseline*, with 'Moderate Intake with Low Flour-Based Food Diet', HR: 1, ref: • 'Moderate Intake and Starch Diet', HR: 1.05, 95% CI: 0.99, 1.12, p=0.131; NS • 'Meat and Starch Diet', HR: 1.04, 95% CI: 0.98, 1.11, p=0.201; NS • 'Low Meat Intake Diet', HR: 1.02, 95% CI: 0.96, 1.08, p=0.47; NS *Sub-analyses in cotwin control model (n=2034 pairs) yielded similar results **Sub-analyses by sex were not fully-adjusted, but not significant in men		
Hamer et al, 2010[117] PCS, National Diet and Nutrition Survey United Kingdom Analytic N: 1017 Attrition: 53% Sex: 48.9% female	**Dietary pattern(s):** Adherence to 4 dietary patterns identified using factor analysis (method of principal components) as follows: • 'Mediterranean': High consumption of fruits and raw vegetables, oily fish, coffee and wine • 'Health aware': High consumption of	**Significant:** 'Mediterranean' dietary pattern and ACM over 9.2y f/u with T1, HR: 1, ref: • T2, HR: 0.81 95% CI: 0.67, 0.97 • T3, HR 0.82 95% CI: 0.68, 1.00, NS • p-trend=0.044 **Non-significant:**	**Key confounders accounted for:** Sex; Age; SES: Alcohol: Part of dietary pattern; Education; Physical activity; Anthropometry: BMI;	Higher adherence to the 'Mediterranean' dietary pattern (T2 vs. T1; high consumption of fruits and raw vegetables, oily fish, coffee and wine) was associated with significantly lower ACM over ~9 years f/u. No

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: NR SES: >= GSE Education: 61.6% Alcohol intake: NR	low-fat/high fiber foods, such as boiled potatoes, green vegetables and wholemeal bread • 'Traditional': High consumption of white bread, eggs, bacon and ham • 'Sweet and fat': High consumption of butter, whole milk, preserves, cream, buns/cakes/puddings and pastries. **Dietary assessment methods:** 4-d weighed record of all food and drink measured at mean age 76.3 y **Outcome assessment methods:** Linked NHS administrative mortality data	'Health aware' dietary pattern and ACM over 9.2y with T1, HR: 1, ref: • T2, HR: 1.04 95% CI: 0.86, 1.25; NS • T3, HR: 0.93 95% CI: 0.76, 1.13; NS • p-trend=0.532 'Traditional' dietary pattern and ACM over 9.2y with T1, HR: 1, ref: • T2, HR: 0.94 95% CI: 0.78, 1.15; NS • T3, HR: 1.15 95% CI: 0.94, 1.40; NS • p-trend=0.143 'Sweet and fat' dietary pattern and ACM over 9.2y with T1, HR: 1, ref: • T2, HR: 1.02 95% CI: 0.84, 1.24; NS • T3, HR: 0.93 95% CI: 0.75, 1.15; NS • p-trend=0.622	Smoking **Other:** Total energy intake; Supplement usage; Self-rated health **Limitations:** • Did not account for key confounders: Race/ethnicity • Food pattern groups may not have enough detail/elements; low percent of variance explained by the four dietary patterns	significant associations were observed between the 'Health aware', 'Traditional', and 'Sweet and fat' dietary patterns and ACM. **Funding:** The Medical Research Council
Heidemann et al, 2008[118] PCS, Nurses' Health Study (NHS) United States Analytic N: 72113 Attrition: 41% Sex: 100% female Race/ethnicity: NR SES: NR	**Dietary pattern(s):** Adherence to 2 dietary patterns identified using factor analysis as follows: • 'Prudent': High consumption of vegetables, fruit, legumes, fish, poultry, and whole grains, • 'Western': High consumption of red meat, processed meat, refined grains, french fries, and sweets and desserts.	• **Significant:** Prudent pattern and ACM over 18y f/u, with Q1, RR: 1, ref:: • Q2, RR: 0.85, 95% CI: 0.78, 0.92 • Q3, RR: 0.84, 95% CI: 0.78, 0.91 • Q4, RR: 0.81, 95% CI: 0.74, 0.88 • Q5, RR: 0.83, 95% CI: 0.76, 0.90 • p-trend<0.001 Western pattern and ACM over 18y f/u with Q1, RR: 1, ref:: • Q3, RR: 1.10, 95% CI: 1.02, 1.20	**Key confounders accounted for:** Sex; Age; SES: Design; same job; Physical activity; Anthropometry: BMI; Smoking **Other:** Total energy intake; Supplement usage; Hormone	Higher adherence to a 'Prudent' dietary pattern (Q2, Q3, Q4, or Q5 vs. Q1), with higher consumption of vegetables, fruit, legumes, fish, poultry, and whole grains, was associated with significantly lower risk of ACM.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake: mean 7.1 g/d	**Dietary assessment methods:** 116-item validated FFQ at baseline, and every 2-4 y aftter; age ~50y **Outcome assessment methods:** Linked through the National Death Index (for non-responders) if deaths were not reported by family members or postal authorities.	• Q4, RR: 1.16, 95% CI: 1.06, 1.26 • Q5, RR: 1.21, 95% CI: 1.21, 1.32 • p-trend<0.001 **Non-significant:** Western pattern at mean age ~50y and ACM over 18y f/u, with Q1, RR: 1, ref: • Q2, RR: 1.00, 95% CI: 0.92, 1.08; NS	replacement; History of hypertension **Limitations:** • Did not account for key confounders: Race/ethnicity; Alcohol • Homogenous population	Higher adherence to a 'Western' dietary pattern (Q3, Q4, or Q5 vs. Q1), with higher consumption of red meat, processed meat, refined grains, french fries, and sweets and desserts, was significantly associated with higher risk of ACM. **Funding:** NIH; German Academic Exchange Service and the Hans & Eugenia Juetting-Foundation; Beth Israel Deaconess Medical Center
Hoffmann et al, 2005[119] PCS, EPIC-Elderly, Germany Analytic N: 9356 Attrition: 2% Sex: 50% female Race/ethnicity: NR SES: ~29% University degree Alcohol intake: NR	**Dietary pattern(s):** Factor/cluster analysis: Adherence to 2 dietary patterns identified by principal component analysis (PCA): • PCA Pattern 1: higher in potatoes, vegetables, legumes, bread, all types of meat, eggs, sauces, soups • PCA Pattern 2: higher in vegetables, fruits, dairy products, other cereals, vegetable oils non-alcoholic beverages, and lower in alcoholic beverages other than wine Reduced rank regression (RRR): see Table 6 **Dietary assessment methods:** 148-item validated FFQ at baseline, bage ~63y	**Significant:** see data for RRR in Table 6 **Non-significant:** PCA Pattern 1 [per-SD increase]: RR: 1.10, 95% CI: 0.96, 1.28; categorical: • Q1: RR: 1.00 • Q2: RR: 0.82, 95% CI: 0.57, 1.22 • Q3: RR: 1.00, 95% CI: 0.70, 1.45 • Q4: RR: 1.03, 95% CI: 0.70, 1.51 • Q5: RR: 1.06, 95% CI: 0.68, 1.65 • p-trend = 0.50 PCA Pattern 2 [per-SD increase]: RR: 0.99, 95% CI: 0.89, 1.10; categorical:	**Key confounders accounted for:** Sex; Age; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Smoking; Anthropometry: BMI, WHR ratio **Other:** Total energy intake; Centre, prevalent cancer, CHD, diabetes and hypertension **Limitations:** Did not account for key confounders:	Adherence to factor analysis-derived dietary patterns were not significantly associated with ACM **Funding:** Quality of Life and Management of Living Resources Programme of the European Commission; Europe against Cancer Programme of the European Commission; Deutsche krebshilfe

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: "f/u with subjects"	• Q1: RR: 1.00 • Q2: RR: 0.91, 95% CI: 0.68, 1.22 • Q3: RR: 0.90, 95% CI: 0.66, 1.23 • Q4: RR: 1.10, 95% CI: 0.81, 1.51 • Q5: RR: 0.80, 95% CI: 0.55, 1.15 • p-trend = 0.61	Race/ethnicity	
Hsiao et al, 2013[120] PCS, Geisinger Rural Aging Study (GRAS) - subset United States Analytic N: 446 Attrition: 1% Sex: 56.8% female Race/ethnicity: NR SES: 81.3% graduated from high school or greater; 68.8% married Alcohol intake: NR	**Dietary pattern(s):** Adherence to 3 dietary patterns using cluster analysis: • 'Sweets & dairy': High consumption of baked goods, milk, sweetened coffee and tea, and dairy-based desserts food groups and lower intakes of poultry • 'Western': High consumption of bread, eggs, fats, fried vegetables, miscellaneous (sauces, condiments, etc.), alcohol and soft drinks, and lower intakes of milk and whole fruit. • 'Health-conscious': High consumption of pasta, noodles, rice, whole fruit, poultry, nuts, fish, and vegetables, and lower intakes of fried vegetables, processed meats, and soft drinks **Dietary assessment methods:** Four 24-h dietary recalls collect at baseline, age ~76y	**Significant:** N/A **Non-Significant:** Dietary patterns and ACM over 5y f/u, with 'Health-conscious' pattern, OR: 1 ref: • 'Sweets & dairy': OR: 1.02, 95% CI: 064, 1.63. • 'Western': OR: 0.95, 95% CI: 0.55, 1.63. • p-value=0.947	**Key confounders accounted for:** Sex; Age; SES: Education; Marital status; Alcohol: Part of dietary pattern; Anthropometry: waist circumference; Smoking **Other:** Total energy intake: nutrient intake was energy-adjusted **Limitations:** • Did not account for key confounders: Race/ethnicity; Physical activity:	No significant associations were observed between 'Sweets & dairy', 'Western', and 'Health-conscious' dietary pattern scores at baseline and ACM after 5 years of f/u. **Funding:** USDA; ARS

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: Deaths were identified using EMR and the Social Security Death Index		n=179 missing these data • Energy-density between patterns varied at baseline and this was not adjusted for in analyses • Limited analyses in a smaller subset of GRAS	
Kant et al, 2004[39] PCS, National Health Interview Surveys (NHIS) United States Analytic N: 10084 Attrition: 32% Sex: 59% female Race/ethnicity: NR SES: 65% income < $50K Alcohol intake: ~57% consume	**Dietary pattern(s):** Index Analysis: see Table 4 Factor/cluster Analysis: Adherence to dietary patterns identified by factor analysis, and cluster analysis: • 'fruit, vegetable, whole grain': emphasized fruit, vegetable, whole grain • 'ethnic': emphasized beans, corn bread/tortillas, and mustard greens loaded on this factor • 'low-fat': emphasized skim milk and behavior-related items • 'cluster 1': less likely to mention whole grains, low-fat or skim milk, and to remove fat from meat and poultry; • 'cluster 2': less likely to mention most fruits and vegetables; • 'cluster 3': less likely to mention most fruits, and high-fiber cereals; • 'cluster 4': highest proportion reporting weekly use of most items.	**Significant:** 'Fruit, vegetable, and whole grain' pattern at 60y and ACM at ~6y f/u in men: Q1, RR: 1 ref Q2, RR: 0.92, 95% CI: 0.74, 1.13 Q3, RR: 0.84, 95% CI: 0.68, 1.06 Q4, RR: 0.74, 95% CI: 0.57, 0.95 p-trend=0.002 Sensitivity analyses examining missing/invalid FFQ data, age, or early deaths, n=193, in <1y f/u did not change results **Non-Significant:** Men or Women: 'ethnic', or 'low-fat' pattern, NS (data NR) 'Fruit, vegetable, and whole grain' pattern at 60y and ACM at ~6y f/u in women: • Q1, RR: 1.0, ref • Q2, RR: 0.89, 95% CI: 0.72, 1.08	**Key confounders accounted for:** Sex, Age, SES: education, Race/ethnicity, Anthropometry: BMI, Alcohol intake, Smoking **Other:** Total energy intake, Supplement use **Limitations:** Did not account for key confounders: Physical activity	Higher adherence to the 'fruit, vegetable, and whole grain' pattern (Q4 vs. Q1) was significantly associated with lower risk of all-cause mortality after ~6y f/u in men, but the association in women was not significant. Patterns identified via cluster analysis were not significantly associated with all-cause mortality in men or women. **Funding:** NCI

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Dietary assessment methods: 60-item validated FFQ at baseline, age 60y **Outcome assessment methods:** Linkage with National Death Index	• Q3, RR: 0.81, 95% CI: 0.64, 1.02 • Q4, RR: 0.87, 95% CI: 0.67, 1.11 • p-trend=0.09 Clusters at 60y and ACM at ~6y f/u in men: • Cluster 1, RR: 1.0, ref • Cluster 2, RR: 0.94, 95% CI: 0.76, 1.16 • Cluster 3, RR: 0.87, 95% CI: 0.71, 1.07 • Cluster 4, RR: 0.82, 95% CI: 0.66, 1.01 Clusters at 60y and ACM at ~6y f/u in women: • Cluster 1, RR: 1.0, ref • Cluster 2, RR: 0.93, 95% CI: 0.75, 1.16 • Cluster 3, RR: 0.93, 95% CI: 0.74, 1.17 • Cluster 4, RR: 0.88, 95% CI: 0.72, 1.09		
Krieger, 2018[121] PCS, National Research Program 1A (NRP1A); Monitoring of Trends and Determinants in Cardiovascular Disease (MONICA) Switzerland Analytic N: 15936 Attrition: 11%	**Dietary pattern(s):** Adherence to 5 dietary patterns identified by the MCA method as follows: • 'Sausage and Vegetables': High consumption of sausages and cooked vegetables and overall low dietary variety • 'Meat and salad': High consumption of meat and salad and overall low dietary variety • 'Fish': High consumption of fish and absence of meat-based products	**Significant:** Dietary patterns and ACM at mean 25y f/u, with 'Sausage and vegetables' pattern, HR: 1, ref: Overall, men and women • **'Fish', HR: 0.87, 95% CI: 0.78, 0.97** • **'Traditional', HR: 0.89, 95% CI: 0.80, 0.98** Men: • **'Fish', HR: 0.82, 95% CI: 0.71, 0.96** • **'Traditional', HR: 0.81, 95% CI:**	**Key confounders accounted for:** Sex; Age: Additional analysis; Race/ethnicity: Nationality; SES: Education; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Other:** N/A	Both overall (men and women) and in men, the 'Fish' and 'Traditional' dietary patterns were associated with significantly lower ACM at mean ~25.5 years f/u. No significant associations were observed between the 'Meat and salad' and 'High fiber foods' and

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Sex: 51.1% female Race/ethnicity: Nationality: 81.3% Swiss, 18.7% Foreign SES: Education 34.5% Mandatory, 47.5% Upper secondary, 17.9% Tertiary Alcohol intake: Once a wk: 44.5% No, 37.5% Moderate, 17.5% High	• 'Traditional': High consumption of dairy products, eggs, chocolate, dark bread and sausages with overall high dietary variety • 'High-fiber foods': High consumption of yogurt, salad, vegetables, fruits, and dark bread with overall high dietary variety **Dietary assessment methods:** Diet yes/no checklist of previous 24 h at baseline, age 45y **Outcome assessment methods:** Linked with the Swiss National Cohort which links census records with federal death and migration records covering all residents of Switzerland.	**0.71, 0.93** **Non-significant:** Dietary patterns and ACM at mean 25y f/u, with the 'Sausage and vegetables' pattern, HR: 1, ref: Overall, men and women: • 'Meat and salad', HR: 0.94, 95% CI: 0.86, 1.03; NS • 'High-fiber foods', HR: 0.92, 95% CI: 0.84, 1.02; NS Women: • 'Meat and salad', HR: 0.93, 95% CI: 0.80, 1.08; NS • 'Fish', HR: 0.98, 95% CI: 0.83, 1.15; NS • 'Traditional', HR: 1.02, 95% CI: 0.87, 1.19; NS • 'High-fiber foods', HR: 0.91, 95% CI: 0.79, 1.05; NS Men: • 'Meat and salad', HR: 0.95, 95% CI: 0.85, 1.07; NS • 'High-fiber foods', HR: 0.94, 95% CI: 0.83, 1.08; NS	**Limitations:** • Exposure is based only on a 24 hr recall (and the recall is in checklist form, so binary); broad categories of foods	ACM. In women, none of the dietary patterns were significantly associated with ACM. **Funding:** Swiss National Science Foundation
Martinez-Gonzalez et al, 2015[122] PCS, PREDIMED Spain Analytic N: 7216 Attrition: 3% Sex: ~40% female Race/ethnicity: NR	**Dietary pattern(s):** Adherence to 2 dietary patterns identified using factor analysis (PCA) as follows: • 'Western': High consumption of high-fat processed meats and red meats, alcohol, refined grains, canned fish, whole-fat dairy products, sauces, eggs, processed meals, commercial bakery and chocolates, and lower consumption	**Significant:** N/A 'Mediterranean' adherence and ACM after ~4y, with Q1, HR: 1 ref: • Q2: HR: 0.82, 95% CI: 0.62, 1.10; NS • Q3: HR: 0.74, 95% CI: 0.54, 0.99; • Q4: HR: 0.53, 95% CI: 0.38,	**Key confounders accounted for:** Sex; Age; SES; Alcohol: Part of dietary pattern; Physical activity; Anthropometry; Smoking	Greater adherence to a "Mediterranean" dietary pattern, with high consumption of vegetables, EVOO, walnuts, oily fish and canned fish, fruits, other nuts, whole-wheat bread, white fish and low-fat dairy products,

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
SES: NR Alcohol intake: ~6g/d	of low-fat dairy products • 'Mediterranean': High consumption of vegetables, EVOO, walnuts, oily fish and canned fish, fruits, other nuts, whole-wheat bread, white fish and low-fat dairy products, and low consumption of refined grains, other olive oils different from EVOO **Dietary assessment methods:** 137-item validated FFQ at baseline, mean age 67y **Outcome assessment methods:** National Death Index, medical records	0.75; p-trend<0.001 **Non-significant:** "Western" adherence and ACM after ~4y, with Q1, HR: 1 ref: • Q2: HR: 0.93, 95% CI: 0.66, 1.3; • Q3: HR: 1.05, 95% CI: 0.75, 1.46; • Q4: HR: 1.04, 95% CI: 0.74, 1.47; p-trend=0.65	**Other:** Main analyses were repeated with adjustment for total energy intake (data NR); Hypertension; Hypercholesterolemia; Diabetes; History of depression **Limitations:** • Did not account for key confounders: Race/ethnicity	and low consumption of refined grains, other olive oils different from EVOO, was associated with a significant reduction in overall mortality after f/u for 5 years. **Funding:** Biomedical Research of the Spanish Government; Comunal Olivarero and Hojiblanca (extra-virgin olive oil); California Walnut Commission (walnuts), Borges (almonds); La Morella Nuts (hazelnuts)
Masala et al, 2007[123] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC) Italy Analytic N: 5611 Attrition: 88% Sex: 73% female Race/ethnicity: NR SES: Education: ~40% primary school, ~8% college degree Alcohol intake: NR	**Dietary pattern(s):** Adherence to 4 dietary patterns identified using factor analysis (PCA): • 'Prudent': high consumption of cooked vegetables, legumes, fish, and seed oil • 'Pasta & Meat': high consumption of pasta and other grains, tomato sauce, red and processed meats, added animal fat, white bread and wine; low consumption of yogurt. • 'Olive Oil & Salad': high consumption of olive oil, raw vegetables including tomatoes, leafy and root vegetables, soups and white meat i.e., chicken and turkey • 'Sweet & Dairy': high consumption of	**Significant:** 'Olive Oil & Salad' adherence and ACM after 6y, with Q1, HR: 1 ref: • Q2: HR: 0.78, 95% CI: 0.50, 1.21; • Q3: HR: 0.76, 95% CI: 0.48, 1.20; • **Q4: HR: 0.50, 95% CI: 0.29, 0.86**; p for trend = 0.02 **Non-significant:** 'Sweet & Dairy' adherence and ACM after 6y, with Q1, HR: 1 ref: • Q2: HR: 0.90, 95% CI: 0.56, 1.45; • Q3: HR: 0.87, 95% CI: 0.52, 1.45; • Q4: HR: 0.85, 95% CI: 0.85, 2.54; p for trend = 0.25	**Key confounders accounted for:** Sex; Age; SES; Alcohol: Part of dietary pattern; Physical activity; Anthropometry; Smoking **Other:** Total energy intake; Hypertension; Hyperlipidemia; Diabetes	Increased adherence to the 'Olive Oil & Salad' dietary pattern [i.e., high consumption of olive oil, raw vegetables (tomatoes, leafy and root vegetables), soups and white meat (chicken and turkey)] at age >60y was associated with significantly lower ACM after 6 years of f/u. Adherence to the 'Prudent', 'Pasta & Meat', or 'Sweet & Dairy' dietary pattern were not

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	added sugar, cakes, ice-cream, coffee, eggs, butter, milk and cheese **Dietary assessment methods:** 120-item validated FFQ at baseline, age >60y **Outcome assessment methods:** Local town records and Mortality Registries	'Prudent' adherence and ACM after 6y, with Q1, HR: 1 ref: • Q2: HR: 0.99, 95% CI 0.63, 1.54; • Q3: HR: 0.93, 95% CI: 0.58, 1.51; • Q4: HR: 0.47, 95% CI: 0.47, 1.53; p for trend = 0.59 'Pasta & Meat' adherence and ACM after 6y, with Q1, HR: 1 ref: • Q2: HR: 1.07, 95% CI: 0.67, 1.70; • Q3: HR: 0.99, 95% CI: 0.59, 1.64; • Q4: HR: 1.37, 95% CI: 0.80, 2.34; p for trend = 0.34	**Limitations:** • Did not account for key confounders: Race/ethnicity • Number of deaths was relatively small	significantly associated with ACM. **Funding:** Associazione Italiana per la Ricerca sul Cancro (AIRC-Milan), European Union, Quality of Life and Management of Living resources' Programme of the European Commission
Menotti et al, 2012 [63] PCS, Seven Countries Study Italy Analytic N: 1221 Attrition: 29% Baseline age: ~55y (40-59y) Sex: 0% female Race/ethnicity: NR SES: NR Alcohol intake: 13% energy	**Dietary pattern(s):** Adherence to 3 dietary patterns identified using factor analysis (PCA): • 'Factor 1': High consumption of sugar, milk, meat, fruit, pastries and cheese • 'Factor 2': High consumption of bread, cereals, vegetables, fish, potatoes and oils • 'Factor 3': High consumption of eggs and alcoholic beverages **Dietary assessment methods:** Dietary history, validated, at age 55y, administered by dietitians **Outcome assessment methods:** Death certificates, hospital and medical records, interviews with physicians, relatives, or other witnesses	**Significant:** 'Factor 2', continuous, and ACM after 40y: HR: 0.89, 95% CI: 0.83, 0.96, p-value NR 'Factor 2', Q1 vs. Q5 and age-adjusted life expectancy after 40y: 17.7 vs 21.8, p-value NR **Non-significant:** Dietary patterns [continuous] and ACM after 40y: • Factor 1, HR: 1.00, 95% CI: 0.94, 1.06 • Factor 3, HR: 0.93, 95% CI: 0.97, 1.00	**Key confounders accounted for:** Sex; Anthropometry; Alcohol: Part of dietary pattern **Other:** N/A **Limitations:** • Did not account for key confounders: Age; Race/ethnicity; SES; Physical activity; Smoking	Increased adherence to a dietary pattern higher in bread, cereals, vegetables, fish, potatoes and oils at age 55y was associated with significanly lower risk of ACM and longer-life expectancy during 40y f/u. Other dietary patterns were not associated with ACM ('Factor 1': high consumption of sugar, milk, meat, fruit, pastries and cheese, or 'Factor 3': high consumption of eggs and alcoholic beverages).

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				Funding: None
Menotti et al, 2014[130] PCS, Seven Countries Study Italy Analytic N: 1564 Attrition: 9% Sex: 0% female Race/ethnicity: NR SES: NR Alcohol intake: 13% energy	**Dietary pattern(s):** Adherence to a dietary pattern, identified using factor analysis (PCA: "High consumption of bread, cereals, vegetables, fish, potatoes and oils"), based on tertiles named as follows: • Diet score 1: 'Unhealthy' diet • Diet score 2: NR • Diet score 3: 'Mediterranean' diet with high consumption of bread, cereals, vegetables, fish, potatoes and oils **Dietary assessment methods:** Dietary history, validated, at age 55y, administered by dietitians **Outcome assessment methods:** Death certificates, hospital and medical records, interviews with physicians, relatives, or other witnesses	**Significant*:** 'Mediterranean' diet adherence, categorical, and ACM: • 'Diet score 3' ref • 20y f/u, Diet score 1: HR: 1.42, 95% CI: 1.18, 1.71 • 40y f/u, Diet score 1: HR: 1.31, 95% CI: 1.15, 1.50 **Non-significant*:** 'Mediterranean' diet adherence, categorical, and ACM with 'Diet score 3' ref: • 20y f/u, Diet score 2: HR: 0.99, 95% CI: 0.81, 1.21; p for trend = NS • 40y f/u, Diet score 2: HR: 0.98, 95% CI: 0.86, 1.11; p for trend = NS *Results did not differ when subjects with CVD or cancer at baseline were excluded.	**Key confounders accounted for:** Sex; Age; Alcohol: Part of dietary pattern **Other:** N/A **Limitations:** • Did not account for key confounders: Race/ethnicity; SES; Physical activity; Anthropometry; Smoking	Increased adherence to a 'Mediterranean' dietary pattern consisting of high consumption of bread, cereals, vegetables, fish, potatoes and oils at age 55y was associated with significantly lower risk of mortality and longer-life expectancy after 20y and 40y of f/u. **Funding:** None
Menotti et al, 2016[125] PCS, Seven Countries Study Italy Analytic N: 1712 Attrition: 0% Sex: 0% female	**Dietary pattern(s):** Adherence to the a dietary pattern, identified using factor analysis (PCA: "High consumption of bread, cereals, vegetables, fish, potatoes and oils"), based on quintiles named arbitrarily as follows: • Q1: 'non-Mediterranean' diet (ref for the multivariate analysis)',	**Significant:** 'Mediterranean Diet' adherence and risk of ACM after 50y f/u, with 'non-Mediterranean Diet', HR: 1 ref: HR: 0.87, P<0.05	**Key confounders accounted for:** Sex; Age; Alcohol: Part of dietary pattern	Adhering to a 'Mediterranean' compared to a 'non-Mediterranean' diet was associated with significantly lower ACM after 50y f/u.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: NR SES: NR Alcohol intake: 13% energy	• Q2, Q3, Q4: 'Prudent' diet • Q5: 'Mediterranean' diet with high consumption of bread, cereals, vegetables, fish, potatoes and oils **Dietary assessment methods:** Dietary history, validated, at age 55y, administered by dietitians **Outcome assessment methods:** Death certificates, hospital and medical records, interviews with physicians, relatives, or other witnesses	'Mediterranean Diet' adherence by quintile groups and years survived after 50y f/u, with Q1, HR: 1, ref: • Q2-4: HR: 2.76, 95% CI: 1.48, 4.04; • Q5: HR: 4.36, 95% CI: 2.79, 5.92 **Non-significant:** N/A	**Other:** N/A **Limitations:** • Did not account for key confounders: Race/ethnicity; SES; Physical activity; Anthropometry; Smoking	Greater adherence to the 'Mediterranean' dietary patterns (Q5, or 'Prudent' Q2-4) compared to a "non-Mediterranean" diet significantly increased life expectancy by 4.4y and 2.8y **Funding:** None
Nanri et al, 2017[126] PCS, Japan Public Health Center-based Prospective Study Japan Analytic N: 81720 Attrition: 28% Sex: 55% female Race/ethnicity: NR SES: NR Alcohol intake: NR	**Dietary pattern(s):** Adherence to 3 dietary patterns identified using factor analysis (PCA) as follows: • 'Prudent': High consumption of vegetables, fruit, soy products, potatoes, seaweed, mushrooms, and fish (including oily fish, seafood other than fish, and fish products) • 'Westernized': High consumption of meat (including pork and beef), processed meat, bread, dairy products, coffee, black tea, soft drinks, dressing, sauce, and mayonnaise • 'Traditional Japanese': High consumption of salmon, salty fish, oily fish, seafood other than fish, and pickles **Dietary assessment methods:** 147-item validated FFQ, at age ~57.4y.	**Significant:** 'Prudent' diet and ACM at mean 14.8y f/u with Q1, HR: 1, ref: • Q2, HR: 0.89, 95% CI: 0.84, 0.94 • Q3, HR: 0.81, 95% CI: 0.77, 0.85 • Q4, HR: 0.82, 95% CI: 0.77, 0.86 • p-trend<0.001 'Westernized' diet and ACM at mean 14.8y f/u with Q1, HR: 1, ref: • Q2, HR: 0.93, 95% CI: 0.89, 0.98 • Q3, HR: 0.88, 95% CI: 0.84, 0.93 • Q4, HR: 0.91, 95% CI: 0.85, 0.96 • p-trend<0.001 'Traditional Japanese' diet and ACM at mean 14.8y f/u with Q1, HR: 1, ref: • Q2, HR: 0.94, 95% CI: 0.89, 0.999 • Q3, HR: 0.93, 95% CI: 0.87, 0.99 • Q4, HR: 0.97, 95% CI: 0.91, 1.03;	**Key confounders accounted for:** Sex; Age; Race/ethnicity: 100% Japanese; Physical activity; Anthropometry: BMI; Smoking **Other:** Total energy intake; History of Diabetes, Hypertension; Study area **Limitations:** • Did not account for key confounders:	Greater adherence to the 'Prudent' and 'Westernized' dietary patterns were associated with significantly lower risk of ACM after mean f/u of 14.8 years. Adherence to a 'Traditional Japanese' was inversely associated with ACM but did not reach significance. **Funding:** National Cancer Centre Research and Development Fund

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: Linked using the residential registry.	NS* • p-trend=0.49 **Non-significant:** *Traditional Japanese: Q4 vs. Q1 (see above)	SES; Alcohol: Part of dietary pattern • Japanese population with different eating habits from those in the US.	
Odegaard et al, 2014[131] PCS, Singapore Chinese Cohort Study, Singapore Analytic N: 52,584 Attrition: 15% Sex:~53% female Race/ethnicity: 100% Chinese SES: NR Alcohol intake: ~1.1 drinks/wk	**Dietary pattern(s):** Adherence to two dietary patterns identified by factor analysis (PCA), named as follows: • "Vegetable-fruit-and soy-rich (VFS)": predominantly vegetables, fruit, and soy-based items • "Dim sum- and meat-rich (DSM)": prominent contributors were a variety of foods, predominantly dim sum, fresh and processed meats and seafood, noodle and rice dishes, sweetened foods, and deep-fried foods **Dietary assessment methods:** 165-item validated FFQ, at age ~56y. **Outcome assessment methods:** Linkage with the nation-wide registry of birth and death in Singapore.	**Significant:** 'VFS' and ACM during ~19y f/u with Q1, HR: 1, ref: • Q2, HR: 0.90, 95% CI: 0.84, 0.94 • Q3, HR: 0.79, 95% CI: 0.74, 0.84 • Q4, HR: 0.80, 95% CI: 0.75, 0.85 • Q5, HR: 0.75, 95% CI: 0.70, 0.80 p-trend<0.0001 'DSM' and ACM during 19y f/u with Q1, HR: 1, ref: • Q2, HR: 0.98, 95% CI: 0.92, 1.04 • Q3, HR: 1.01, 95% CI: 0.95, 1.08 • Q4, HR: 1.06, 95% CI: 0.99, 1.13 • **Q5, HR: 1.14, 95% CI: 1.06, 1.23** p-trend<0.001 **Non-significant:** 'DSM': Q2, Q3, or Q4 vs. Q1 (see above)	**Key confounders accounted for:** Sex; Age; Race/ethnicity: 100% Chinese; SES:Education; Physical activity; Anthropometry: BMI; Smoking **Other:** Dialect, Year of interview, Total energy intake; Sleep, History of Hypertension **Limitations:** Did not account for key confounders: N/A	Higher adherence to the "Vegetable-fruit-and soy-rich (VFS)" pattern (Q5, Q4, Q3, Q2 vs. Q1) was significantly associated with lower risk of ACM. Higher adherence to the "Dim sum- and meat-rich (DSM)" pattern (Q5 vs. Q1) was associated with higher risk of ACM. **Funding:** NIH, NCI
Osler et al, 2001[76] PCS, MONICA I, II, III Denmark	**Dietary pattern(s):**	**Significant:** 'Prudent' dietary pattern at 30-70y and ACM at ~15y f/u, in men:	**Key confounders accounted for:** Sex, SES, Anthropometry,	Higher adherence [per-SD increase] to a 'Prudent' dietary pattern in men and women was

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 5872 Attrition: 20% Sex: 49% female Race/ethnicity: NR (all Danish) SES: NR Alcohol intake: NR	Index analysis: see **Error! Not a valid result for table.** Factor/cluster analysis: Adherence to two dietary patterns identified by cluster analysis: • 'Prudent': wholemeal bread (and inversely with other types), pasta, rice, oatmeal products, fruits, vegetables, and fish • 'Western': high intakes of meat, sausages, potatoes, butter and white bread **Dietary assessment methods:** 28-item validated FFQ at baseline, age 30-70y **Outcome assessment methods:** NR; collected via f/u	• per-SD, HR: 0.84, 95% CI: 0.75, 0.93 • Q1, n=193 deaths, ref • Q2, n=104 deaths, HR: 0.87, 95% CI: 0.68, 1.11 ; NS • Q3, n=64 deaths, HR: 0.71, 95% CI: 0.53, 0.96 • Q4, n=37 deaths, HR: 0.70, 95% CI: 0.49, 1.00; NS 'Prudent' dietary pattern at 30-70y and ACM at ~15y f/u, in women, • per-SD, HR: 0.74, 95% CI: 0.64, 0.85 • Q1, n= 88 deaths, ref • Q2, n=66 deaths, HR: 0.69, 95% CI: 0.50, 0.96 • Q3, n=48 deaths, HR: 0.57, 95% CI: 0.40, 0.82 • Q4, n=29 deaths, HR: 0.46, 95% CI: 0.30, 0.72 'Western' dietary pattern in women, per-SD: HR: 0.91, 95% CI: 0.80, 1.03 • Q1, n= 93 deaths, ref • Q2, n=62 deaths, HR: 0.93, 95% CI: 0.67, 1.29; NS • Q3, n=40 deaths, HR: 0.65, 95% CI: 0.44, 0.94 • Q4, n=36 deaths, HR: 0.87, 95% CI: 0.59, 1.29; NS **Non-Significant:** 'Western' dietary pattern at 30-70y and ACM at ~15y f/u in men: • per-SD, HR: 1.01, 95% CI: 0.90, 1.12	Alcohol intake, Physical activity, Smoking **Other:** N/A **Limitations:** Did not account for key confounders: Age, Race/ethnicty	significantly associated with lower risk of ACM after ~15y f/u. Higher vs. lower adherence (Q3 vs. Q1) to a 'Western' dietary pattern in showed a significantly lower risk of ACM in women, but was not significant in men.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		• Q1, n=81 deaths, ref • Q2, n=93 deaths, HR: 0.81, 0.60, 1.09 • Q3, n=116 deaths, HR: 0.97, 0.73, 1.29 • Q4, n=108 deaths, HR: 0.92, 0.69, 1.23		
Struijk et al, 2014[92] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC-Prospect; EPIC-MORGEN) Netherlands Analytic N: 33066 Attrition: 17.4% Sex: 74% female Race/ethnicity: NR SES: 21% high education Alcohol intake: 5 g/d	**Dietary pattern(s):** Index analysis: see Table 4 Factor/cluster analysis:Adherence to two dietary patterns identified by cluster analysis • 'Prudent': high intakes of fish and shellfish, raw vegetables, wine, and high-fiber cereals • 'Western': high intakes of French fries, fast food, low-fiber products, alcoholic drinks (except wine), and sugar-sweetened drinks **Dietary assessment methods:** 178-item validated FFQ at baseline, age 49y **Outcome assessment methods:** Survival status as Disability-Adjusted Life Years (DALY) via linkageof vital status from municipal registries	**Significant:** 'Prudent' adherence at 49y and DALY at ~13y f/u: • T1, n=601 deaths, ref • T2, n=486 deaths, DALY: -0.13, 95% CI: -0.30, -0.01 • T3, n=395 deaths, DALY: -0.34, 95% CI: -0.52, -0.16 • p-trend<0.01 • per-SD increase: -0.16, 95% CI:-0.24, -0.08 • Sensitivity analysis of excluding early deaths <2y f/u did not change results; Interaction with age was NS 'Prudent' vs. 'Western' adherence at 49y and DALY at ~13y f/u: • 'Western', n=710 deaths, ref • 'Prudent', n=772 deaths, DALY: -0.16, 95% CI: -0.29, -0.02 **Non-Significant:** 'Western' adherence at 49y and DALY at ~13y f/u: • T1, n=691 deaths, ref • T2, n=484 deaths, DALY: -0.06, 95% CI:-0.22, 0.09; NS • T3, n=307 deaths, DALY: -0.1, 95%	**Key confounders accounted for:** Sex, Age, SES: Education, Anthropometry, Alcohol, Physical activity, Smoking **Other:** Total energy intake **Limitations:** Did not account for key confounders: Race/ethnicity: all Dutch	Higher vs. lower mMDS and 'Prudent' dietary pattern adherence were significantly associated with fewer years lost. Adherence to a 'Prudent' compared to 'Western' dietary pattern was significantly associated with fewer years lost. Higher vs. lower adherence to a priori mMDS and a posteriori 'Prudent' pattern showed the strongest association with a lower disease burden of years lost at ~13y f/u **Funding:** Dutch Research Council; Europe against Cancer Program of the European Commission, the Dutch Ministry of Health, the Dutch Cancer Society, the Netherlands Organisation for Health

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		CI:-0.34, 0.1; NS • p-trend=0.23 • per-SD increase: -0.05, 95% CI:-0.14, 0.04; NS		Research and Development, and the World Cancer Research Fund
Waijers et al, 2006[127] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC)-Elderly project Netherlands Analytic N: 5427 Attrition: 15% Sex: 100% female Race/ethnicity: NR SES: Education: ~33.3% None or primary school, ~25.7% Technical school, ~29.7% Secondary school, ~10.3% University degree Alcohol intake: mean 7.3 g	**Dietary pattern(s):** Adherence to three dietary patterns identified using factor analysis (PCA) as follows: • 'Mediterranean-like' - High consumption of pasta and rice, sauces, fish, and vegetables in combination with vegetable oils, wine, and other cereals (potatoes, bread, and margarine, contributed negatively to this component) • 'Traditional Dutch dinner' - High consumption of meat, potatoes, vegetables, eggs, and alcoholic beverages. Low consumption of dairy products, sweets, and pastries. • 'Healthy Traditional' - High consumption of vegetables, fruit, dairy products, potatoes, and legumes, and also nonalcoholic beverages. Low consumption in intakes of butter and alcoholic beverages. **Dietary assessment methods:** 178-item validated semi quantitative FFQ at baseline, age ≥60 y (~58.7% age 60-64y, ~41.3% age 65-70y) **Outcome assessment methods:** Data on vital status, including emigration or death	**Significant:** 'Healthy Traditional' dietary pattern and ACM over ~8.2y f/u with T1, HR: 1, ref: • T3 HR: 1.25, 95% CI: 0.52, 0.95 **Non-significant:** 'Mediterranean-like' dietary pattern and ACM over ~8.2y f/u with T1, HR: 1, ref: • T2 HR: 0.91 NS • T3 HR: 0.84 NS 'Traditional Dutch Dinner' dietary pattern and ACM over ~8.2y f/u with T1, HR: 1, ref: • T2 HR: 1.00 NS • T3 HR: 1.25 NS 'Healthy Traditional' dietary pattern and ACM over ~8.2y f/u with T1, HR: 1, ref: • T2 HR: 0.81 NS	**Key confounders accounted for:** Sex: Design; Age; Race/ethnicity: Design; 100% Dutch; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Anthropometry: BMI; waist-to-hip ratio; Smoking **Other:** Total energy intake; Diabetes **Limitations:** • Small number of total deaths in the study (n=277) • Food groups selected for analyses may not optimally represent dietary choices of Dutch	Higher adherence (T3 vs. T1) to the 'Healthy Traditional', with higher intake of vegetables, fruit, dairy products, potatoes, and legumes, and non-alcoholic beverages; lower intakes of butter and alcoholic beverages, dietary pattern was associated with significantly lower risk of ACM over ~8 years f/u. No significant associations were observed between adherence to the 'Mediterranean-like' and 'Traditional Dutch dinner' dietary patterns and ACM. **Funding:** Quality of Life and Management of Living resources Program of the European Commission

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	were obtained through the National Population Database.		persons	
Zazpe et al, 2014[128] PCS, Seguimiento Universidad de Navarra (SUN) Spain Analytic N: 16008 Attrition: 25% Sex: ~41.7% female Race/ethnicity: NR (participants all in Spain) SES: Years of university education: mean ~5.2 y Alcohol intake: mean ~ 6.5 g/d	**Dietary pattern(s):** Adherence to 3 dietary patterns identified using factor analysis (PCA) as follows: • 'Western': High consumption of red meat, processed meats, potatoes, processed meals, fast food, full-fat dairy products, sauces, commercial bakery, eggs, sugar-sweetened sodas, refined grains, and sugary products and low consumption of low-fat dairy products. • 'Mediterranean': High consumption of vegetables, fish and seafood, fruits, olive oil, low-fat dairy products, poultry, whole-wheat bread, nuts, juices, and legumes. • 'Alcoholic Beverages': High consumption of alcohol (ie, wine, beer, and other alcoholic beverages) **Dietary assessment methods:** 136-item validated FFQ at baseline, mean age: 38.1 y **Outcome assessment methods:** Most deaths (>85%were reported to the project team by participants' relatives, work associates, and postal authorities. For those lost to follow-up, the National Death Index was checked regularly to identify deceased cohort members.	**Significant:** 'Mediterranean' dietary pattern and ACM over median ~7y f/u, with T1, n=56 deaths, HR: 1 ref • T3, n=44 deaths, HR: 0.53, 95% CI: 0.34, 0.84; p-trend=0.01 **Non-significant:** 'Western' dietary pattern and ACM over median ~7y f/u, with T1, n=62 deaths, HR: 1 ref: • T2, n=46 deaths, HR: 0.94, 95% CI: 0.61, 1.44 • T3, n=40 deaths, HR: 0.79, 95% CI: 0.45, 1.38 • p-trend=0.40 'Mediterranean' dietary pattern and ACM over median ~7y f/u, with T1, n=56 deaths, HR: 1 ref: • T2, n=48 deaths, HR: 0.72, 95% CI: 0.48, 1.08 'Alcoholic beverage' dietary pattern and ACM over median ~7y f/u, with T1, n=39 deaths, HR: 1 ref: • T2, n=47 deaths, HR: 0.99, 95% CI: 0.64, 1.56 • T3, n=62 deaths, HR: 0.78, 95% CI: 0.48, 1.27 • p-trend=0.27	**Key confounders accounted for:** Sex; Age; SES: Education; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Other:** Total energy intake; Hypertension; Depression; Hypercholesterolemia; Prescription of special diets at baseline; Hours of TV watching **Limitations:** • Did not account for key confounders: Race/ethnicity (all Spanish) • The study population was univeristy graduates (i.e., may be less generalizable due to higher	The 'Mediterranean' pattern, with higher consumption of vegetables, fish and seafood, fruits, olive oil, low-fat dairy products, poultry, whole-wheat bread, nuts, juices, and legumes, was significantly associated with lower risk of ACM over ~7 years f/u. No significant associations were observed between adherence to the 'Western' and 'Alcoholic Beverage' dietary patterns and ACM. **Funding:** Instituto de Salud Carlos III; Ministerio de Sanidad, Política Social e Igualdad; Navarra Regional Government; University of Navarra

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
			education status)	
Zhao et al, 2019[129] PCS, New Integrated Suburban Seniority Investigation (NISSIN) Japan Analytic N: 2949 Attrition: 4% Sex: ~49.6% female Race/ethnicity: NR, all elderly Japanese SES: Education high school or greater: ~68.5%; Working: ~41.1% Alcohol intake: ‘Heavy drinkers’ ≥ 23 g/day: ~20.1%	**Dietary pattern(s):** Consumption of 3 dietary patterns identified using factor analysis: • 'Meat-fat pattern': High consumption of oils and fats, other cereals, meat, seasoning, potatoes, sugar and noodles • 'Healthy pattern': High consumption of vegetables, fruits, mushrooms, algae, seafood, beans, and seasoning • 'Dairy-bread pattern': High consumption of dairy products and bread, and a low intake of rice **Dietary assessment methods:** 90 Japanese food item validated FFQ at baseline, mean age ~64.5y **Outcome assessment methods:** Death dates were confirmed through the resident registry by the public health nurse of the city health center.	**Significant:** 'Healthy' dietary pattern and ACM over ~10y f/u with T1, n=100 deaths ref • T2, n=71 deaths, HR: 0.64, 95% CI: 0.47, 0.88 **Non-significant:** 'Meat-fat' dietary pattern and ACM over ~10y f/u with T1, n=67 deaths, HR: 1, ref • T2, n=85 deaths, HR: 1.21, 95% CI: 0.86, 1.69 • T3, n=101 deaths, HR: 1.25, 95% CI: 0.84, 1.88 • p-trend=0.271 'Healthy' dietary pattern and ACM over ~10y f/u with T1, n=100 deaths ref • T3, n=82 deaths, HR: 0.74, 95% CI: 0.53, 1.02 • p-trend=0.051 'Dairy-bread' dietary pattern and ACM over ~10y f/u with T1, n=90 deaths, HR: 1 ref • T2, n=75 deaths, HR: 0.95, 95% CI: 0.69, 1.30 • T3, n=88 deaths, HR: 1.34, 95% CI: 0.98, 1.83 • p-trend=0.077	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES; Alcohol; Physical activity: Walking; Anthropometry: BMI; Smoking: Tobacco use **Other:** Total energy intake; History of disease; Sleep duration; Living arrangement; TMIG score; geriatric depression scale score; Social participation **Limitations:** • Sample tended to be healthier vs. general Japanese population aged 60-69y	Higher adherence to the 'Healthy' dietary pattern, with high consumption of vegetables, fruits, mushrooms, algae, seafood, beans, and seasoning, was significantly associated with lower ACM over ~10 years f/u. No significant associations were observed between adherence to the 'Meat-fat' and 'Dairy-bread' dietary patterns and ACM. **Funding:** Grant-in-Aid for Scientific Research from the Ministry of Education, Culture, Sports, Science and Technology of Japan; Pfizer Health Research Foundation

Table 6. Studies examining the relationship between dietary patterns derived by other methods and all-cause mortality[xi]

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Chang-Claude et al, 2005[132] PCS, German Vegetarian Study Germany Analytic N: 1724 Attrition: 9% Sex: 55% female Race/ethnicity: NR SES: Education: 19% low, 37% medium, 43% high, 1% unknown Alcohol intake: 49% never, 51% ever a drinker	**Dietary pattern(s):** <u>Other:</u> Three dietary patterns were determined based on participants' reported consumption of animal products: -'Vegan': Avoid meat, fish, eggs, and dairy products -'Lacto-ovo Vegetarian': Avoid meat and fish but eat eggs and/or dairy products -'Nonvegetarian': Occasionally or regularly eat meat and/or fish *Note: Vegan and Lacto-ovo vegetarians were combined to create a 'Vegetarian' group **Dietary assessment methods:** FFQ at baseline, age ≥10y [31% ≤34y, 10% ≥75y] **Foods/food groups:** Meat, fish, eggs, and dairy **Outcome assessment methods:** Vital status of the study participants was requested from the Registrar's Office at the last documented place of residence.	**Significant:** Complete sample, n=1904, standardized mortality ratio (SMR): • 'Vegetarian': n=380 deaths, SMR: 62, 95% CI: 56-69 • 'Nonvegetarian': n=155 deaths, SMR: 52, 95% CI: 44-61 **Non-Significant:** Adherence to a 'vegetarian' diet and all-cause mortality (ACM) over 21y f/u: • 'nonvegetarian' diet, n=134 deaths, RR=1, ref • 'Vegetarian', n=322 deaths, RR=1.10, 95% CI: 0.89, 1.36	**Key confounders accounted for:** Sex, Age, Race/ethnicity: All German, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** N/A **Limitations:** • Did not account for key confounders: N/A • Unable to look at effects of specific food groups; the semiquantitative FFQ was crude	No significant associations between 'vegetarian' compared to 'nonvegetarian' diets and risk of ACM over 21y of f/u were observed. Consumption of a 'vegetarian' or 'nonvegetarian' dietary pattern compared to the general population was associated with significantly lower mortality ratio. **Funding**: NR
Heroux et al, 2010[133]	**Dietary pattern(s):** <u>Reduced rank regression</u>: Adherence to a dietary patterns identified using RRR	**Significant:** NA **Non-significant:**	**Key confounders accounted for:** Sex; Age; Race/ethnicity;	Adherence to a dietary pattern higher in processed and red meat, white

[xi] Abbreviations: ACM, all-cause mortality; AMDR, Acceptable Macronutrient Distribution Range; CI, confidence interval; DALY, disability-adjusted lost years; D, decile; f/u, follow-up; HR, hazard ratio; ITT, intention to treat; N/A, not applicable; NR, not reported; NS, not significant; % E, percentage of energy; PCS, prospective cohort study design; Q, quantile (quartile or quintile as appropriate); ref, reference (referent group); RR, relative risk; SD, standard deviation; SES: Socioeconomic status; SMR, standardized mortality ratio; T, tertile; y, years

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
PCS, Aerobics Center Longitudinal Study (ACLS) United States Analytic N: 13621 Attrition: NR Sex: 24.3% female Race/ethnicity: >95% White SES: Well-educated, professional occupations Alcohol intake: 87% <5 drinks/wk	(response variables: unfavourable total and high-density lipoprotein-cholesterol, triglyceride, glucose, blood pressure, uric acid, white blood cell and body mass index values): higher in processed and red meat, white potato products, non-whole grains, and added fat, and lower in non-citrus fruit **Dietary assessment methods:** 3-d diet records at baseline, age 47y **Outcome assessment methods:** National Death Index	Dietary pattern at 47y and risk of ACM after 4-16y f/u: • Q1, n=118, HR: 1.00 • Q2, n=95, HR: 1.05, 95% CI: 0.80, 1.37 • Q3, n=91, HR: 1.03, 95% CI: 0.78, 1.36 • Q4, n=67, HR: 0.96, 95% CI: 0.70, 1.31 • Q5, n=74, HR: 1.18, 95% CI: 0.86, 1.64	Alcohol; Physical activity; Smoking **Other:** Total energy intake; year of examination, parental history of cardiovascular disease, history of CVD, history of cancer **Limitations:** • Did not account for key confounders: Anthropometry, SES	potato products, non-whole grains, and added fat, and lower in non-citrus fruit at 47y was not significantly associated with ACM after 4-16y f/u. **Funding:** NIH
Hoffmann et al, 2005[119] PCS, EPIC-Elderly, Germany Analytic N: 9356 Attrition: 2% Sex: 50% female Race/ethnicity: NR SES: ~29% University degree Alcohol intake: NR	**Dietary pattern(s):** Factor/cluster analysis: see Table 5 Reduced rank regression: Adherence to 2 dietary patterns identified by reduced rank regression (RRR, response variables: %E from SFA, MUFA, PUFA, protein, carbohydrate) • RRR Pattern 1: Higher in meat, butter, sauces and eggs, and lower in bread, fruits • RRR Pattern 2: Higher in legumes, poultry, fish, margarine, and lower in butter, sugar, cakes	**Significant:** RRR Pattern 1 at 63y and ACM, n=404, at 4-8y f/u: • per-SD increase, RR: 1.20, 95% CI: 1.09, 1.31 • Q1: RR: 1.00 • Q2: RR: 1.10, 95% CI: 0.70, 1.46 • Q3: RR: 0.96, 95% CI: 0.66, 1.38 • Q4: RR: 1.32, 95% CI: 0.95, 1.85 • Q5: RR: 1.61, 95% CI: 1.17, 2.21 • p-trend = 0.0004 **Non-significant:** RRR Pattern 2 at 63y and ACM, n=404, at 4-8y f/u:	**Key confounders accounted for:** Sex; Age; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Smoking, Anthropometry: BMI, WHR ratio **Other:** Total energy intake; Centre, prevalent cancer, CHD, diabetes and hypertension	Adherence to a dietary pattern higher in meat, butter, sauces and eggs, and lower in bread, fruits at 63y was associated increased risk of ACM after 4-8y f/u. Adherence to the other dietary patterns were not significantly associated with ACM.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	Dietary assessment methods: 148-item validated FFQ at baseline, bage ~63y **Outcome assessment methods:** Follow-up with subjects	• per-SD increase,: RR: 0.96, 95% CI: 0.87, 1.06 • Q1: RR: 1.00 • Q2: RR: 0.87, 95% CI: 0.63, 1.21 • Q3: RR: 0.81, 95% CI: 0.57, 1.13 • Q4: RR: 1.07, 95% CI: 0.78, 1.48 • Q5: RR: 0.96, 95% CI: 0.70, 1.33 • p-trend =0.74	**Limitations:** • Did not account for key confounders: Race/ethnicity	**Funding:** Quality of Life and Management of Living Resources Programme of the European Commission ; Europe against Cancer Programme of the European Commission; Deutsche krebshilfe
Key et al, 2009[134] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC-Oxford) United Kingdom Analytic N: 47254 Attrition: 28% Sex: 76% female Race/ethnicity: NR SES: NR Alcohol intake: ~6 g/d	**Dietary pattern(s):** <u>Other:</u> Four diet groups were determined based on participants' reported consumption of animal products, dairy, fruit and vegetables: • 'Meat eaters' - those that eat meat • 'Fish eaters' - those that do not eat meat but do eat fish • 'Vegetarians' - those that do not eat meat or fish but do eat dairy products or eggs or both • 'Vegan' - those that eat no animal products *For this study, meat and fish eaters were grouped to form 'Nonvegetarians' (also analyzed separately) and vegetarians and vegans were grouped to form 'Vegetarian' **Dietary assessment methods:** 130-item FFQ* at baseline, at age 43y *Unclear if validated **Foods/food groups:** meat, fish, eggs,	**Significant:** Full sample, n=64,234, standardized mortality ratio (SMR): • Nonvegetarian , n=2311 deaths, SMR: 52, 95% CI: 50, 54 • Vegetarian, n=654 deaths, SMR: 52, 95% CI: 48, 56 **Non-significant:** Adherence to a vegetarian diet at 43y and ACM up to ~14y f/u risk in those without prior disease, n=47254: • 'Nonvegetarian', n=1128 deaths, Death rate ratio (DRR): 1 ref • 'Vegetarian' , n=385 deaths, DRR: 1.05, 95 CI%: 0.93, 1.19 • P-heterogeneity=0.439 Adherence to a non-meat diet at 43y and ACM risk up to ~14y f/u • 'Meat eater' , n=970 deaths, DRR: 1 ref • 'Fish eater' , n=158 deaths, DRR: 0.89, 95% CI: 0.75, 1.05 • 'Vegetarian or vegan', n=385 deaths, DRR:	**Key confounders accounted for:** Sex, Age, Alcohol, Smoking **Other:** N/A **Limitations:** • Did not account for key confounders: Race/ethnicity, SES, Physical activity, Anthropometry • The accuracy of the assessment of vegetarian status may be a potential weakness. • Subgroup analyses may be	No significant associations between vegetarian and non-vegetarian diets at baseline and ACM at f/u were observed. Consumption of a 'vegetarian' or 'nonvegetarian' diet compared to the general population was associated with significantly lower ACM in this cohort. **Funding:** Cancer Research UK; Medical Research Council

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	dairy, fruit and vegetables, 'animal products' **Outcome assessment methods:** Linkage with the United Kingdom's National Health Service Central Register	1.03, 95% CI: 0.90, 1.16 • p for heterogeneity=0.279	underpowered	
Kim et al, 2019 PHN[135] PCS, NHANES III United States Analytic N: 11898 Attrition: 37% Sex: 52% female Race/ethnicity: 76% Non-Hispanic white, 11% Non-Hispanic black, 6% Mexican American, 8% Other SES: Poverty level <130%: 17%; Education: 22% < high-school, 34% high-school, 45% > high-school Alcohol intake: ~9 drinks/mo	**Dietary pattern(s):** Other: Adherence to an 'ultra-processed foods' dietary pattern based on 4th level NOVA classification by quartiles of intake in times/d: Q1: 0-<2.6 Q2: 2.6-<3.8 Q3: 3.8-<5.2 Q4: 5.2-<29.8 **Dietary assessment methods:** 81-item validated FFQ and a 24-h recall at baseline, age ~41y **Foods/food groups:** Ultra processed foods/food groups in the 4th category of NOVA classification: Chocolate milk, ice cream, ice milk, milkshakes, bacon, sausage, processed meats, sweetened cereals, spaghetti/pasta with tomato sauce, cheese dishes, pizza, calzone, lasagna, salted snacks, cakes, cookies, brownies, fruit juices, sugar-sweetened and artificially sweetened beverages (Hi-C, Tang, Koolaid, diet colas, diet sodas, regular colas and sodas), hard liquor, margarine **Outcome assessment methods:** Vital status determined by probabilistic	**Significant:** 'Ultra-processed foods' dietary pattern adherence at 41y and ACM at 19y f/u: • Q1, n=625 deaths, HR: 1 ref • Q2, n=588 deaths, HR: 0.99, 95% CI: 0.83, 1.18 • Q3, n=617 deaths, HR: 1.06, 95% CI: 0.87, 1.30 • Q4, n=621 deaths, HR: 1.30, 95% CI: 1.08, 1.57 • p-trend<0.001 Sensitivity analyses adjusting for diet quality (HEI-2000) yeilded similar results, p=trend=0.001; excluding first 2y f/u or processed meats category (bacon, sausage, processed meats) yeilded similar results. **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES: Poverty, Education, Race/ethnicity, Anthropometry, Alcohol intake, Physical activity, Smoking **Other:** Total energy intake, Hypertension, Total cholesterol, estimated glomerular filtration rate **Limitations:** • Did not account for key confounders: N/A • Potential for higher risk of bias due to departure from intended exposure relating to	Higher adherence to an 'ultra-processed foods' dietary pattern high in highly-palatable foods such as ice cream, milkshakes, processed meats, sweetened foods and beverages at 41y was significantly associated with higher risk of ACM after 19y f/u. **Funding:** NR (NIDDK supported author)

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	matching of participants to the National Death Index		differences in HEI and energy-density between quartiles	
Meyer et al, 2011[136] PCS, MONItoring of Trends and Determinants in CArdiovascular Diseases' (MONICA) Augsburg Germany Analytic N: 981 Attrition: 26% Sex: 0% female Race/ethnicity: NR SES: NR Alcohol intake: ~15% 0 g/d, ~50% 0-40g/d, 35% >40g/d	**Dietary pattern(s):** Reduced rank regression: Adherence to a dietary patterns identified using IL-6, IL-18 and CRP as response variables via reduced rank regression (RRR), partial least squares regression (PLS), and principal components regression (PCR): Lower intakes of meat and beer and high intakes of fresh and cooked vegetables, fresh fruit, wholemeal bread, cereals and muesli, curd, nuts, sweet bread spread, and tea **Dietary assessment methods:** 7d, weighed, diet records at baseline, age 55y **Outcome assessment methods:** Population registries	**Significant:** Dietary pattern at 55y and risk of ACM, n=292, after 5y f/u: • RRR: HR: 1.16, 95% CI: 1.00, 1.33, p=0.046 • PLS: HR: 1.18, 95% CI: 1.02, 1.37, p=0.030 • PCR: HR: 1.16, 95% CI: 1.00, 1.35, p=0.054 **Non-significant:** NA	**Key confounders accounted for:** Sex: all men; Age; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Smoking; Anthropometry: BMI **Other:** Total energy intake; survey, place of residence, hypertension, diabetes, ratio of total: HDL cholesterol **Limitations:** • Did not account for key confounders: Race/ethnicity	Consuming a dietary pattern lower in meat and beer, and higher in fresh and cooked vegetables, fresh fruit, wholemeal bread, cereals and muesli, curd, nuts, sweet bread spread, and tea was associated with increased risk of ACM after 5y f/u. **Funding:** Helmholtz Zentrum Mu¨nchen; Federal Ministry of Education and Research, Berlin; German Research Foundation; University of Ulm, the German Diabetes Center, Du¨sseldorf, the Federal Ministry of Health; Ministry of Innovation, Science, Research and Technology of

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
				the state North Rhine Westphalia
Mihrshahi et al, 2017[137] PCS, Sax Institute's 45 and Up Study Australia Analytic N: 243096 Attrition: 9% Sex: 53.3% female Race/ethnicity: Country of Birth: 75% Australian born, 25% other SES: Education: 76% ≤12y, 24% degree or higher; Marital Status: 76% married, 24% single Alcohol intake: 12% >14 drinks/wk, 88% ≤14 drinks/wk	**Dietary pattern(s):** <u>Other</u>: Four dietary patterns were determined on participants' reported consumption of animal products: • "Vegetarian" - Never any beef, lamb, pork, chicken, turkey, duck, processed meat, fish or seafood • "Semi-vegetarian" - eat meat ≤1 week • "Pesco-vegetarian" - Eats fish or seafood but no beef, lamb, pork, chicken, turkey, duck, or processed meat • "Regular meat eater" - Consumes meat (including fish or seafood) *For some analyses, semi-vegetarian, pesco-vegetarian and regular meat eater were combined to create the 'Nonvegetarian' pattern **Dietary assessment methods:** Brief diet behavior questionnaire, validated at mean age 62.3y **Foods/food groups:** Animal products: beef, lamb, pork, chicken, turkey, duck, processed meat, fish, seafood **Outcome assessment methods:** Data linkage with New South Wales Registry of Births, Deaths, and Marriages	**Significant:** N/A **Non-Significant:** "Vegetarian" diet at 62y and ACM at ~6y f/u: • "Non-vegetarian", HR: 1, ref: • "Vegetarian", HR: 1.16, 95% CI: 0.93, 1.45 "Vegetarian" diet at 62y and ACM at ~6y f/u: • "Regular meat eater", HR: 1, ref • "Vegetarian": HR: 1.16, 95% CI: 0.93, 1.45 • "Pesco-vegetarian": HR: 0.79, 95% CI: 0.59, 1.06 • "Semi-vegetarian": HR: 1.12, 95% CI: 0.96, 1.31 • p-value overall effect of diet category=0.100 Sensitivity analyses were completed excluding person time during the first 2 years of f/u and excluding participants with cardio-metabolic disease and cancer. Results remain unchanged with these exclusions.	**Key confounders accounted for:** Sex, Age, Race/ethnicity: Country of birth, SES: Education, Marital status, Remoteness, and Socio-Economic Index for Area, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Cancer, HTN, CVD and metabolic disease **Limitations:** • Did not account for key confounders: N/A • Data on energy intake and other dietary info were not collected	No significant associations between vegetarian and non-vegetarian diets (combined or separate) at 62y and ACM at ~6y f/u **Funding:** Development Award from the New SouthWales Cardiovascular Research Network and was supported by the New SouthWales Division of the National Heart Foundation of Australia.
Orlich et al, 2013[138] PCS, Adventist	**Dietary pattern(s):** <u>Other:</u> Adherence to one of four dietary pattern categories:	**Significant:** Dietary patterns at 58y and ACM at ~6y f/u: • Nonvegetarian, HR: 1 ref	**Key confounders accounted for:**	Vegetarian (all combined, or pesco-vegetarian)

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
Health Study 2 (AHS-2), United States, Canada Analytic N: 73308 (Attrition 24%) Sex: 66% female Race/ethnicity: 27% Black SES: Marital status: 73% married; Income: 40% ≤$20K/y, 4% ≥$100K/y; Education: 20% <high-school, 22% bachelor's degree, 19% graduate degree Alcohol intake: 90% none, 3% weekly, <1% Daily	• 'nonvegetarian': nonfish meats 1/mo or more; fish and all meats 1/wk or more. • 'semi-vegetarian': nonfish mea 1/mo or more; and all meats combined 1/mo but <1/wk • 'pesco-vegetarian': fish 1/mo or more; all other meats <1/mo • 'lacto-ovo–vegetarian': eggs/dairy 1/mo or more; fish and all other meats <1/mo • 'vegan': eggs/dairy, fish, and all other meats <1/mo **Dietary assessment methods:** 200-item validated FFQ at baseline, age ~58y **Foods/food groups:** Fish, meat, eggs/dairy **Outcome assessment methods:** National Death Index	• All, Vegetarian, HR: 0.88, 95% CI: 0.80, 0.97 • Men, Vegetarian, HR: 0.82, 95% CI: 0.72, 0.94 • Women, Vegetarian, HR: 0.93, 95% CI: 0.82, 1.05; NS • All Pesco, HR: 0.81, 95% CI: 0.69, 0.94 Men, n=1031 deaths • Vegan, HR: 0.72, 95% CI: 0.56, 0.92 • Pesco, HR: 0.73, 95% CI: 0.57, 0.93 Age-sex-race adjusted mortality rates: • All, 6.05, 95% CI: 5.82, 6.29 • Nonvegetarian, 6.61, 95% CI: 6.21, 7.03, ref • Vegan, 5.4, 95% CI: 4.62, 6.17, p=0.009 • Lacto-ovo, 5.61, 95% CI: 5.21, 6.01, p=0.001 • Pesco, 5.33, 95% CI: 4.61, 6.05, p=0.004 • Semi, 6.16, 95% CI: 5.03, 7.30, p=0.30; NS **Non-Significant:** • Nonvegetarian, HR: 1 ref • All Vegan, HR: 0.85, 95% CI: 0.73, 1.01 • All Lacto-ovo, HR: 0.91, 95% CI: 0.82, 1.00 • All Semi, HR: 0.92, 95% CI: 0.75, 1.13 Men, n=1031 deaths • Lacto-ovo, HR: 0.86, 95% CI: 0.74, 1.01 • Semi, HR: 0.93, 95% CI: 0.68, 1.26 Women , n=1529 deaths • Vegan, HR: 0.97, 95% CI: 0.78, 1.20 • Lacto-ovo, HR: 0.94, 95% CI: 0. 83, 1.07 • Pesco, HR: 0.88, 95% CI: 0.72, 1.07 • Semi, HR: 0.92, 95% CI: 0.70, 1.22	Sex, Age, SES, Race/ethnicty, Anthropometry, Alcohol intake, Physical activity, Smoking **Other:** Region; Sleep; Menopause; Hormone therapy **Limitations:** • Did not account for key confounders: N/A • Exposure at higher risk of misclassification due to definition of exposure groups	compared to nonvegetarian dietary patterns were significantly associated with lower risk of ACM over ~6y f/u in men and women (separate and combined analyses). **Funding:** NCI
Rico-Campa et al, 2019[139]	**Dietary pattern(s):**	**Significant:** Ultra-processed' diet at 38y and ACM at 10y f/u:	**Key confounders accounted for:**	Highest vs. lowest consumption of an

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
PCS, Seguimiento Universidad de Navarra (SUN) cohort Spain Analytic N: 19899 Attrition: ~11%) Sex: 61% female Race/ethnicity: NR, All Spaniards SES: 100% university education; ~50% married Alcohol intake: NR	<u>Other:</u> Adherence to an 'ultra-processed' dietary pattern based on 4th level NOVA classification in quarters: • 'low' • 'low-medium' • 'medium-high' • 'high' **Dietary assessment methods:** 136-item validated FFQ at baseline, age 20-91y and every 2y thereafter **Foods/food groups:** Petit suisse; custard; flan; pudding; ice cream; ham; processed meat (chorizo, salami, mortadella, sausage, hamburger, morcilla); pate; foie-gras; spicy sausage/meatballs; potato chips; breakfast cereals; pizza, including pre-prepared pies; margarine; cookies; chocolate cookies; muffins; doughnuts; croissant or other non-handmade pastries; cakes; churros; chocolates and candies; nougat; marzipan; carbonated drinks; artificially sugared beverages; fruit drinks; milkshakes; instant soups and creams; croquettes; mayonnaise; and alcoholic drinks produced by fermentation followed by distillation such as whisky, gin, and rum; % contribution of foods/food groups in the 'ultra-processed' pattern: Processed meats 15%, Sugar-sweetened beverages 15%, Dairy products 12%, French fries 11%, Pastries 10%, Cookies	• Low, n=108 deaths, HR: 1.00 ref • Med-Low, n=74 deaths, HR: 1.06, 95% CI: 0.76, 1.48; NS • Med-High, n=80 deaths, HR: 1.38, 95% CI: 0.99, 1.92; NS • High, n=73 deaths, HR: 1.62, 95% CI: 1.13, 2.33 • p-trend =0.005 Sensitivity analyses excluding cases for various chronic diseases at baseline (e.g., hypertension, depression), and sub-group analyses did not substantially change results **Non-Significant:** N/A	Sex, Age, SES, Anthropometry, Alcohol intake, Physical activity, Smoking **Other:** Total energy intake, Family history **Limitations:** • Did not account for key confounders: Race/ethnicity: all Spanish • Potential for risk of bias due to departure from intended exposure relating to differences in energy-density between quarters	'ultra-processed' dietary pattern characterized by processed meats, SSB, dairy products, French fries, pastries, cookies, ready to eat soups and purees, fried foods, artificially sugared beverages, breakfast cereals, and pizza) was significantly associated with higher risk of ACM over a 10y f/u. **Funding:** Spanish Government-Instituto de Salud Carlos III; European Regional Development Fund; Navarra Regional Government, and the University of Navarra.

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	8%, Ready to eat soups and purees 6%, Fried foods 6%, Artificially sugared beverages 5%, Breakfast cereals 3%, Pizza 2%, Liquors 2%, Margarine 1%, Mayonnaise 1% **Outcome assessment methods:** Next of kin, work associates, and authority postal service, National Death Index, or the National Statistics Institute			
Schnabel et al, 2019[140] PCS, NutriNet Sante Study France Analytic N:44551 Attrition: <1% Sex: 73% female Race/ethnicity: NR SES: no school ~16%, primary school 16%, secondary school 15%, graduate ~27%; ~% married Alcohol intake: NR	**Dietary pattern(s):** Other: Adherence to an 'ultra-processed' dietary pattern based on 4th level NOVA classification **Dietary assessment methods:** 24-hour dietary recalls during first 2y f/u at ~57y **Foods/food groups:** Carbonated drinks; sweet or savory packaged snacks; ice cream, chocolate, candies (confectionery); mass-produced breads and buns; margarines and spreads; industrial cookies, pastries, cakes, and cake mixes; breakfast 'cereals', 'cereal' and 'energy' bars; 'energy' drinks; flavored milk drinks; cocoa drinks; sweet desserts made from fruit with added sugars, artificial flavors and texturizing agents; cooked seasoned vegetables with ready-made sauces; meat and chicken extracts and 'instant' sauces; 'health' and'slimming' products such as powdered or 'fortified' meal and dish substitutes; ready to heat	**Significant:** 'Ultra-processed' diet at ~57y and ACM, n=602 deaths total, at 7y f/u: • Per-10% increment: HR: 1.14, 95% CI: 1.04, 1.27; p-trend=0.008 Sensitivity analyses excluding early deaths <2y or CVD/cancer attenuated results due to low power **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES, Anthropometry, Alcohol intake, Physical activity, Smoking **Other:** Total energy intake, Family history of cancer/CVD, season, number of food records, mPNNS-GS score **Limitations:** • Did not account for key confounders: Race/ethnicity • Misclassification possible due to specific food processing level of some foods not available	High consumption of an 'ultra-processed' dietary pattern was significantly associated with higher risk of ACM over a 7y f/u. **Funding:** NR

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
	products including pre-prepared pies, pasta and pizza dishes; poultry and fish ‘nuggets’ and ‘sticks’, sausages, burgers, hot dogs, and other reconstituted meat products, and powdered and packaged ‘instant’ soups, noodles and desserts. **Outcome assessment methods:** French national registry CepiDC		• Participants of ongoing study may be more health-conscious vs. general population	
Song et al, 2016[141] PCS, NHS; HPFS United States Analytic N: 131342 Attrition: 24% Sex: ~65% female Race/ethnicity: NR SES: NR Alcohol intake: ~7.3 g/d	**Dietary pattern(s):** Other: Consumption of 'Animal'- or 'Plant-protein' patterns: • 'Animal-protein': major sources included processed and unprocessed red meat, poultry, dairy products, fish, and egg • 'Plant-protein': major sources included bread, cereals, pasta, nuts, beans, and legumes **Dietary assessment methods:** Up to 152-item validated FFQ's at baseline, age ~62y, and every 2-4y after **Foods/food groups: ‘**Animal’ pattern: major sources included processed and unprocessed red meat, poultry, dairy products, fish, and egg 'Plant' pattern: major sources included bread, cereals, pasta, nuts, beans, and legumes **Outcome assessment methods:** State records, National Death Index, next of kin and postal system	**Significant:** ‘Plant-protein' diet at 62y and ACM up to 32y f/u: • ≤3 %, n=6,160 deaths, HR: 1 referent • >3, ≤4%, n=9,661 deaths, HR: 0.97, 95% CI: 0.94, 1.01 • >4, ≤5%, n=10,235 deaths, HR: 0.95, 95% CI: 0.91, 0.99 • >5%, ≤6%, n=6,602 deaths, HR: 0.91, 95% CI: 0.86, 0.96 • >6%, n=3,457deaths, HR: 0.89, 95% CI: 0.84, 0.96 • Per-3% increment, HR: 0.90, 95% CI: 0.86, 0.95 • p<0.001 Stratification by "healthy" vs. "unhealthy" lifestyle: higher vs. lower 'plant' protein patterns remained associated with risk reduction. In diabetics vs. non-diabetics, the inverse association between 'plant' protein and ACM (p=0.02) was stronger. Substitution of plant-protein vs. animal-protein [individual substitution of: processed red meat, unprocessed red meat, poultry, eggs, fish, and dairy] associated with lower risk of ACM in sub-analyses. **Non-Significant:**	**Key confounders accounted for:** Sex, Age, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Supplement use, Hx of HTN, glycemic index, intake of whole grains, total fiber, fruits, and vegetables, % energy from SFA, PUFA, MUFA, trans fat **Limitations:** Did not account for key confounders: Race/ethnicity, SES	Higher 'Plant-protein’ dietary pattern adherence [categorical or per-3% increase] at ~62y was significantly associated with reduced risk of ACM over a 32y f/u. Higher 'Animal-protein' dietary pattern adherence was weakly associated with ACM, but associations were not significant. **Funding:** NIH

Study and Participant Characteristics	Intervention/Exposure and Outcomes	Results	Confounding and Study Limitations	Summary of findings
		‘Animal-protein' diet at 62y and ACM up to 32y f/u: • ≤ 10%, n=3,770 deaths, HR: 1 ref • >10, ≤12%, n=6,151 deaths, HR: 1.01, 95% CI: 0.97, 1.05 • >12, ≤15%, n=11,909 deaths, HR: 1.03, 95% CI: 0.99, 1.07 • >15, ≤18%, n=8,401 deaths, HR: 1.03, 95% CI: 0.98, 1.07 • >18 %, n=5,884 deaths, HR: 1.03, 95% CI: 0.98, 1.08 • Per-10% increment, HR: 1.02, 95% CI: 0.98, 1.05; NS • p-trend=0.33 Stratification by "healthy" vs. "unhealthy" lifestyle: higher vs. lower 'animal' protein associated with risk reduction (P=0.46; p-interaction <0.001). In diabetics vs. non-diabetics, the positive association between 'animal' protein and ACM (p=0.06) was stronger		

Table 7. Studies that examine the relationship between diets based on macronutrient distributions and all-cause mortality[xii]

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Anderson et al, 2011[112] PCS, Health, Aging, and Body Composition (Health ABC) Study, United States Analytic N: 2582 Attrition: 16% Sex: ~43% female Race/ethnicity: ~65% "White" SES: ~79% completed high-school Alcohol intake: ~53% any	**Dietary pattern(s):** Consumption of one of six dietary patterns with macronutrient distributions of % energy per cluster: 'Healthy foods': 56.9%C, 27.5%F, 17% P 'High-Fat Dairy Products': 50.9% C, 35.6% F, 14.8% P 'Meat, Fried Foods and Alcohol': 50.2% C, 35.8% F, 14.3% P 'Breakfast Cereal': 59.2% C, 28.4% F, 14.1% P 'Refined Grains': 52.5% C, 34.6% F, 14% P 'Sweets and Desserts': 52.6% C, 36.1% F, 12.7% P **Dietary assessment methods:** 108-item validated FFQ at age ~76y (study year 2) **Foods/food groups:** 40 food groups were used to develop 20 pre-defined clusters and seeds of clusters with > 20 members **Outcome assessment methods:** Participant contact, proxy, hospital records, local newspaper obituaries, Social Security Death Index data, and confirmed by death certificates	**Significant:** Dietary patterns and risk of all-cause mortality (ACM) at 8.4y f/u: • 'Healthy foods', n=77 deaths, RR: 1 ref • 'High-fat dairy products', n= 109 deaths, RR: 1.40, 95% CI: 1.04, 1.88 • 'Sweets and desserts', n=104 deaths, RR: 1.37, 95% CI: 1.02, 1.86 **Non-significant:** Dietary patterns and ACM at 8.4y f/u: • 'Healthy foods', n=77 deaths, RR: 1 ref • 'Meat, fried foods, and alcohol', n=209 deaths, RR: 1.21, 95% CI: 0.92, 1.60 • 'Breakfast cereal', n=105 deaths, RR: 1.16, 95% CI: 0.86, 1.56 • 'Refined grains', n=135 deaths, RR: 1.08, 95% CI: 0.80, 1.45	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES: Education; Alcohol: Design; Physical activity; Smoking **Limitations:** • Did not account for key confounders: Alcohol: part of dietary pattern; Anthropometry • Dietary variables from year 2 of study; • Cluster analysis uses subjectivity to select number of clusters	'Healthy Foods' cluster [56.9% C, 27.5% F, 17% P] compared to the 'High-fat dairy products' [50.9% C, 35.6% F, 14.8% P] or 'Sweets and desserts' [52.6% C, 36.1% F, 12.7% P] clusters associated with lower risk of ACM at 8.4y f/u. No significant associations observed comparing 'Health Foods' cluster to 'Meat, Fried Foods, and Alcohol', 'Breakfast Cereal', or 'Refined Grains' clusters and ACM. **Funding:** NIH, NIA

[xii] Abbreviations: ACM, all-cause mortality; AMDR, Acceptable Macronutrient Distribution Range; C, dietary carbohydrate of distribution; CVD, cardiovascular disease; DALY, disability-adjusted lost years; D, decile; F, dietary fat of distribution; FFQ, food frequency questionnaire; f/u, follow-up; HR, hazard ratio; HTN, hypertension; Hx, history; MUFA, monounsaturated fats/fatty acids; N/A, not applicable; NHLBI, National Heart, Lung, Blood Institute; NR, not reported; NS, not significant; % E, percentage of energy; P, protein; PCS, prospective cohort study design; PREDIMED, Prevención con Dieta Mediterránea; PUFA, polyunsaturated fats/fatty acids; Q, quantile (quartile or quintile as appropriate); ref, reference (referent group); RR, relative risk; SD, standard deviation; SES, Socioeconomic status; SFA, saturated fats/fatty acids; SMR, standardized mortality ratio; T, tertile; y, year(s)
[xiii] The intervention/exposure, % energy are listed in order as carbohydrate (C), fat (F), and protein (P) for respective diets, dietary patterns, or diet groups.

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Bazelmans et al, 2006[142] PCS, Belgian Interuniversity Research on Nutrition and Health (BIRNH) Belgium Analytic N: 11193 Attrition: 1% Sex: 47% female Race/ethnicity: NR SES: NR Alcohol intake: NR	**Dietary pattern(s):** Healthy Food and Nutrient Index (HFNI) [National Nutrition Council, 2003] adherence based on macronutrient distribution by quartile: Q1: 35.8% C, ~37.5% F, 15.8% P Q2: 37.2% C, ~40% F, 14.2% P Q3: 37.9% C, ~40% F, 13.4% P Q4: 40.5% C, ~39% F, 13.0% P **Dietary assessment methods:** 1-d food record, grouped into 156 foods converted to nutrients, at baseline, age 49y **Foods/food groups:** NR **Outcome assessment methods:** National Population Register	**Significant:** HFNI score in men at 49y and ACM at 10y f//u: • Q1, 15.5% deaths, OR: 1.68, 95% CI: 1.19, 2.37; • Q2, 16.8% deaths, OR: 1.68, 95% CI: 1.32, 2.14; • Q3, 14.4% deaths, OR: 1.33, 95% CI: 1.06, 1.65; • Q4, 10% deaths, OR: 1.00 • p-trend = 0.001 • C-ROC with HFNI: OR: 0.85, 95% CI: 0.83, 0.86; NS **Non-Significant:** HFNI score in women at 49y and ACM at 10y f//u: • Q1, 5.8% deaths, OR: 1.05, 95% CI: 0.58, 1.87; • Q2, 6.3% deaths, OR: 1.15, 95% CI: 0.75, 1.53; • Q3, 7.2% deaths, OR: 1.2, 95% CI: 0.85, 1.57; • Q4, 5.1% deaths, OR: 1.00 • p-trend = NS C-ROC with HFNI: OR: 0.83, 95% CI: 0.81, 0.85; NS	**Key confounders accounted for:** Sex, Age, SES: In Men **Other:** Family history of Infarction, Hypertension, Diabetes **Limitations:** • Did not account for key confounders: Race/ethnicity, SES: In Women, Alcohol, Physical activity, Anthropometry, Smoking • HFNI based on macronutrients and fruits and vegetables; • Reported macronutrient levels do not add to 100%; • Limited information available on participants	Greater HFNI adherence [Q1: 35.8% C, ~37.5% F, 15.8% P vs. Q4: 40.5% C, ~39% F, 13.0% P] at age 49y was significantly associated with lower odds of ACM at 10y f/u in men. HFNI adherence at age 49y was not significantly associated with risk of ACM after 10y f/u in women. **Funding:** National Fund for Scientific Research
Brunner et al, 2008[115] PCS, Whitehall II study United Kingdom	**Dietary pattern(s):** Consumption of one of four dietary patterns with macronutrient distributions of % energy per cluster: 'Unhealthy':	**Significant:** N/A **Non-significant:**	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES; Alcohol: Design;	No significant associations were observed between dietary pattern consumption

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 7731 Attrition: 25% Sex: ~30% female Race/ethnicity: NR (data not shown for self-report status as "white, South Asian, Afro-Caribbean, or other") SES: low employment grade 2.5% Alcohol intake: NR	• 41.4% C, 33.1% F, 17.3% P 'Sweet': • 43.2% C, 33.6% F, 15.7% P 'Mediterranean-like': • 40.4% C, 32.0% F, 16.8% P 'Healthy': • 43.4% C, 30.5% F, 17.9% P **Dietary assessment methods:** 127-item validated FFQ at baseline mean age 50y **Foods/food groups:** 'Unhealthy': white bread, processed meat, fries, and full-cream milk; n=2665); 'Sweet': white bread, biscuits, cakes, processed meat, and high-fat dairy products; n=1042; 'Mediterranean-like': fruit, vegetables, rice, pasta, and wine; n 1361; 'Healthy': fruit, vegetables, whole-meal bread, low-fat dairy, and little alcohol. **Outcome assessment methods:** National Health Service Central Registry	Dietary pattern and risk of ACM during ~15y f/u with 'Unhealthy' dietary pattern, n=147 deaths, HR: 1 ref, • 'Sweet', n=52 deaths, HR: 0.90, 95% CI: 0.63, 1.27, p=0.55, NS • 'Mediterranean-type', n= 51 deaths: HR: 0.81, 95% CI: 0.57, 1.15, p=0.23, NS • 'Healthy', n=126 deaths: HR: 0.95, 95% CI: 0.74, 1.22, p=0.69, NS	Physical activity; Anthropometry: EI/EE; Smoking **Limitations:** • Did not account for key confounders: N/A • Data on additional confounders NR (e.g., marital class, car ownership); Missing data on exposures and outcomes	[40.4%-43.4% C, ~30.5-33.6%% F] at a mean age of 50 years and ACM during 15 y f/u. **Funding:** UK Medical Research Council (MRC); British Heart Foundation; Health and Safety Executive; Department of Health; NHLBI; NIA; Agency for Health Care Policy Research; MacArthur Foundation Research Network on SES and Health
Cheng et al, 2018[20] PCS, Iowa Women's Health Study United States Analytic N: 35221 Attrition: 16% Sex: 100% female Race/ethnicity: ~99% 'White' SES: 40% >high school education; 78% married Alcohol intake: ~4g/d	**Dietary pattern(s):** modified alternate Med Diet Score (mMDS) (modified Fung, 2005) adherence, based on % energy: Q1: 45.4% C, 36.9% F, 17.9% P Q5: 51.2% C, 31.9% F, 18.2% P Evolutionary-concordance diet score (Whalen, 2014, 2016, 2017) adherence, based on % energy: Q1: 46.5% C, 36.8% F, 16.8% P Q5: 51.1% C, 30.7% F, 19.8% P	**Significant:** mMDS adherence at 62y and ACM over 26y f/u: • Q1, n=4774 deaths, HR: 1.00, ref • Q5, n=3262 deaths, HR: 0.85, 95%CI: 0.82, 0.90 • p-trend=<0.01 *Sensitivity analyses (age ≤ vs. > 61y; Education ≤ vs. > high school; total energy intake ≤ vs. >1717 kcal/d; chronic disease yes vs. no; current vs. never use of hormone-	**Key confounders accounted for:** Sex, Age, Race/ethnicity: 99% White, SES: Education; Marital status, Physical activity, Anthropometry: BMI, Smoking, Alcohol **Other:** Total energy intake, Family history of chronic disease, hormone-	Greater adherence to a Mediterranean diet pattern in women at age 62y was significantly associated with lower risk of ACM after 26y f/u. Adherence to the evolutionary-concordant diet score at 62y was not signficantly associated with risk

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Dietary assessment methods: 127-item validated FFQ at baseline, age ~62y **Outcome assessment methods:** State Health Registry of Iowa, National Death Index	replacement therapy) yielded similar results ** Significant interactions were also reported between lifestyle scores, dietary pattern adherence, and ACM. **Non-Significant:** Evolutionary-concordance diet adherence at 62y and ACM over 26y f/u: • Q1, n=4243 deaths, HR: 1.00, ref • Q5, n=3192 deaths, HR: 0.95, 95% CI: 0.91, 1.00 p-trend=0.04	replacement therapy use **Limitations:** Did not account for key confounders: N/A	of ACM after 26y f/u. **Funding:** NCI, NIH
Dai et al, 2016[23] PCS, NHLBI, Twin Study United States Analytic N: 910 Attrition: 11% Sex: 0% female Race/ethnicity: 100% white SES: Education: mean 13y; Marital status: 5% never married, 6% not married currently, 89% married currently Alcohol intake: NR	**Dietary pattern(s):** Moderation Quantified Healthy Diet, MQHD [Dai, 2016 modified from Rumawas, 2009] adherence based on macronutrient distribution, mean % energy: • 44.7% C, 40.2% F, 15.2% P **Dietary assessment methods:** Validated diet history at baseline, mean age 48 y **Foods/Food groups:** Total grains, fruits, vegetables, dairy products, alcohol, fish, poultry, red meats, nuts and legumes, potatoes, eggs, sweets, fried meat:non-fried meat ratio; MUFA+PUFA:SFA ratio **Outcome assessment methods:** Vital status via National Death Index and follow-up exams.	**Significant:** MQHD score at 48 y and ACM: • Overall Association, n=610 deaths, HR: 0.95, 95% CI: 0.91, 0.996, p=0.03 **Non-Significant:** MQHD score at 48 y and all cause mortality: • Within Pair Association, n=301 monozygotic twin deaths, and n=309 dizygotic twin deaths: HR: 0.96, 95% CI: 0.90, 1.03, p=0.24 • Between Pair Association: HR: 0.95, 95% CI: 0.89, 1.003, p=0.07	**Key confounders accounted for:** Sex, Age: Framingham risk score component, Race/ethnicity, SES: Education, marital status, Alcohol: Part of dietary pattern, Anthropometry: BMI, Smoking: Framingham risk score component **Other:** Total energy intake, Other: Antihypertensives, Framingham risk score **Limitations:** • Did not account	Increased adherence to the MQHD score [44.7% C, 40.2% F, 15.2% P] was significantly associated with slightly reduced ACM risk. However, when evaluating this relationship of diet and ACM within twin pairs and between pairs, no significant associations were observed. **Funding:** American Heart Association

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
			for key confounders: Physical activity • Participants exclusively male, White, twins	
Diehr & Beresford, 2003[143] PCS, Cardiovascular Health Study (CHS) United States Analytic N: 4610 Attrition: 22% Sex: 57% female Race/ethnicity: 95% White; ~12% African-American SES: 21% >high-school education; 69% married Alcohol intake: 294 kcal/d Sodium intake: ~3249mg	**Dietary pattern(s):** Macronutrient distribution based on absolute intakes per cluster in % energy: 'Unhealthy': 37.7% C, 41.1% F, 20% P 'Hi Cal': 44.8% C, 36.3% F, 17.8% P 'Low Cal': 51.0% C, 30.7% F, 18.1% P 'Low 4': 42.3% C, 38.8% F, 15.1% P 'Healthy': 56.0% C, 26.83% F, 17.3% P **Dietary assessment methods:** 99-card deck to generate food frequencies (1990;1996); Five patterns identified by cluster analysis: • 'Unhealthy': expected calories, low in carbohydrate (1SD < mean); high in fat and protein (1SD > mean) • 'Hi Cal': high in calories, expected levels of carbohydrate, fat, protein, and fiber • 'Low Cal': low in calories; lower levels of carbohydrate, fat, protein, and fiber • 'Low 4': low in calories; higher levels of carbohydrate, fat, protein, and fiber • 'Healthy': expected calories, high in carbohydrate, low in fat, high in fiber **Foods/food groups:** NR **Outcome assessment methods:** Patient or family member self-report, review of hospital and physician records, and death certificates	**Significant:** Mean difference between dietary clusters in years of life (YOL) 10y past baseline: • 'Healthy' ref • 'Unhealthy': 0.27, p<0.05, two-tailed • 'Hi Cal': 0.24, p<0.05, two-tailed • 'Low 4': 0.22, p<0.05, one-tailed **Non-significant:** Mean difference between dietary clusters in YOL 10y past baseline, with 'Healthy' ref: - 'Low Cal': 0.07	**Key confounders accounted for:** Sex; Age; Race/ethnicity; SES: Education; Marital status; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** • Did not account for key confounders: N/A • Misclassification of exposure possible due to portion size; Differences in absolute vs. relative nutrients	Those in the 'Healthy' cluster compared to the 'Unhealthy', 'Hi Cal', or 'Low 4' clusters had the most YOL over a 10 y f/u. No significant association was observed between the 'Low Cal' and 'Healthy' diet clusters and YOL **Funding:** NHLBI
Fresan et al, 2019[28] PCS, Seguimiento	**Dietary pattern(s):** Modified 2015 Dietary Guidelines for Americans Index (2014 DGAI) adherence [categorical]	**Significant:** Modified 2015 DGAI score adherence at 36.5y and ACM after 10.4y f/u:	**Key confounders accounted for:**	Higher adherence to the modified 2015 DGAI [Q4: 48% C,

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Universidad de Navarra (SUN) Project Spain Analytic N: 16866 Attrition: 24% Sex: 38.3% female Race/ethnicity: NR SES: Studies: 6% technical, 75.3% graduated, 18.8% Master/doctoral; Civil Status: 47.3% Single, 48% Married, 5% other Alcohol intake: mean 6.5 g/d	scores for the modified 2015 DGAI based on macronutrient distribution of % energy by quartile: Q1: 40% C, 41% F, 17% P Q2: 42% C, 38% F, 18% P Q3: 45% C, 36% F, 18% P Q4: 48% C, 32% F, 20% P **Dietary assessment methods:** 136-item validated FFQ at baseline, age 36.5y **Foods/food groups:** Positive components: Dark Green, Red/Orange, Starchy and Other Vegetables, Variety of Vegetables and Fruits, Legumes, Fruit, Whole Grains, Cereals, Fish and Seafood, Dietary Fiber Density, Meat and Eggs, Low-fat dairy, and Lean Meat Products; Adequacy: Total Fat, SFA, Trans FA, Cholesterol, Sodium; Negative components: Added Sugar, Alcohol **Outcome assessment methods:** Mortality was assessed through the National Death Index	• Q1, n=51 deaths, HR: 1.00 • Q2, n=49 deaths, HR: 0.92, 95% CI: 0.61, 1.39, NS • Q3, n=47 deaths, HR: 0.89, 95% CI: 0.58, 1.38, NS • Q4, n=30 deaths, HR: 0.42, 95% CI: 0.25, 0.70 • p-trend<0.001 **Non-Significant:** N/A	Sex, Age, Race/ethnicity: All Spanish participants, SES: marital status, Alcohol: Part of the score, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Prevalent HTN and hypercholesterolemi, TV watching **Limitations:** • Did not account for key confounders: N/A • Absolute mortality risk in cohort was very low	32% F, 20% P vs. Q1: 40% C, 41% F, 17% P] at 36.5y was significantly associated with lower ACM over 10.4 y f/u. **Funding:** Spanish Government-Instituto de Salud Carlos III; European Regional Development Fund; Navarra Regional Government; University of Navarra
Fung et al, 2010[144] PCS, Nurses' Health Study (NHS); Health Professionals Follow-up Study (HPFS) United States Analytic N: 129716 Attrition: 25% Sex: 65% female	**Dietary pattern(s):** Adherence [categorical, continuous] scores to 'low-carbohydrate' diet based on a macronutrient distribution of % E estimated from vegetable and animal sources: Women: D1: 60.5% C, ~25.8% F, ~15% P D5: 50.9% C, ~30.4% F, ~17.9% P D10: 37.2% C, ~39.9% F, ~22.3% P Men: D1: 60.5% C, ~24.1% F, ~14.9% P D5: 50.9% C, ~31.1% F, ~18.1% P	**Significant:** In men, "low-carbohydrate" score and ACM during 20y f/u • D1, n=871 deaths, HR:1 ref • D2, n=834 deaths, HR: 1.03 • D3, n=916 deaths, HR: 1.14 • D4, n=877 deaths, HR: 1.11 • D5, n=872 deaths, HR: 1.05 • D6, n=868 deaths, HR: 1.25 • D7, n=861 deaths, HR: 1.2 • D8, n=871 deaths, HR: 1.19 • D9, n=880 deaths, HR: 1.22 • D10, n=828 deaths, HR: 1.19,	**Key confounders accounted for:** Sex: Design; Age; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** • Did not account for key confounders: Race/ethnicity;	In men, higher adherence scores based on macronutrient distribution of 37.2% C, ~ 40% F, ~ 22.5% P (D10) compared to 60.5% C, ~ 24.1% F, ~ 14.9% P (D1) were associated with a significant increase in ACM. In women

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Race/ethnicity: NR Alcohol intake: mean ~5g in women, ~10g in men	D10: 37.2% C, ~40% F, ~22.5% P **Dietary assessment methods**: 61- or 116-item validated FFQ in 1984, 1986, and every 4y thereafter in NHS; 130-item validated FFQ in 1986, then every 4y thereafter in HPFS **Foods/food groups:** servings/d reported for Whole grains, Fruits and vegetables, Red/processed meats, and Sweetened soft drinks **Outcome assessment methods**: State vital statistics records, the National Death Index, reported by the families, and the postal system.	• 95% CI: 1.07, 1.31, p<0.001 Animal 'low- carbohydrate' score with D1, HR: 1, ref • In men: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 1.07, 1.12, 1.13, 1.17, 1.24, 1.26,1.32, 1.32, 1.31, 95% CI: 1.19, 1.44, p-trend<0.001. • In women: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 1.07, 1.16, 1.09, 1.14, 1.13, 1.16, 1.22, 1.26, 1.17, 95% CI: 1.08, 1.26, p-trend<0.001 Vegetable 'low- carbohydrate' score with D1, HR: 1 ref • In men: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 0.97, 0.94, 0.98, 0.92, 0.93, 0.84, 0.96, 0.87, 0.81, 95% CI: 0.74, 0.89, p-trend<0.001 • In women: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 1.01, 1.02, 0.91, 1, 0.87, 0.86, 0.87, 0.81, 0.79, 95% CI: 0.73, 0.85, p-trend<0.001 Vegetable 'low- carbohydrate' score in men and women: D1, HR: 1 ref: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 0.99, 0.98, 0.94, 0.97, 0.90, 0.85, 0.91, 0.85, 0.80, 95% CI: 0.75, 0.85, p-trend<0.001 **Non-significant:**	SES: Homogeneous • Only p-trend reported across deciles (95% CI NR) • Macronutrient distribution of each decile NR (only D1, D5, D10 reported)	or pooled analyses of men and women, there were not significant associations. In separate analyes of women and men with types of 'low-carbohydrate' scores, animal-based scores were significantly associated with increased risk of ACM, whereas vegetable-based scores were significantly associated with decreased risk of ACM. **Funding:** NIH

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		In men and women, 'low-carbohydrate' score and ACM during ~20y to 26y f/u: • D1 HR: 1 ref • D2 HR: 1.06, • D3 HR: 1.1, • D4 HR: 1.13, • D5 HR: 1.04, • D6 HR: 1.18, • D7 HR: 1.15, • D8 HR: 1.14, • D9 HR: 1.17, • D10 HR: 1.12, 95% CI: 1.01, 1.24, p-trend=0.136, NS • Animal 'low- carbohydrate' score with D1 HR: 1 ref: HR (D2, D3, D4, D5, D6, D7, D8, D9, D10): 1.07, 1.14, 1.12, 1.15, 1.18, 1.2, 1.26, 1.28, 1.23, 95% CI: 1.11, 1.37, p-trend=0.051, NS 'Low-carbohydrate' score and ACM during 26y f/u in women • D1, n=1406 deaths, HR: 1 ref • D2, n=1350 deaths, HR: 1.08 • D3, n=1262 deaths, HR: 1.08 • D4, n=1297 deaths, HR: 1.14 • D5, n=1227 deaths, HR: 1.04 • D6, n=1146 deaths, HR: 1.13 • D7, n=1146 deaths, HR:1.10 • D8, n=1178 deaths, HR:1.15 • D9, n=1258 deaths, HR:1.14 • D10, n=1199 deaths, HR: 1.07, 95% CI: 0.99, 1.15; p=0.135, NS		
Hernandez-Alonso et al, 2016[145]	**Dietary pattern(s):** Macronutrient distribution based on % E of total protein intake by quintile:	**Significant:**	**Key confounders accounted for:**	Higher protein intake, whether

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
PCS, PREDIMED Spain Analytic N: 7216 Attrition: 3% Sex: 57.4% female Race/ethnicity: NR (All Spanish) Alcohol intake: ~2% energy	Q1: 42.7% C, 39.2% F, 13.6% P Q2: 42.0% C, 40.0% F, 15.4% P Q3: 41.7% C, 39.6% F, 16.6% P Q4: 41.5% C, 39.2% F, 17.7% P Q5: 41.0% C, 38.1% F, 19.8% P **Dietary assessment methods:** 137-item FFQ at baseline and annually thereafter **Foods/food groups:** NR **Outcome assessment methods**: Repeated contact with participants and physicians, and annual review of medical records and consultation of the National Death Index.	Protein intake based on carbohydrate-substitution model at ~67y and ACM at median f/u of 4.8y • Q3, n=57 deaths, HR: 1 ref • Q1, n=95 deaths, HR: 1.22, 95% CI: 0.84, 1.77; • Q2, n=57 deaths, HR: 0.88, 95% CI: 0.60, 1.28; • Q4, n=45 deaths, HR: 0.93, 95% CI: 0.63, 1.39; • Q5, n=69 deaths, HR: 1.59, 95% CI: 1.08, 2.35, p-q-trend <0.001 Protein intake based on fat-substitution model at ~67y and ACM at median f/u of 4.8y • Q3, n=57 deaths, HR: 1 ref • Q1, n=95 deaths, HR: 1.17 , 95% CI: 0.80, 1.70; • Q2, n=57 deaths, HR: 0.86 , 95% CI: 0.59, 1.25; • Q4, n=45 deaths, HR: 0.95 , 95% CI: 0.64, 1.42; • Q5, n=69 deaths, HR: 1.66 , 95% CI: 1.13, 2.43; p-q-trend<0.001 Sensitivity analyses of protein/kg BW/d at ~67y: • 1.0 to 1.5, n=174 deaths ref • <1.0, n=1737, HR: 1.28, 95% CI: 0.93, 1.76; • >1.5, n=1018, HR: 1.54, 95% CI: 1.04, 2.29; p-q-trend <0.001 Animal-protein (carbohydrate-substitution model*): • Q3, n=56 deaths, HR: 1 ref	Sex; Age; Race/ethnicity (all Spanish); Alcohol; Physical activity; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: SES: Education • PREDIMED study randomization errors; • Nutrient residual (energy-adjusted nutrient intake) models used; Macronutrient energy substitution: protein replacing fat or carbohydrate • Duration of f/u relatively short for outcome to occur	substituted for fat or carbohydrate, based on a macronutrient distribution of 41.0% C, 38.1% F, and 19.8% P (Q5) compared to 41.7% C, 39.6% F, and 16.6% P (Q3) was significantly associated with increased risk of ACM in adults at high-risk for CVD. Sensitivity analyses by protein intake in g/kg body weight yielded similar results. The associations remained significant in analyses by source of animal protein, and animal-to-vegetable protein ratio, but was not significant when the source was vegetable protein. **Funding:** Ciberon; Centrol Nacional de Investigaciones Cardiovasculares; Fondo de Investigacion Sanitaria; Ministerio

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		• Q1, n=91 deaths, HR: 1.27 , 95% CI: 0.87, 1.84; • Q2, n=55 deaths, HR:: 0.88 , 95% CI: 0.60, 1.29; • Q4, n=49 deaths, HR: 1.10 , 95% CI: 0.74, 1.63; • Q5, n=72 deaths, HR: 1.86 , 95% CI: 1.27, 2.73, p-q-trend <0.001 *Results were similar in FAT-substitution model Animal-to-vegetable-protein ratio (carbohydrate-substitution model*): • Q3, n=54 deaths, HR: 1 ref • Q1, n=74 deaths, HR:: 1.22 , 95% CI: 0.84, 1.78; • Q2, n=67 deaths, HR: 1.23 , 95% CI: 0.86, 1.77; • Q4, n=53 deaths, HR: 1.01 , 95% CI: 0.69, 1.48; • Q5, n=75 deaths, HR: 1.67 , 95% CI: 1.15, 2.44, p-q-trend=0.01 *Results were similar in fat-substitution model **Non-significant:** Vegetable-protein, median % E by quartile (carbohydrate-substitution model*), and ACM • Q3 n=60 deaths, HR: 1 ref • Q1, n=88 deaths, HR: 1.04, 95% CI: 0.72, 1.52; • Q2, n=57 deaths, HR: 0.86, 95% CI: 0.59, 1.25; • Q4, n=54 deaths, HR: 1.01, 95% CI: 0.70, 1.48; • Q5, n=64 deaths, HR: 1.28, 95%		de Ciencia e Innovacion; Ministerio de Sanidad-Plan Nacional de drogas ; Fundacion Mapfre 2010; Government of the Basque Country; University of the Basque Country; Consejería de Salud de la Junta de Andalucía; the Catalan government

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		CI: 0.84, 1.94, p-q-trend=0.16; NS *Results were similar in fat-substitution model		
Hodge et al, 2011[34] PCS, Melbourne Collaborative Cohort Study (MCCS) Australia Analytic N: 40470 Attrition: 3% Sex: 59% female Race/ethnicity: NR SES: Education: 21% beyond primary school Alcohol intake: ~4.2 g/d	**Dietary pattern(s):** Adherence [categorical] scores for the modified MDS (Trichopolou, 2003) by macronutrient distribution of median % energy: 0-2: 42.3% C, 36.4% F, 18.2% P 3-5: 44.4% C, 34.3% F, 18.0% P 6-9: 46.3% C, 31.8% F, 17.9% P **Dietary assessment methods:** 121-item validated FFQ at baseline, age 55y **Food/Food groups:** Positive components of score: Vegetables, Legumes, Fruit and Nuts, Cereals, Fish, Olive oil; Alcohol (moderation); Negative components of score: Red and Processed Meat, Dairy Products **Outcome assessment methods:** Victorian Registry of Births, Deaths and Marriages, and the National Death Index	**Significant:** MDS adherence [per-unit increase] at 55y and ACM over 12.3y f/u, • Men, HR: 0.96, 95% CI: 0.93, 0.99 • Women, HR: 0.94, 95% CI: 0.92, 0.97 *Results were the same when subjects with diabetes at baseline were excluded. **Non-Significant:** N/A	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical activity, Anthropometry: BMI; WHR, Smoking: Women only **Other:** Family history of heart attack, Past history of illness, Living alone, Country of birth, Hypertension, Cholesterol **Limitations:** Did not account for key confounders: Race/ethnicity, Smoking in men	Higher adherence to the Mediterranean diet at 55y was significantly associated with lower risk of ACM at 12.3y f/u. **Funding:** VicHealth, The Cancer Council Victoria and the National Health and Medical Research Council
Hoffmann et al, 2005[119] PCS, EPIC-Elderly, Germany Analytic N: 9356 Attrition: 2% Sex: 50% female Race/ethnicity: NR SES: ~29% University degree	**Dietary pattern(s):** Adherence to dietary patterns derived by PCA or RRR by macronutrient distribution of quintiles: PCA Pattern 1: Q1: 45.8% C, 29.9% F, 13.4% P Q2: 44.6% C, 30.8% F, 13.6% P Q3: 43.6% C, 31.2% F, 13.7% P Q4: 42.6% C, 31.9% F, 13.8% P Q5: 40.2% C, 33.0% F, 14.1% P PCA Pattern 2:	**Significant:** RRR Pattern 1 [per-SD increase] and ACM, n=404, at 4-8y f/u: RR: 1.20, 95% CI: 1.09, 1.31 RRR Pattern 1 [categorical] and ACM, n=404, at 4-8y f/u: • Q1: RR: 1.00 • Q2: RR: 1.10, 95% CI: 0.70, 1.46 • Q3: RR: 0.96, 95% CI: 0.66, 1.38 • Q4: RR: 1.32, 95% CI: 0.95, 1.85 • Q5: RR: 1.61, 95% CI: 1.17, 2.21	**Key confounders accounted for:** Sex; Age; SES: Education; Alcohol: Part of dietary pattern; Physical activity; Smoking, Anthropometry: BMI, WHR ratio **Other:** Total energy intake; Centre, prevalent cancer,	Adherence to a dietary pattern with macronutrient distribution of Q5: 37.6% C, 37.2% F, 14.8% P compared to Q1: 48% C, 25.9% F, 12.6% P [i.e. carbohydrate below and fat above compared to both within the AMDR] at

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake: NR	Q1: 39.7% C, 31.5% F, 13.4% P Q2: 42.7% C, 32.0% F, 13.7% P Q3: 43.9% C, 31.4% F, 13.8% P Q4: 44.7% C, 31.2% F, 13.9% P Q5: 45.5% C, 30.8% F, 13.8% P RRR Pattern 1: Q1: 48.0% C, 25.9% F, 12.6% P Q2: 45.8% C, 28.9% F, 13.3% P Q3: 43.6% C, 31.2% F, 13.7% P Q4: 41.5% C, 33.6% F, 14.1% P Q5: 37.6% C, 37.2% F, 14.8% P RRR Pattern 2: Q1: 42.1% C, 33.0% F, 12.0% P Q2: 43.5% C, 31.4% F, 13.1% P Q3: 44.3% C, 30.4% F, 13.7% P Q4: 44.2% C, 30.4% F, 14.4% P Q5: 42.5% C, 31.7% F, 15.4% P **Dietary assessment methods:** 148-item validated FFQ at baseline, bage ~63y **Foods/food groups:** • PCA Pattern 1: higher in potatoes, vegetables, legumes, bread, all types of meat, eggs, sauces, soups; • PCA Pattern 2: higher in vegetables, fruits, dairy products, other cereals, vegetable oils non-alcoholic beverages, and lower in alcoholic beverages other than wine • RRR Pattern 1: Higher in meat, butter, sauces and eggs, and lower in bread, fruits • RRR Pattern 2: Higher in legumes, poultry, fish, margarine, and lower in butter, sugar,	• p-trend = 0.0004 **Non-significant:** Dietary patterns [per-SD increase] and ACM, n=404, at 4-8y f/u: • PCA Pattern 1: RR: 1.10, 95% CI: 0.96, 1.28 • PCA Pattern 2: RR: 0.99, 95% CI: 0.89, 1.10 • RRR Pattern 2: RR: 0.96, 95% CI: 0.87, 1.06 Dietary patterns [categorical] and ACM, n=404, at 4-8y f/u: PCA Pattern 1: • Q1: RR: 1.00 • Q2: RR: 0.82, 95% CI: 0.57, 1.22 • Q3: RR: 1.00, 95% CI: 0.70, 1.45 • Q4: RR: 1.03, 95% CI: 0.70, 1.51 • Q5: RR: 1.06, 95% CI: 0.68, 1.65 • p-trend = 0.50 PCA Pattern 2: • Q1: RR: 1.00 • Q2: RR: 0.91, 95% CI: 0.68, 1.22 • Q3: RR: 0.90, 95% CI: 0.66, 1.23 • Q4: RR: 1.10, 95% CI: 0.81, 1.51 • Q5: RR: 0.80, 95% CI: 0.55, 1.15 • p-trend = 0.61 RRR Pattern 2: • Q1: RR: 1.00 • Q2: RR: 0.87, 95% CI: 0.63, 1.21 • Q3: RR: 0.81, 95% CI: 0.57, 1.13 • Q4: RR: 1.07, 95% CI: 0.78, 1.48	CHD, diabetes and hypertension **Limitations:** Did not account for key confounders: Race/ethnicity	63y was associated increased risk of ACM after 4-8y f/u. Adherence to the other dietary patterns were not significantly associated with ACM. **Funding:** Quality of Life and Management of Living Resources Programme of the European Commission ; Europe against Cancer Programme of the European Commission; Deutsche krebshilfe

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	cakes **Outcome assessment methods:** Follow-up with subjects	• Q5: RR: 0.96, 95% CI: 0.70, 1.33 • p-trend =0.74		
Kant et al, 2000[41] PCS, Breast Cancer Detection and Demonstration Project (BCDDP) United States Analytic N: 42254 Attrition: 18% Sex: 100% female Race/ethnicity: ~87% White SES: ~89% >12y education Alcohol intake: ~50% drink alcohol	**Dietary pattern(s):** Adherence to the Recommended Food Score (RFS) based on macronutrient distribution of median % energy by quartile: Q1: 43% C, 39% F,~17% P Q2: 45% C, 36% F,~17% P Q3: 47% C, 34% F, ~18% P Q4: 49% C, 32% F, ~17% P **Dietary assessment methods:** 62-item, validated FFQ at age 61y **Food/Food groups:** Fruits, vegetables, whole grains, low-fat dairy, lean meats and poultry **Outcome assessment methods:** Death certificates	**Significant:** RFS adherence [categorical; Q1 vs. Q2, Q3, Q4] at 61y and ACM after 5.6y f/u: • Q1, n=559 deaths: 1.00 • Q2, n=621 deaths, HR: 0.82, 95% CI: 0.73, 0.92 • Q3, n=389 deaths, HR: 0.71, 95% CI: 0.62, 0.81 • Q4, n=496 deaths, HR: 0.69, 95% CI: 0.61, 0.78 • X^2-trend 35.64, p-trend <0.001 Results were similar when excluding subjects with missing covariates, subjects with baseline disease, first 2y of f/u, first 3y of f/u	**Key confounders accounted for:** Sex: All women, Age, Race/ethnicity, SES, Alcohol, Physical activity, Anthropometry, Smoking **Other:** Total energy intake, Other: history of cancer/CVD/type 2 diabetes, postmenopausal hormone use **Limitations:** Did not account for key confounders: N/A	Higher adherence to the Recommended Food Score [Q4: 49% C, 32% F, ~17% P vs. Q1: 43% C, 39% F,~17% P] at age 61y was significantly associated with lower risk of ACM after 5.6y of f/u. **Funding:** None
Kelemen et al, 2005[146] PCS, Iowa Women's Health Study United States Analytic N: 29017 Attrition: 0% Sex: 100% female Race/ethnicity: NR Alcohol intake > 14 g/d: 8.4%	**Dietary pattern(s):** Macronutrient distribution based on % E by quintile: Q1: 53.7% C, 33.1% F, 14.1% P Q2: 50.8% C, 33.9% F, 16.3% P Q3: 48.9% C, 34.2% F, 17.8% P Q4: 46.8% C, 34.7% F, 19.4% P Q5: 43.9% C, 34.5% F, 22.0% P **Dietary assessment methods:** 131-item validated FFQ at baseline **Foods/food groups:** Servings/1000kcal of Processed and red meat, Chicken and poultry, Fish and seafood, Dairy products, Eggs, Nuts, tofu, and legumes, Whole grains, Refined	**Significant:** N/A **Non-significant:** Protein intake via isoenergetic carbohydrate substitution and ACM • Q1, n=917 deaths, RR:1 ref • Q2, n=800 deaths, RR: 0.95; • Q3, n=722 deaths, RR: 0.81; • Q4, n=760 deaths, RR: 0.84; • Q5, n=779 deaths, RR: 0.99; • 95% CI: 0.71, 1.38; p-trend=0.67 Animal-protein: • Q1, n=885 deaths, RR:1, ref • Q2, n=801 deaths, RR: 0.93,	**Key confounders accounted for:** Sex: Design; Age; SES: Education; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** • Did not account for key confounders: Race/ethnicity	There were no significant associations between protein intake [assuming carbohydrate substituion] ranging from Q1 to Q5 (Q1: 53.7% C, 33.1% F, 14.1% P; Q5: 43.9% C, 34.5% F, 22.0% P) and ACM after 15 years. Associations by protein type i.e.,

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	grains, White bread, Rice or pasta, Potatoes, Sweets and desserts, Fruits and vegetables, **Outcome assessment method**: Linkage with the National Death Index.	• Q3, n=732 deaths, RR: 0.83, • Q4, n=764 deaths, RR: 0.79, • Q5, n=796 deaths, RR: 0.82, 95% CI: 0.59, 1.13; p-trend=0.24 Vegetable-protein: • Q1, n=925 deaths, RR: 1.0, ref • Q2, n=783 deaths, RR: 0.90, • Q3, n=771 deaths, RR: 0.95, • Q4, n=756 deaths, RR: 0.93, • Q5, n=743 deaths, RR: 0.95, 95% CI: 0.92, 1.10; p-trend=0.74 Vegetable protein via isoenergetic animal protein substitution: • Q1, n=925 deaths, RR: 1, ref • Q2, n=783 deaths, RR: 0.93, • Q3, n=771 deaths, RR: 0.98, • Q4, n=756 deaths, RR: 0.98, • Q5, n=743 deaths, RR: 0.99, 95% CI: 0.86, 1.14; p-trend=0.82	• Multivariate nutrient density models used (i.e., total energy constant with isoenergetic substitutions); • Macronutrient distributions do not add up >100%, unclear if this is due to rounding error, alcohol intake, or another reason	animal, vegetable, or animal-vegetable substition, were also not significant. **Funding:** NCI
Kim et al, 2019[43] *AHA* PCS, Atherosclerosis Risk in Communities (ARIC) United States Analytic N: 12168 Attrition: 23% Sex: ~56% female Race/ethnicity: ~27% black SES: ~77.8% high school graduate Alcohol intake: mean ~43 g/wk	**Dietary pattern(s):** Adherence to [categorical [Q1, Q2, Q3, Q4, Q5]] to the Healthy plant-based diet index [hPDI], Less healthy [unhealthy] plant-based diet index [uPDI], Provegetarian Diet Index, Plant-based Diet Index (PDI)**:** PDI based on macronutrient distribution by quintile: Q1: 43.7% C, 35.4% F, 18.7% P Q2: 47.4% C, 33.3% F, 18.5% P Q3: 50.0% C, 32.0% F, 18.3% P Q4: 52.1% C, 30.7% F, 17.9% P Q5: 54.6% C, 29.8% F, 17.0% P hPDI based on macronutrient distribution by quintile:	**Significant:** PDI index at ~54-60y and ACM (n=5436) over 25y f/u: • Q1, HR: 1.00 • Q2, HR: 0.89, 95% CI: 0.83, 0.97 • Q3, HR: 0.82, 95% CI: 0.76, 0.89 • Q4, HR: 0.82, 95% CI: 0.75, 0.89 • Q5, HR: 0.76, 95% CI: 0.69, 0.83 • p-trend<0.001 hPDI index at ~54-60y and ACM (n=5436) over 25y f/u: • Q1, HR: 1.00 • Q2, HR: 0.99, 95% CI: 0.91, 1.07, NS • Q3, HR: 0.99, 95% CI: 0.91, 1.08,	**Key confounders accounted for:** Sex, Age, Race/ethnicity, SES: Education, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Margarine intake, cholesterol, diabetes, hypertension, lipid-lowering med use, baseline kidney function	Higher adherence to the overall plant-based diet index (PDI; 54.6% C, 29.8% F, and 17.0% P vs. 43.7% C, 35.4% F, and 18.7% P), the healthy plant-based diet index (hDPI; 52.4% C, 29.4% F, and 18.6% P vs. 46.5% C, 35.2% F, and 17.7% P), and the provegetarian diet index at 54-60y were each

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Q1: 46.5% C, 35.2% F, 17.7% P Q2: 47.9% C, 33.5% F, 18.1% P Q3: 49.2% C, 32.3% F, 18.2% P Q4: 50.7% C, 30.9% F, 18.3% P Q5: 52.4% C, 29.4% F, 18.6% P uPDI based on macronutrient distribution by quintile: Q1: 46.9% C, 32.6% F, 20.6% P Q2: 48.2% C, 32.5% F, 19.3% P Q3: 49.1% C, 32.5% F, 18.2% P Q4: 49.8% C, 32.5% F, 17.1% P Q5: 52.5% C, 31.9% F, 15.0% P Provegetarian diet index based on macronutrient distribution by quintile: Q1: 44.3% C, 35.2% F,18.7% P Q2: 47.7% C, 33.3% F,18.4% P Q3: 49.7% C, 32.2% F,18.2% P Q4: 51.6% C, 31.0% F,17.8% P Q5: 54.4% C, 29.5% F,17.4% P **Dietary assessment methods:** 66-item validated FFQ at baseline ~mean age 54 y, and at visit 3, ~6 y post-baseline **Foods/Food groups**: PDI, hPDI, uPDI: • Healthy Plant Foods: Whole Grains, Fruits, Vegetables, Nuts, Legumes, Coffee, Tea • Less Healthy Plant Foods: Fruit Juices, refined grain, potatoes, sugar sweetened and artificially sweetened beverages, sweets and desserts • Animal Foods: Animal fat, dairy, eggs, fish or seafood, meat, miscellaneous animal foods.	NS • Q4, HR: 0.93, 95% CI: 0.85, 1.02, NS • Q5, HR: 0.91, 95% CI: 0.83, 1.00 • p-trend=0.03 Provegetarian diet index at ~54-60y, n=5436, and ACM over 25 y f/u: • Q1, HR: 1.00 • Q2, HR: 0.92, 95% CI: 0.85, 0.99 • Q3, HR: 0.89, 95% CI: 0.82, 0.97 • Q4, HR: 0.84, 95% CI: 0.77, 0.91 • Q5, HR: 0.82, 95% CI: 0.76, 0.89 • p-trend<0.001 **Non-Significant:** uPDI index at ~54-60y and ACM over 25y f/u: • Q1, HR: 1.00 • Q2, HR: 1.04, 95% CI: 0.96, 1.12, NS • Q3, HR: 0.97, 95% CI: 0.89, 1.05, NS • Q4, HR: 1.01, 95% CI: 0.93, 1.10, NS • Q5, HR: 1.02, 95% CI: 0.94, 1.11, NS • p-trend=0.67	**Limitations:** • Dietary intake may not reflect the modern food supply • BMI incorrectly reported by authors	significantly associated with lower ACM over ~25y f/u. There were no significant associations between the unhealthy plant-based diet index (uPDI; 52.5% C, 31.9% F, and 15.0% P vs. 46.9% C, 32.6% F, and 20.6% P) and ACM, as well as the lower quintiles of the hDPI and ACM. **Funding:** NIH: NHLBI; HHS

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Provegetarian diet index: • Plant foods: grains, fruits, vegetables, nuts, legumes, and potatoes • Animal foods: animal fat, dairy, eggs, fish or seafood, meat **Outcome assessment methods:** National Death Index			
Leosdottir, 2004[147] PCS, Malmo Diet and Cancer Study Sweden Analytic N: 27959 Attrition: 0% Sex: 60.6% female Race/ethnicity: NR (all Swedish) Alcohol intake: mean 10.7 g pure ethanol/d	**Dietary pattern(s):** Macronutrient distribtion based on % E by quartile: Women: • Q1: 46.2% C, 36.4% F, 17.1% P • Q2: 45.7% C, 37.9% F, 16.2% P • Q3: 45.2% C, 38.9% F, 15.7% P • Q4: 44.6% C, 40.4% F, 14.8% P Men: • Q1: 45.2% C, 38.0% F, 16.6% P • Q2: 45.2% C, 39.1% F, 15.6% P • Q3: 44.5% C, 40.1% F, 15.3% P • Q4: 43.6% C, 41.8% F, 14.6% P **Dietary assessment methods:** 168-item FFQ at baseline (mean age 58.2 y) and 7-d menu-diary validated for this study **Foods/food groups:** Vegetable and fruit intake, g/d, and Alcohol intake, g pure ethanol/d **Outcome assessment methods:** Local and national registries over ~6.6 y f/u	**Significant:** Total energy intake at 57.5y and ACM after ~6.6y f/u in women with Q1 ref: Q3 RR: 0.74, 95% CI: 0.57, 0.96 **Non-Significant:** Total energy intake at 57.5y and ACM after ~6.6y f/u in women with Q1 ref Q2 RR: 0.88, 95% CI: 0.69, 1.13; Q4 RR: 1.06, 95% CI: 0.84, 1.34. Total energy intake at age 59.3y and ACM after ~6.6y f/u in men with Q1 ref Q2 RR: 0.85, 95%CI: 0.69, 1.04; Q3 RR: 0.85, 95%CI: 0.69, 1.04; Q4 RR: 0.89, 95%CI: 0.72, 1.09. Sensitivity Analysis stratified by those patients with <1 y f-u time, prior history of diabetes, stroke, myocardial infarction or cancer excluded. Women: • Q2 RR: 0.90, 95%CI: 0.66, 1.24; • Q3 RR: 0.82, 95%CI: 0.59, 1.14; • Q4 RR: 1.00, 95%CI: 0.73, 1.36. Men: • Q2 RR: 0.88, 95%CI: 0.68, 1.13; • Q3 RR: 0.78, 95%CI: 0.60, 1.02;	**Key confounders accounted for:** Sex: Design; Age; Race/ethnicity: design; SES: SES and marital status; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** • Did not account for key confounders: N/A • Potential for dietary measurement errors	Intake based on a macronutrient distribution of 45.2% C, 38.9% F, and 15.7% P (Q3) compared to 46.2% C, 36.4% F, and 17.1% P (Q1) was associated with decreased risk of ACM after ~6.6 years of f/u in women.There were no significant associations between intake at different macronutrient distributions and ACM after ~6.6y of f/u in men. **Funding:** Anna Jonssons Memorial Fund

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		• Q4 RR: 0.93, 95%CI: 0.72, 1.20		
Leosdottir, 2005[148] PCS, Malmo Diet and Cancer Study Sweden Analytic N: 27959 Attrition: 0%) Baseline age: mean 58.2 y Sex: 60.6% female Race/ethnicity: NR, all Swedish Alcohol intake: mean 10.7 g pure ethanol/d	**Dietary pattern(s):** Macronutrient distribution based on % E of Fat (F) intake by quartile: Women: • Q1: 52.0% C, 30.8% F, 16.6% P • Q2: 47.0% C, 36.5% F, 16.2% P • Q3: 43.7% C, 40.3% F, 15.8% P • Q4: 38.7% C, 46.1% F, 15.2% P Men: • Q1: 51.7% C, 31.7% F, 16.0% P • Q2: 46.2% C, 37.8% F, 15.8% P • Q3: 42.9% C, 41.7% F, 15.4% P • Q4: 37.6% C, 47.7% F, 14.8% P **Dietary assessment methods:** 168-item FFQ at baseline, mean age 58.2y, and 7-d menu-diary validated for this study **Foods/food groups:** Fiber intake (g/d), Vegetable and fruit intake (g/d) and Alcohol intake (g pure ethanol/d) **Outcome assessment method:** Local and national registries over ~6.6 y f/u	**Significant:** In men, ACM after ~6.6y f/u • Q1 RR:1 ref • Q3 RR: 0.77, 95% CI: 0.62, 0.95. **Non-significant:** In women, ACM after ~6.6y f/u • Q1 RR: 1 ref • Q2 RR: 1.08, 95% CI: 0.84, 1.40, NS • Q3 RR: 0.93, 95% CI :0.71, 1.22, NS • Q4 RR: 1.22, 95% CI: 0.94-1.58, NS In men, ACM after ~6.6y f/u • Q1 RR: 1 ref • Q2 RR: 0.92, 95% CI: 0.75, 1.13, NS • Q4 RR: 0.89, 95% CI: 0.72, 1.10, NS	**Key confounders accounted for:** Sex: Design; Age; Race/ethnicity: design; SES; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** Did not account for key confounders: N/A	Intake based on a macronutrient distribution of 42.9% C, 41.7% F, and 15.4% P (Q3) compared to 51.7% C, 31.7% F, and 16.0% P (Q1) was associated with a significantly lower risk of ACM after ~6.6y of f/u in men. There were no significant associations between macronutrient distribution and ACM after ~6.6y of f/u in women. **Funding:** Swedish Scientific Council; Swedish Cancer Foundation; Anna Jonssons Memorial Fund; Swedish Heart and Lung Foundation; European Commission; Region of Skane, Sweden.
Martinez-Gonzalez et al, 2014[60] PCS, PREDIMED	**Dietary pattern(s):** Adherence [categorical] scores for a 'provegetarian FP' based on macronutrient distribution of % energy:	**Significant:** 'provegetarian FP' adherence [categorical] and ACM at 4.8y f/u, with	**Key confounders accounted for:** Sex, Age, SES, Alcohol, Physical	Highest [46% C, 37% F, 14% P] compared to lowest [38% C, 40.6% F,

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Spain Analytic N: 7216 Attrition: 3%) Sex: 57% female Race/ethnicity: NR SES: Education: 22% > primary Alcohol intake: NR	• very low <30: 38% C, 40.6% F, 18.5% P • low 30-34: 40.5% C, 39.6% F, 17.5% P • moderate 35-39: 42% C, 39.2% F, 16.4% P • high 40-44: 44% C, 38% F, 15% P • very high >44: 46% C, 37% F, 14% P **Dietary assessment methods:** 137-item validated FFQ at age 67y **Foods/food groups:** Median intake of 12 food groups: food groups from plant origin (fruit, vegetables, nuts, cereals, legumes, olive oil, and potatoes) and 5 food groups from animal origin (added animal fats, eggs, fish, dairy products, and meats and meat products) for total energy intake **Outcome assessment methods:** Basis of clinical records, death certificate, and linkage to the National Death Index	very low <30, n=44 deaths, 2951 person-years, ref: • low 30-34, n= 97 deaths, 2055 person-years, HR: 0.71, 95% CI: 0.50, 1.02; NS • moderate 35-39, n=118 deaths, 2761 person-years, HR: 0.68, 95% CI: 0.48, 0.96; • high 40+, n= deaths, n=64 deaths, 1731 person-years, HR: 0.59, 95% CI: 0.40, 0.88; p-trend=0.027 'provegetarian FP' adherence [categorical, quintiles] and ACM at 4.8y f/u, with Q1, <33, n=44 deaths, 2951 person-years, ref • Q2, 33-35, n= 80 deaths, 6851 person-years, HR: 0.98, 95% CI: 0.72, 1.32; NS • Q3, 36-37, n= 51 deaths, 5091 person-years, HR: 0.81, 95% CI: 0.57, 1.14; NS • Q4, 38-40, n= 50 deaths, 6018 person-years, HR: 0.70, 95% CI: 0.49, 0.99 • Q5, >40, n= 46 deaths, 5607 person-years, HR: 0.66, 95% CI: 0.46, 0.96; p-trend=0.006 'provegetarian FP' adherence [categorical, yearly updated] and ACM at 4.8y f/u, with very low <30, n=42 deaths, ref: • low 30-34, n= 2055, n=96 deaths, RR: 0.76, 95% CI: 0.53, 1.10; NS • moderate 35-39, n=2761, n=125	activity, Smoking **Other:** Total energy intake, Other: intervention group **Limitations:** • Did not account for key confounders: Race/ethnicity, Anthropometry • Secondary analysis from PREDIMED trial subject to randomization issues	18.5% P] categories of adherence to 'provegetarian FP' were significantly associated with lower risk of ACM at 4.8 y f/u in individuals at high-risk for CVD. **Funding:** Biomedical Research of the Spanish Government, Instituto de Salud Carlos III

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		deaths, RR: 0.79, 95% CI: 0.55, 1.13; NS • high 40+, n= 1731, n=60 deaths, RR: 0.59, 95% CI: 0.39, 0.89; p-trend=0.028 *Inclusion of eggs and dairy products did not attenuate the main results *Sensitivity analyses based on absolute servings, with low <4, n=3763, n=184 deaths, 15964 person-years, HR: 1 ref: • Moderate 4, n=1904, n=81 deaths, 8303 person-years, HR: 0.85, 95% CI: 0.65, 1.11; NS • High >4, n=1549, n=58 deaths, 6811 person-years, HR: 0.70, 95% CI: 0.51, 0.95 **Non-Significant:** see above		
Mazidi, 2019[149] PCS, US National Health and Nutrition Examination Survey (NHANES) United States Analytic N: 24825 Attrition: 0% Sex: 51.4% female Race/ethnicity: Mexican-American 19%, Non-Hispanic White 47%, Non-Hispanic Black 21%	**Dietary pattern(s):** Adherence [categorical] to 'low-carbohydrate' scores by quartile based on macronutrient distribution of % E: • Q1: 66% C, 27% F, 13% P • Q2: 57% C, 32% F, 15% P • Q3: 49% C, 36% F, 17% P • Q4: 39% C, 43% F, 19% P **Dietary assessment methods:** 24-h recall **Foods/food groups:** NR **Outcome assessment method:** Linkage via longitudinal Medicare and using NHANES assigned sequence number	**Significant:** 'low-carbohydrate' score at 48y and incident mortality at ~6.4y: Q1 12%, Q2 12%, Q3 13%, Q5 18%, p<0.001 'low-carbohydrate' score at 48y and ACM at ~6.4y • Q1, n=756 deaths, HR: 1 ref • Q2, n=749 deaths, HR: 1.09, 95% CI: 1.02, 1.64; • Q3, n=831 deaths, HR: 1.19, 95% CI: 1.09, 1.82; • Q4, n=1096 deaths, HR: 1.32, 95% CI: 1.14, 2.01; p-trend<0.001	**Key confounders accounted for:** Sex; Age; SES; Alcohol; Physical activity; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: Race/ethnicity • Nutrient residual (energy-adjusted nutrient intake)	Highest adherence scores based on macronutrient distribution of 39% C, 43% F, 19% P (Q4) compared to 66% C, 27% F, 13% P (Q1) were significantly associated with an increased risk of ACM **Funding:** None

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Alcohol intake: mean [SE] g/d 8.7 [0.2]		Sub-group analyses of 'low-carbohydrate' score at 48y and total morality at mean f/u of 6.4y in those with BMI ≥ 30 kg/m2 vs. BMI < 30 kg/m2: BMI ≥ 30 kg/m2: • Q2 HR: 1.02, 95%CI: 1.01, 1.09; • Q3 HR: 1.11, 95%CI: 1.03, 1.23; • Q4 HR: 1.19, 95%CI: 1.11, 2.25; BMI< 30kg/m2:: • Q2 HR: 1.13, 95%CI: 1.07, 1.19; • Q3 HR: 1.25, 95%CI: 1.11, 1.76; • Q4 HR: 1.48, 95%CI: 1.37, 2.01; P-interaction <0.001 Sub-group analyses of 'low-carbohydrate' score at mean age 47.6y and total morality at mean f/u of 6.4y in younger < 55y vs. older ≥ 55y participants: < 55y: • Q2 HR: 1.08, 95% CI: 1.02, 1.012; • Q3 HR: 1.09, 95% CI: 1.03, 1.20; • Q4 HR: 1.17, 95% CI: 1.10, 2.01; ≥ 55y: • Q2 HR: 1.19, 95% CI: 1.10,1.30; • Q3 HR: 1.29, 95% CI: 1.13,1.63; • Q4 HR: 1.52, 95% CI: 1.41, 1.79; P-interaction <0.001 **Non-significant:** N/A	models used to estimate intake of each individuals • For 'LC/HP' diet, Q1 macronutrient distribution NR therefore, results were not extracted; • Duration of f/u relatively short for outcome to occur	
Nagata et al, 2012[150] PCS, The Takayama Study Japan	**Dietary pattern(s):** Macronutrient distribution based on % E from carbohydrate and protein; median % E from F by quintile: • Women: Q1: 69.7% C, 16.9% F, 13.2% P	**Significant:** In men, ACM during 16y f/u • Q1, n=562 deaths, HR: 1 ref • Q2, n=479 deaths, HR: 0.85, 95% CI: 0.75, 0.97;	**Key confounders accounted for:** Sex: Design; Age; Race/ethnicity (all Japanese); SES;	In men, higher intake of total fat with a diet based on macronutrient distribution of 55.3%

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Analytic N: 28356 Attrition: 10% Sex: 54.3% female Race/ethnicity: NR (All Japanese) Alcohol intake: mean 27.3 g/d	Q2: 63.9% C, 21.0% F, 15% P Q3: 60.5% C, 23.7% F, 15.9% P Q4: 57.6% C, 26.2% F, 16.6% P Q5: 52.9% C, 29.6% F, 17.6% P • Men: Q1: 72.0% C, 16.3% F,13.3% P Q2: 66.7% C, 20.1% F,15% P Q3: 63.5% C, 22.7% F,16% P Q4: 60.2% C, 25.5% F,16.9% P Q5: 55.3% C, 29.6% F,18.6% P **Dietary assessment methods**:169-item FFQ validated in this sample; collected at baseline at age ≥ 35y **Foods/food groups:** Meats, Dairy foods, Eggs, Fish, and Vegetable oil (g/4.19MJ) **Outcome assessment methods:** National Vital Statistics provided by the Ministry of Health, Labor, and Welfare	• Q3, n=503 deaths, HR: 0.87, 95% CI: 0.76, 1.00; • Q4, n= 485 deaths, HR: 0.80, 95% CI: 0.69, 0.94; • Q5, n= 470 deaths, HR: 0.77, 95% CI: 0.64, 0.92; p-trend= 0.006. Sensitivity analyses in men excluding underreporters: Q2 HR: 0.92 95% CI: 0.80, 1.05, Q3 HR: 0.94, 95% CI: 0.82, 1.09, Q4 HR: 0.86, 95% CI: 0.73, 1.00, Q5 HR: 0.81, 95% CI: 0.68, 0.97, p-trend= 0.02 **Non-significant:** In women, ACM during 16y f/u • Q1, n=644 deaths, HR: 1 ref • Q2, n=453 deaths, HR: 1.02, 95% CI: 0.89, 1.17; • Q3, n=420 deaths, HR: 1.06, 95% CI: 0.91, 1.23; • Q4, n=337 deaths, HR: 1.11, 95% CI: 0.94, 1.31; • Q5, n=263 deaths, HR: 1.11, 95% CI: 0.91, 1.36; p-trend= 0.20 Sensitivity analyses in men (Q1 ref): • Low BMI: Q2 HR: 0.95 95% CI: 0.80, 1.13; Q3 HR: 0.96, 95% CI: 0.80, 1.16; Q4 HR: 0.90, 95% CI: 0.73, 1.11; Q5 HR: 0.87, 95% CI: 0.68, 1.11; p-trend= 0.24; • High BMI: Q2 HR: 0.77, 95% CI: 0.60, 0.95; Q3 HR: 0.75, 95% CI: 0.60, 0.95; Q4 HR: 0.78, 95% CI:	Alcohol; Physical activity; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: Race/ethnicity • Multivariate nutrient density models used (i.e., total energy constant with isoenergetic substitutions)	C, 29.6% F, and 18.6% P (Q5) compared to 72.0% C, 16.3% F, 13.3% P (Q1) was associated with a 23% decrease in risk of ACM. That association remained significant in sensitivity analyses removing underreporters. In women, there were not significant associations between intake at different macronutrient distributions and ACM. **Funding:** Ministry of Education, Culture, Sports, Science, and Technology, Japan

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		0.61, 1.00; Q5 HR: 0.75, 95% CI: 0.56, 0.99; p-trend= 0.11; • Excluding deaths within first 6y of f/u: Q2 HR: 0.90 95% CI: 0.78, 1.04; Q3 HR: 0.93, 95% CI: 0.80, 1.09; Q4 HR: 0.89, 95% CI: 0.75, 1.05; Q5 HR: 0.83, 95% CI: 0.69, 1.01; p-trend= 0.10 Sensitivity analyses in women (Q1 ref): • Low BMI: Q2 HR: 0.94, 95% CI: 0.77, 1.14; Q3 HR: 0.84, 95% CI: 0.68, 1.05; Q4 HR: 1.12, 95% CI: 0.87, 1.43; Q5 HR: 1.00, 95% CI: 0.74, 1.35; p-trend= 0.84; • High BMI: Q2 HR: 1.05, 95% CI: 0.85, 1.30, Q3 HR: 1.18, 95% CI: 0.94, 1.48, Q4 HR: 1.04, 95% CI: 0.80, 1.34, Q5 HR: 1.16, 95% CI: 0.86, 1.57, p-trend=0.40; • Excluding underreporters: Q2 HR: 1.03, 95% CI: 0.89, 1.18, Q3 HR: 1.06, 95% CI: 0.91, 1.23, Q4 HR: 1.11, 95% CI: 0.93, 1.31, Q5 HR: 1.11, 95% CI: 0.90, 1.36, p-trend= 0.23; • Excluding deaths within the first 6y f/u: Q2 HR: 1.04 95% CI: 0.90, 1.20, Q3 HR: 1.11 95% CI: 0.94, 1.29, Q4 HR: 1.11 95% CI: 0.93, 1.33, Q5 HR: 1.13, 95% CI: 0.92, 1.40, p-trend= 0.17		
Nakamura et al, 2014[151]	**Dietary pattern(s):** Adherence [categorical, continuous] scores by decile to a 'low-	**Significant:** 'low-carbohydrate' score at ~51y and ACM during 29y f/u in women	**Key confounders accounted for:**	Highest adherence scores based on macronutrient

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
PCS, National Integrated Project for Prospective Observation of Noncommunicable Disease (NIPPON DATA) Japan Analytic N: 9200 Attrition: 13% Sex: 57.4% female Race/ethnicity: NR (All Japanese) Alcohol intake: current drinker ~19% women, 73% men	carbohydrate' diet based on a macronutrient distribution of % E (kJ): • Women: D1: 72.7% C, 14.1 % F, 12.9% P D5: 63.2% C, 20.6% F, 15.4% P D10: 51.5% C, 29.4% F, 18.3% P • Men: D1: 69.8% C, 13.1% F, 12.6% P D5: 60.7% C, 18.9% F, 15% P D10: 50% C, 26.6% F, 17.9% P **Dietary assessment methods:** 3-d weighed food record **Foods/food groups:** Rice, Flour, Fruits, Green-yellow vegetables, Fish and shellfish, Meats, Eggs in g/d **Outcome assessment method:** National Vital Statistics Database of Japan after 29y f/u	• D1, n=233, HR: 1 ref • D10, n=86, HR: 0.74, 95% CI: 0.57, 0.95 **Non-significant:** 'low-carbohydrate' score at ~51y and ACM during 29y f/u in men and women combined: • D1, n=466, HR: 1 ref • D5, n=407, HR: 0.98, 95%CI: 0.86, 1.13; • D10, n=220, HR: 0.87, 95% CI: 0.74, 1.02; • Overall HR: 0.99, p-trend=0.090 'low-carbohydrate' score at mean age 51y and ACM during 29y f/u in women • D1, n=233, HR: 1 ref • D5, n=191, HR: 1.02, 95% CI: 0.84, 1.24; • Overall HR: 0.98, p=0.029 'low-carbohydrate' score at mean age 51y and ACM during 29y f/u in men • D1, n=233, HR: 1 ref • D5, n=216, HR: 0.96, 95% CI: 0.79, 1.15; • D10, n=134, HR: 1.0, 95% CI: 0.80, 1.25; • Overall HR:1, P=0.858 *Results analyzing animal-based or fish-based scores revealed no significant associations relative to ACM in men, women, or pooled	Sex; Age; Race/ethnicity (all Japanese residents); SES; Alcohol; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: Physical activity: NR • Macronutrient distribution of each decile NR (only D1, D5, D10 reported)	distribution of 51.5% C, 29.4% F, 18.3% P (D10) compared to 72.7% C, 14.1% F, 12.9% P (D1) were significantly associated with decreased risk of ACM in women only, but this was not significant in men or pooled analyses of men and women. No effects were observed when scores were analyzed as animal-based or plant-fish based relative to ACM. **Funding:** Ministry of Health, Labor and Welfare under the auspices of Japanese Association for Cerebro-cardiovascular Disease Control; Ministry of Health, Labor and Welfare

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		analyses.		
Nilsson et al, 2012[152] PCS, Va ¨sterbotten Intervention Program (VIP) Sweden Analytic N: 77319 Attrition: 11% Sex: 51% female Race/ethnicity: NR Alcohol intake: Ethanol g/d by low/medium/high LCHP score for men/women (4.2/1.8, 4.9/1.9, 5.2/2.1)	**Dietary pattern(s):** Macronutrient distribution based on low carbohydrate, high protein (LCHP) score, continuous (0-20) and categorical: Women • Low (2-8): 56.4% C, 29.1% F, 13.4% P • Medium (9-13): 51.2% C, 33.0% F, 14.9% P • High (14-20): 46.8% C, 35.7% F, 16.8% P Men: • Low (2-8): 53.5% C, 32.67% F, 12.9% P, • Medium (9-13): 48.0% C, 36.7% F, 14.4% P • High (14-20): 43.3% C, 39.6% F, 16.3% P **Dietary assessment methods**: 84- or 65-item validated FFQ; collected at baseline, ~ age 50y **Foods/food groups:** NR **Outcome assessment method:** Swedish national cause-of-death registry, at ~10y (1d to 19y)	**Significant:** In women, LCHP score (continuous) and ACM after ~10y, SFA >median: HR: 1.03, 95% CI: 1.00, 1.05, p=0.020. LCHP score (categorical) and ACM after ~10y, SFA >median: • low HR: 1 ref: • medium HR: 1.22, 95% CI: 0.91, 1.64, p=0.191, NS; • high HR: 1.34, 95%CI: 1.00, 1.80, p=0.048 **Non-significant:** In men, LCHP score (continuous) and ACM after ~10y: HR: 1.00, 95%CI: 0.99, 1.02, p=0.721, NS. In men, LCHP score (categorical) and ACM after ~10y with low ref: medium: HR: 0.95, 95% CI: 0.84, 1.08, p=0.467, NS; high: HR: 1.03, 95%CI: 0.88, 1.20, p=0.716, NS. Results were the same for men with low- or high-metabolic risk, by age, or SFA < or > median. In women, LCHP score (continuous) and ACM after ~10y: HR: 1.01, 95% CI: 0.99, 1.03, p=0.229, NS. LCHP score (categorical) at ~50y and mortality after ~10y with low (HR: 1) ref: medium: HR: 0.92, 95% CI: 0.78, 1.09, p=0.349, NS; high: HR: 1.10,	**Key confounders accounted for:** Sex; Age; Race/ethnicity: Swedish population; predominantly white; SES; Alcohol; Physical activity; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: N/A • Nutrient residual models used for energy-adjustment	No significant associations between LCHP score at ~50y and ACM after 10y of f/u in women or men in main analyses. Only analyses by SFA level were partially significant in women. **Funding:** Nordic Health Whole Grain Food (HELGA) /NordForsk; Visare Norr, Northern County Councils

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		95%CI: 0.91, 1.32, p=0.330, NS. Results were the same for women with low- or high-metabolic risk, by age, and SFA intake < median.		
Oba et al, 2009[73] PCS, Takayama Study Japan Analytic N: 29079 Attrition: 21% Sex: 54.1% female Race/ethnicity: NR SES: 82.7% currently married; 55.5% education 12 years or longer Alcohol intake: NR	**Dietary pattern(s):** Adherence [categorical] scores to the Japanese Food Guide Spinning Top based on macronutrient distribution of % energy by quartile: Men: • Q1: 42% C, 14% F, 11% P • Q2: 53% C, 18% F, 13% P • Q3: 59% C, 21% F, 15% P • Q4: 63% C, 23% F, 16% P Women: • Q1: 43% C, 15% F, 11% P • Q2: 59% C, 22% F, 15% P • Q3: 62% C, 24% F, 16% P • Q4: 65% C, 26% F, 17% P **Dietary assessment methods:** 169-item validated FFQ at baseline, age 54.6 y **Foods/food groups:** Vegetable Dishes, Fruit, Grain Dishes, Fish and Meat Dishes., Milk, Alcohol, Energy from Snacks **Outcome assessment methods:** Office of the National Vital Statistics.	**Significant:** In women, Japanese Food Guide Spinning Top adherence (categorical) at 55y and ACM over ~7y f/u: • Q1, n=240 deaths, HR: 1 ref • Q2, n=227 deaths, HR: 0.87, 95% CI: 0.73, 1.05 NS • Q3, n=221 deaths, HR: 0.86, 95% CI: 0.72, 1.04 NS • Q4, n=211 deaths, HR: 0.78, 95% CI: 0.65, 0.94 • p-trend=0.01 **Non-Significant:** Japanese Food Guide Spinning Top adherence in men (categorical) at 55y and ACM over 7y f/u: • Q1, n=287 deaths, HR: 1 ref • Q2, n=257 deaths, HR: 0.90, 95% CI: 0.76, 1.06 NS • Q3, n=274 deaths, HR: 0.87, 95% CI: 0.73, 1.02 NS • Q4, n=345 deaths, HR: 1.01, 95% CI: 0.86, 1.19 NS • p-trend=0.91	**Key confounders accounted for:** Sex: Design, stratified, Age, Race/ethnicity: Japanese participants, SES: Education, Physical activity, Anthropometry: BMI, Smoking, Alcohol **Other:** Menopausal status, Hx of HTN and diabetes **Limitations:** • Did not account for key confounders: N/A • FFQ was not specifically designed for measuring adherence to the Japanese Food Guide Spinning Top; • Macronutrient percentages may lack accuracy due to total energy intake	In women, higher adherence to the Japanese Food Guide Spinning Top at 55y was significantly associated with a lower risk of ACM over 7y f/u. In men, there was no significant association between adherence to the Japanese Food Guide Spinning Top and the risk of ACM. **Funding:** Ministry of Education, Science, Sports, and Culture of Japan

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
			reported with arithmetic mean and macronutrients with geometric mean	
Okada et al, 2018[74] PCS, Japan Collaborative Cohort (JACC) Study Japan Analytic N: 58767 Attrition: 47% Sex: 61% female Race/ethnicity: NR SES: 79% <13 years of education, 21% ≥13 years of education Alcohol intake: 43% Current drinker, 3% Former Drinker, 51% Never Drinker	**Dietary pattern(s):** Adherence [Categorical: score 0-2, score 3, score 4, score 5, score 6-7] to Japanese food scores based on macronutrient distribution of % energy by gender: Men: Score 0-2: 59.1% C, 14.9% F, 11.2% P Score 3: 58% C, 16.1% F, 12% P Score 4: 57.4% C, 16.6% F,12.5% P Score 5: 57.1% C, 17.5% F, 13.1% P Score 6-7: 56.1% C, 18.4% F, 13.8% P Women: Score 0-2: 66.4% C, 17.8% F, 13% P Score 3: 65% C, 19.1% F, 13.7% P Score 4: 63.7% C, 19.9% F, 14.3% P Score 5: 62.7% C, 20.7% F, 14.9% P Score 6-7: 60.9% C, 21.8% F, 15.8% P **Dietary assessment methods:** 39-item validated FFQ at baseline, mean age: 56.2y **Foods/food groups:** Vegetables (spinach or garland chrysanthemum, carrots or pumpkin, tomatoes, cabbage or head lettuce and Chinese cabbage), Japanese Pickles, Fungi, Seaweeds, Beans and Bean Products (boiled beans and tofu), Fruit, Fish (fresh) **Outcome assessment methods:** Ministry of Health and Welfare.	**Significant:** In women, Japanese food scores at 56y and ACM over 18.9 y f/u: • 'Score 0-2', n= 677 deaths, HR: 1 • 'Score 3', n=627 deaths, HR: 0.92, 95% CI: 0.82, 1.03; NS • 'Score 4', n=999 deaths, HR: 0.99, 95% CI: 0.89, 1.09; NS • 'Score 5', n=1173 deaths), HR: 0.85, 95% CI: 0.77, 0.94 • 'Score 6-7', n=1907 deaths, HR: 0.82, 95% CI: 0.75, 0.90 • p-trend<0.001 **Non-Significant:** In men, Japanese food scores at 56y and ACM over 18.9 y f/u: • 'Score 0-2', n=1186 deaths, HR: 1 • 'Score 3', n=925 deaths, HR: 0.96, 95% CI: 0.88, 1.04; NS • 'Score 4', n=1090 deaths, HR: 0.92, 95% CI: 0.84, 1.00; NS • 'Score 5', n=1370 deaths, HR: 0.95, 95% CI: 0.88, 1.03; NS • 'Score 6-7', n=1738 deaths, HR: 0.93, 95% CI: 0.86, 1.01; NS • p-trend=0.067	**Key confounders accounted for:** Sex: Design, Stratified, Age, Race/ethnicity: Japanese participants, SES: Education duration, geographic region, Alcohol, Physical activity: Sports habits, Anthropometry: BMI, Smoking **Other:** Total energy intake, Sleeping duration, Hx of HTN, Hx of diabetes **Limitations:** Did not account for key confounders: N/A	In women, higher adherence to Japanese food scores at 56y was significantly associated with ACM over ~19 y f/u. In men, there was no significant association between Japanese food scores and ACM over ~19 y f/u. **Funding:** Ministry of Education, Culture, Sports, Science and Technology of Japan

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
Song et al, 2016[141] PCS, NHS; HPFS United States Analytic N: 131342 Attrition: 24% Sex: ~65% female Race/ethnicity: NR SES: NR Alcohol intake: ~7.3 g/d	**Dietary pattern(s):** Adherence based on macronutrient distribution of % energy by 3 categories of animal or protein intake: 'Animal-protein' ≤ 10%: 51.8% C, 30.9% F, 13.5% P >12, ≤15%: 43.4% C, 35.8% F, 17.6% P >18 %: 35.9% C, 37.7% F, 23.9% P 'Plant-protein' ≤3%: 35.2% C, 41.9% F, 19.4% P >4, ≤5%: 43.6% C, 34.9% F, 18.2% P > 6%: 49.5% C, 30.3% F, 17.8% P **Dietary assessment methods:** Up to 152-item validated FFQ's at baseline, age ~62y, and every 2-4y after **Foods/food groups: '**Animal' pattern: major sources included processed and unprocessed red meat, poultry, dairy products, fish, and egg 'Plant' pattern: major sources included bread, cereals, pasta, nuts, beans, and legumes **Outcome assessment methods:** State records, National Death Index, next of kin and postal system	**Significant:** 'Plant-protein' pattern at 62y and ACM up to 32y f/u: • ≤3 %, n=6,160 deaths, HR: 1 referent • >3, ≤4%, n=9,661 deaths, HR: 0.97, 95% CI: 0.94, 1.01 • >4, ≤5%, n=10,235 deaths, HR: 0.95, 95% CI: 0.91, 0.99 • >5%, ≤6%, n=6,602 deaths, HR: 0.91, 95% CI: 0.86, 0.96 • >6%, n=3,457deaths, HR: 0.89, 95% CI: 0.84, 0.96 • Per-3% increment, HR: 0.90, 95% CI: 0.86, 0.95 • p<0.001 When stratified by those with "healthy" vs. "unhealthy" lifestyle, higher vs. lower 'plant' protein patterns remained associated with risk reduction. Among diabetics vs. non-diabetics, the inverse association between 'plant' protein and ACM (P=0.02) was stronger. Substitution of plant-protein instead of animal-protein [individual substitution of: processed red meat, unprocessed red meat, poultry, eggs, fish, and dairy] associated with lower risk of ACM in sub-analyses. **Non-Significant:** 'Animal-protein' pattern at 62y and ACM up to 32y f/u: • ≤ 10%, n=3,770 deaths, HR: 1 referent;	**Key confounders accounted for:** Sex, Age, Alcohol, Physical activity, Anthropometry: BMI, Smoking **Other:** Total energy intake, Supplement use, History of HTN, glycemic index, intake of whole grains, total fiber, fruits, and vegetables, % energy from SFA, PUFA, MUFA, trans fat **Limitations:** Did not account for key confounders: Race/ethnicity, SES	Higher 'Plant-protein' dietary pattern adherence [categorical or per-3% increase] at ~62y was significantly associated with reduced risk of ACM over a 32y f/u. Higher 'Animal-protein' dietary pattern adherence was weakly associated with ACM, but associations were not significant. **Funding**: NIH

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
		• >10, ≤12%, n=6,151 deaths, HR: 1.01, 95% CI: 0.97, 1.05; NS • >12, ≤15%, n=11,909 deaths, HR: 1.03, 95% CI: 0.99, 1.07; NS • >15, ≤18%, n=8,401 deaths, HR: 1.03, 95% CI: 0.98, 1.07; NS • >18 %, n=5,884 deaths, HR: 1.03, 95% CI: 0.98, 1.08; NS • Per-10% increment, HR: 1.02, 95% CI: 0.98, 1.05; NS • p-trend=0.33 When stratified by those with "healthy" vs. "unhealthy" lifestyle, higher vs. lower 'animal' protein patterns was also associated with risk reduction (P=0.46; p-interaction <0.001). Among diabetics vs. non-diabetics, the positive association between 'animal' protein and ACM (P=0.06) was stronger		
Tognon et al, 2011[96] PCS, Gerontological and Geriatric Population Studies in Gothenburg Sweden Analytic N: 1037 Attrition: 19% Sex: 52.1% female Race/ethnicity: NR SES: Education >6y: 31%; Married at 70y: 62% Alcohol intake: 6g/d	**Dietary pattern(s):** modified MDS [modified MDS (Tognon, 2011) and modified MDS alternative MDS [alternative MDS (Tognon, 2011) by mean % energy: 46.6% C, 36.2% F, and 15% P **Dietary assessment methods:** Validated diet history at baseline, age 70y **Foods/food groups:** Modified MDS Positive components: Vegetables and Potatoes, Legumes and Nuts and Seeds, Fruit and Fresh Juices, Whole Grain Cereals, Fish and Fish Products, MUFA+PUFA/SFA, Alcohol; Negative components: Meat, Meat	**Significant:** Modified MDS at 70y and ACM over ~38y f/u • Continuous, HR: 0.93, 95% CI: 0.89, 0.98; • Categorical, highest 4 levels vs. the others, HR: 0. 82, 95% CI: 0.67, 0.99. Alternative mMDS at 70y and ACM over ~38y f/u: • Continuous, HR: 0.97, 95% CI: 0.92, 1.02; • categorical, highest 4 levels vs. the others, HR: 0. 94, 95% CI:	**Key confounders accounted for:** Sex, Age, SES: Marital status; Education, Alcohol, Physical activity, Anthropometry: BMI; WC, Smoking **Other:** Total energy intake **Limitations:**	Adherence to modified MDS indices at 70y were associated with lower risk of ACM over ~38y f/y, with sensitivity analyses confirming robustness of results. **Funding:** Swedish Council on Working Life and Social

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Products, and Eggs, Dairy Products; alternative mMDS Positive components: Vegetables and Potatoes, Legumes and Nuts and Seeds, Fruit and Fresh Juices, Cereals, Fish and Fish Products, MUFA/SFA; Negative components: Meat, Meat Products, and Eggs, Dairy Products **Outcome assessment methods:** National death registration system	0.79, 1.11. Sensitivity analyses yielded similar results after exclusions for early death; exclusion of MDS components item-by-item; Replacing total alcohol with red wine, HR: 0.92, 95% CI: 0.87; 0.97; Adjusting for weight change HR: 0.95, 95% CI: 0.93, 0.97; waist circumference change HR: 0.98, 95% CI: 0.97, 1.00; baseline biomarkers (BP, glucose, cholesterol, triglycerides) categorical HR=0.85, 95% CI: 0.70; 1.04; activities of daily living. **Non-Significant:** NA	Did not account for key confounders: Race/ethnicity	Research [FAS] EpiLife Centre
Waijers et al, 2006[127] PCS, European Prospective Investigation into Cancer and Nutrition (EPIC)-Elderly project Netherlands Analytic N: 5427 Attrition: 15% Sex: 100% female Race/ethnicity: NR SES: Education: ~33.3% None or primary school, ~25.7% Technical school, ~29.7% Secondary school, ~10.3% University degree Alcohol intake: mean 7.3 g	**Dietary pattern(s):** Adherence to three dietary patterns based on the following macronutrient distributions: 'Mediterranean-like': T1: 46% C, 36.7% F, 15.9% P T2: 45.6% C, 35.1% F, 16.5% P T3: 45.2% C, 33.8% F, 16.2% P 'Traditional Dutch dinner': T1: 49.7% C, 33.5% F, 15.4% P T2: 46.0% C, 35.2% F, 16.4% P T3: 41.2% C, 36.9% F, 16.9% P 'Healthy Traditional': T1: 43.7% C, 36.2% F, 15.1% P T2: 45.8% C, 35.5% F, 16.3% P T3: 47.4% C, 33.9% F, 17.3% P	**Significant:** 'Healthy Traditional' T3 vs. T1: Mortality Ratio: 1.25, 95% CI: 0.52, 0.95 **Non-significant:** 'Mediterranean-like': T2 vs. T1: Mortality Ratio: 0.91 NS T3 vs. T1: Mortality Ratio: 0.84 NS 'Traditional Dutch Dinner T2 vs. T1: Mortality Ratio: 1.00 NS T3 vs. T1: Mortality Ratio: 1.25 NS 'Healthy Traditional' T2 vs. T1: Mortality Ratio: 0.81 NS	**Key confounders accounted for:** Sex, Age; Race/ethnicity: 100% Dutch; SES: Education; Physical activity; Anthropometry: BMI; waist-to-hip ratio; Alcohol: Part of dietary pattern; Smoking **Limitations:** • Did not account for key confounders: N/A • Small number of total deaths in the	Greater adherence (T3 vs. T1) to the 'Healthy Traditional' dietary pattern was significantly associated with ACM. No significant associations between either the 'Mediterranean-like' or 'Traditional Dutch dinner' dietary patterns and ACM at mean 8.2 y f/u. **Funding:** Quality of Life and Management of Living resources

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Dietary assessment methods: 178-item validated semi quantitative FFQ at baseline **Foods/food groups:** g/d of Potatoes, Vegetables, Legumes, Fruit, Dairy products, Pasta, rice, and other grains **Outcome assessment methods:** Data on vital status, including emigration or death were obtained through the National Population Database.		study (n=277); food groups selected for analyses may not optimally represent dietary choices of Dutch persons	Program of the European Commission
Wakai et al, 2014[153] PCS, Japan Collaborative Cohort (JACC) Japan Analytic N: 58672 Attrition: 32% Sex: 61% female Race/ethnicity: NR (All Japanese) Alcohol intake: ~82% men, ~25% women current/former drinkers	**Dietary pattern(s):** Macronutrient distribution based on % E by quintiles of energy-adjusted fat intake: Women: Q1: 72% C, 14% F, 12% P Q2: 67% C, 18% F, 14% P Q3: 63% C, 20% F, 15% P Q4: 60% C, 23% F, 16% P Q5: 54% C, 27% F, 18% P Men: Q1: 64% C, 11% F, 10% P Q2: 62% C, 14% F, 12% P Q3: 59% C, 16% F, 13% P Q4: 58% C, 19% F, 14% P Q5: 53% C, 23% F, 16% P **Dietary assessment methods:** 40-item, validated FFQ; collected at baseline, mean age: 56y **Foods/food groups:** Vegetable and fruit intakes in g/d	**Significant:** In women, ACM over 21y f/u • Q1, n=1284 deaths, HR: 1 ref • Q2, n=1139 deaths: HR: 1.03, 95% CI: 0.94, 1.11; • Q3, n=1076 deaths: HR: 1.00, 95% CI: 0.92, 1.09; • Q4, n= 918 deaths: HR: 0.88, 95% CI: 0.81, 0.96; • Q5, n=948 deaths: HR: 0.94, 95% CI: 0.86, 1.03; • p-trend=0.028 **Non-significant**: In men, ACM over 21y f/u • Q1, n=1178 deaths, HR: 1 ref • Q2, n=1188 deaths: HR: 1.03, 95% CI: 0.95, 1.12; • Q3, n=1238 deaths: HR: 1.02, 95% CI: 0.94, 1.10; • Q4, n=1236 deaths: HR: 0.98, 95% CI: 0.90, 1.07; • Q5, n=1451 deaths: HR: 1.07, 95% CI: 0.98, 1.17; • p-trend=0.31	**Key confounders accounted for:** Sex; Age; SES; Alcohol; Physical activity; Anthropometry; Smoking **Limitations:** • Did not account for key confounders: Race/ethnicity • Nutrient residual models used for energy-adjustment • Critical risk of bias due to missing data for exposure and outcome	Diets based on the second highest vs. lowest quintile of energy-adjusted fat intake at age ~56y (Q4: 60% C, 23% F, 16% P vs. Q1: 72% C, 14% F, 12% P) was associated with lower ACM in women over 21 y of f/u. Macronutrient distribution of the diet (based on energy-adjusted intake) at age ~56y was not associated with ACM in men over 21 y of f/u. **Funding**: Ministry of Education, Science, Sports and Culture of Japan, National Cancer Center

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: Vital statistics records; follow-up occurred over 21y, at baseline 1988 to 2009	Results for men and women were similar when analyses were run with energy-adjusted carbohydrate and protein		Research and Development Fund
Zazpe et al, 2014[128] PCS, Seguimiento Universidad de Navarra (SUN) Spain Analytic N: 16008 Attrition: 25% Sex: ~41.7% female Race/ethnicity: NR (all Spainards) SES: Years of university education: mean ~5.2 y Alcohol intake: mean ~ 6.5 g/d	**Dietary pattern(s):** Adherence to three dietary patterns based on the following macronutrient distributions: 'Western' T1: 44.4% C, 34.4% F, 18.9% P T3: 42.5% C, 38.4% F, 17.3% P 'Mediterranean' T1: 43.2% C, 37.3% F, 17.2% P T3: 43.8% C, 35.5% F, 18.8% P 'Alcoholic Beverages' T1: 45.6% C, 36.7% F, 17.3% P T3: 41.0% C, 36.1% F, 18.2% P **Dietary assessment methods:** 136-item validated FFQ at baseline, mean age: 38.1y **Foods/food groups:** Intakes based on red meat, processed meats, potatoes, processed meals, fast food, full-fat dairy products, sauces, commercial bakery, eggs, sugar-sweetened sodas, refined grains, and sugary products, low-fat dairy products, vegetables, fish and seafood, fruits, olive oil, poultry, whole-wheat bread, nuts, juices, and legumes, alcohol (ie, wine, beer, and other alcoholic beverages). Western': rich in red and processed meat, potatoes, and fast food; 'Mediterranean': rich in vegetables, fish and seafood, fruits, and olive oil; Alcoholic beverages: 'alcohol'	**Significant:** 'Mediterranean' dietary pattern and ACM: • T1, n=56 deaths, HR: 1 ref • T3, n=44 deaths, HR: 0.53, 95% CI: 0.34, 0.84; p-trend=0.01 **Non-significant:** 'Western' dietary pattern: • T1, n=62 deaths, HR: 1 ref: • T2, n=46 deaths, HR: 0.94, 95% CI: 0.61, 1.44 • T3, n=40 deaths, HR: 0.79, 95% CI: 0.45, 1.38 • p-trend=0.40 'Mediterranean' dietary pattern: • T1, n=56 deaths, HR: 1 ref: • T2, n=48 deaths, HR: 0.72, 95% CI: 0.48, 1.08 'Alcoholic beverage' dietary pattern: • T1, n=39 deaths, HR: 1 ref: • T2, n=47 deaths, HR: 0.99, 95% CI: 0.64, 1.56 • T3, n=62 deaths, HR: 0.78, 95% CI: 0.48, 1.27 • p-trend=0.27	**Key confounders accounted for:** Sex; Age; Race/ethnicity: All Spaniards; SES: Education; Alcohol; Physical activity; Anthropometry: BMI; Smoking **Limitations:** Did not account for key confounders: N/A	The 'Mediterranean' dietary pattern [T3: 43.8% C, 35.5% F, 18.8% P vs. T1: 43.2% C, 37.3% F, 17.2% P] was significantly associated with ACM at ~7y f/u. No significant associations were observed for the 'Western' and 'Alcoholic Beverage' dietary patterns and ACM over ~7y f/u. **Funding:** Instituto de Salud Carlos III; Ministerio de Sanidad, Política Social e Igualdad; Navarra Regional Government; University of Navarra

Study and Participant Characteristics	Intervention/Exposure and Outcomes[xiii]	Results	Confounding and Study Limitations	Summary of findings
	Outcome assessment methods: Over 85% of deaths were reported to the project team by participants' relatives, work associates, and postal authorities. For those lost to f/u, the National Death Index was checked regularly to identify deceased cohort members.			

Table 8. Risk of bias for randomized controlled trials examining dietary patterns and all-cause mortality[xiv,xv]

Article	Randomization	Deviations from intended interventions – effect of assignment	Deviations from intended interventions– per-protocol	Missing outcome data	Outcome measurement	Selection of the reported result
Estruch et al, 2018[1]	Low	Low	Low	Low	Low	Low

[xiv] A detailed description of the methodology used for assessing risk of bias is available on the NESR website: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews and in Part C of the following reference: Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.

[xv] Possible ratings of low, some concerns, or high determined using the "Cochrane Risk-of-bias 2.0" (RoB 2.0) (August 2016 version)" (Higgins JPT, Sterne JAC, Savović J, Page MJ, Hróbjartsson A, Boutron I, Reeves B, Eldridge S. A revised tool for assessing risk of bias in randomized trials In: Chandler J, McKenzie J, Boutron I, Welch V (editors). Cochrane Methods. *Cochrane Database of Systematic Reviews* 2016, Issue 10 (Suppl 1). dx.doi.org/10.1002/14651858.CD201601.)

Table 9. Risk of bias for observational studies examining dietary patterns and all-cause mortality[xvi]

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Abe et al, 2020[2]	Moderate	Moderate	Low	Serious	Moderate	Low	Moderate
Akbaraly et al, 2011[3]	Moderate	Serious	Moderate	Serious	Serious	Low	Serious
Al Rifai et al, 2018[4]	Serious	Serious	Moderate	Serious	Moderate	Low	Moderate
Anderson et al., 2011[112]	Serious	Moderate	Low	Moderate	Moderate	Low	Moderate
Atkins et al, 2014[5]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Atkins et al, 2016[113]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Baden et al, 2019[6]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Bamia et al, 2007[114]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Behrens et al, 2013[7]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Bellavia et al, 2016[8]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Biesbroek et al, 2017[9]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Bittoni, 2015[10]	Serious	Moderate	Low	Serious	Serious	Low	Moderate
Bo et al, 2016[11]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Boggs et al, 2015[12]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Bonaccio et al, 2018[13]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Bongard et al, 2016[14]	Serious	Moderate	Moderate	Serious	Moderate	Low	Moderate
Booth et al, 2016[15]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Brown et al, 2016[16 2016]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Brunner et al, 2008[115]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Buckland et al, 2011[17]	Serious	Serious	Low	Moderate	Moderate	Low	Moderate
Cardenas-Fuentes et al, 2019[18]	Serious	Serious	Moderate	Serious	Moderate	Low	Moderate
Chan et al, 2019[19]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate

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[xvi] Possible ratings of low, moderate, serious, critical, or no information determined using the "Risk of Bias for Nutrition Observational Studies" tool (RoB-NObs) (Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.)

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Chang-Claude et al, 2005[132]	Moderate	Serious	Moderate	Serious	Moderate	Low	Moderate
Cheng et al, 2018[20]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Chrysohoou et al, 2016[21]	Critical	Critical	Critical	No information	Low	Moderate	Moderate
Cuenca-Garcia et al, 2014[22]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Dai et al, 2016[23]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Drake et al, 2013[24]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Ford et al, 2014[25]	Serious	Moderate	Low	Serious	Serious	Low	Moderate
Ford et al, 2012[26]	Serious	Moderate	Low	Serious	Serious	Low	Moderate
Ford et al, 2011[27]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Fresan et al, 2019[28]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
George et al, 2014[29]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Granic et al, 2013[116]	Serious	Serious	Moderate	Moderate	Serious	Low	Moderate
Hamer et al, 2010[117]	Serious	Serious	Low	Moderate	Moderate	Low	Moderate
Harmon et al, 2015[30]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Hashemian et al, 2019[31]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Haveman-Nies et al, 2002[32]	Serious	Moderate	Moderate	Moderate	Serious	Low	Moderate
Heidemann et al, 2008[118]	Serious	Serious	Low	Low	Moderate	Low	Moderate
Heroux et al, 2010[133]	Serious	Serious	Moderate	Serious	Critical	Low	Moderate
Hodge et al, 2011[34]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Hodge et al, 2018[33]	Serious	Moderate	Low	Serious	Moderate	Low	Moderate
Hoffmann et al, 2005[119]	Moderate	Moderate	Moderate	Serious	Serious	Low	Moderate
Hsiao et al, 2013[120]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Hu et al, 2020[35]	Serious	Serious	Low	Moderate	Moderate	Low	Moderate
Hulsegge et al, 2016[36]	Moderate	Moderate	Low	Serious	Low	Low	Moderate
Kaluza et al, 2019[38]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Kaluza et al, 2009 [37]	Serious	Serious	Moderate	Serious	Moderate	Low	Moderate

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Kant et al, 2000[41]	Moderate	Moderate	Low	Moderate	Moderate	Low	Moderate
Kant et al, 2004[39]	Serious	Moderate	Moderate	Serious	Moderate	Low	Moderate
Kant et al, 2009[40]	Moderate	Moderate	Low	Moderate	Serious	Low	Moderate
Kappeler et al, 2013[42]	Moderate	Serious	Moderate	Serious	Moderate	Low	Serious
Key et al, 2009[134]	Critical	Serious	Serious	Moderate	Serious	Low	Moderate
Kim et al, 2013[45]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Kim et al, 2018[44]	Moderate	Serious	Moderate	Serious	Moderate	Low	Serious
Kim et al, 2019 *AHA*[43]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Kim et al, 2019 *PHN*[135]	Moderate	Serious	Moderate	Serious	Moderate	Low	Moderate
Knoops et al, 2004[46]	Serious	Moderate	Low	Moderate	Serious	Low	Moderate
Knoops et al, 2006[47]	Serious	Serious	Low	Moderate	Serious	Low	Moderate
Krieger et al, 2018[121]	Moderate	Serious	Moderate	Serious	Low	Low	Moderate
Kurotani et al, 2016[48]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Kurotani et al, 2019[49]	Serious	Serious	Moderate	Moderate	Moderate	Low	Moderate
Lagiou et al, 2006[50]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Lasheras et al, 2000 [51]	Serious	Serious	Low	Serious	Serious	Low	Serious
Lassale et al, 2016[52]	Moderate	Moderate	Low	Moderate	Moderate	Low	Moderate
Lim et al, 2018[53]	Serious	Moderate	Low	Serious	Moderate	Low	Moderate
Limongi et al, 2017 [54]	Serious	Serious	Moderate	Serious	Serious	Low	Low
Liu et al, 2019[55]	Serious	Moderate	Low	Serious	Moderate	Low	Moderate
Loprinzi et al, 2018 [56]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Mai et al, 2005[57]	Moderate	Moderate	Low	Moderate	Moderate	Low	Moderate
Martinez-Gomez et al, 2013[58]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Martinez-Gonzalez et al, 2015[122]	Serious	Serious	Low	Moderate	Serious	Low	Moderate
Martinez-Gonzalez et al, 2012[59]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Martinez-Gonzalez et al, 2014[60]	Serious	Serious	Low	Moderate	Moderate	Low	Moderate

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Masala et al, 2007[123]	Serious	Serious	Low	Moderate	Serious	Low	Moderate
McCullough et al, 2011[61]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
McNaughton et al, 2012 [62]	Serious	Moderate	Low	Moderate	Moderate	Low	Moderate
Menotti et al, 2017[64]	Critical	Serious	Moderate	Serious	Moderate	Low	Moderate
Menotti et al, 2012[124]	Critical	Serious	Moderate	Serious	Moderate	Low	Moderate
Menotti et al, 2014[130]	Critical	Serious	Moderate	Serious	Moderate	Low	Moderate
Menotti et al, 2016[125]	Critical	Serious	Moderate	Serious	Low	Low	Moderate
Menotti et al, 2012 [63]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Meyer et al, 2011[136]	Moderate	Moderate	Moderate	Serious	Moderate	Low	Moderate
Michels & Wolk, 2002[65]	Serious	Moderate	Low	Moderate	Serious	Low	Moderate
Mihrshahi et al, 2017[137]	Moderate	Moderate	Serious	Serious	Moderate	Low	Moderate
Mitrou et al, 2007[66]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Mokhtari et al, 2019[67]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Muller et al, 2016[68]	Serious	Moderate	Low	Moderate	Serious	Low	Moderate
Mursu et al, 2013[69]	Moderate	Serious	Low	Low	Moderate	Low	Moderate
Nakamura et al, 2009[70]	Serious	Serious	Moderate	Serious	Serious	Low	Moderate
Nanri et al, 2017[126]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Neelakantan et al, 2018[71]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Nilsson et al, 2012[72]	Serious	Moderate	Moderate	Moderate	Moderate	Low	Serious
Oba et al, 2009[73]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Odegaard et al, 2014[131]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Okada et al, 2018[74]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Olsen et al, 2011[75]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Orlich et al, 2013[138]	Moderate	Serious	Serious	Serious	Moderate	Low	Serious
Osler et al, 2001[76]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Panizza et al, 2018[77]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Park et al, 2016 Mayo[79]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Park et al, 2016 IJO[78]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Prinelli et al, 2015[80]	Serious	Serious	Moderate	Moderate	Serious	Low	Moderate
Reedy et al, 2014[81]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Rico-Campa et al, 2019[139]	Moderate	Moderate	Moderate	Serious	Moderate	Low	Moderate
Roswall et al, 2015[82]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Schnabel et al, 2019[140]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Seymour et al, 2003[83]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Shah et al, 2018[84]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Shahar et al, 2009[85]	Serious	Serious	Serious	Serious	Moderate	Low	Moderate
Shivappa et al, 2017[86]	Moderate	Moderate	Low	Serious	Moderate	Low	Moderate
Shvetsov et al, 2016[87]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Sijtsma, 2015[88]	Moderate	Serious	Low	Moderate	Moderate	Low	Moderate
Sjogren et al, 2010[89]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Song et al, 2016[141]	Serious	Serious	Moderate	Serious	Moderate	Low	Moderate
Sotos-Prieto et al, 2017[90]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Stefler et al, 2017[91]	Serious	Serious	Low	Moderate	Serious	Low	Moderate
Struijk et al, 2014[92]	Serious	Serious	Low	Serious	Serious	Low	Serious
Thorpe et al, 2013[93]	Critical	Moderate	Moderate	Serious	Low	Low	Serious
Tognon et al, 2011[96]	Moderate	Moderate	Low	Serious	Serious	Low	Moderate
Tognon et al, 2012[95]	Moderate	Serious	Moderate	Serious	Moderate	Low	Moderate
Tognon et al, 2014[94]	Moderate	Moderate	Low	Serious	Moderate	Low	Moderate
Tong et al, 2016[97]	Moderate	Moderate	Low	Moderate	Moderate	Low	Moderate
Trichopoulou et al, 2003[98]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Trichopoulou et al, 2005[99]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Trichopoulou et al, 2009[100]	Moderate	Serious	Low	Serious	Serious	Low	Moderate

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
van Dam et al, 2008[101]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
van den Brandt, 2011[102]	Serious	Serious	Low	Serious	Serious	Low	Serious
van Lee et al, 2016[103]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Voortman et al, 2017[104]	Moderate	Serious	Serious	Serious	Moderate	Low	Moderate
Vormund et al, 2015[105]	Serious	Moderate	Low	Serious	Serious	Low	Moderate
Wahlqvist et al, 2005[106]	Critical	Serious	Moderate	Moderate	Serious	Critical	Serious
Waijers et al, 2006[127]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Warensjo Lemming et al, 2018[107]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Whalen et al, 2017[108]	Moderate	Moderate	Low	Serious	Serious	Low	Moderate
Yu et al, 2015[109]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Zaslavsky et al, 2017[110]	Moderate	Serious	Moderate	Serious	Serious	Low	Moderate
Zaslavsky et al, 2018[111]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Zazpe et al, 2014[128]	Moderate	Serious	Low	Serious	Low	Low	Moderate
Zhao et al, 2019[129]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate

Table 10. Risk of bias for observational studies examining diets based on macronutrient distribution and all-cause mortality[xvii]

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Anderson et al, 2011[112]	Serious	Moderate	Low	Moderate	Moderate	Low	Moderate
Bazelmans et al, 2006[142]	Critical	Serious	Moderate	Serious	Moderate	Low	Moderate
Brunner et al, 2008[115]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Cheng et al, 2018[20]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Dai et al, 2016[23]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Diehr & Beresford, 2003[143]	Moderate	Serious	Moderate	Serious	Moderate	Low	Moderate
Fresan et al, 2019[28]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Fung et al, 2010[144]	Serious	Serious	Moderate	Moderate	Moderate	Low	Moderate
Hernandez-Alonso et al, 2016[145]	Serious	Serious	Moderate	Moderate	Moderate	Low	Moderate
Hodge et al, 2011[34]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Hoffmann et al, 2005[119]	Moderate	Moderate	Moderate	Serious	Serious	Low	Moderate
Kant et al, 2000[41]	Moderate	Moderate	Low	Moderate	Moderate	Low	Moderate
Kelemen et al, 2005[146]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Kim et al, 2019[43]	Serious	Serious	Low	Serious	Serious	Low	Moderate
Leosdottir, 2004[147]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Leosdottir, 2005[148]	Moderate	Serious	Low	Serious	Moderate	Low	Moderate
Martinez-Gonzalez et al, 2014[60]	Serious	Serious	Low	Moderate	Moderate	Low	Moderate
Mazidi et al, 2019[149]	Serious	Serious	Serious	Serious	Moderate	Low	Low
Nagata et al, 2012[150]	Moderate	Moderate	Moderate	Serious	Moderate	Low	Moderate
Nakamura et al, 2014[151]	Serious	Serious	Moderate	Serious	Serious	Low	Moderate

[xvii] Possible ratings of low, moderate, serious, critical, or no information determined using the "Risk of Bias for Nutrition Observational Studies" tool (RoB-NObs) (Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.)

	Confounding	Selection of participants	Classification of exposures	Deviations from intended exposures	Missing data	Outcome measurement	Selection of the reported result
Nilsson et al, 2012[152]	Moderate	Serious	Moderate	Serious	Serious	Low	Moderate
Oba et al, 2009[73]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Okada et al, 2018[74]	Moderate	Serious	Low	Serious	Serious	Low	Moderate
Song et al, 2016[141]	Serious	Serious	Moderate	Serious	Moderate	Low	Moderate
Tognon et al, 2011[96]	Moderate	Moderate	Low	Serious	Serious	Low	Moderate
Waijers et al, 2006[127]	Serious	Serious	Low	Serious	Moderate	Low	Moderate
Wakai et al, 2014[153]	Moderate	Serious	Moderate	Serious	Critical	Low	Moderate
Zazpe et al, 2014[128]	Moderate	Serious	Low	Serious	Low	Low	Moderate

METHODOLOGY

The NESR team used its rigorous, protocol-driven methodology to support the 2020 Dietary Guidelines Advisory Committee in conducting this systematic review.

NESR's systematic review methodology involves:

- Developing a protocol,
- Searching for and selecting studies,
- Extracting data from and assessing the risk of bias of each included study,
- Synthesizing the evidence,
- Developing conclusion statements,
- Grading the evidence underlying the conclusion statements, and
- Recommending future research.

A detailed description of the methodology used in conducting this systematic review is available on the NESR website: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews, and can be found in the 2020 Dietary Guidelines Advisory Committee Report, Part C: Methodology.[xviii] This systematic review was peer reviewed by Federal scientists, and information about the peer review process can also be found in the Committee's Report, Part C. Methodology. Additional information about this systematic review, including a description of and rationale for any modifications made to the protocol can be found in the 2020 Dietary Guidelines Advisory Committee Report, Chapter 8. Dietary Patterns.

Below are details of the final protocol for the systematic review described herein, including the:

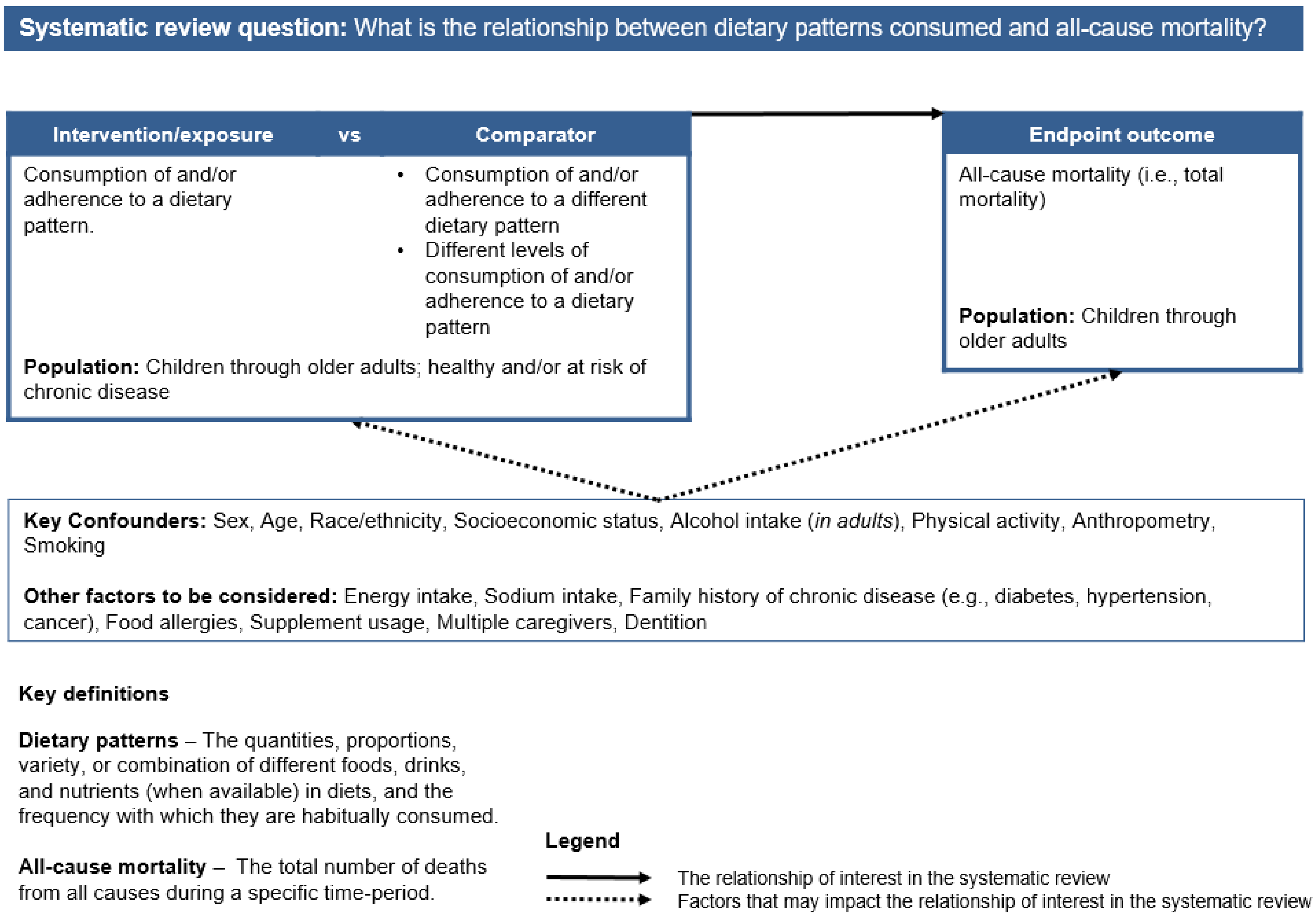
- Analytic framework
- Literature search and screening plan
- Literature search and screening results

ANALYTIC FRAMEWORK

The analytic framework (**Figure 1**) illustrates the overall scope of the systematic review, including the population, the interventions and/or exposures, comparators, and outcomes of interest. It also includes definitions of key terms and identifies key confounders and other factors to be considered in the systematic review. The inclusion and exclusion criteria that follow provide additional information about how parts of the analytic framework were defined and operationalized for the review.

[xviii] Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.

Figure 1: Analytic framework



LITERATURE SEARCH AND SCREENING PLAN

Inclusion and exclusion criteria

This table provides the inclusion and exclusion criteria for the systematic review. The inclusion and exclusion criteria are a set of characteristics used to determine which articles identified in the literature search were included in or excluded from the systematic review.

Table 11. Inclusion and exclusion criteria

Category	Inclusion Criteria	Exclusion Criteria
Study design	• Randomized controlled trials • Non-randomized controlled trials, including quasi-experimental and controlled before and after studies • Prospective cohort studies • Retrospective cohort studies • Nested case-control studies	• Uncontrolled trials • Case-control studies • Cross-sectional studies • Uncontrolled before-and-after studies • Narrative reviews • Systematic reviews • Meta-analyses
Intervention/ exposure	• Studies that examine consumption of and/or adherence to a 1. Dietary pattern [i.e., the quantities, proportions, variety, or combination of different foods, drinks, and nutrients (when available) in diets, and the frequency with which they are habitually consumed] including, at a minimum, a description of the foods and beverages in the pattern ○ Dietary patterns may be measured or derived using a variety of approaches, such as adherence to a priori patterns (indices/scores), data driven patterns (factor or cluster analysis), reduced rank regression, or other methods, including clinical trials **and/or** 2. Diet based on macronutrient distribution outside of the acceptable macronutrient distribution range (AMDR)[xix,xx] ○ include the macronutrient distribution of carbohydrate, fat, *and* protein of the diet, and ○ include at least one macronutrient outside of the AMDR	• Studies that 1a. do not provide a description of the dietary pattern, which at minimum, must include the foods and beverages in the pattern (i.e., studies that examine a labeled dietary patterns, but do not describe the foods and beverages consumed) 2a. Examine consumption of and/or adherence to a diet based on macronutrient proportion in which all macronutrients are within the AMDR. 2b. Do not describe the entire macronutrient distribution of the diet (i.e., studies that only examine a single macronutrient in relation to outcomes)

[xix] Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington (DC): The National Academies Press; 2002.

[xx] Macronutrient percent of energy outside of the AMDR are as follows:

- Carbohydrate for all age groups: <45 or >65 percent of energy;
- Protein for children, 1-3y: <5 or >20 percent of energy, Protein for children, 4-18y: <10 or >30 percent of energy, Protein for adults, age 19y and older: <10 or >35 percent of energy;
- Fat for children, 1-3y: <30 or >40 percent of energy, Fat for children, 4-18y: <25 or >35 percent of energy, Fat for adults, age 19y and older: <20 or >35 percent of energy.

Category	Inclusion Criteria	Exclusion Criteria
Comparator	• Dietary patterns described by foods and beverages consumed: o Consumption of and/or adherence to a different dietary pattern o Different levels of consumption of and/or adherence to a dietary pattern • Diets described by macronutrient distribution o Different macronutrient distribution of carbohydrate, fat, *and* protein	N/A
Outcomes	Studies that report ACM (i.e., total mortality): the total number of deaths from all causes during a specific time-period	Studies that only report cause-specific mortality (total number of deaths from a specific disease, such as cardiovascular disease or cancer)
Date of publication	January 2000 – October 2019	Articles published prior to January 2000 or after October 2019
Publication status	Articles that have been peer-reviewed	Articles that have not been peer-reviewed and are not published in peer-reviewed journals, including unpublished data, manuscripts, pre-prints, reports, abstracts, and conference proceedings
Language of publication	Articles published in English	Articles published in languages other than English
Country[xxi]	Studies conducted in countries ranked as high or higher human development	Studies conducted in countries ranked as medium or lower human development
Study participants	• Human participants • Males • Females	• Non-human participants (i.e., animals) • Women during pregnancy and lactation

[xxi]The Human Development classification was based on the Human Development Index (HDI) ranking from the year the study intervention occurred or data were collected (UN Development Program. HDI 1990-2017 HDRO calculations based on data from UNDESA (2017a), UNESCO Institute for Statistics (2018), United Nations Statistics Division (2018b), World Bank (2018b), Barro and Lee (2016) and IMF (2018). Available from: http://hdr.undp.org/en/data). If the study did not report the year in which the intervention occurred or data were collected, the HDI classification for the year of publication was applied. HDI values are available from 1980, and then from 1990 to present. If a study was conducted prior to 1990, the HDI classification from 1990 was applied. If a study was conducted in 2018 or 2019, the most current HDI classification was applied. When a country was not included in the HDI ranking, the current country classification from the World Bank was used instead (The World Bank. World Bank country and lending groups. Available from: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-country-and-lending-groups).

Category	Inclusion Criteria	Exclusion Criteria

Age of study participants	• Age at intervention or exposure:
	  ○ Children and adolescents (ages 2-18 years)
	  ○ Adults (ages 19-64 years)
	  ○ Older adults (ages 65 years and older)
	• Age at outcome:
	  ○ Children and adolescents (ages 2-18 years)
	  ○ Adults (ages 19-64 years)
	  ○ Older adults (ages 65 years and older)
		• Age at intervention or exposure:
		  ○ Infants and toddlers (birth to 24 months)
		• Age at outcome:
		  ○ Infants and toddlers (birth to 24 months)

Health status of study participants	• Studies that enroll participants who are healthy and/or at risk for chronic disease, including those with obesity • Studies that enroll ***some*** participants diagnosed with a disease	• Studies that **exclusively** enroll participants diagnosed with a disease or hospitalized with illness or injury. (For this criterion, studies that exclusively enroll subjects with obesity will be included.)

Electronic databases and search terms

PubMed

- Provider: U.S. National Library of Medicine
- Date(s) Searched: October 4, 2019
- Date range searched: January 1, 2000-October 4, 2019
- Search Terms:

#1 - dietary pattern* OR diet pattern* OR eating pattern* OR food pattern* OR diet quality* OR eating habit* OR dietary habit* OR diet habit* OR food habit* OR beverage habit* OR "Feeding Behavior"[Mesh:NoExp] OR dietary profile* OR food profile* OR diet profile* OR eating profile* OR dietary guideline* OR dietary recommendation* OR dietary intake* OR eating style* OR "Diet, Mediterranean"[Mesh] OR Mediterranean Diet*[tiab] OR "Dietary Approaches To Stop Hypertension"[Mesh] OR Dietary Approaches To Stop Hypertension Diet* OR DASH diet* OR "Diet, Gluten-Free"[Mesh] OR Gluten Free diet* OR prudent diet* OR "Diet, Paleolithic"[Mesh] OR Paleolithic Diet* OR "Diet, Vegetarian"[Mesh] OR vegetarian diet*[tiab] OR vegan diet* OR "Diet, Healthy"[Mesh] OR plant based diet* OR "Diet, Western"[Mesh] OR western diet* OR "Diet, Carbohydrate-Restricted"[Mesh] OR low-carbohydrate diet* OR high carbohydrate diet* OR Ketogenic Diet* OR Nordic Diet* OR "Diet, Fat-Restricted"[Mesh] OR "Diet, High-Fat"[Mesh] OR "Diet, High-Protein"[Mesh] OR high protein diet*[tiab] OR protein intake* OR high-fat diet* OR low fat diet* OR "Diet, Protein-Restricted"[Mesh] OR low protein diet* OR "Diet, Sodium-Restricted"[Mesh] OR low-sodium diet* OR low salt diet* OR (("Dietary Proteins"[Mesh] OR dietary protein*[tiab] OR "Dietary Carbohydrates"[Mesh] OR dietary carbohydrate*[tiab] OR "Dietary Fats"[Mesh] OR dietary fat*[tiab] OR hypocaloric OR hypo-caloric) AND (diet[tiab] OR diets[tiab] OR consumption[tiab] OR intake[tiab] OR supplement*[tiab])) OR ((“Guideline Adherence"[Mesh] OR guideline adherence*)AND (diet[tiab] OR dietary[tiab] OR food[tiab] OR beverage*[tiab] OR nutrition*[tiab])) OR diet score* OR diet quality score* OR diet quality index* OR kidmed OR diet index* OR dietary index* OR food score* OR MedDietScore OR healthy eating index[tiab] OR ((pattern[tiab] OR patterns[tiab] OR consumption[tiab] OR habit*[tiab]) AND (“Diet"[Mesh:NoExp] OR diet[tiab] OR diets[tiab] OR dietary[tiab] OR "Food"[Mesh] OR food[tiab] OR foods[tiab] OR "Beverages"[Mesh] OR beverage[tiab] OR beverages[tiab]))

#2 - "Mortality"[Mesh] OR "mortality" [Subheading] OR mortality [tiab]

#3 - (#1 AND #2)

#4 - (#1 AND #2) NOT ("Animals"[Mesh] NOT ("Animals"[Mesh] AND "Humans"[Mesh])) NOT (editorial[ptyp] OR comment[ptyp] OR news[ptyp] OR letter[ptyp] OR review[ptyp] OR systematic review[ptyp] OR systematic review[ti] OR meta-analysis[ptyp] OR meta-analysis[ti] OR meta-analyses[ti] OR retracted publication[ptyp] OR retraction of publication[ptyp] OR retraction of publication[tiab] OR retraction notice[ti]) Filters: Publication date from 2000/01/01 to 2019/10/04; English

Cochrane Central Register of Controlled Trials (CENTRAL)

- Provider: John Wiley & Sons
- Date(s) searched: October 4, 2019
- Date range searched: January 1, 2000-October 4, 2019
- Search Terms:

#1 - "dietary pattern*" OR "diet pattern*" OR "eating pattern*" OR "food pattern*" OR "diet quality*" OR "eating habit*" OR "dietary habit*" OR "diet habit*" OR "food habit*" OR "beverage habit*" OR [mh ^"Feeding Behavior"] OR "feeding behavior*" OR "dietary profile*" OR "food profile*" OR "diet profile*" OR "eating profile*" OR "dietary guideline*" OR "dietary recommendation*" OR "dietary intake*" OR "eating style*" OR [mh "Diet, Mediterranean"] OR "Mediterranean Diet*" OR [mh "Dietary Approaches To Stop Hypertension"] OR "Dietary Approaches To Stop Hypertension Diet*" OR "DASH diet*" OR [mh "Diet, Gluten-Free"] OR "Gluten Free diet*" OR "prudent diet*" OR [mh "Diet, Paleolithic"] OR "Paleolithic Diet*" OR [mh "Diet, Vegetarian"] OR "vegetarian diet*" OR "vegan diet*" OR [mh "Diet, Healthy"] OR "healthy diet" OR "plant based diet*" OR [mh "Diet, Western"] OR "western diet*" OR [mh "Diet, Carbohydrate-Restricted"] OR "low-carbohydrate diet*" OR "high carbohydrate diet*" OR "Ketogenic Diet*" OR "Nordic Diet*" OR [mh "Diet, Fat-Restricted"] OR [mh "Diet, High-Fat"] OR [mh "Diet, High-Protein"] OR "high protein diet*" OR "protein intake*" OR "high-fat diet*" OR "low fat diet*" OR [mh "Diet, Protein-Restricted"] OR "low protein diet*" OR [mh "Diet, Sodium-Restricted"] OR "low-sodium diet*" OR "low salt diet*"

#2 - (([mh "Dietary Proteins"] OR "dietary protein*" OR [mh "Dietary Carbohydrates"] OR "dietary carbohydrate*" OR [mh "Dietary Fats"] OR "dietary fat*" OR hypocaloric OR hypo-caloric) NEAR/6 (diet OR diets OR consumption OR intake OR supplement*))

#3 - (([mh "Guideline Adherence"] OR guideline adherence*) NEAR/6 (diet OR dietary OR food OR beverage* OR nutrition*))

#4 - ("diet score*" OR "diet quality score*" OR "diet quality index*" OR kidmed OR "diet index*" OR "dietary index*" OR "food score*" OR MedDietScore OR "healthy eating index*"):ti,ab,kw

#5 - ((pattern OR patterns OR consumption OR habit*) NEAR/6 ([mh ^"Diet"] OR diet OR diets OR dietary OR [mh "Food"] OR food OR foods OR [mh "Beverages"] OR beverage OR beverages))

#6 - #1 OR #2 OR #3 OR #4 OR #5

#7 - [mh Mortality] OR [mh /MO]

#8 - (mortality):ti,ab,kw

#9 - #7 OR #8

#10 - #6 AND #9" with Publication Year from 2000 to 2019, in Trials (Word variations have been searched)

Embase

- Provider: Elsevier
- Date(s) searched: October 4, 2019
- Date range searched: January 1, 2000-October 4, 2019
- Search Terms:

#1- 'feeding behavior'/de OR 'mediterranean diet'/exp OR 'dash diet'/exp OR 'gluten free diet'/exp OR 'paleolithic diet'/de OR 'vegetarian diet'/exp OR 'healthy diet'/exp OR 'western diet'/de OR 'low carbohydrate diet'/exp OR 'low fat diet'/de OR 'lipid diet'/exp OR 'protein diet'/exp OR 'protein restriction'/exp OR 'sodium restriction'/exp

#2 - 'dietary pattern*':ab,ti OR 'diet pattern*':ab,ti OR 'eating pattern*':ab,ti OR 'food pattern*':ab,ti OR 'diet quality*':ab,ti OR 'eating habit*':ab,ti OR 'dietary habit*':ab,ti OR 'diet habit*':ab,ti OR 'food habit*':ab,ti OR 'beverage habit*':ab,ti OR 'feeding behavior*':ab,ti OR 'dietary profile*':ab,ti OR 'food profile*':ab,ti OR 'diet profile*':ab,ti OR 'eating profile*':ab,ti OR 'dietary guideline*':ab,ti OR 'dietary recommendation*':ab,ti OR 'dietary intake*':ab,ti OR 'eating style*':ab,ti OR 'mediterranean diet*':ab,ti OR 'dietary approaches to stop hypertension diet*':ab,ti OR 'dash diet*':ab,ti OR 'gluten free diet*':ab,ti OR 'prudent diet*':ab,ti OR 'paleolithic diet*':ab,ti OR 'vegetarian diet*':ab,ti OR 'vegan diet*':ab,ti OR 'healthy diet':ab,ti OR 'plant based diet*':ab,ti OR 'western diet*':ab,ti OR 'low-carbohydrate diet*':ab,ti OR 'high carbohydrate diet*':ab,ti OR 'ketogenic diet*':ab,ti OR 'nordic diet*':ab,ti OR 'high protein diet*':ab,ti OR 'protein intake*':ab,ti OR 'high-fat diet*':ab,ti OR 'low fat diet*':ab,ti OR 'low protein diet*':ab,ti OR 'low-sodium diet*':ab,ti OR 'low salt diet*':ab,ti

#3 - (('dietary protein*' OR 'dietary carbohydrate*' OR 'dietary fat*' OR hypocaloric OR 'hypo caloric') NEAR/6 (diet OR diets OR consumption OR intake OR supplement*)):ab,ti

#4 - ('guideline adherence*' NEAR/6 (diet OR dietary OR food OR beverage* OR nutrition*)):ab,ti

#5 - 'diet score*':ab,ti OR 'diet quality score*':ab,ti OR 'diet quality index*':ab,ti OR kidmed:ab,ti OR 'diet index*':ab,ti OR 'dietary index*':ab,ti OR 'food score*':ab,ti OR meddietscore:ab,ti OR 'healthy eating index*':ab,ti

#6 - ((pattern OR patterns OR consumption OR habit*) NEAR/6 (diet OR diets OR dietary OR food OR foods OR beverage OR beverages)):ab,ti

#7 - #1 OR #2 OR #3 OR #4 OR #5 OR #6

#8 - *'mortality'/exp*

#9 - *mortality:ab,ti*

#10 - *#8 OR #9*

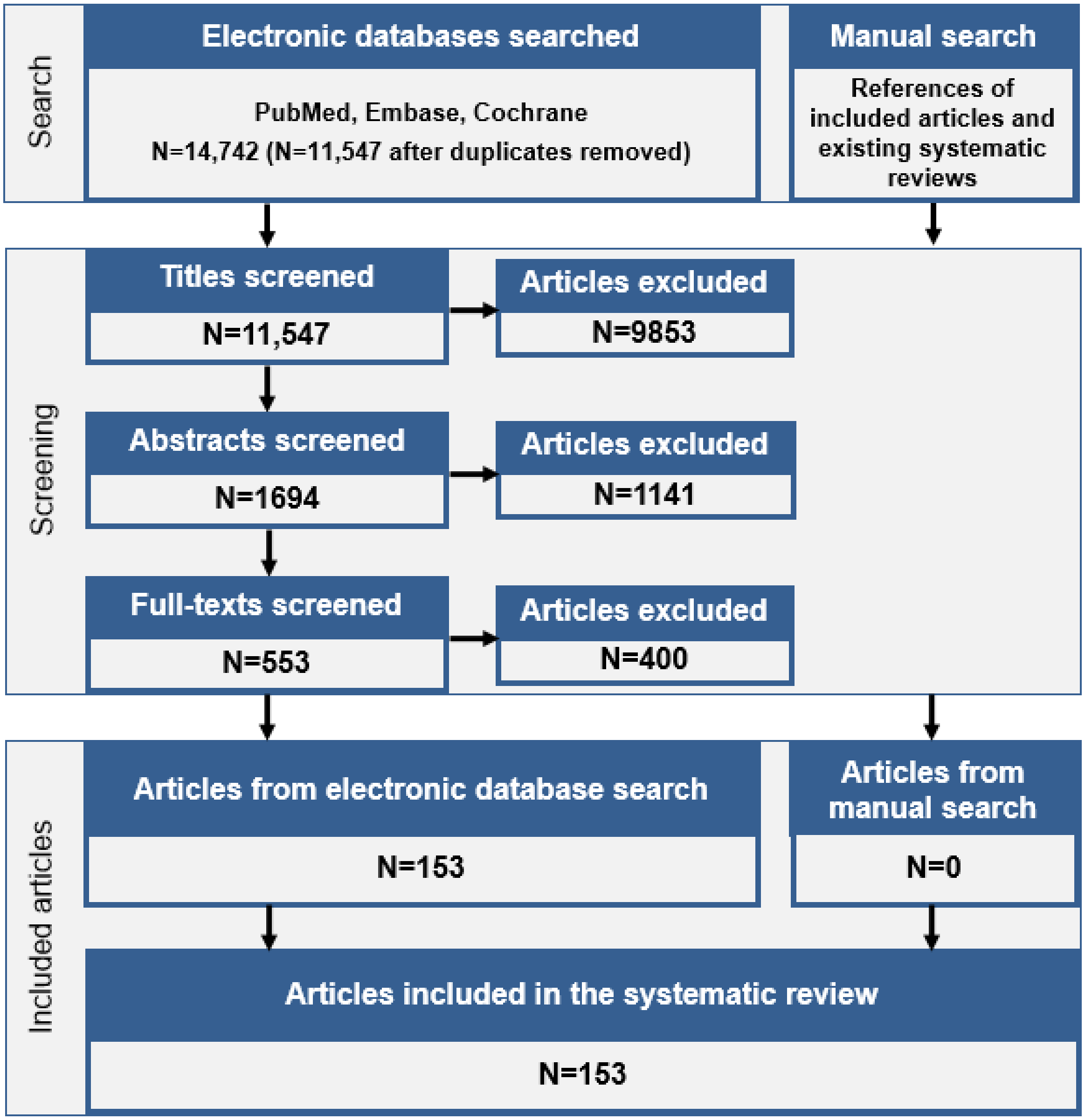
#11 - *#7 AND #10*

#12 - *#7 AND #10 AND ([article]/lim OR [article in press]/lim) AND [humans]/lim AND [english]/lim AND [2000-2019]/py* NOT ([conference abstract]/lim OR [conference review]/lim OR [conference paper]/lim OR [editorial]/lim OR [erratum]/lim OR [letter]/lim OR [note]/lim OR [review]/lim OR [systematic review]/lim OR [meta analysis]/lim)

LITERATURE SEARCH AND SCREENING RESULTS

The flow chart (**Figure 2**) below illustrates the literature search and screening results for articles examining this systematic review question. The results of the electronic database searches, after removal of duplicates, were screened independently by two NESR analysts using a step-wise process by reviewing titles, abstracts, and full-texts to determine which articles met the inclusion criteria. Refer to **Table 10** for the rationale for exclusion for each excluded full-text article. A manual search was done to find articles that were not identified when searching the electronic databases; all manually identified articles are also screened to determine whether they meet criteria for inclusion.

Figure 2: Flow chart of literature search and screening results



Excluded articles

The table below lists the articles excluded after full-text screening for this systematic review question. At least one reason for exclusion is provided for each article, which may not reflect all possible reasons. Information about articles excluded after title and abstract screening is available upon request.

Table 12. Articles excluded after full text screening with rationale for exclusion

	Citation	Rationale
1	[Unavailable]. Correction: The impact of dietary habits and metabolic risk factors on cardiovascular and diabetes mortality in countries of the Middle East and North Africa in 2010: a comparative risk assessment analysis. BMJ Open. 2019. 9:e006385corr1 https://www.ncbi.nlm.nih.gov/pubmed/31048450	Study design, Publication Status
2	[Unavailable]. Dietary alpha-Linolenic Acid, Marine omega-3 Fatty Acids, and Mortality in a Population With High Fish Consumption: Findings From the PREvencion con DIeta MEDiterranea (PREDIMED) Study. J Am Heart Assoc. 2016. 5:#pages# https://www.ncbi.nlm.nih.gov/pubmed/26873691	Study Design, Intervention/Exposure, Publication Status
3	[Unavailable]. Erratum for Juanola-Falgarona et al. Dietary intake of vitamin K is inversely associated with mortality risk. J Nutr 2014;144:743-50. J Nutr. 2016. 146:653 https://www.ncbi.nlm.nih.gov/pubmed/26933059	Study Design, Intervention/Exposure, Publication Status
4	[Unavailable]. Vegetarian diets aid longevity, reduce risk of ACM. But results are more significant in men than women. Further research is needed to determine why. Duke Med Health News. 2013. 19:4-5 https://www.ncbi.nlm.nih.gov/pubmed/23984452	Study design, Publication Status
5	Abrahams, Z, McHiza, Z, Steyn, NP. Diet and mortality rates in Sub-Saharan Africa: stages in the nutrition transition. BMC Public Health. 2011. 11:801 https://www.ncbi.nlm.nih.gov/pubmed/21995618	Intervention/Exposure, Outcome
6	Abu-Saad, K, Novikov, I, Gimpelevitz, I, Benderly, M, Alpert, G, Goldbourt, U, Kalter-Leibovici, O. Micronutrient intake and adherence to DASH diet are associated with incident major adverse cardiovascular events and ACM in a bi-ethnic population. European heart journal. 2017. 38:1120â€ https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01468739/full	Study design, Publication Status
7	Afshin, A, Micha, R, Khatibzadeh, S, Fahimi, S, Shi, P, Powles, J, Singh, G, Yakoob, MY, Abdollahi, M, Al-Hooti, S, Farzadfar, F, Houshiar-Rad, A, Hwalla, N, Koksal, E, Musaiger, A, Pekcan, G, Sibai, AM, Zaghloul, S, Danaei, G, Ezzati, M, Mozaffarian, D. The impact of dietary habits and metabolic risk factors on cardiovascular and diabetes mortality in countries of the Middle East and North Africa in 2010: a comparative risk assessment analysis. BMJ Open. 2015. 5:e006385 https://www.ncbi.nlm.nih.gov/pubmed/25995236	Outcome, Country
8	Agarwal, E, Ferguson, M, Banks, M, Vivanti, A, Batterham, M, Bauer, J, Capra, S, Isenring, E. Malnutrition, poor food intake, and adverse healthcare outcomes in non-critically ill obese acute care hospital patients. Clin Nutr. 2019. 38:759-766 https://www.ncbi.nlm.nih.gov/pubmed/29559233	Intervention/Exposure, Health Status

	Citation	Rationale
9	Ahmed, HM, Blaha, MJ, Nasir, K, Jones, SR, Rivera, JJ, Agatston, A, Blankstein, R, Wong, ND, Lakoski, S, Budoff, MJ, Burke, GL, Sibley, CT, Ouyang, P, Blumenthal, RS. Low-risk lifestyle, coronary calcium, cardiovascular events, and mortality: results from MESA. Am J Epidemiol. 2013. 178:12-21 https://www.ncbi.nlm.nih.gov/pubmed/23733562	Intervention/Exposure
10	Aigner, A, Becher, H, Jacobs, S, Wilkens, LR, Boushey, CJ, Le Marchand, L, Haiman, CA, Maskarinec, G. Low diet quality and the risk of stroke mortality: the multiethnic cohort study. Eur J Clin Nutr. 2018. 72:1035-1045 https://www.ncbi.nlm.nih.gov/pubmed/29426930	Outcome
11	Akbaraly, T, Sabia, S, Hagger-Johnson, G, Tabak, AG, Shipley, MJ, Jokela, M, Brunner, EJ, Hamer, M, Batty, GD, Singh-Manoux, A, Kivimaki, M. Does overall diet in midlife predict future aging phenotypes? A cohort study. Am J Med. 2013. 126:411-419.e3 https://www.ncbi.nlm.nih.gov/pubmed/23582933	Outcome
12	Akinyemiju, T, Moore, JX, Pisu, M, Lakoski, SG, Shikany, J, Goodman, M, Judd, SE. A prospective study of dietary patterns and cancer mortality among Blacks and Whites in the REGARDS cohort. Int J Cancer. 2016. 139:2221-31 https://www.ncbi.nlm.nih.gov/pubmed/27459634	Outcome
13	Alberti, A, Fruttini, D, Fidanza, F. The Mediterranean Adequacy Index: further confirming results of validity. Nutr Metab Cardiovasc Dis. 2009. 19:61-6 https://www.ncbi.nlm.nih.gov/pubmed/18337072	Study Design, Outcome
14	Allan, GM, Ivers, N, Sharma, AM. Diets for weight loss and prevention of negative health outcomes. Can Fam Physician. 2011. 57:894-5 https://www.ncbi.nlm.nih.gov/pubmed/21841109	Study Design
15	Alshahrani, SM, Fraser, GE, Sabate, J, Knutsen, R, Shavlik, D, Mashchak, A, Lloren, JI, Orlich, MJ. Red and Processed Meat and Mortality in a Low Meat Intake Population. Nutrients. 2019. 11:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30875776	Intervention/Exposure
16	Alvarez-Alvarez, I, Zazpe, I, Perez de Rojas, J, Bes-Rastrollo, M, Ruiz-Canela, M, Fernandez-Montero, A, Hidalgo-Santamaria, M, Martinez-Gonzalez, MA. Mediterranean diet, physical activity and their combined effect on ACM: The Seguimiento Universidad de Navarra (SUN) cohort. Prev Med. 2018. 106:45-52 https://www.ncbi.nlm.nih.gov/pubmed/28964855	Intervention/Exposure
17	Amrock, SM, Weitzman, M. Multiple biomarkers for mortality prediction in peripheral arterial disease. Vasc Med. 2016. 21:105-12 https://www.ncbi.nlm.nih.gov/pubmed/26762418	Study Design, Intervention/Exposure
18	Appleby, PN, Crowe, FL, Bradbury, KE, Travis, RC, Key, TJ. Mortality in vegetarians and comparable nonvegetarians in the United Kingdom. Am J Clin Nutr. 2016. 103:218-30 https://www.ncbi.nlm.nih.gov/pubmed/26657045	Intervention/Exposure
19	Appleby, PN, Key, TJ, Thorogood, M, Burr, ML, Mann, J. Mortality in British vegetarians. Public Health Nutr. 2002. 5:29-36 https://www.ncbi.nlm.nih.gov/pubmed/12001975	Intervention/Exposure
20	Argos, M, Melkonian, S, Parvez, F, Rakibuz-Zaman, M, Ahmed, A, Chen, Y, Ahsan, H. A population-based prospective study of energy-providing nutrients in relation to all-cause cancer mortality and cancers of digestive organs mortality. Int J Cancer. 2013. 133:2422-8 https://www.ncbi.nlm.nih.gov/pubmed/23650102	Country

	Citation	Rationale
21	Argyridou, S, Zaccardi, F, Davies, MJ, Khunti, K, Yates, T. Relevance of physical function in the association of red and processed meat intake with all-cause, cardiovascular, and cancer mortality. Nutr Metab Cardiovasc Dis. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31377183	Intervention/Exposure
22	Asadi, Z, Shafiee, M, Sadabadi, F, Heidari-Bakavoli, A, Moohebati, M, Khorrami, MS, Darroudi, S, Heidari, S, Hoori, T, Tayefi, M, Mohammadi, F, Esmaeily, H, Safarian, M, Ghayour-Mobarhan, M, Ferns, GA. Association of dietary patterns and risk of cardiovascular disease events in the MASHAD cohort study. J Hum Nutr Diet. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31332855	Outcome
23	Awuor, L, Melles, S. The influence of environmental and health indicators on premature mortality: An empirical analysis of the City of Toronto's 140 neighborhoods. Health Place. 2019. 58:102155 https://www.ncbi.nlm.nih.gov/pubmed/31252289	Intervention/Exposure
24	Baer, HJ, Glynn, RJ, Hu, FB, Hankinson, SE, Willett, WC, Colditz, GA, Stampfer, M, Rosner, B. Risk factors for mortality in the nurses' health study: a competing risks analysis. Am J Epidemiol. 2011. 173:319-29 https://www.ncbi.nlm.nih.gov/pubmed/21135028	Intervention/Exposure
25	Banegas, JR, LeÃ³n-MuÃ±oz, LM, Guallar-CastillÃ³n, P, Graciani, A, RodrÃ-guez-Artalejo, F. Self-reported adherence to nonpharmacological treatment and association with mortality over 6 years: Population-based study in older persons with hypercholesterolemia. Journal of the American Geriatrics Society. 2009. 57:2287-2292 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L355759201. http://dx.doi.org/10.1111/j.1532-5415.2009.02556.x	Intervention/Exposure
26	Barrington, WE, White, E. Mortality outcomes associated with intake of fast-food items and sugar-sweetened drinks among older adults in the Vitamins and Lifestyle (VITAL) study. Public Health Nutr. 2016. 19:3319-3326 https://www.ncbi.nlm.nih.gov/pubmed/27338763	Intervention/Exposure
27	Bates, CJ, Hamer, M, Mishra, GD. A study of relationships between bone-related vitamins and minerals, related risk markers, and subsequent mortality in older British people: the National Diet and Nutrition Survey of People Aged 65 Years and Over. Osteoporos Int. 2012. 23:457-66 https://www.ncbi.nlm.nih.gov/pubmed/21380638	Intervention/Exposure
28	Bathrellou, E, Kontogianni, MD, Chrysanthopoulou, E, Georgousopoulou, E, Chrysohoou, C, Pitsavos, C, Panagiotakos, D. Adherence to a DASH-style diet and cardiovascular disease risk: The 10-year follow-up of the ATTICA study. Nutr Health. 2019. 25:225-230 https://www.ncbi.nlm.nih.gov/pubmed/31319758	Outcome
29	Beddhu, S, Chen, X, Wei, G, Raj, D, Raphael, KL, Boucher, R, Chonchol, MB, Murtaugh, MA, Greene, T. Associations of Protein-Energy Wasting Syndrome Criteria With Body Composition and Mortality in the General and Moderate Chronic Kidney Disease Populations in the United States. Kidney Int Rep. 2017. 2:390-399 https://www.ncbi.nlm.nih.gov/pubmed/28840197	Intervention/Exposure
30	Belanger, M, Poirier, M, Jbilou, J, Scarborough, P. Modelling the impact of compliance with dietary recommendations on cancer and cardiovascular disease mortality in Canada. Public Health. 2014. 128:222-30 https://www.ncbi.nlm.nih.gov/pubmed/24612957	Study Design, Intervention/Exposure, Outcome

	Citation	Rationale
31	Bell, GA, Kantor, ED, Lampe, JW, Kristal, AR, Heckbert, SR, White, E. Intake of long-chain omega-3 fatty acids from diet and supplements in relation to mortality. Am J Epidemiol. 2014. 179:710-20 https://www.ncbi.nlm.nih.gov/pubmed/24496442	Intervention/Exposure
32	Bellavia, A, Stilling, F, Wolk, A. High red meat intake and all-cause cardiovascular and cancer mortality: is the risk modified by fruit and vegetable intake?. Am J Clin Nutr. 2016. 104:1137-1143 https://www.ncbi.nlm.nih.gov/pubmed/27557655	Intervention/Exposure
33	Berard, E, Bongard, V, Haas, B, Dallongeville, J, Moitry, M, Cottel, D, Ruidavets, JB, Ferrieres, J. Score of adherence to 2016 European cardiovascular prevention guidelines is an independent determinant of cardiovascular and ACM in a French general population. European heart journal. 2017. 38:1064â€ https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01468665/full	Study Design, Intervention/Exposure, Publication Status
34	Berard, E, Bongard, V, Haas, B, Dallongeville, J, Moitry, M, Cottel, D, Ruidavets, JB, Ferrieres, J. Score of Adherence to 2016 European Cardiovascular Prevention Guidelines Predicts Cardiovascular and ACM in the General Population. Can J Cardiol. 2017. 33:1298-1304 https://www.ncbi.nlm.nih.gov/pubmed/28866076	Intervention/Exposure
35	Beydoun, MA, Beydoun, HA, Mode, N, Dore, GA, Canas, JA, Eid, SM, Zonderman, AB. Racial disparities in adult all-cause and cause-specific mortality among us adults: mediating and moderating factors. BMC Public Health. 2016. 16:1113 https://www.ncbi.nlm.nih.gov/pubmed/27770781	Intervention/Exposure
36	Beydoun, HA, Huang, S, Beydoun, MA, Hossain, S, Zonderman, AB. Mediating-Moderating Effect of Allostatic Load on the Association between Dietary Approaches to Stop Hypertension Diet and All-Cause and Cause-Specific Mortality: 2001-2010 National Health and Nutrition Examination Surveys. Nutrients. 2019. 11:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31569527	Intervention/Exposure
37	Biesbroek, S, Bueno-de-Mesquita, HB, Peeters, PH, Verschuren, WM, van der Schouw, YT, Kramer, GF, Tyszler, M, Temme, EH. Reducing our environmental footprint and improving our health: greenhouse gas emission and land use of usual diet and mortality in EPIC-NL: a prospective cohort study. Environ Health. 2014. 13:27 https://www.ncbi.nlm.nih.gov/pubmed/24708803	Intervention/Exposure
38	Bihan, H, Backholer, K, Peeters, A, Stevenson, CE, Shaw, JE, Magliano, DJ. Socioeconomic Position and Premature Mortality in the AusDiab Cohort of Australian Adults. Am J Public Health. 2016. 106:470-7 https://www.ncbi.nlm.nih.gov/pubmed/26794164	Intervention/Exposure
39	Bjorck, L, Rosengren, A, Winkvist, A, Capewell, S, Adiels, M, Bandosz, P, Critchley, J, Boman, K, Guzman-Castillo, M, O'Flaherty, M, Johansson, I. Changes in Dietary Fat Intake and Projections for Coronary Heart Disease Mortality in Sweden: A Simulation Study. PLoS One. 2016. 11:e0160474 https://www.ncbi.nlm.nih.gov/pubmed/27490257	Study Design, Intervention/Exposure, Outcome
40	Bjorkman, MP, Suominen, MH, Pitkala, KH, Finne-Soveri, HU, Tilvis, RS. Porvoo sarcopenia and nutrition trial: effects of protein supplementation on functional performance in home-dwelling sarcopenic older people - study protocol for a randomized controlled trial. Trials. 2013. 14:387 https://www.ncbi.nlm.nih.gov/pubmed/24225081	Study Design
41	Blekkenhorst, LC, Lewis, JR, Bondonno, CP, Sim, M, Devine, A, Zhu, K, Lim, WH, Woodman, RJ, Beilin, LJ, Thompson, PL, Prince, RL, Hodgson, JM. Vegetable diversity in relation with subclinical atherosclerosis and 15-year atherosclerotic vascular disease deaths in older adult women. Eur J Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30656478	Intervention/Exposure, Outcome

	Citation	Rationale
42	Bonaccio, M, Di Castelnuovo, A, Bonanni, A, Costanzo, S, De Lucia, F, Pounis, G, Zito, F, Donati, MB, de Gaetano, G, Iacoviello, L. Adherence to a Mediterranean diet is associated with a better health-related quality of life: a possible role of high dietary antioxidant content. BMJ Open. 2013. 3:#pages# https://www.ncbi.nlm.nih.gov/pubmed/23943771	Study Design, Outcome
43	Bonaccio, M, Di Castelnuovo, A, Costanzo, S, De Curtis, A, Persichillo, M, Cerletti, C, Donati, MB, de Gaetano, G, Iacoviello, L. Impact of combined healthy lifestyle factors on survival in an adult general population and in high-risk groups: prospective results from the Moli-sani Study. J Intern Med. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30993789	Intervention/Exposure
44	Bonaccio, M, Di Castelnuovo, A, Costanzo, S, Persichillo, M, De Curtis, A, Cerletti, C, Donati, MB, de Gaetano, G, Iacoviello, L. Interaction between Mediterranean diet and statins on mortality risk in patients with cardiovascular disease: Findings from the Moli-sani Study. Int J Cardiol. 2019. 276:248-254 https://www.ncbi.nlm.nih.gov/pubmed/30527993	Health Status
45	Bonaccio, M, Di Castelnuovo, A, Costanzo, S, Persichillo, M, De Curtis, A, Donati, MB, de Gaetano, G, Iacoviello, L. Adherence to the traditional Mediterranean diet and mortality in subjects with diabetes. Prospective results from the MOLI-SANI study. Eur J Prev Cardiol. 2016. 23:400-7 https://www.ncbi.nlm.nih.gov/pubmed/25648935	Health Status
46	Bonaccio, M, Di Castelnuovo, A, De Curtis, A, Costanzo, S, Bracone, F, Persichillo, M, Donati, MB, de Gaetano, G, Iacoviello, L. Nut consumption is inversely associated with both cancer and total mortality in a Mediterranean population: prospective results from the Moli-sani study. Br J Nutr. 2015. 114:804-11 https://www.ncbi.nlm.nih.gov/pubmed/26313936	Intervention/Exposure
47	Bondonno, NP, Dalgaard, F, Kyro, C, Murray, K, Bondonno, CP, Lewis, JR, Croft, KD, Gislason, G, Scalbert, A, Cassidy, A, Tjonneland, A, Overvad, K, Hodgson, JM. Flavonoid intake is associated with lower mortality in the Danish Diet Cancer and Health Cohort. Nat Commun. 2019. 10:3651 https://www.ncbi.nlm.nih.gov/pubmed/31409784	Intervention/Exposure
48	Boniface, DR, Tefft, ME. Dietary fats and 16-year coronary heart disease mortality in a cohort of men and women in Great Britain. Eur J Clin Nutr. 2002. 56:786-92 https://www.ncbi.nlm.nih.gov/pubmed/12122556	Intervention/Exposure
49	Broeska, VE, Lengyel, CO, Tate, RB. Nutritional risk and 5-year mortality of older community-dwelling Canadian men: the Manitoba Follow-Up Study. J Nutr Gerontol Geriatr. 2013. 32:317-29 https://www.ncbi.nlm.nih.gov/pubmed/24224939	Study Design, Intervention/Exposure
50	Brown, JC, Harhay, MO, Harhay, MN. Physical activity, diet quality, and mortality among sarcopenic older adults. Aging Clin Exp Res. 2017. 29:257-263 https://www.ncbi.nlm.nih.gov/pubmed/27020695	Health Status
51	Brunner, E. More evidence that a healthy lifestyle matters: Converting epidemiology to policy. Evidence-Based Healthcare and Public Health. 2005. 9:108-110 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L40568191, http://dx.doi.org/10.1016/j.ehbc.2005.01.037	Study Design
52	Budhathoki, S, Sawada, N, Iwasaki, M, Yamaji, T, Goto, A, Kotemori, A, Ishihara, J, Takachi, R, Charvat, H, Mizoue, T, Iso, H, Tsugane, S. Association of Animal and Plant Protein Intake With All-Cause and Cause-Specific Mortality. JAMA Intern Med. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31449285	Intervention/Exposure

	Citation	Rationale
53	Bui, Q. Dietary fat modification and the risk of future cardiovascular events and mortality. Am Fam Physician. 2013. 87:609-10 https://www.ncbi.nlm.nih.gov/pubmed/23668523	Study Design
54	Buil-Cosiales, P, Zazpe, I, Toledo, E, Corella, D, Salas-Salvado, J, Diez-Espino, J, Ros, E, Fernandez-Creuet Navajas, J, Santos-Lozano, JM, Aros, F, Fiol, M, Castaner, O, Serra-Majem, L, Pinto, X, Lamuela-Raventos, RM, Marti, A, Basterra-Gortari, FJ, Sorli, JV, Verdu-Rotellar, JM, Basora, J, Ruiz-Gutierrez, V, Estruch, R, Martinez-Gonzalez, MA. Fiber intake and ACM in the Prevencion con Dieta Mediterranea (PREDIMED) study. Am J Clin Nutr. 2014. 100:1498-507 https://www.ncbi.nlm.nih.gov/pubmed/25411285	Intervention/Exposure
55	Burger, KN, Beulens, JW, Boer, JM, Spijkerman, AM, van der, Dl A. Dietary glycemic load and glycemic index and risk of coronary heart disease and stroke in Dutch men and women: the EPIC-MORGEN study. PLoS One. 2011. 6:e25955 https://www.ncbi.nlm.nih.gov/pubmed/21998729	Outcome
56	Burger, KN, Beulens, JW, van der Schouw, YT, Sluijs, I, Spijkerman, AM, Sluik, D, Boeing, H, Kaaks, R, Teucher, B, Dethlefsen, C, Overvad, K, Tjonneland, A, Kyro, C, Barricarte, A, Bendinelli, B, Krogh, V, Tumino, R, Sacerdote, C, Mattiello, A, Nilsson, PM, Orho-Melander, M, Rolandsson, O, Huerta, JM, Crowe, F, Allen, N, Nothlings, U. Dietary fiber, carbohydrate quality and quantity, and mortality risk of individuals with diabetes mellitus. PLoS One. 2012. 7:e43127 https://www.ncbi.nlm.nih.gov/pubmed/22927948	Health Status
57	Burke, V, Zhao, Y, Lee, AH, Hunter, E, Spargo, RM, Gracey, M, Smith, RM, Beilin, LJ, Puddey, IB. Health-related behaviours as predictors of mortality and morbidity in Australian Aborigines. Prev Med. 2007. 44:135-42 https://www.ncbi.nlm.nih.gov/pubmed/17069878	Intervention/Exposure
58	Buyken, AE, Flood, V, Empson, M, Rochtchina, E, Barclay, AW, Brand-Miller, J, Mitchell, P. Carbohydrate nutrition and inflammatory disease mortality in older adults. Am J Clin Nutr. 2010. 92:634-43 https://www.ncbi.nlm.nih.gov/pubmed/20573797	Intervention/Exposure, Outcome
59	Cai, H, Shu, XO, Gao, YT, Li, H, Yang, G, Zheng, W. A prospective study of dietary patterns and mortality in Chinese women. Epidemiology. 2007. 18:393-401 https://www.ncbi.nlm.nih.gov/pubmed/17435450	Country
60	Campmans-Kuijpers, MJ, Sluijs, I, Nothlings, U, Freisling, H, Overvad, K, Boeing, H, Masala, G, Panico, S, Tumino, R, Sieri, S, Johansson, I, Winkvist, A, Katzke, VA, Kuehn, T, Nilsson, PM, Halkjaer, J, Tjonneland, A, Spijkerman, AM, Arriola, L, Sacerdote, C, Barricarte, A, May, AM, Beulens, JW. The association of substituting carbohydrates with total fat and different types of fatty acids with mortality and weight change among diabetes patients. Clin Nutr. 2016. 35:1096-102 https://www.ncbi.nlm.nih.gov/pubmed/26342536	Health Status
61	Campmans-Kuijpers, MJ, Sluijs, I, Nothlings, U, Freisling, H, Overvad, K, Weiderpass, E, Fagherazzi, G, Kuhn, T, Katzke, VA, Mattiello, A, Sonestedt, E, Masala, G, Agnoli, C, Tumino, R, Spijkerman, AM, Barricarte, A, Ricceri, F, Chamosa, S, Johansson, I, Winkvist, A, Tjonneland, A, Sluik, D, Boeing, H, Beulens, JW. Isocaloric substitution of carbohydrates with protein: the association with weight change and mortality among patients with type 2 diabetes. Cardiovasc Diabetol. 2015. 14:39 https://www.ncbi.nlm.nih.gov/pubmed/25896172	Health Status
62	Capewell, S, O'Flaherty, M. Can dietary changes rapidly decrease cardiovascular mortality rates?. Eur Heart J. 2011. 32:1187-9 https://www.ncbi.nlm.nih.gov/pubmed/21367835	Study design

	Citation	Rationale
63	Capewell, S, O'Flaherty, M. Rapid mortality falls after risk-factor changes in populations. Lancet. 2011. 378:752-3 https://www.ncbi.nlm.nih.gov/pubmed/21414659	Study Design
64	Casas, R, Sacanella, E, Urpi-Sarda, M, Chiva-Blanch, G, Ros, E, Martinez-Gonzalez, MA, Covas, MI, Salas-Salvado, J, Fiol, M, Aros, F, Estruch, R. The effects of the mediterranean diet on biomarkers of vascular wall inflammation and plaque vulnerability in subjects with high risk for cardiovascular disease. A randomized trial. PLoS One. 2014. 9:e100084 https://www.ncbi.nlm.nih.gov/pubmed/24925270	Outcome
65	Castro-Quezada, I, Sanchez-Villegas, A, Estruch, R, Salas-Salvado, J, Corella, D, Schroder, H, Alvarez-Perez, J, Ruiz-Lopez, MD, Artacho, R, Ros, E, Bullo, M, Covas, MI, Ruiz-Gutierrez, V, Ruiz-Canela, M, Buil-Cosiales, P, Gomez-Gracia, E, Lapetra, J, Pinto, X, Aros, F, Fiol, M, Lamuela-Raventos, RM, Martinez-Gonzalez, MA, Serra-Majem, L. A high dietary glycemic index increases total mortality in a Mediterranean population at high cardiovascular risk. PLoS One. 2014. 9:e107968 https://www.ncbi.nlm.nih.gov/pubmed/25250626	Intervention/Exposure
66	Cerhan, JR, Potter, JD, Gilmore, JM, Janney, CA, Kushi, LH, Lazovich, D, Anderson, KE, Sellers, TA, Folsom, AR. Adherence to the AICR cancer prevention recommendations and subsequent morbidity and mortality in the Iowa Women's Health Study cohort. Cancer Epidemiol Biomarkers Prev. 2004. 13:1114-20 https://www.ncbi.nlm.nih.gov/pubmed/15247121	Intervention/Exposure
67	Chang, AR, Lazo, M, Appel, LJ, GutiÃ©rrez, OM, Grams, ME. High dietary phosphorus intake is associated with ACM: Results from NHANES III1-3. American Journal of Clinical Nutrition. 2014. 99:320-327 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L372244325 .http://dx.doi.org/10.3945/ajcn.113.073148	Intervention/Exposure
68	Chang, WC, Wahlqvist, ML, Chang, HY, Hsu, CC, Lee, MS, Wang, WS, Hsiung, CA. A bean-free diet increases the risk of ACM among Taiwanese women: the role of the metabolic syndrome. Public Health Nutr. 2012. 15:663-72 https://www.ncbi.nlm.nih.gov/pubmed/21899787	Intervention/Exposure
69	Chen, X, Wei, G, Jalili, T, Metos, J, Giri, A, Cho, ME, Boucher, R, Greene, T, Beddhu, S. The Associations of Plant Protein Intake With ACM in CKD. Am J Kidney Dis. 2016. 67:423-30 https://www.ncbi.nlm.nih.gov/pubmed/26687923	Intervention/Exposure, Health Status
70	Chen, Y, McClintock, TR, Segers, S, Parvez, F, Islam, T, Ahmed, A, Rakibuz-Zaman, M, Hasan, R, Sarwar, G, Ahsan, H. Prospective investigation of major dietary patterns and risk of cardiovascular mortality in Bangladesh. Int J Cardiol. 2013. 167:1495-501 https://www.ncbi.nlm.nih.gov/pubmed/22560940	Country
71	Chiuve, SE, Sampson, L, Willett, WC. The association between a nutritional quality index and risk of chronic disease. Am J Prev Med. 2011. 40:505-13 https://www.ncbi.nlm.nih.gov/pubmed/21496749	Intervention/Exposure
72	Chlebowski, RT, Anderson, GL, Manson, JE, Prentice, RL, Aragaki, AK, Snetselaar, L, Beresford, SAA, Kuller, LH, Johnson, K, Lane, D, Luo, J, Rohan, TE, Jiao, L, Barac, A, Womack, C, Coday, M, Datta, M, Thomson, CA. Low-Fat Dietary Pattern and Cancer Mortality in the Women's Health Initiative (WHI) Randomized Controlled Trial. JNCI Cancer Spectr. 2018. 2:pky065 https://www.ncbi.nlm.nih.gov/pubmed/31360880	Outcome

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73	Chlebowski, RT, Aragaki, AK, Anderson, GL, Thomson, CA, Manson, JE, Simon, MS, Howard, BV, Rohan, TE, Snetselaar, L, Lane, D, etal, . Low-fat dietary pattern and breast cancer mortality in the Women's Health Initiative (WHI) randomized trial. Cancer research. 2016. 76:#pages# https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01294296/full	Study design, Publication Status
74	Chlebowski, RT, Aragaki, AK, Anderson, GL, Thomson, CA, Manson, JE, Simon, MS, Howard, BV, Rohan, TE, Snetselar, L, Lane, D, Barrington, W, Vitolins, MZ, Womack, C, Qi, L, Hou, L, Thomas, F, Prentice, RL. Low-Fat Dietary Pattern and Breast Cancer Mortality in the Women's Health Initiative Randomized Controlled Trial. J Clin Oncol. 2017. 35:2919-2926 https://www.ncbi.nlm.nih.gov/pubmed/28654363	Outcome
75	Cicero, AF, Benelli, M, Brancaleoni, M, Dainelli, G, Merlini, D, Negri, R. Middle and Long-Term Impact of a Very Low-Carbohydrate Ketogenic Diet on Cardiometabolic Factors: A Multi-Center, Cross-Sectional, Clinical Study. High Blood Press Cardiovasc Prev. 2015. 22:389-94 https://www.ncbi.nlm.nih.gov/pubmed/25986079	Outcome
76	Cobiac, LJ, Scarborough, P. Modelling the health co-benefits of sustainable diets in the UK, France, Finland, Italy and Sweden. Eur J Clin Nutr. 2019. 73:624-633 https://www.ncbi.nlm.nih.gov/pubmed/30755710	Study Design, Intervention/Exposure
77	Cohen, HW, Hailpern, SM, Alderman, MH. Sodium intake and mortality follow-up in the Third National Health and Nutrition Examination Survey (NHANES III). J Gen Intern Med. 2008. 23:1297-302 https://www.ncbi.nlm.nih.gov/pubmed/18465175	Intervention/Exposure
78	Colpani, V, Oppermann, K, Spritzer, PM. Causes of death and associated risk factors among climacteric women from Southern Brazil: a population based-study. BMC public health. 2014. 14:194 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L605937096 http://dx.doi.org/10.1186/1471-2458-14-194	Intervention/Exposure
79	Conrad, Z, Thomson, J, Jahns, L. Prospective Analysis of Vegetable Amount and Variety on the Risk of All-Cause and Cause-Specific Mortality among US Adults, 1999(-)2011. Nutrients. 2018. 10:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30261669	Intervention/Exposure
80	Corella, D, Ramirez-Sabio, JB, Coltell, O, Ortega-Azorin, C, Estruch, R, Martinez-Gonzalez, MA, Salas-Salvado, J, Sorli, JV, Castaner, O, Aros, F, Garcia-Corte, FJ, Serra-Majem, L, Gomez-Gracia, E, Fiol, M, Pinto, X, Saez, GT, Toledo, E, Basora, J, Fito, M, Cofan, M, Ros, E, Ordovas, JM. Effects of the Ser326Cys Polymorphism in the DNA Repair OGG1 Gene on Cancer, Cardiovascular, and ACM in the PREDIMED Study: Modulation by Diet. J Acad Nutr Diet. 2018. 118:589-605 https://www.ncbi.nlm.nih.gov/pubmed/29305130	Intervention/Exposure (data directly overlap with included article)
81	Crowe, FL, Appleby, PN, Travis, RC, Key, TJ. Risk of hospitalization or death from ischemic heart disease among British vegetarians and nonvegetarians: Results from the EPIC-Oxford cohort study1-3. American Journal of Clinical Nutrition. 2013. 97:597-603 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L368405706. http://dx.doi.org/10.3945/ajcn.112.044073	Intervention/Exposure, Outcome
82	Cummings, JR, Mason, AE, Puterman, E, Tomiyama, AJ. Comfort Eating and ACM in the US Health and Retirement Study. Int J Behav Med. 2018. 25:473-478 https://www.ncbi.nlm.nih.gov/pubmed/29243156	Intervention/Exposure

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83	Dauchet, L, Jung, YJ. Association between vegetarian diets and chronic diseases: An epidemiological approach. Cahiers de Nutrition et de Dietetique. 2019. #volume#:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L2002637581 http://dx.doi.org/10.1016/j.cnd.2019.07.004	Language
84	Dehghan, M, Mente, A, Rangarajan, S, Sheridan, P, Mohan, V, Iqbal, R, Gupta, R, Lear, S, Wentzel-Viljoen, E, Avezum, A, Lopez-Jaramillo, P, Mony, P, Varma, RP, Kumar, R, Chifamba, J, Alhabib, KF, Mohammadifard, N, Oguz, A, Lanas, F, Rozanska, D, Bostrom, KB, Yusoff, K, Tsolkile, LP, Dans, A, Yusufali, A, Orlandini, A, Poirier, P, Khatib, R, Hu, B, Wei, L, Yin, L, Deeraili, A, Yeates, K, Yusuf, R, Ismail, N, Mozaffarian, D, Teo, K, Anand, SS, Yusuf, S. Association of dairy intake with cardiovascular disease and mortality in 21 countries from five continents (PURE): a prospective cohort study. Lancet. 2018. 392:2288-2297 https://www.ncbi.nlm.nih.gov/pubmed/30217460	Intervention/Exposure
85	Dehghan, M, Mente, A, Zhang, X, Swaminathan, S, Li, W, Mohan, V, Iqbal, R, Kumar, R, Wentzel-Viljoen, E, Rosengren, A, Amma, LI, Avezum, A, Chifamba, J, Diaz, R, Khatib, R, Lear, S, Lopez-Jaramillo, P, Liu, X, Gupta, R, Mohammadifard, N, Gao, N, Oguz, A, Ramli, AS, Seron, P, Sun, Y, Szuba, A, Tsolekile, L, Wielgosz, A, Yusuf, R, Hussein Yusufali, A, Teo, KK, Rangarajan, S, Dagenais, G, Bangdiwala, SI, Islam, S, Anand, SS, Yusuf, S. Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study. Lancet. 2017. 390:2050-2062 https://www.ncbi.nlm.nih.gov/pubmed/28864332	Intervention/Exposure, Country
86	deKoning, L, Anand, SS. Adherence to a Mediterranean diet and survival in a Greek population. Trichopoulou A, Costacou T, Bamia C, Trichopoulos D. N Engl J Med 2003; 348: 2599-608. Vasc Med. 2004. 9:145-6 https://www.ncbi.nlm.nih.gov/pubmed/15521707	Study Design
87	Deng, FE, Shivappa, N, Tang, Y, Mann, JR, Hebert, JR. Association between diet-related inflammation, all-cause, all-cancer, and cardiovascular disease mortality, with special focus on prediabetics: findings from NHANES III. Eur J Nutr. 2017. 56:1085-1093 https://www.ncbi.nlm.nih.gov/pubmed/26825592	Intervention/Exposure
88	Deschamps, V, Astier, X, Ferry, M, Rainfray, M, Emeriau, JP, Barberger-Gateau, P. Nutritional status of healthy elderly persons living in Dordogne, France, and relation with mortality and cognitive or functional decline. Eur J Clin Nutr. 2002. 56:305-12 https://www.ncbi.nlm.nih.gov/pubmed/11965506	Intervention/Exposure
89	DeSilvey, DL. Diet, lifestyle, mortality, and memory in the elderly. Am J Geriatr Cardiol. 2005. 14:41 https://www.ncbi.nlm.nih.gov/pubmed/15654154	Study design, Publication Status
90	Dilis, V, Katsoulis, M, Lagiou, P, Trichopoulos, D, Naska, A, Trichopoulou, A. Mediterranean diet and CHD: the Greek European Prospective Investigation into Cancer and Nutrition cohort. Br J Nutr. 2012. 108:699-709 https://www.ncbi.nlm.nih.gov/pubmed/22894912	Outcome
91	Ding, D, Rogers, K, van der Ploeg, H, Stamatakis, E, Bauman, AE. Traditional and Emerging Lifestyle Risk Behaviors and ACM in Middle-Aged and Older Adults: Evidence from a Large Population-Based Australian Cohort. PLoS Med. 2015. 12:e1001917 https://www.ncbi.nlm.nih.gov/pubmed/26645683	Intervention/Exposure

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92	Dominguez, LJ, Bes-Rastrollo, M, Basterra-Gortari, FJ, Gea, A, Barbagallo, M, Martinez-Gonzalez, MA. Should we recommend reductions in saturated fat intake or in red/processed meat consumption? The SUN prospective cohort study. Clin Nutr. 2018. 37:1389-1398 https://www.ncbi.nlm.nih.gov/pubmed/28669669	Intervention/Exposure
93	Dominguez, LJ, Bes-Rastrollo, M, de la Fuente-Arrillaga, C, Toledo, E, Beunza, JJ, Barbagallo, M, Martinez-Gonzalez, MA. Similar prediction of total mortality, diabetes incidence and cardiovascular events using relative- and absolute-component Mediterranean diet score: the SUN cohort. Nutr Metab Cardiovasc Dis. 2013. 23:451-8 https://www.ncbi.nlm.nih.gov/pubmed/22402062	Outcome
94	Dominguez, LJ, Bes-Rastrollo, M, Toledo, E, Gea, A, Fresan, U, Barbagallo, M, Martinez-Gonzalez, MA. Dietary fiber intake and mortality in a Mediterranean population: the Seguimiento Universidad de Navarra (SUN) project. Eur J Nutr. 2018. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30367237	Intervention/Exposure
95	Dong, Y, Hao, G, Wang, Z, Wang, X, Chen, Z, Zhang, L. Ideal Cardiovascular Health Status and Risk of Cardiovascular Disease or ACM in Chinese Middle-Aged Population. Angiology. 2019. 70:523-529 https://www.ncbi.nlm.nih.gov/pubmed/30458624	Intervention/Exposure
96	Drake, I, Dias, JA, Teleka, S, Stocks, T, Orho-Melander, M. Lifestyle and cancer incidence and mortality risk depending on family history of cancer in two prospective cohorts. International Journal of Cancer. 2019. #volume#:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L627846423 .http://dx.doi.org/10.1002/ijc.32397	Outcome
97	Edwards, MK, Addoh, O, Loprinzi, PD. Predictive validity of the ACC/AHA pooled cohort equations in predicting residual-specific mortality in a national prospective cohort study of adults in the United States. Postgrad Med. 2016. 128:865-868 https://www.ncbi.nlm.nih.gov/pubmed/27701986	Intervention/Exposure
98	Edwards, MK, Shivappa, N, Mann, JR, Hebert, JR, Wirth, MD, Loprinzi, PD. The association between physical activity and dietary inflammatory index on mortality risk in U.S. adults. Phys Sportsmed. 2018. 46:249-254 https://www.ncbi.nlm.nih.gov/pubmed/29463180	Intervention/Exposure
99	Eguchi, E, Iso, H, Tanabe, N, Wada, Y, Yatsuya, H, Kikuchi, S, Inaba, Y, Tamakoshi, A. Healthy lifestyle behaviours and cardiovascular mortality among Japanese men and women: the Japan collaborative cohort study. Eur Heart J. 2012. 33:467-77 https://www.ncbi.nlm.nih.gov/pubmed/22334626	Intervention/Exposure, Outcome
100	Einvik, G, Klemsdal, TO, Sandvik, L, Hjerkinn, EM. A randomized clinical trial on n-3 polyunsaturated fatty acids supplementation and ACM in elderly men at high cardiovascular risk. Eur J Cardiovasc Prev Rehabil. 2010. 17:588-92 https://www.ncbi.nlm.nih.gov/pubmed/20389249	Intervention/Exposure
101	Emenaker, NJ, Vargas, AJ. The Mediterranean Diet, the OGG1 Gene, and Disease Risk: Early Evidence. J Acad Nutr Diet. 2018. 118:547-549 https://www.ncbi.nlm.nih.gov/pubmed/29305132	Study design, Publication Status
102	Estaquio, C, Castetbon, K, Kesse-Guyot, E, Bertrais, S, Deschamps, V, Dauchet, L, Peneau, S, Galan, P, Hercberg, S. The French National Nutrition and Health Program score is associated with nutritional status and risk of major chronic diseases. J Nutr. 2008. 138:946-53 https://www.ncbi.nlm.nih.gov/pubmed/18424606	Intervention/Exposure, Outcome

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103	Estruch, R, MartÃ-nez-GonzÃ¡lez, MA. Mediterranean diets reduced cardiovascular events more than a low-fat diet in high-risk persons. Annals of Internal Medicine. 2013. 158:JC3 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L369142664. http://dx.doi.org/10.7326/0003-4819-158-12-201306180-02003	Study Design
104	Etemadi, A, Sinha, R, Ward, MH, Graubard, BI, Inoue-Choi, M, Dawsey, SM, Abnet, CC. Mortality from different causes associated with meat, heme iron, nitrates, and nitrites in the NIH-AARP Diet and Health Study: population based cohort study. Bmj. 2017. 357:j1957 https://www.ncbi.nlm.nih.gov/pubmed/28487287	Intervention/Exposure
105	Farvid, MS, Malekshah, AF, Pourshams, A, Poustchi, H, Sepanlou, SG, Sharafkhah, M, Khoshnia, M, Farvid, M, Abnet, CC, Kamangar, F, Dawsey, SM, Brennan, P, Pharoah, PD, Boffetta, P, Willett, WC, Malekzadeh, R. Dietary Protein Sources and All-Cause and Cause-Specific Mortality: The Golestan Cohort Study in Iran. Am J Prev Med. 2017. 52:237-248 https://www.ncbi.nlm.nih.gov/pubmed/28109460	Intervention/Exposure
106	Fazel-Tabar Malekshah, A, Zaroudi, M, Etemadi, A, Islami, F, Sepanlou, S, Sharafkhah, M, Keshtkar, AA, Khademi, H, Poustchi, H, Hekmatdoost, A, Pourshams, A, Feiz Sani, A, Jafari, E, Kamangar, F, Dawsey, SM, Abnet, CC, Pharoah, PD, Berennan, PJ, Boffetta, P, Esmaillzadeh, A, Malekzadeh, R. The Combined Effects of Healthy Lifestyle Behaviors on ACM: The Golestan Cohort Study. Arch Iran Med. 2016. 19:752-761 https://www.ncbi.nlm.nih.gov/pubmed/27845543	Intervention/Exposure
107	Fiala, J, BrÃ¡zdovÃ¡, Z. A comparison between the lifestyles of men and women - Parents of school age children. Central European Journal of Public Health. 2000. 8:94-100 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L30255512	Intervention/Exposure, Outcome
108	Fidanza, F, Alberti, A, Lanti, M, Menotti, A. Mediterranean Adequacy Index: correlation with 25-year mortality from coronary heart disease in the Seven Countries Study. Nutr Metab Cardiovasc Dis. 2004. 14:254-8 https://www.ncbi.nlm.nih.gov/pubmed/15673059	Study Design, Outcome
109	Fillmore, KM, Stockwell, T, Chikritzhs, T, Bostrom, A, Kerr, W. Moderate Alcohol Use and Reduced Mortality Risk: Systematic Error in Prospective Studies and New Hypotheses. Annals of Epidemiology. 2007. 17:S16-S23 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L46671514	Study Design, Intervention/Exposure
110	Folsom, AR, Parker, ED, Harnack, LJ. Degree of concordance with DASH diet guidelines and incidence of hypertension and fatal cardiovascular disease. Am J Hypertens. 2007. 20:225-32 https://www.ncbi.nlm.nih.gov/pubmed/17324731	Outcome
111	Fortes, C, Forastiere, F, Farchi, S, Rapiti, E, Pastori, G, Perucci, CA. Diet and overall survival in a cohort of very elderly people. Epidemiology. 2000. 11:440-5 https://www.ncbi.nlm.nih.gov/pubmed/10874552	Intervention/Exposure
112	Fransen, HP, Beulens, JW, May, AM, Struijk, EA, Boer, JM, de Wit, GA, Onland-Moret, NC, van der Schouw, YT, Bueno-de-Mesquita, HB, Hoekstra, J, Peeters, PH. Dietary patterns in relation to quality-adjusted life years in the EPIC-NL cohort. Prev Med. 2015. 77:119-24 https://www.ncbi.nlm.nih.gov/pubmed/26007298	Outcome
113	Freedland, SJ. The effect of diet and supplements on prostate cancer. Clin Adv Hematol Oncol. 2014. 12:538-40 https://www.ncbi.nlm.nih.gov/pubmed/25356578	Study Design

	Citation	Rationale
114	Fresan, U, Martinez-Gonzalez, MA, Sabate, J, Bes-Rastrollo, M. Global sustainability (health, environment and monetary costs) of three dietary patterns: results from a Spanish cohort (the SUN project). BMJ Open. 2019. 9:e021541 https://www.ncbi.nlm.nih.gov/pubmed/30796113	Outcome
115	Fung, TT, Rexrode, KM, Mantzoros, CS, Manson, JE, Willett, WC, Hu, FB. Mediterranean diet and incidence of and mortality from coronary heart disease and stroke in women. Circulation. 2009. 119:1093-100 https://www.ncbi.nlm.nih.gov/pubmed/19221219	Outcome
116	Gage, TB, O'Connor, K. Nutrition and the variation in level and age patterns of mortality. 1994. Hum Biol. 2009. 81:551-74 https://www.ncbi.nlm.nih.gov/pubmed/20504181	Intervention/Exposure, Publication Date
117	Garcia-Arellano, A, Martinez-Gonzalez, MA, Ramallal, R, Salas-Salvado, J, Hebert, JR, Corella, D, Shivappa, N, Forga, L, Schroder, H, Munoz-Bravo, C, Estruch, R, Fiol, M, Lapetra, J, Serra-Majem, L, Ros, E, Rekondo, J, Toledo, E, Razquin, C, Ruiz-Canela, M. Dietary inflammatory index and ACM in large cohorts: The SUN and PREDIMED studies. Clin Nutr. 2019. 38:1221-1231 https://www.ncbi.nlm.nih.gov/pubmed/30651193	Intervention/Exposure
118	Gardener, H, Wright, CB, Gu, Y, Demmer, RT, Boden-Albala, B, Elkind, MS, Sacco, RL, Scarmeas, N. Mediterranean-style diet and risk of ischemic stroke, myocardial infarction, and vascular death: the Northern Manhattan Study. Am J Clin Nutr. 2011. 94:1458-64 https://www.ncbi.nlm.nih.gov/pubmed/22071704	Outcome
119	Gea, A, Bes-Rastrollo, M, Toledo, E, Garcia-Lopez, M, Beunza, JJ, Estruch, R, Martinez-Gonzalez, MA. Mediterranean alcohol-drinking pattern and mortality in the SUN (Seguimiento Universidad de Navarra) Project: a prospective cohort study. Br J Nutr. 2014. 111:1871-80 https://www.ncbi.nlm.nih.gov/pubmed/24480368	Intervention/Exposure
120	Gomez de la Camara, A, De Andres Esteban, E, Urrutia Cuchi, G, Calderon Sandubete, E, Rubio Herrera, MA, Menendez Orenga, M, Lora Pablos, D. Variability of nutrients intake, lipid profile and cardiovascular mortality among geographical areas in Spain: The DRECE study. Geospat Health. 2017. 12:524 https://www.ncbi.nlm.nih.gov/pubmed/29239557	Intervention/Exposure, Outcome
121	Gonzalez, S, Huerta, JM, Fernandez, S, Patterson, AM, Lasheras, C. Differences in overall mortality in the elderly may be explained by diet. Gerontology. 2008. 54:232-7 https://www.ncbi.nlm.nih.gov/pubmed/18503250	Intervention/Exposure
122	Gopinath, B, Buyken, AE, Flood, VM, Empson, M, Rochtchina, E, Mitchell, P. Consumption of polyunsaturated fatty acids, fish, and nuts and risk of inflammatory disease mortality. Am J Clin Nutr. 2011. 93:1073-9 https://www.ncbi.nlm.nih.gov/pubmed/21411616	Intervention/Exposure, Outcome
123	Gopinath, B, Flood, VM, Burlutksy, G, Mitchell, P. Consumption of nuts and risk of total and cause-specific mortality over 15 years. Nutr Metab Cardiovasc Dis. 2015. 25:1125-31 https://www.ncbi.nlm.nih.gov/pubmed/26607701	Intervention/Exposure
124	Gopinath, B, Flood, VM, Kifley, A, Louie, JC, Mitchell, P. Association Between Carbohydrate Nutrition and Successful Aging Over 10 Years. J Gerontol A Biol Sci Med Sci. 2016. 71:1335-40 https://www.ncbi.nlm.nih.gov/pubmed/27252308	Intervention/Exposure

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125	Graffouillere, L, Deschasaux, M, Mariotti, F, Neufcourt, L, Shivappa, N, Hebert, JR, Wirth, MD, Latino-Martel, P, Hercberg, S, Galan, P, Julia, C, Kesse-Guyot, E, Touvier, M. Prospective association between the Dietary Inflammatory Index and mortality: modulation by antioxidant supplementation in the SU.VI.MAX randomized controlled trial. Am J Clin Nutr. 2016. 103:878-85 https://www.ncbi.nlm.nih.gov/pubmed/26864363	Intervention/Exposure
126	Grech, A, Sui, Z, Siu, HY, Zheng, M, Allman-Farinelli, M, Rangan, A. Socio-Demographic Determinants of Diet Quality in Australian Adults Using the Validated Healthy Eating Index for Australian Adults (HEIFA-2013). Healthcare (Basel). 2017. 5:#pages# https://www.ncbi.nlm.nih.gov/pubmed/28165394	Study Design, Outcome
127	Greenlee, H, Strizich, G, Lovasi, GS, Kaplan, RC, Biggs, ML, Li, CI, Richardson, J, Burke, GL, Fitzpatrick, AL, Fretts, AM, Psaty, BM, Fried, LP. Concordance With Prevention Guidelines and Subsequent Cancer, Cardiovascular Disease, and Mortality: A Longitudinal Study of Older Adults. Am J Epidemiol. 2017. 186:1168-1179 https://www.ncbi.nlm.nih.gov/pubmed/29020206	Intervention/Exposure
128	Guasch-Ferre, M, Babio, N, Martinez-Gonzalez, MA, Corella, D, Ros, E, Martin-Pelaez, S, Estruch, R, Aros, F, Gomez-Gracia, E, Fiol, M, Santos-Lozano, JM, Serra-Majem, L, Bullo, M, Toledo, E, Barragan, R, Fito, M, Gea, A, Salas-Salvado, J. Dietary fat intake and risk of cardiovascular disease and ACM in a population at high risk of cardiovascular disease. Am J Clin Nutr. 2015. 102:1563-73 https://www.ncbi.nlm.nih.gov/pubmed/26561617	Intervention/Exposure
129	Guasch-Ferre, M, Bullo, M, Estruch, R, Corella, D, Martinez-Gonzalez, MA, Ros, E, Covas, M, Aros, F, Gomez-Gracia, E, Fiol, M, Lapetra, J, Munoz, MA, Serra-Majem, L, Babio, N, Pinto, X, Lamuela-Raventos, RM, Ruiz-Gutierrez, V, Salas-Salvado, J. Dietary magnesium intake is inversely associated with mortality in adults at high cardiovascular disease risk. J Nutr. 2014. 144:55-60 https://www.ncbi.nlm.nih.gov/pubmed/24259558	Intervention/Exposure
130	Guasch-Ferre, M, Bullo, M, Martinez-Gonzalez, MA, Corella, D, Ros, E, Estruch, R, Warnberg, J, Serra-Majem, L, Basora, J, Salas-Salvado, J. Frequency of nut consumption and risk of total mortality in the predimed study. Annals of nutrition and metabolism.. 2013. 62:17â€18 https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01027080/full	Study Design, Intervention/Exposure, Publication Status
131	Guasch-Ferre, M, Bullo, M, Martinez-Gonzalez, MA, Ros, E, Corella, D, Estruch, R, Fito, M, Aros, F, Warnberg, J, Fiol, M, Lapetra, J, Vinyoles, E, Lamuela-Raventos, RM, Serra-Majem, L, Pinto, X, Ruiz-Gutierrez, V, Basora, J, Salas-Salvado, J. Frequency of nut consumption and mortality risk in the PREDIMED nutrition intervention trial. BMC Med. 2013. 11:164 https://www.ncbi.nlm.nih.gov/pubmed/23866098	Intervention/Exposure
132	Guasch-Ferre, M, Hu, FB, Martinez-Gonzalez, MA, Fito, M, Bullo, M, Estruch, R, Ros, E, Corella, D, Recondo, J, Gomez-Gracia, E, Fiol, M, Lapetra, J, Serra-Majem, L, Munoz, MA, Pinto, X, Lamuela-Raventos, RM, Basora, J, Buil-Cosiales, P, Sorli, JV, Ruiz-Gutierrez, V, Martinez, JA, Salas-Salvado, J. Olive oil intake and risk of cardiovascular disease and mortality in the PREDIMED Study. BMC Med. 2014. 12:78 https://www.ncbi.nlm.nih.gov/pubmed/24886626	Intervention/Exposure
133	Guasch-Ferre, M, Salas-Salvado, J, Ros, E, Estruch, R, Corella, D, Fito, M, Martinez-Gonzalez, MA. The PREDIMED trial, Mediterranean diet and health outcomes: How strong is the evidence?. Nutr Metab Cardiovasc Dis. 2017. 27:624-632 https://www.ncbi.nlm.nih.gov/pubmed/28684083	Study Design

	Citation	Rationale
134	Guasch-Ferre, M, Zong, G, Willett, WC, Zock, PL, Wanders, AJ, Hu, FB, Sun, Q. Associations of Monounsaturated Fatty Acids From Plant and Animal Sources With Total and Cause-Specific Mortality in Two US Prospective Cohort Studies. Circ Res. 2019. 124:1266-1275 https://www.ncbi.nlm.nih.gov/pubmed/30689516	Intervention/Exposure
135	Guenard, F, Bouchard-Mercier, A, Rudkowska, I, Lemieux, S, Couture, P, Vohl, MC. Genome-Wide Association Study of Dietary Pattern Scores. Nutrients. 2017. 9:#pages# https://www.ncbi.nlm.nih.gov/pubmed/28644415	Intervention/Exposure, Outcome
136	Guinter, MA, McCullough, ML, Gapstur, SM, Campbell, PT. Associations of Pre- and Postdiagnosis Diet Quality With Risk of Mortality Among Men and Women With Colorectal Cancer. J Clin Oncol. 2018. #volume#:Jco1800714 https://www.ncbi.nlm.nih.gov/pubmed/30339519	Health Status
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138	Gwynne, M, Mounsey, A. Mediterranean diet: Higher fat but lower risk. Journal of Family Practice. 2013. 62:745-748 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L370406814	Study Design, Outcome
139	HÃ¥glin, L, LundstrÃ¶m, S, Kaati, G, BÃ¤ckman, L, Bygren, LO. ACM of patients with dyslipidemia up to 19 years after a multidisciplinary lifestyle modification programme: A randomized trial. European Journal of Cardiovascular Prevention and Rehabilitation. 2011. 18:79-85 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L51028780 http://dx.doi.org/10.1097/HJR.0b013e32833a65cc	Intervention/Exposure, Health Status
140	Halpern, LW. Eating Whole Grains Can Reduce Disease and Mortality Risks. Am J Nurs. 2016. 116:15 https://www.ncbi.nlm.nih.gov/pubmed/27560322	Study Design
141	Hara, M, Mori, M, Shono, N, Higaki, Y, Nishizumi, M. Lifestyle-related risk factors for total and cancer mortality in men and women. Environ Health Prev Med. 2000. 5:90-6 https://www.ncbi.nlm.nih.gov/pubmed/21432191	Intervention/Exposure
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143	Harriss, LR, English, DR, Powles, J, Giles, GG, Tonkin, AM, Hodge, AM, Brazionis, L, O'Dea, K. Dietary patterns and cardiovascular mortality in the Melbourne Collaborative Cohort Study. Am J Clin Nutr. 2007. 86:221-9 https://www.ncbi.nlm.nih.gov/pubmed/17616784	Outcome
144	Harvey Anderson, G, Wong, CL. Dietary patterns, food composition and chronic disease. Clinica e Investigacion en Arteriosclerosis. 2010. 22:6-9 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L361246399 http://dx.doi.org/10.1016/S0214-9168(10)70025-5	Study Design

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146	Haupt, TH, Rasmussen, LJH, Kallemose, T, Ladelund, S, Andersen, O, Pisinger, C, Eugen-Olsen, J. Healthy lifestyles reduce suPAR and mortality in a Danish general population study. Immun Ageing. 2019. 16:1 https://www.ncbi.nlm.nih.gov/pubmed/30679937	Intervention/Exposure
147	Heitz, AE, Baumgartner, RN, Baumgartner, KB, Boone, SD. Healthy lifestyle impact on breast cancer-specific and ACM. Breast Cancer Res Treat. 2018. 167:171-181 https://www.ncbi.nlm.nih.gov/pubmed/28861753	Intervention/Exposure
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149	Henriquez-Sanchez, P, Sanchez-Villegas, A, Ruano-Rodriguez, C, Gea, A, Lamuela-Raventos, RM, Estruch, R, Salas-Salvado, J, Covas, MI, Corella, D, Schroder, H, Gutierrez-Bedmar, M, Santos-Lozano, JM, Pinto, X, Aros, F, Fiol, M, Tresserra-Rimbau, A, Ros, E, Martinez-Gonzalez, MA, Serra-Majem, L. Dietary total antioxidant capacity and mortality in the PREDIMED study. Eur J Nutr. 2016. 55:227-36 https://www.ncbi.nlm.nih.gov/pubmed/25663609	Intervention/Exposure
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153	Holme, I, Retterstol, K, Norum, KR, Hjermann, I. Lifelong benefits on myocardial infarction mortality: 40-year follow-up of the randomized Oslo diet and antismoking study. J Intern Med. 2016. 280:221-7 https://www.ncbi.nlm.nih.gov/pubmed/26924204	Intervention/Exposure
154	Hshieh, TT, Petrone, AB, Gaziano, JM, Djousse, L. Nut consumption and risk of mortality in the Physicians' Health Study. Am J Clin Nutr. 2015. 101:407-12 https://www.ncbi.nlm.nih.gov/pubmed/25646339	Intervention/Exposure
155	Huang, T, Xu, M, Lee, A, Cho, S, Qi, L. Consumption of whole grains and cereal fiber and total and cause-specific mortality: prospective analysis of 367,442 individuals. BMC Med. 2015. 13:59 https://www.ncbi.nlm.nih.gov/pubmed/25858689	Intervention/Exposure
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160	Hung, JD, Murray, SW, Shaw, MA, Unwin, D. Impact of a low carbohydrate diet on traditional CVD risk factors in people with features of the metabolic syndrome and type 2 diabetes. European journal of preventive cardiology. 2018. 25:S14â€S15 https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01620675/full	Study design, Publication Status
161	Hutchinson, L. Prevention: Low-fat diet linked to decline in breast cancer mortality. Nat Rev Clin Oncol. 2017. 14:526 https://www.ncbi.nlm.nih.gov/pubmed/28719583	Study Design
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163	Iimuro, S, Yoshimura, Y, Umegaki, H, Sakurai, T, Araki, A, Ohashi, Y, Iijima, K, Ito, H. Dietary pattern and mortality in Japanese elderly patients with type 2 diabetes mellitus: does a vegetable- and fish-rich diet improve mortality? An explanatory study. Geriatr Gerontol Int. 2012. 12 Suppl 1:59-67 https://www.ncbi.nlm.nih.gov/pubmed/22435941	Health Status
164	Ilic, M, Ilic, I, Stojanovic, G, Zivanovic-Macuzic, I. Association of the consumption of common food groups and beverages with mortality from cancer, ischaemic heart disease and diabetes mellitus in Serbia, 1991-2010: an ecological study. BMJ Open. 2016. 6:e008742 https://www.ncbi.nlm.nih.gov/pubmed/26733565	Study Design, Outcome
165	Inoue-Choi, M, Robien, K, Lazovich, D. Adherence to the WCRF/AICR guidelines for cancer prevention is associated with lower mortality among older female cancer survivors. Cancer Epidemiol Biomarkers Prev. 2013. 22:792-802 https://www.ncbi.nlm.nih.gov/pubmed/23462914	Intervention/Exposure, Health Status
166	Isiozor, NM, Kunutsor, SK, Voutilainen, A, Kurl, S, Kauhanen, J, Laukkanen, JA. American heart associationâ€™s cardiovascular health metrics and risk of cardiovascular disease mortality among a middle-aged male Scandinavian population. Annals of Medicine. 2019. 51:306-313 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L628528307 http://dx.doi.org/10.1080/07853890.2019.1639808	Outcome
167	Iso, H, Kubota, Y. Nutrition and disease in the Japan Collaborative Cohort Study for Evaluation of Cancer (JACC). Asian Pac J Cancer Prev. 2007. 8 Suppl:35-80 https://www.ncbi.nlm.nih.gov/pubmed/18260705	Study Design, Intervention/Exposure

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169	Jacobs, S, Harmon, BE, Ollberding, NJ, Wilkens, LR, Monroe, KR, Kolonel, LN, Le Marchand, L, Boushey, CJ, Maskarinec, G. 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. J Nutr. 2016. 146:1746-55 https://www.ncbi.nlm.nih.gov/pubmed/27511927	Health Status
170	Jankovic, N, Geelen, A, Streppel, MT, de Groot, LC, Kiefte-de Jong, JC, Orfanos, P, Bamia, C, Trichopoulou, A, Boffetta, P, Bobak, M, Pikhart, H, Kee, F, O'Doherty, MG, Buckland, G, Woodside, J, Franco, OH, Ikram, MA, Struijk, EA, Pajak, A, Malyutina, S, Kubinova, R, Wennberg, M, Park, Y, Bueno-de-Mesquita, HB, Kampman, E, Feskens, EJ. WHO guidelines for a healthy diet and mortality from cardiovascular disease in European and American elderly: the CHANCES project. Am J Clin Nutr. 2015. 102:745-56 https://www.ncbi.nlm.nih.gov/pubmed/26354545	Study Design, Outcome
171	Jankovic, N, Geelen, A, Streppel, MT, de Groot, LC, Orfanos, P, van den Hooven, EH, Pikhart, H, Boffetta, P, Trichopoulou, A, Bobak, M, Bueno-de-Mesquita, HB, Kee, F, Franco, OH, Park, Y, Hallmans, G, Tjonneland, A, May, AM, Pajak, A, Malyutina, S, Kubinova, R, Amiano, P, Kampman, E, Feskens, EJ. Adherence to a healthy diet according to the World Health Organization guidelines and ACM in elderly adults from Europe and the United States. Am J Epidemiol. 2014. 180:978-88 https://www.ncbi.nlm.nih.gov/pubmed/25318818	Study design,
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173	Johansson, I, Nilsson, LM, Esberg, A, Jansson, JH, Winkvist, A. Dairy intake revisited - associations between dairy intake and lifestyle related cardio-metabolic risk factors in a high milk consuming population. Nutr J. 2018. 17:110 https://www.ncbi.nlm.nih.gov/pubmed/30466440	Intervention/Exposure, Outcome
174	Juanola-Falgarona, M, Salas-Salvado, J, Martinez-Gonzalez, MA, Corella, D, Estruch, R, Ros, E, Fito, M, Aros, F, Gomez-Gracia, E, Fiol, M, Lapetra, J, Basora, J, Lamuela-Raventos, RM, Serra-Majem, L, Pinto, X, Munoz, MA, Ruiz-Gutierrez, V, Fernandez-Ballart, J, Bullo, M. Dietary intake of vitamin K is inversely associated with mortality risk. J Nutr. 2014. 144:743-50 https://www.ncbi.nlm.nih.gov/pubmed/24647393	Intervention/Exposure
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176	Kane-Diallo, A, Srour, B, Sellem, L, Deschasaux, M, Latino-Martel, P, Hercberg, S, Galan, P, Fassier, P, GuÃ©raud, F, Pierre, FH, Kesse-Guyot, E, AllÃ¨s, B, Touvier, M. Association between a pro plant-based dietary score and cancer risk in the prospective NutriNet-santÃ© cohort. International Journal of Cancer. 2018. 143:2168-2176 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L623882304 http://dx.doi.org/10.1002/ijc.31593	Outcome
177	Kant, AK, Graubard, BI. A prospective study of frequency of eating restaurant prepared meals and subsequent 9-year risk of all-cause and cardiometabolic mortality in US adults. PLoS One. 2018. 13:e0191584 https://www.ncbi.nlm.nih.gov/pubmed/29360850	Intervention/Exposure

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179	Keller, HH, Ostbye, T. Nutritional risk and time to death; predictive validity of SCREEN (Seniors in the Community Risk Evaluation for Eating and Nutrition). J Nutr Health Aging. 2003. 7:274-9 https://www.ncbi.nlm.nih.gov/pubmed/12917754	Intervention/Exposure
180	Kenfield, SA, DuPre, N, Richman, EL, Stampfer, MJ, Chan, JM, Giovannucci, EL. Mediterranean diet and prostate cancer risk and mortality in the Health Professionals Follow-up Study. Eur Urol. 2014. 65:887-94 https://www.ncbi.nlm.nih.gov/pubmed/23962747	Health Status
181	Kesse-Guyot, E, Touvier, M, Henegar, A, Czernichow, S, Galan, P, Hercberg, S, Castetbon, K. Higher adherence to French dietary guidelines and chronic diseases in the prospective SU.VI.MAX cohort. Eur J Clin Nutr. 2011. 65:887-94 https://www.ncbi.nlm.nih.gov/pubmed/21559045	Intervention/Exposure
182	Kiage, JN, Sampson, UK, Lipworth, L, Fazio, S, Mensah, GA, Yu, Q, Munro, H, Akwo, EA, Dai, Q, Blot, WJ, Kabagambe, EK. Intake of polyunsaturated fat in relation to mortality among statin users and non-users in the Southern Community Cohort Study. Nutr Metab Cardiovasc Dis. 2015. 25:1016-24 https://www.ncbi.nlm.nih.gov/pubmed/26298428	Intervention/Exposure
183	Kim, K, Vance, TM, Chen, MH, Chun, OK. Dietary total antioxidant capacity is inversely associated with all-cause and cardiovascular disease death of US adults. Eur J Nutr. 2018. 57:2469-2476 https://www.ncbi.nlm.nih.gov/pubmed/28791462	Intervention/Exposure
184	Kmietowicz, Z. Fried food linked to increased risk of death among older US women. Bmj. 2019. 364:l362 https://www.ncbi.nlm.nih.gov/pubmed/30679173	Study Design, Intervention/Exposure
185	Kobayashi, M, Sasazuki, S, Shimazu, T, Sawada, N, Yamaji, T, Iwasaki, M, Mizoue, T, Tsugane, S. Association of dietary diversity with total mortality and major causes of mortality in the Japanese population: JPHC study. Eur J Clin Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30890778	Intervention/Exposure
186	Kondo, K, Miura, K, Tanaka-Mizuno, S, Kadota, A, Arima, H, Okuda, N, Fujiyoshi, A, Miyagawa, N, Yoshita, K, Okamura, T, Okayama, A, Ueshima, H. Cardiovascular Risk Assessment Chart by Dietary Factors in Japan- NIPPON DATA80. Circ J. 2019. 83:1254-1260 https://www.ncbi.nlm.nih.gov/pubmed/31006729	Intervention/Exposure, Outcome
187	Krokstad, S, Ding, D, Grunseit, AC, Sund, ER, Holmen, TL, Rangul, V, Bauman, A. Multiple lifestyle behaviours and mortality, findings from a large population-based Norwegian cohort study - The HUNT Study. BMC Public Health. 2017. 17:58 https://www.ncbi.nlm.nih.gov/pubmed/28068991	Intervention/Exposure, Outcome,
188	Kromhout, D, Menotti, A, Alberti-Fidanza, A, Puddu, PE, Hollman, P, Kafatos, A, Tolonen, H, Adachi, H, Jacobs, DR, Jr. Comparative ecologic relationships of saturated fat, sucrose, food groups, and a Mediterranean food pattern score to 50-year coronary heart disease mortality rates among 16 cohorts of the Seven Countries Study. Eur J Clin Nutr. 2018. 72:1103-1110 https://www.ncbi.nlm.nih.gov/pubmed/29769748	Outcome

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189	Lagiou, P, Sandin, S, Weiderpass, E, Lagiou, A, Mucci, L, Trichopoulos, D, Adami, HO. Low carbohydrate-high protein diet and mortality in a cohort of Swedish women. J Intern Med. 2007. 261:366-74 https://www.ncbi.nlm.nih.gov/pubmed/17391111	Intervention/Exposure (did not describe the macronutrient distribution of the diet for the categories analyzed)
190	Lee, JE, McLerran, DF, Rolland, B, Chen, Y, Grant, EJ, Vedanthan, R, Inoue, M, Tsugane, S, Gao, YT, Tsuji, I, Kakizaki, M, Ahsan, H, Ahn, YO, Pan, WH, Ozasa, K, Yoo, KY, Sasazuki, S, Yang, G, Watanabe, T, Sugawara, Y, Parvez, F, Kim, DH, Chuang, SY, Ohishi, W, Park, SK, Feng, Z, Thornquist, M, Boffetta, P, Zheng, W, Kang, D, Potter, J, Sinha, R. Meat intake and cause-specific mortality: a pooled analysis of Asian prospective cohort studies. Am J Clin Nutr. 2013. 98:1032-41 https://www.ncbi.nlm.nih.gov/pubmed/23902788	Intervention/Exposure
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192	Lee, PH, Chan, CW. Energy intake, energy required and mortality in an older population. Public Health Nutr. 2016. 19:3178-3184 https://www.ncbi.nlm.nih.gov/pubmed/27406257	Intervention/Exposure
193	Lelli, D, Antonelli Incalzi, R, Ferrucci, L, Bandinelli, S, Pedone, C. Association between PUFA intake and serum concentration and mortality in older adults: A cohort study. Clin Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30850268	Intervention/Exposure
194	Lelli, D, Antonelli-Incalzi, R, Bandinelli, S, Ferrucci, L, Pedone, C. Association Between Sodium Excretion and Cardiovascular Disease and Mortality in the Elderly: A Cohort Study. Journal of the American Medical Directors Association. 2018. 19:229-234 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L618787413 http://dx.doi.org/10.1016/j.jamda.2017.09.004	Intervention/Exposure
195	Letois, F, Mura, T, Scali, J, Gutierrez, LA, Feart, C, Berr, C. Nutrition and mortality in the elderly over 10 years of follow-up: the Three-City study. Br J Nutr. 2016. 116:882-9 https://www.ncbi.nlm.nih.gov/pubmed/27452277	Intervention/Exposure
196	Levey, AS, Greene, T, Sarnak, MJ, Wang, X, Beck, GJ, Kusek, JW, Collins, A, Kopple, JD. The effect of very low protein diet on progression of kidney disease and mortality in Modification of Diet in Renal Disease Study B. Journal of the american society of nephrology : JASN. 2004. 15:586A https://www.cochranelibrary.com/central/doi/10.1002/central/CN-00550761/full	Study design, Publication Status
197	Levine, ME, Suarez, JA, Brandhorst, S, Balasubramanian, P, Cheng, CW, Madia, F, Fontana, L, Mirisola, MG, Guevara-Aguirre, J, Wan, J, Passarino, G, Kennedy, BK, Wei, M, Cohen, P, Crimmins, EM, Longo, VD. Low protein intake is associated with a major reduction in IGF-1, cancer, and overall mortality in the 65 and younger but not older population. Cell Metab. 2014. 19:407-17 https://www.ncbi.nlm.nih.gov/pubmed/24606898	Intervention/Exposure
198	Levitan, EB, Mittleman, MA, Wolk, A. Dietary glycemic index, dietary glycemic load and mortality among men with established cardiovascular disease. Eur J Clin Nutr. 2009. 63:552-7 https://www.ncbi.nlm.nih.gov/pubmed/18091767	Health Status

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200	Li, K, Husing, A, Kaaks, R. Lifestyle risk factors and residual life expectancy at age 40: a German cohort study. BMC Med. 2014. 12:59 https://www.ncbi.nlm.nih.gov/pubmed/24708705	Intervention/Exposure
201	Li, S, Chiuve, SE, Flint, A, Pai, JK, Forman, JP, Hu, FB, Willett, WC, Mukamal, KJ, Rimm, EB. Better diet quality and decreased mortality among myocardial infarction survivors. JAMA Intern Med. 2013. 173:1808-18 https://www.ncbi.nlm.nih.gov/pubmed/23999993	Health Status
202	Li, S, Flint, A, Pai, JK, Forman, JP, Hu, FB, Willett, WC, Rexrode, KM, Mukamal, KJ, Rimm, EB. Dietary fiber intake and mortality among survivors of myocardial infarction: Prospective cohort study OPEN ACCESS. BMJ (Online). 2014. 348:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L372982678	Intervention/Exposure
203	Li, S, Flint, A, Pai, JK, Forman, JP, Hu, FB, Willett, WC, Rexrode, KM, Mukamal, KJ, Rimm, EB. Low carbohydrate diet from plant or animal sources and mortality among myocardial infarction survivors. J Am Heart Assoc. 2014. 3:e001169 https://www.ncbi.nlm.nih.gov/pubmed/25246449	Health Status
204	Li, Y, Pan, A, Wang, DD, Liu, X, Dhana, K, Franco, OH, Kaptoge, S, Di Angelantonio, E, Stampfer, M, Willett, WC, Hu, FB. Impact of Healthy Lifestyle Factors on Life Expectancies in the US Population. Circulation. 2018. 138:345-355 https://www.ncbi.nlm.nih.gov/pubmed/29712712	Intervention/Exposure
205	Liese, AD, Krebs-Smith, SM, Subar, AF, George, SM, Harmon, BE, Neuhouser, ML, Boushey, CJ, Schap, TE, Reedy, J. The dietary patterns methods project: Synthesis of findings across cohorts and relevance to dietary guidance. Journal of Nutrition. 2015. 145:393-402 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L604030004	Study Design
206	Lilamand, M, Kelaiditi, E, Demougeot, L, Rolland, Y, Vellas, B, Cesari, M. The Mini Nutritional Assessment-Short Form and mortality in nursing home residents--results from the INCUR study. J Nutr Health Aging. 2015. 19:383-8 https://www.ncbi.nlm.nih.gov/pubmed/25809801	Intervention/Exposure
207	Lim, CC, Hayes, RB, Ahn, J, Shao, Y, Silverman, DT, Jones, RR, Thurston, GD. Mediterranean Diet and the Association Between Air Pollution and Cardiovascular Disease Mortality Risk. Circulation. 2019. 139:1766-1775 https://www.ncbi.nlm.nih.gov/pubmed/30700142	Intervention/Exposure, Outcome
208	Lin, SJ, Hwang, SJ, Liu, CY, Lin, HR. The relationship between nutritional status and physical function, admission frequency, length of hospital stay, and mortality in old people living in long-term care facilities. J Nurs Res. 2012. 20:110-21 https://www.ncbi.nlm.nih.gov/pubmed/22592106	Study Design, Intervention/Exposure, Health Status
209	Lingfors, H, Persson, LG. ACM among young men 24-26 years after a lifestyle health dialogue in a Swedish primary care setting: A longitudinal follow-up register study. BMJ Open. 2019. 9:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L626162430	Intervention/Exposure

	Citation	Rationale
210	Liu, CK, Huang, YC, Lo, YC, Wahlqvist, ML, Lee, MS. Dietary diversity offsets the adverse mortality risk among older indigenous Taiwanese. Asia Pac J Clin Nutr. 2019. 28:593-600 https://www.ncbi.nlm.nih.gov/pubmed/31464406	Intervention/Exposure, Country
211	Liu, CW. Healthy dietary pattern with daily egg consumption might be the true factor associated with decreased risks of cardiovascular diseases and mortality. Heart. 2018. 104:1804 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L624327644	Study Design
212	Liu, G, Guasch-Ferre, M, Hu, Y, Li, Y, Hu, FB, Rimm, EB, Manson, JE, Rexrode, KM, Sun, Q. Nut Consumption in Relation to Cardiovascular Disease Incidence and Mortality Among Patients With Diabetes Mellitus. Circ Res. 2019. 124:920-929 https://www.ncbi.nlm.nih.gov/pubmed/30776978	Intervention/Exposure
213	Liu, G, Li, Y, Hu, Y, Zong, G, Li, S, Rimm, EB, Hu, FB, Manson, JE, Rexrode, KM, Shin, HJ, Sun, Q. Influence of Lifestyle on Incident Cardiovascular Disease and Mortality in Patients With Diabetes Mellitus. J Am Coll Cardiol. 2018. 71:2867-2876 https://www.ncbi.nlm.nih.gov/pubmed/29929608	Outcome
214	Liu, ZM, Tse, SLA, Chen, B, Chan, D, Wong, C, Woo, J, Wong, SY. Dietary sugar intake does not pose any risk of bone loss and non-traumatic fracture and is associated with a decrease in ACM among Chinese elderly: Finding from an 11-year longitudinal study of Mr. and Ms. OS Hong Kong. Bone. 2018. 116:154-161 https://www.ncbi.nlm.nih.gov/pubmed/30010084	Intervention/Exposure
215	Lo Buglio, A, Bellanti, F, Capurso, C, Paglia, A, Vendemiale, G. Adherence to Mediterranean Diet, Malnutrition, Length of Stay and Mortality in Elderly Patients Hospitalized in Internal Medicine Wards. Nutrients. 2019. 11:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30959815	Study Design, Health Status
216	Loftfield, E, Freedman, ND, Graubard, BI, Guertin, KA, Black, A, Huang, WY, Shebl, FM, Mayne, ST, Sinha, R. Association of Coffee Consumption With Overall and Cause-Specific Mortality in a Large US Prospective Cohort Study. Am J Epidemiol. 2015. 182:1010-22 https://www.ncbi.nlm.nih.gov/pubmed/26614599	Intervention/Exposure
217	Lojko, D, Stelmach-Mardas, M, Suwalska, A. Diet quality and eating patterns in euthymic bipolar patients. Eur Rev Med Pharmacol Sci. 2019. 23:1221-1238 https://www.ncbi.nlm.nih.gov/pubmed/30779092	Study Design, Outcome, Health Status
218	Lonnberg, L, Ekblom-Bak, E, Damberg, M. Improved unhealthy lifestyle habits in patients with high cardiovascular risk: results from a structured lifestyle programme in primary care. Ups J Med Sci. 2019. 124:94-104 https://www.ncbi.nlm.nih.gov/pubmed/31063003	Study Design, Intervention/Exposure, Outcome
219	Loprinzi, PD, Frith, E. Effects of Sedentary Behavior, Physical Activity, Frequency of Protein Consumption, Lower Extremity Strength and Lean Mass on ACM. J Lifestyle Med. 2018. 8:8-15 https://www.ncbi.nlm.nih.gov/pubmed/29581955	Intervention/Exposure
220	Ma, W, Hagan, KA, Heianza, Y, Sun, Q, Rimm, EB, Qi, L. Adult height, dietary patterns, and healthy aging. Am J Clin Nutr. 2017. 106:589-596 https://www.ncbi.nlm.nih.gov/pubmed/28592610	Outcome

	Citation	Rationale
221	Malhotra, A, DiNicolantonio, JJ, Capewell, S. It is time to stop counting calories, and time instead to promote dietary changes that substantially and rapidly reduce cardiovascular morbidity and mortality. Open Heart. 2015. 2:e000273 https://www.ncbi.nlm.nih.gov/pubmed/26339496	Study Design
222	Malik, VS, Li, Y, Pan, A, De Koning, L, Schernhammer, E, Willett, WC, Hu, FB. Long-Term Consumption of Sugar-Sweetened and Artificially Sweetened Beverages and Risk of Mortality in US Adults. Circulation. 2019. 139:2113-2125 https://www.ncbi.nlm.nih.gov/pubmed/30882235	Intervention/Exposure
223	Mandalazi, E, Drake, I, WirfÃ¤lt, E, Orho-Melander, M, Sonestedt, E. A high diet quality based on dietary recommendations is not associated with lower incidence of type 2 diabetes in the malmÃ¶ diet and cancer cohort. International Journal of Molecular Sciences. 2016. 17:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L610665168	Outcome
224	Mann, J, Morenga, LT, McLean, R, Swinburn, B, Mhurchu, CN, Jackson, R, Kennedy, J, Beaglehole, R. Dietary guidelines on trial: the charges are not evidence based. Lancet. 2016. 388:851-3 https://www.ncbi.nlm.nih.gov/pubmed/27597453	Study Design, Intervention/Exposure
225	Manuel, DG, Perez, R, Sanmartin, C, Taljaard, M, Hennessy, D, Wilson, K, Tanuseputro, P, Manson, H, Bennett, C, Tuna, M, Fisher, S, Rosella, LC. Measuring Burden of Unhealthy Behaviours Using a Multivariable Predictive Approach: Life Expectancy Lost in Canada Attributable to Smoking, Alcohol, Physical Inactivity, and Diet. PLoS Med. 2016. 13:e1002082 https://www.ncbi.nlm.nih.gov/pubmed/27529741	Study Design, Intervention/Exposure
226	Mao, L, Zhang, Y, Wang, W, Zhuang, P, Wu, F, Jiao, J. Plant-sourced and animal-sourced monounsaturated fatty acid intakes in relation to mortality: a prospective nationwide cohort study. Eur J Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31297602	Country
227	MartÃ-nez-GonzÃ¡lez, MA, GarcÃ-a-Arellano, A, Toledo, E, Bes-Rastrollo, M, Bullo, M, Corella, D, Fito, M, Ros, E, Lamuela-RaventÃ³s, RM, Rekondo, J, GÃ³mez-Gracia, E, Fiol, M, Santos-Lozano, JM, Serra-Majem, L, MartÃ-nez, JA, Eguaras, S, SÃ¡ez-Tormo, G, PintÃ³, X, Estruch, R. Obesity indexes and total mortality among elderly subjects at high cardiovascular risk: The PREDIMED study. PLoS ONE. 2014. 9:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L373645014	Intervention/Exposure
228	Martin-Calvo, N, Martinez-Gonzalez, MA. Vitamin C Intake is Inversely Associated with Cardiovascular Mortality in a Cohort of Spanish Graduates: the SUN Project. Nutrients. 2017. 9:#pages# https://www.ncbi.nlm.nih.gov/pubmed/28850099	Intervention/Exposure, Outcome
229	Martinez-Gomez, D, Guallar-Castillon, P, Higueras-Fresnillo, S, Banegas, JR, Sadarangani, KP, Rodriguez-Artalejo, F. A healthy lifestyle attenuates the effect of polypharmacy on total and cardiovascular mortality: a national prospective cohort study. Sci Rep. 2018. 8:12615 https://www.ncbi.nlm.nih.gov/pubmed/30135569	Intervention/Exposure
230	Martinez-Gonzalez, MA, Salas-Salvado, J, Estruch, R, Corella, D, Fito, M, Ros, E. Benefits of the Mediterranean Diet: insights From the PREDIMED Study. Progress in cardiovascular diseases. 2015. 58:50â€□60 https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01085467/full	Study Design, Outcome

	Citation	Rationale
231	Maruyama, K, Iso, H, Date, C, Kikuchi, S, Watanabe, Y, Wada, Y, Inaba, Y, Tamakoshi, A. Dietary patterns and risk of cardiovascular deaths among middle-aged Japanese: JACC Study. Nutr Metab Cardiovasc Dis. 2013. 23:519-27 https://www.ncbi.nlm.nih.gov/pubmed/22410388	Outcome
232	Massimino, FC, Gimeno, SG, Ferreira, SR. ACM among Japanese-Brazilians according to nutritional characteristics. Cad Saude Publica. 2007. 23:2145-56 https://www.ncbi.nlm.nih.gov/pubmed/17700949	Intervention/Exposure
233	May, AM, Struijk, EA, Fransen, HP, Onland-Moret, NC, de Wit, GA, Boer, JM, van der Schouw, YT, Hoekstra, J, Bueno-de-Mesquita, HB, Peeters, PH, Beulens, JW. The impact of a healthy lifestyle on Disability-Adjusted Life Years: a prospective cohort study. BMC Med. 2015. 13:39 https://www.ncbi.nlm.nih.gov/pubmed/25858161	Intervention/Exposure, Outcome
234	McCarthy, WJ, May, F. Evidence for the Full Potential of Daily Food Choices to Minimize Premature Mortality. JAMA Intern Med. 2019. 179:1148-1149 https://www.ncbi.nlm.nih.gov/pubmed/31380948	Study Design
235	McCartney, G, Shipley, M, Hart, C, Davey-Smith, G, KivimÃ¤ki, M, Walsh, D, Watt, GC, Batty, GD. Why do males in Scotland die younger than those in England? evidence from three prospective cohort studies. PLoS ONE. 2012. 7:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L365242149	Intervention/Exposure
236	Meier, T, Grafe, K, Senn, F, Sur, P, Stangl, GI, Dawczynski, C, Marz, W, Kleber, ME, Lorkowski, S. Cardiovascular mortality attributable to dietary risk factors in 51 countries in the WHO European Region from 1990 to 2016: a systematic analysis of the Global Burden of Disease Study. Eur J Epidemiol. 2019. 34:37-55 https://www.ncbi.nlm.nih.gov/pubmed/30547256	Intervention/Exposure, Outcome
237	Menon, V, Kopple, JD, Wang, X, Beck, GJ, Collins, AJ, Kusek, JW, Greene, T, Levey, AS, Sarnak, MJ. Effect of a very low-protein diet on outcomes: long-term follow-up of the Modification of Diet in Renal Disease (MDRD) Study. Am J Kidney Dis. 2009. 53:208-17 https://www.ncbi.nlm.nih.gov/pubmed/18950911	Health Status
238	Menotti, A, Puddu, PE. Comparison Of Four Dietary Scores As Determinants Of Coronary Heart Disease Mortality. Sci Rep. 2018. 8:15001 https://www.ncbi.nlm.nih.gov/pubmed/30301921	Outcome
239	Menotti, A.,Puddu, P. E.,Maiani, G.,Catasta, G. 2018. Age at death as a useful indicator of healthy aging at population level: a 50-year follow-up of the Italian Rural Areas of the Seven Countries Study Aging Clin Exp Res, 30(8): 901-911. https://www.ncbi.nlm.nih.gov/pubmed/29256065	Outcome (data directly overlap with another included article)
240	Merbach, M, Klaiberg, A, BrÃ¤hler, E. Men and health - An overview of new epidemiological data from Germany. Sozial- und Praventivmedizin. 2001. 46:240-247 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L32842817	Language
241	Merino, J, Guasch-Ferre, M, Martinez-Gonzalez, MA, Corella, D, Estruch, R, Fito, M, Ros, E, Aros, F, Bullo, M, Gomez-Gracia, E, Monino, M, Lapetra, J, Serra-Majem, L, Razquin, C, Buil-Cosiales, P, Sorli, JV, Munoz, MA, Pinto, X, Masana, L, Salas-Salvado, J. Is complying with the recommendations of sodium intake beneficial for health in individuals at high cardiovascular risk? Findings from the PREDIMED study. Am J Clin Nutr. 2015. 101:440-8 https://www.ncbi.nlm.nih.gov/pubmed/25733627	Intervention/Exposure

	Citation	Rationale
242	Micha, R, Penalvo, JL, Cudhea, F, Imamura, F, Rehm, CD, Mozaffarian, D. Association Between Dietary Factors and Mortality From Heart Disease, Stroke, and Type 2 Diabetes in the United States. Jama. 2017. 317:912-924 https://www.ncbi.nlm.nih.gov/pubmed/28267855	Intervention/Exposure, Outcome
243	Miller, V, Mente, A, Dehghan, M, Rangarajan, S, Zhang, X, Swaminathan, S, Dagenais, G, Gupta, R, Mohan, V, Lear, S, Bangdiwala, SI, Schutte, AE, Wentzel-Viljoen, E, Avezum, A, Altuntas, Y, Yusoff, K, Ismail, N, Peer, N, Chifamba, J, Diaz, R, Rahman, O, Mohammadifard, N, Lana, F, Zatonska, K, Wielgosz, A, Yusufali, A, Iqbal, R, Lopez-Jaramillo, P, Khatib, R, Rosengren, A, Kutty, VR, Li, W, Liu, J, Liu, X, Yin, L, Teo, K, Anand, S, Yusuf, S. Fruit, vegetable, and legume intake, and cardiovascular disease and deaths in 18 countries (PURE): a prospective cohort study. Lancet. 2017. 390:2037-2049 https://www.ncbi.nlm.nih.gov/pubmed/28864331	Intervention/Exposure, Country
244	Misirli, G, Benetou, V, Lagiou, P, Bamia, C, Trichopoulos, D, Trichopoulou, A. Relation of the traditional Mediterranean diet to cerebrovascular disease in a Mediterranean population. Am J Epidemiol. 2012. 176:1185-92 https://www.ncbi.nlm.nih.gov/pubmed/23186748	Outcome
245	Miyazawa, I, Miura, K, Miyagawa, N, Kondo, K, Kadota, A, Okuda, N, Fujiyoshi, A, Chihara, I, Nakamura, Y, Hozawa, A, etal, . Relationship of dietary carbohydrate and fiber intake to risk of cardiovascular disease mortality in Japanese: NIPPON DATA80. Circulation. 2017. 135:#pages# https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01423697/full	Study design, Publication Status
246	Miyazawa, I, Miura, K, Miyagawa, N, Kondo, K, Kadota, A, Okuda, N, Fujiyoshi, A, Chihara, I, Nakamura, Y, Hozawa, A, Nakamura, Y, Kita, Y, Yoshita, K, Okamura, T, Okayama, A, Ueshima, H. Relationship between carbohydrate and dietary fibre intake and the risk of cardiovascular disease mortality in Japanese: 24-year follow-up of NIPPON DATA80. Eur J Clin Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30962516	Intervention/Exposure, Outcome
247	Mohammadifard, N, Talaei, M, Sadeghi, M, Oveisegharan, S, Golshahi, J, Esmaillzadeh, A, Sarrafzadegan, N. Dietary patterns and mortality from cardiovascular disease: Isfahan Cohort Study. Eur J Clin Nutr. 2017. 71:252-258 https://www.ncbi.nlm.nih.gov/pubmed/27759064	Outcome
248	Mok, A, Khaw, KT, Luben, R, Wareham, N, Brage, S. Physical activity trajectories and mortality: population based cohort study. Bmj. 2019. 365:l2323 https://www.ncbi.nlm.nih.gov/pubmed/31243014	Intervention/Exposure
249	Moreno, LA, Sarria, A, Popkin, BM. The nutrition transition in Spain: a European Mediterranean country. Eur J Clin Nutr. 2002. 56:992-1003 https://www.ncbi.nlm.nih.gov/pubmed/12373620	Study Design, Outcome
250	Mossavar-Rahmani, Y, Kamensky, V, Manson, JE, Silver, B, Rapp, SR, Haring, B, Beresford, SAA, Snetselaar, L, Wassertheil-Smoller, S. Artificially Sweetened Beverages and Stroke, Coronary Heart Disease, and ACM in the Women's Health Initiative. Stroke. 2019. 50:555-562 https://www.ncbi.nlm.nih.gov/pubmed/30802187	Intervention/Exposure
251	Mozaffarian, D, Lemaitre, RN, King, IB, Song, X, Huang, H, Sacks, FM, Rimm, EB, Wang, M, Siscovick, DS. Plasma phospholipid long-chain omega-3 fatty acids and total and cause-specific mortality in older adults: a cohort study. Ann Intern Med. 2013. 158:515-25 https://www.ncbi.nlm.nih.gov/pubmed/23546563	Intervention/Exposure

	Citation	Rationale
252	Mytton, OT, Forouhi, NG, Scarborough, P, Lentjes, M, Luben, R, Rayner, M, Khaw, KT, Wareham, NJ, Monsivais, P. Association between intake of less-healthy foods defined by the United Kingdom's nutrient profile model and cardiovascular disease: A population-based cohort study. PLoS Med. 2018. 15:e1002484 https://www.ncbi.nlm.nih.gov/pubmed/29300725	Intervention/Exposure, Outcome
253	Nagai, M, Ohkubo, T, Miura, K, Fujiyoshi, A, Okuda, N, Hayakawa, T, Yoshita, K, Arai, Y, Nakagawa, H, Nakamura, K, Miyagawa, N, Takashima, N, Kadota, A, Murakami, Y, Nakamura, Y, Abbott, RD, Okamura, T, Okayama, A, Ueshima, H. Association of Total Energy Intake with 29-Year Mortality in the Japanese: NIPPON DATA80. J Atheroscler Thromb. 2016. 23:339-54 https://www.ncbi.nlm.nih.gov/pubmed/26460380	Intervention/Exposure
254	Nagata, C, Wada, K, Tamura, T, Konishi, K, Goto, Y. Hot-cold foods in diet and ACM in a Japanese community: the Takayama study. Ann Epidemiol. 2017. 27:194-199.e2 https://www.ncbi.nlm.nih.gov/pubmed/28215585	Intervention/Exposure
255	Nagata, C, Wada, K, Tsuji, M, Kawachi, T, Nakamura, K. Dietary glycaemic index and glycaemic load in relation to all-cause and cause-specific mortality in a Japanese community: the Takayama study. Br J Nutr. 2014. 112:2010-7 https://www.ncbi.nlm.nih.gov/pubmed/25327340	Intervention/Exposure
256	Nakamura, Y, Okamura, T, Kita, Y, Okuda, N, Kadota, A, Miura, K, Okayama, A, Ueshima, H. Re-evaluation of the associations of egg intake with serum total cholesterol and cause-specific and total mortality in Japanese women. Eur J Clin Nutr. 2018. 72:841-847 https://www.ncbi.nlm.nih.gov/pubmed/29288244	Intervention/Exposure
257	Navarro, AM, Martinez-Gonzalez, MA, Gea, A, Grosso, G, Martin-Moreno, JM, Lopez-Garcia, E, Martin-Calvo, N, Toledo, E. Coffee consumption and total mortality in a Mediterranean prospective cohort. Am J Clin Nutr. 2018. 108:1113-1120 https://www.ncbi.nlm.nih.gov/pubmed/30475964	Intervention/Exposure
258	Nohara-Shitama, Y, Adachi, H, Enomoto, M, Fukami, A, Nakamura, S, Kono, S, Morikawa, N, Sakaue, A, Hamamura, H, Toyomasu, K, Fukumoto, Y. Habitual coffee intake reduces ACM by decreasing heart rate. Heart Vessels. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31062117	Intervention/Exposure
259	North, SM, Wham, CA, Teh, R, Moyes, SA, Rolleston, A, Kerse, N. High nutrition risk related to dietary intake is associated with an increased risk of hospitalisation and mortality for older MÄ□ori: LiLACS NZ. Australian and New Zealand journal of public health. 2018. 42:375-381 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L625611292	Intervention/Exposure
260	North, SM, Wham, CA, Teh, R, Moyes, SA, Rolleston, A, Kerse, N. High nutrition risk related to dietary intake is associated with an increased risk of hospitalisation and mortality for older Maori: LiLACS NZ. Aust N Z J Public Health. 2018. 42:375-381 https://www.ncbi.nlm.nih.gov/pubmed/29888831	Study Design, Intervention/Exposure
261	Nshimyumukiza, L, Lieffers, JRL, Ekwaru, JP, Ohinmaa, A, Veugelers, PJ. Temporal changes in diet quality and the associated economic burden in Canada. PLoS One. 2018. 13:e0206877 https://www.ncbi.nlm.nih.gov/pubmed/30408076	Study Design, Outcome
262	Okada, E, Nakamura, K, Ukawa, S, Sakata, K, Date, C, Iso, H, Tamakoshi, A. Dietary Patterns and Risk of Esophageal Cancer Mortality: The Japan Collaborative Cohort Study. Nutr Cancer. 2016. 68:1001-9 https://www.ncbi.nlm.nih.gov/pubmed/27366932	Intervention/Exposure, Outcome

	Citation	Rationale
263	Okada, E, Shirakawa, T, Shivappa, N, Wakai, K, Suzuki, K, Date, C, Iso, H, Hebert, JR, Tamakoshi, A. Dietary Inflammatory Index Is Associated with Risk of All-Cause and Cardiovascular Disease Mortality but Not with Cancer Mortality in Middle-Aged and Older Japanese Adults. J Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31100121	Intervention/Exposure
264	Okuyama, H, Ichikawa, Y, Sun, Y, Hamazaki, T, Lands, WE. Mechanisms by which dietary fats affect coronary heart disease mortality. World Rev Nutr Diet. 2007. 96:119-41 https://www.ncbi.nlm.nih.gov/pubmed/17167284	Study Design
265	Olaya, B, Essau, CA, Moneta, MV, Lara, E, Miret, M, MartÃ-n-MarÃ-a, N, Moreno-Agostino, D, Ayuso-Mateos, JL, Abduljabbar, AS, Haro, JM. Fruit and vegetable consumption and potential moderators associated with ACM in a representative sample of spanish older adults. Nutrients. 2019. 11:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L2002341066	Intervention/Exposure
266	Oliveira, ER, Cade, NV, Velten, AP, Silva, GA, Faerstein, E. Comparative study of cardiovascular and cancer mortality of Adventists and non-Adventists from Espirito Santo State, in the period from 2003 to 2009. Rev Bras Epidemiol. 2016. 19:112-21 https://www.ncbi.nlm.nih.gov/pubmed/27167653	Study Design, Intervention/Exposure
267	Osella, AR, Veronese, N, Notarnicola, M, Cisternino, AM, Misciagna, G, Guerra, V, Nitti, A, Campanella, A, Caruso, MG. Potato Consumption Is not Associated with Higher Risk of Mortality: A Longitudinal Study among Southern Italian Older Adults. J Nutr Health Aging. 2018. 22:726-730 https://www.ncbi.nlm.nih.gov/pubmed/29806862	Intervention/Exposure
268	Otsuka, R, Tange, C, Nishita, Y, Tomida, M, Kato, Y, Imai, T, Ando, F, Shimokata, H. Fish and Meat Intake, Serum Eicosapentaenoic Acid and Docosahexaenoic Acid Levels, and Mortality in Community-Dwelling Japanese Older Persons. Int J Environ Res Public Health. 2019. 16:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31117268	Intervention/Exposure
269	Otto, MC, Afshin, A, Micha, R, Khatibzadeh, S, Fahimi, S, Singh, G, Danaei, G, Sichieri, R, Monteiro, CA, Louzada, ML, Ezzati, M, Mozaffarian, D. The Impact of Dietary and Metabolic Risk Factors on Cardiovascular Diseases and Type 2 Diabetes Mortality in Brazil. PLoS One. 2016. 11:e0151503 https://www.ncbi.nlm.nih.gov/pubmed/26990765	Outcome
270	Owen, AJ, Magliano, DJ, O'Dea, K, Barr, EL, Shaw, JE. Polyunsaturated fatty acid intake and risk of cardiovascular mortality in a low fish-consuming population: a prospective cohort analysis. Eur J Nutr. 2016. 55:1605-13 https://www.ncbi.nlm.nih.gov/pubmed/26201872	Intervention/Exposure
271	Oyebode, O, Gordon-Dseagu, V, Walker, A, Mindell, JS. Fruit and vegetable consumption and all-cause, cancer and CVD mortality: analysis of Health Survey for England data. J Epidemiol Community Health. 2014. 68:856-62 https://www.ncbi.nlm.nih.gov/pubmed/24687909	Intervention/Exposure
272	Pan, A, Sun, Q, Bernstein, AM, Schulze, MB, Manson, JE, Stampfer, MJ, Willett, WC, Hu, FB. Red meat consumption and mortality: results from 2 prospective cohort studies. Arch Intern Med. 2012. 172:555-63 https://www.ncbi.nlm.nih.gov/pubmed/22412075	Intervention/Exposure

	Citation	Rationale
273	Panagiotakos, DB, Georgousopoulou, EN, Pitsavos, C, Chrysohoou, C, Metaxa, V, Georgiopoulos, GA, Kalogeropoulou, K, Tousoulis, D, Stefanadis, C. Ten-year (2002-2012) cardiovascular disease incidence and ACM, in urban Greek population: the ATTICA Study. Int J Cardiol. 2015. 180:178-84 https://www.ncbi.nlm.nih.gov/pubmed/25463360	Intervention/Exposure, Outcome
274	Panagiotakos, DB, Georgousopoulou, EN, Pitsavos, C, Chrysohoou, C, Skoumas, I, Pitaraki, E, Georgiopoulos, GA, Ntertimani, M, Christou, A, Stefanadis, C. Exploring the path of Mediterranean diet on 10-year incidence of cardiovascular disease: the ATTICA study (2002-2012). Nutr Metab Cardiovasc Dis. 2015. 25:327-35 https://www.ncbi.nlm.nih.gov/pubmed/25445882	Outcome
275	Papandreou, C, Becerra-Tomas, N, Bullo, M, Martinez-Gonzalez, MA, Corella, D, Estruch, R, Ros, E, Aros, F, Schroder, H, Fito, M, Serra-Majem, L, Lapetra, J, Fiol, M, Ruiz-Canela, M, Sorli, JV, Salas-Salvado, J. Legume consumption and risk of all-cause, cardiovascular, and cancer mortality in the PREDIMED study. Clin Nutr. 2019. 38:348-356 https://www.ncbi.nlm.nih.gov/pubmed/29352655	Intervention/Exposure
276	Papandreou, C, Tuomilehto, H. Coronary heart disease mortality in relation to dietary, lifestyle and biochemical risk factors in the countries of the Seven Countries Study: a secondary dataset analysis. J Hum Nutr Diet. 2014. 27:168-75 https://www.ncbi.nlm.nih.gov/pubmed/24313566	Study Design, Intervention/Exposure
277	Parikh, A, Lipsitz, SR, Natarajan, S. Association between a DASH-like diet and mortality in adults with hypertension: findings from a population-based follow-up study. Am J Hypertens. 2009. 22:409-16 https://www.ncbi.nlm.nih.gov/pubmed/19197247	Intervention/Exposure, Health Status
278	Park, MK, Paik, HY, Lee, Y. Intake Trends of Red Meat, Alcohol, and Fruits and Vegetables as Cancer-Related Dietary Factors from 1998 to 2009. Osong Public Health Res Perspect. 2016. 7:180-9 https://www.ncbi.nlm.nih.gov/pubmed/27413649	Intervention/Exposure
279	Park, SY, Kang, M, Wilkens, LR, Shvetsov, YB, Harmon, BE, Shivappa, N, Wirth, MD, Hebert, JR, Haiman, CA, Le Marchand, L, Boushey, CJ. The Dietary Inflammatory Index and All-Cause, Cardiovascular Disease, and Cancer Mortality in the Multiethnic Cohort Study. Nutrients. 2018. 10:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30513709	Intervention/Exposure
280	Park, TS, Jin, HY. Can the incidence and mortality of chronic diseases be explained by dietary patterns?. J Diabetes Investig. 2011. 2:260-1 https://www.ncbi.nlm.nih.gov/pubmed/24843495	Study Design
281	Park, YM, Choi, MK, Lee, SS, Shivappa, N, Han, K, Steck, SE, Hebert, JR, Merchant, AT, Sandler, DP. Dietary inflammatory potential and risk of mortality in metabolically healthy and unhealthy phenotypes among overweight and obese adults. Clin Nutr. 2019. 38:682-688 https://www.ncbi.nlm.nih.gov/pubmed/29705061	Intervention/Exposure
282	Pati, S, Singh, RB, Fedacko, J, Vargova, V, Takahashi, T, Tongnuka, M, Juneja, L, De Meester, F. Dietary patterns and causes of death due to cardiovascular diseases and other chronic diseases among urban decedents in North India. World Heart Journal. 2012. 4:123-134 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L369260435	Outcome, Country
283	Paxton, RJ, Jones, LA, Chang, S, Hernandez, M, Hajek, RA, Flatt, SW, Natarajan, L, Pierce, JP. Was race a factor in the outcomes of the Women's Health Eating and Living Study?. Cancer. 2011. 117:3805-13 https://www.ncbi.nlm.nih.gov/pubmed/21319157	Health Status

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284	Poledne, R, Skodova, Z. Changes in nutrition, cholesterol concentration, and cardiovascular disease mortality in the Czech population in the past decade. Nutrition. 2000. 16:785-6 https://www.ncbi.nlm.nih.gov/pubmed/10978865	Study Design, Intervention/Exposure, Outcome
285	Ponzo, V, Gentile, L, Gambino, R, Rosato, R, Cioffi, I, Pellegrini, N, Benso, A, Broglio, F, Cassader, M, Bo, S. Incidence of diabetes mellitus, cardiovascular outcomes and mortality after a 12-month lifestyle intervention: a 9-year follow-up. Diabetes & metabolism. 2018. 44:449â€451 https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01651501/full	Study Design
286	Pounis, G, Costanzo, S, Bonaccio, M, Di Castelnuovo, A, de Curtis, A, Ruggiero, E, Persichillo, M, Cerletti, C, Donati, MB, de Gaetano, G, Iacoviello, L. Reduced mortality risk by a polyphenol-rich diet: An analysis from the Moli-sani study. Nutrition. 2018. 48:87-95 https://www.ncbi.nlm.nih.gov/pubmed/29469027	Intervention/Exposure
287	Poursafar, Z, Joukar, F, Hasavari, F, Atrkar Roushan, Z. The Associations between Meat Group Consumption and Acute Myocardial Infarction Risks in an Iranian Population: a Case-Control Study. Clin Nutr Res. 2019. 8:159-168 https://www.ncbi.nlm.nih.gov/pubmed/31089469	Study Design, Outcome
288	Praagman, J, Dalmeijer, GW, van der Schouw, YT, Soedamah-Muthu, SS, Monique Verschuren, WM, Bas Bueno-de-Mesquita, H, Geleijnse, JM, Beulens, JW. The relationship between fermented food intake and mortality risk in the European Prospective Investigation into Cancer and Nutrition-Netherlands cohort. Br J Nutr. 2015. 113:498-506 https://www.ncbi.nlm.nih.gov/pubmed/25599866	Intervention/Exposure
289	Prentice, RL, Aragaki, AK, Van Horn, L, Thomson, CA, Beresford, SA, Robinson, J, Snetselaar, L, Anderson, GL, Manson, JE, Allison, MA, Rossouw, JE, Howard, BV. Low-fat dietary pattern and cardiovascular disease: results from the Women's Health Initiative randomized controlled trial. Am J Clin Nutr. 2017. 106:35-43 https://www.ncbi.nlm.nih.gov/pubmed/28515068	Intervention/Exposure, Outcome
290	Puaschitz, NG, Assmus, J, Strand, E, Karlsson, T, Vinknes, KJ, Lysne, V, Drevon, CA, Tell, GS, Dierkes, J, Nygard, O. Adherence to the Healthy Nordic Food Index and the incidence of acute myocardial infarction and mortality among patients with stable angina pectoris. J Hum Nutr Diet. 2019. 32:86-97 https://www.ncbi.nlm.nih.gov/pubmed/30091209	Health Status
291	Puaschitz, NG, Strand, E, Norekval, TM, Dierkes, J, Dahl, L, Svingen, GF, Assmus, J, Schartum-Hansen, H, Oyen, J, Pedersen, EK, Drevon, CA, Tell, GS, Nygard, O. Dietary intake of saturated fat is not associated with risk of coronary events or mortality in patients with established coronary artery disease. J Nutr. 2015. 145:299-305 https://www.ncbi.nlm.nih.gov/pubmed/25644351	Intervention/Exposure, Health Status
292	Ramage-Morin, PL, Gilmour, H, Rotermann, M. Nutritional risk, hospitalization and mortality among community-dwelling Canadians aged 65 or older. Health Rep. 2017. 28:17-27 https://www.ncbi.nlm.nih.gov/pubmed/28930364	Intervention/Exposure
293	Ramne, S, Alves Dias, J, Gonzalez-Padilla, E, Olsson, K, Lindahl, B, Engstrom, G, Ericson, U, Johansson, I, Sonestedt, E. Association between added sugar intake and mortality is nonlinear and dependent on sugar source in 2 Swedish population-based prospective cohorts. Am J Clin Nutr. 2019. 109:411-423 https://www.ncbi.nlm.nih.gov/pubmed/30590448	Intervention/Exposure
294	Rathod, AD, Bharadwaj, AS, Badheka, AO, Kizilbash, M, Afonso, L. Healthy Eating Index and mortality in a nationally representative elderly cohort. Arch Intern Med. 2012. 172:275-7 https://www.ncbi.nlm.nih.gov/pubmed/22332163	Study Design

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295	Ravichandran, M, Grandl, G, Ristow, M. Dietary Carbohydrates Impair Healthspan and Promote Mortality. Cell Metab. 2017. 26:585-587 https://www.ncbi.nlm.nih.gov/pubmed/28978421	Study Design
296	Rebello, SA, Koh, H, Chen, C, Naidoo, N, Odegaard, AO, Koh, WP, Butler, LM, Yuan, JM, van Dam, RM. Amount, type, and sources of carbohydrates in relation to ischemic heart disease mortality in a Chinese population: a prospective cohort study. Am J Clin Nutr. 2014. 100:53-64 https://www.ncbi.nlm.nih.gov/pubmed/24787492	Intervention/Exposure, Outcome
297	Redfern, RC, DeWitte, SN, Beaumont, J, Millard, AR, Hamlin, C. A new method for investigating the relationship between diet and mortality: hazard analysis using dietary isotopes. Ann Hum Biol. 2019. #volume#:1-10 https://www.ncbi.nlm.nih.gov/pubmed/31475587	Study Design
298	Reedy, J, Lerman, JL, Krebs-Smith, SM, Kirkpatrick, SI, Pannucci, TE, Wilson, MM, Subar, AF, Kahle, LL, Tooze, JA. Evaluation of the Healthy Eating Index-2015. J Acad Nutr Diet. 2018. 118:1622-1633 https://www.ncbi.nlm.nih.gov/pubmed/30146073	Outcome
299	Rehberg, J, Stipcic, A, Coric, T, Kolcic, I, Polasek, O. Mortality patterns in Southern Adriatic islands of Croatia: a registry-based study. Croat Med J. 2018. 59:118-123 https://www.ncbi.nlm.nih.gov/pubmed/29972734	Intervention/Exposure
300	Rezende, LF, Azeredo, CM, Canella, DS, Luiz Odo, C, Levy, RB, Eluf-Neto, J. Coronary heart disease mortality, cardiovascular disease mortality and ACM attributable to dietary intake over 20years in Brazil. Int J Cardiol. 2016. 217:64-8 https://www.ncbi.nlm.nih.gov/pubmed/27179210	Study Design, Intervention/Exposure
301	Ricci, C, Baumgartner, J, Zec, M, Kruger, HS, Smuts, CM. Type of dietary fat intakes in relation to all-cause and cause-specific mortality in US adults: an iso-energetic substitution analysis from the American National Health and Nutrition Examination Survey linked to the US mortality registry. Br J Nutr. 2018. 119:456-463 https://www.ncbi.nlm.nih.gov/pubmed/29498349	Intervention/Exposure
302	Rodrigues, SSP, Trichopoulou, A, De Almeida, MDV. Household diet quality in relation to mortality in Portuguese regions: An ecological study. Journal of Public Health. 2008. 16:43-51 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L351018329	Study Design
303	Ross, SM. Cardiovascular disease mortality: the deleterious effects of excess dietary sugar intake. Holist Nurs Pract. 2015. 29:53-7 https://www.ncbi.nlm.nih.gov/pubmed/25470481	Study Design, Outcome
304	Rowbotham, J, Clayton, P. An unsuitable and degraded diet? Part three: Victorian consumption patterns and their health benefits. J R Soc Med. 2008. 101:454-62 https://www.ncbi.nlm.nih.gov/pubmed/18779247	Study Design, Intervention/Exposure
305	Russell, J, Flood, V, Rochtchina, E, Gopinath, B, Allman-Farinelli, M, Bauman, A, Mitchell, P. Adherence to dietary guidelines and 15-year risk of ACM. Br J Nutr. 2013. 109:547-55 https://www.ncbi.nlm.nih.gov/pubmed/22571690	Intervention/Exposure, Health Status

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306	Saglimbene, VM, Wong, G, Craig, JC, Ruospo, M, Palmer, SC, Campbell, K, Garcia-Larsen, V, Natale, P, Teixeira-Pinto, A, Carrero, JJ, Stenvinkel, P, Gargano, L, Murgo, AM, Johnson, DW, Tonelli, M, Gelfman, R, Celia, E, Ecder, T, Bernat, AG, Del Castillo, D, Timofte, D, Torok, M, Bednarek-Skublewska, A, Dulawa, J, Stroumza, P, Hoischen, S, Hansis, M, Fabricius, E, Felaco, P, Wollheim, C, Hegbrant, J, Strippoli, GFM. The Association of Mediterranean and DASH Diets with Mortality in Adults on Hemodialysis: The DIET-HD Multinational Cohort Study. J Am Soc Nephrol. 2018. 29:1741-1751 https://www.ncbi.nlm.nih.gov/pubmed/29695436	Health Status
307	Saha, S, Nordstrom, J, Gerdtham, UG, Mattisson, I, Nilsson, PM, Scarborough, P. Prevention of Cardiovascular Disease and Cancer Mortality by Achieving Healthy Dietary Goals for the Swedish Population: A Macro-Simulation Modelling Study. Int J Environ Res Public Health. 2019. 16:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30870975	Intervention/Exposure, Outcome
308	Saha, S, Nordstrom, J, Mattisson, I, Nilsson, PM, Gerdtham, UG. Modelling the Effect of Compliance with Nordic Nutrition Recommendations on Cardiovascular Disease and Cancer Mortality in the Nordic Countries. Nutrients. 2019. 11:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31242671	Study Design, Intervention/Exposure
309	Sala-Vila, A, Guasch-FerrÃ©, M, Hu, FB, SÃ¡nchez-Tainta, A, BullÃ³, M, Serra-Mir, M, LÃ³pez-Sabater, C, SorlÃ-, JV, ArÃ³s, F, Fiol, M, etal, . Dietary Î±-Linolenic Acid, Marine Ï‰-3 Fatty Acids, and Mortality in a Population With High Fish Consumption: findings From the PREvenciÃ³n con DIeta MEDiterrÃ¡nea (PREDIMED) Study. Journal of the american heart association. 2016. 5:#pages# https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01200327/full	Intervention/Exposure
310	Sandoval-Insausti, H, Blanco-Rojo, R, Graciani, A, Lopez-Garcia, E, Moreno-Franco, B, Laclaustra, M, Donat-Vargas, C, Ordovas, JM, Rodriguez-Artalejo, F, Guallar-Castillon, P. Ultra-processed Food Consumption and Incident Frailty: A prospective Cohort Study of Older Adults. J Gerontol A Biol Sci Med Sci. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31132092	Intervention/Exposure, Outcome
311	Sangita, S, Vik, SA, Pakseresht, M, Kolonel, LN. Adherence to recommendations for fruit and vegetable intake, ethnicity and ischemic heart disease mortality. Nutr Metab Cardiovasc Dis. 2013. 23:1247-54 https://www.ncbi.nlm.nih.gov/pubmed/23725771	Outcome
312	Sauer, AC, Goates, S, Malone, A, Mogensen, KM, Gewirtz, G, Sulz, I, Moick, S, Laviano, A, Hiesmayr, M. Prevalence of Malnutrition Risk and the Impact of Nutrition Risk on Hospital Outcomes: Results From nutritionDay in the U.S. JPEN J Parenter Enteral Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30666659	Study Design, Health Status
313	Scarborough, P, Allender, S, Rayner, M, Goldacre, M. An index of unhealthy lifestyle is associated with coronary heart disease mortality rates for small areas in England after adjustment for deprivation. Health Place. 2011. 17:691-5 https://www.ncbi.nlm.nih.gov/pubmed/21216177	Study Design, Outcome
314	Scarborough, P, Morgan, RD, Webster, P, Rayner, M. Differences in coronary heart disease, stroke and cancer mortality rates between England, Wales, Scotland and Northern Ireland: the role of diet and nutrition. BMJ Open. 2011. 1:e000263 https://www.ncbi.nlm.nih.gov/pubmed/22080528	Intervention/Exposure, Outcome
315	Scarborough, P, Nnoaham, KE, Clarke, D, Capewell, S, Rayner, M. Modelling the impact of a healthy diet on cardiovascular disease and cancer mortality. J Epidemiol Community Health. 2012. 66:420-6 https://www.ncbi.nlm.nih.gov/pubmed/21172796	Study Design, Intervention/Exposure

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316	Schooling, CM, Ho, SY, Leung, GM, Thomas, GN, McGhee, SM, Mak, KH, Lam, TH. Diet synergies and mortality--a population-based case-control study of 32,462 Hong Kong Chinese older adults. Int J Epidemiol. 2006. 35:418-26 https://www.ncbi.nlm.nih.gov/pubmed/16394118	Study Design, Country
317	Schroder, H, Cardenas-Fuentes, G, Martinez-Gonzalez, MA, Corella, D, Vioque, J, Romaguera, D, Alfredo Martinez, J, Tinahones, FJ, Miranda, JL, Estruch, R, Bueno-Cavanillas, A, Aros, F, Marcos, A, Tur, JA, Warnberg, J, Serra-Majem, L, Martin, V, Vazquez, C, Lapetra, J, Pinto, X, Vidal, J, Daimiel, L, Gaforio, JJ, Matia-Martin, P, Ros, E, Castaner, O, Lassale, C, Ruiz-Canela, M, Asensio, EM, Basora, J, Torres-Collado, L, Garcia-Rios, A, Abete, I, Toledo, E, Buil-Cosiales, P, Bullo, M, Goday, A, Fito, M, Salas-Salvado, J. Effectiveness of the physical activity intervention program in the PREDIMED-Plus study: a randomized controlled trial. Int J Behav Nutr Phys Act. 2018. 15:110 https://www.ncbi.nlm.nih.gov/pubmed/30424822	Intervention/Exposure, Outcome
318	Schwenke, DC. Dietary patterns to reduce mortality and promote independent functioning. Curr Opin Lipidol. 2019. 30:256-257 https://www.ncbi.nlm.nih.gov/pubmed/31045607	Study Design
319	Schwenke, DC. Optimizing dietary patterns to decrease premature mortality. Curr Opin Lipidol. 2017. 28:381-382 https://www.ncbi.nlm.nih.gov/pubmed/28700379	Study Design
320	Seah, JY, Ong, CN, Koh, WP, Yuan, JM, van Dam, RM. A Dietary Pattern Derived from Reduced Rank Regression and Fatty Acid Biomarkers Is Associated with Lower Risk of Type 2 Diabetes and Coronary Artery Disease in Chinese Adults. J Nutr. 2019. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/31386157	Intervention/Exposure, Outcome
321	Segovia-Siapco, G, SabatÃ©, J. Health and sustainability outcomes of vegetarian dietary patterns: a revisit of the EPIC-Oxford and the Adventist Health Study-2 cohorts. European Journal of Clinical Nutrition. 2018. #volume#:#pages# http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L625313508	Study Design
322	Seguro, F, Taraszkiewicz, D, Bongard, V, Berard, E, Bouisset, F, Ruidavets, JB, Ferrieres, J. Ignorance of cardiovascular preventive measures is associated with all-cause and cardiovascular mortality in the French general population. Arch Cardiovasc Dis. 2016. 109:486-93 https://www.ncbi.nlm.nih.gov/pubmed/27342804	Intervention/Exposure
323	Seidelmann, S. B.,Claggett, B.,Cheng, S.,Henglin, M.,Shah, A.,Steffen, L. M.,Folsom, A. R.,Rimm, E. B.,Willett, W. C.,Solomon, S. D. 2018. Dietary carbohydrate intake and mortality: a prospective cohort study and meta-analysis The Lancet Public Health, 3(9): e419-e428. http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L2001133282	Intervention/Exposure: did not describe the macronutrient distribution of the diet for the categories analyzed
324	Shea, MK, Nicklas, BJ, Houston, DK, Miller, ME, Davis, CC, Kitzman, DW, Espeland, MA, Appel, LJ, Kritchevsky, SB. The effect of intentional weight loss on ACM in older adults: Results of a randomized controlled weight-loss trial. American Journal of Clinical Nutrition. 2011. 94:839-846 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L362402891	Intervention/Exposure

	Citation	Rationale
325	Shi, Z, Zhang, T, Byles, J, Martin, S, Avery, JC, Taylor, AW. Food Habits, Lifestyle Factors and Mortality among Oldest Old Chinese: The Chinese Longitudinal Healthy Longevity Survey (CLHLS). Nutrients. 2015. 7:7562-79 https://www.ncbi.nlm.nih.gov/pubmed/26371039	Intervention/Exposure
326	Shi, Z, Zhen, S, Zimmet, PZ, Zhou, Y, Zhou, Y, Magliano, DJ, Taylor, AW. Association of impaired fasting glucose, diabetes and dietary patterns with mortality: a 10-year follow-up cohort in Eastern China. Acta Diabetol. 2016. 53:799-806 https://www.ncbi.nlm.nih.gov/pubmed/27311686	Country
327	Shikany, JM, Safford, MM, Bryan, J, Newby, PK, Richman, JS, Durant, RW, Brown, TM, Judd, SE. Dietary Patterns and Mediterranean Diet Score and Hazard of Recurrent Coronary Heart Disease Events and ACM in the REGARDS Study. J Am Heart Assoc. 2018. 7:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30005552	Health Status
328	Shimazu, T, Kuriyama, S, Hozawa, A, Ohmori, K, Sato, Y, Nakaya, N, Nishino, Y, Tsubono, Y, Tsuji, I. Dietary patterns and cardiovascular disease mortality in Japan: a prospective cohort study. Int J Epidemiol. 2007. 36:600-9 https://www.ncbi.nlm.nih.gov/pubmed/17317693	Outcome
329	Shirai, K. Ideal body mass index determined by mortality in Europe, and adequate high protein and low carbohydrate diet to maintain bodyweight. J Diabetes Investig. 2011. 2:421-2 https://www.ncbi.nlm.nih.gov/pubmed/24843524	Study Design
330	Shivappa, N, Blair, CK, Prizment, AE, Jacobs, DR, Jr, Steck, SE, Hebert, JR. Association between inflammatory potential of diet and mortality in the Iowa Women's Health study. Eur J Nutr. 2016. 55:1491-502 https://www.ncbi.nlm.nih.gov/pubmed/26130324	Intervention/Exposure
331	Shivappa, N, Harris, H, Wolk, A, Hebert, JR. Association between inflammatory potential of diet and mortality among women in the Swedish Mammography Cohort. Eur J Nutr. 2016. 55:1891-900 https://www.ncbi.nlm.nih.gov/pubmed/26227485	Intervention/Exposure
332	Shivappa, N, Steck, SE, Hussey, JR, Ma, Y, Hebert, JR. Inflammatory potential of diet and all-cause, cardiovascular, and cancer mortality in National Health and Nutrition Examination Survey III Study. Eur J Nutr. 2017. 56:683-692 https://www.ncbi.nlm.nih.gov/pubmed/26644215	Intervention/Exposure
333	Singh-Manoux, A, Fayosse, A, Sabia, S, Tabak, A, Shipley, M, Dugravot, A, Kivimaki, M. Clinical, socioeconomic, and behavioural factors at age 50 years and risk of cardiometabolic multimorbidity and mortality: A cohort study. PLoS Med. 2018. 15:e1002571 https://www.ncbi.nlm.nih.gov/pubmed/29782486	Intervention/Exposure
334	Sluik, D, Boeing, H, Li, K, Kaaks, R, Johnsen, NF, Tjonneland, A, Arriola, L, Barricarte, A, Masala, G, Grioni, S, Tumino, R, Ricceri, F, Mattiello, A, Spijkerman, AM, van der, Dl A, Sluijs, I, Franks, PW, Nilsson, PM, Orho-Melander, M, Fharm, E, Rolandsson, O, Riboli, E, Romaguera, D, Weiderpass, E, Sanchez-Cantalejo, E, Nothlings, U. Lifestyle factors and mortality risk in individuals with diabetes mellitus: are the associations different from those in individuals without diabetes?. Diabetologia. 2014. 57:63-72 https://www.ncbi.nlm.nih.gov/pubmed/24132780	Intervention/Exposure, Health Status
335	Smigielski, J, Bielecki, W, Drygas, W. Health and life style-related determinants of survival rate in the male residents of the city of Å□Ã³dÅº. International journal of occupational medicine and environmental health. 2013. 26:337-348 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L563064394	Intervention/Exposure

	Citation	Rationale
336	Smigielski, J, Jegier, A, Hanke, W, Bielecki, W, Drygas, W. The effect of selected lifestyle factors and diet on mortality of men with documented physical fitness in the city of Å□Ã³dÅº. International journal of occupational medicine and environmental health. 2013. 26:535-544 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L603534972	Intervention/Exposure
337	Smigielski, J, Jegier, A, Hanke, W, Bielecki, W, Drygas, W. The effect of selected lifestyle factors and diet on mortality of men with documented physical fitness in the city of Lodz. Int J Occup Med Environ Health. 2013. 26:535-44 https://www.ncbi.nlm.nih.gov/pubmed/24052150	Intervention/Exposure
338	Smyth, A, Griffin, M, Yusuf, S, Mann, JF, Reddan, D, Canavan, M, Newell, J, O'Donnell, M. Diet and Major Renal Outcomes: A Prospective Cohort Study. The NIH-AARP Diet and Health Study. J Ren Nutr. 2016. 26:288-98 https://www.ncbi.nlm.nih.gov/pubmed/26975776	Outcome
339	Sofi, F, Abbate, R, Gensini, GF, Casini, A, Trichopoulou, A, Bamia, C. Identification of change-points in the relationship between food groups in the Mediterranean diet and overall mortality: an 'a posteriori' approach. Eur J Nutr. 2012. 51:167-72 https://www.ncbi.nlm.nih.gov/pubmed/21541730	Intervention/Exposure
340	Solfrizzi, V, D'Introno, A, Colacicco, AM, Capurso, C, Palasciano, R, Capurso, S, Torres, F, Capurso, A, Panza, F. Unsaturated fatty acids intake and all-causes mortality: a 8.5-year follow-up of the Italian Longitudinal Study on Aging. Exp Gerontol. 2005. 40:335-43 https://www.ncbi.nlm.nih.gov/pubmed/15820615	Intervention/Exposure
341	Sonestedt, E, Gullberg, B, Ericson, U, Wirfalt, E, Hedblad, B, Orho-Melander, M. Association between fat intake, physical activity and mortality depending on genetic variation in FTO. Int J Obes (Lond). 2011. 35:1041-9 https://www.ncbi.nlm.nih.gov/pubmed/21179003	Intervention/Exposure
342	Song, M, Alexander, CM, Mavros, P, Lopez, VA, Malik, S, Phatak, HM, Wong, ND. Use of the UKPDS Outcomes Model to predict ACM in U.S. adults with type 2 diabetes mellitus: comparison of predicted versus observed mortality. Diabetes Res Clin Pract. 2011. 91:121-6 https://www.ncbi.nlm.nih.gov/pubmed/21074286	Study Design, Intervention/Exposure, Health Status
343	Song, M, Wu, K, Meyerhardt, JA, Yilmaz, O, Wang, M, Ogino, S, Fuchs, CS, Giovannucci, EL, Chan, AT. Low-Carbohydrate Diet Score and Macronutrient Intake in Relation to Survival After Colorectal Cancer Diagnosis. JNCI Cancer Spectr. 2018. 2:pky077 https://www.ncbi.nlm.nih.gov/pubmed/30734025	Outcome, Health Status
344	Srour, B, Touvier, M, Julia, C. Evidence for the Full Potential of Daily Food Choices to Minimize Premature Mortality-Reply. JAMA Intern Med. 2019. 179:1149-1150 https://www.ncbi.nlm.nih.gov/pubmed/31380952	Study Design
345	Steffen, LM, Jacobs, DR, Jr, Stevens, J, Shahar, E, Carithers, T, Folsom, AR. Associations of whole-grain, refined-grain, and fruit and vegetable consumption with risks of ACM and incident coronary artery disease and ischemic stroke: the Atherosclerosis Risk in Communities (ARIC) Study. Am J Clin Nutr. 2003. 78:383-90 https://www.ncbi.nlm.nih.gov/pubmed/12936919	Intervention/Exposure
346	Stefler, D, Pikhart, H, Jankovic, N, Kubinova, R, Pajak, A, Malyutina, S, Simonova, G, Feskens, EJM, Peasey, A, Bobak, M. Healthy diet indicator and mortality in Eastern European populations: prospective evidence from the HAPIEE cohort. Eur J Clin Nutr. 2014. 68:1346-1352 https://www.ncbi.nlm.nih.gov/pubmed/25028084	Intervention/Exposure

	Citation	Rationale
347	Stewart, D, Han, L, Doran, T, McCambridge, J. Alcohol consumption and ACM: an analysis of general practice database records for patients with long-term conditions. Journal of epidemiology and community health. 2017. 71:729-735 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L622153652	Intervention/Exposure
348	Stewart, RA, Wallentin, L, Benatar, J, Danchin, N, Hagstrom, E, Held, C, Husted, S, Lonn, E, Stebbins, A, Chiswell, K, Vedin, O, Watson, D, White, HD. Dietary patterns and the risk of major adverse cardiovascular events in a global study of high-risk patients with stable coronary heart disease. Eur Heart J. 2016. 37:1993-2001 https://www.ncbi.nlm.nih.gov/pubmed/27109584	Health Status
349	Streicher, M, Themessl-Huber, M, Schindler, K, Sieber, CC, Hiesmayr, M, Volkert, D. nutritionDay in Nursing Homes-The Association of Nutritional Intake and Nutritional Interventions With 6-Month Mortality in Malnourished Residents. J Am Med Dir Assoc. 2017. 18:162-168 https://www.ncbi.nlm.nih.gov/pubmed/27742584	Study Design, Intervention/Exposure
350	Streppel, MT, Sluik, D, van Yperen, JF, Geelen, A, Hofman, A, Franco, OH, Witteman, JC, Feskens, EJ. Nutrient-rich foods, cardiovascular diseases and ACM: the Rotterdam study. Eur J Clin Nutr. 2014. 68:741-7 https://www.ncbi.nlm.nih.gov/pubmed/24642783	Intervention/Exposure
351	Stringhini, S, Dugravot, A, Shipley, M, Goldberg, M, Zins, M, Kivimaki, M, Marmot, M, Sabia, S, Singh-Manoux, A. Health behaviours, socioeconomic status, and mortality: further analyses of the British Whitehall II and the French GAZEL prospective cohorts. PLoS Med. 2011. 8:e1000419 https://www.ncbi.nlm.nih.gov/pubmed/21364974	Study Design, Intervention/Exposure
352	Sun, Y, Liu, B, Snetselaar, LG, Robinson, JG, Wallace, RB, Peterson, LL, Bao, W. Association of fried food consumption with all cause, cardiovascular, and cancer mortality: prospective cohort study. Bmj. 2019. 364:k5420 https://www.ncbi.nlm.nih.gov/pubmed/30674467	Intervention/Exposure
353	Takata, Y, Zhang, X, Li, H, Gao, YT, Yang, G, Gao, J, Cai, H, Xiang, YB, Zheng, W, Shu, XO. Fish intake and risks of total and cause-specific mortality in 2 population-based cohort studies of 134,296 men and women. Am J Epidemiol. 2013. 178:46-57 https://www.ncbi.nlm.nih.gov/pubmed/23788668	Intervention/Exposure
354	Talaei, M, Koh, WP, Yuan, JM, van Dam, RM. DASH Dietary Pattern, Mediation by Mineral Intakes, and the Risk of Coronary Artery Disease and Stroke Mortality. J Am Heart Assoc. 2019. 8:e011054 https://www.ncbi.nlm.nih.gov/pubmed/30806152	Outcome
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366	Torres-Collado, L, Garcia-de-la-Hera, M, Navarrete-Munoz, EM, Notario-Barandiaran, L, Gonzalez-Palacios, S, Zurriaga, O, Melchor, I, Vioque, J. Coffee consumption and mortality from all causes of death, cardiovascular disease and cancer in an elderly Spanish population. Eur J Nutr. 2018. #volume#:#pages# https://www.ncbi.nlm.nih.gov/pubmed/30066178	Intervention/Exposure
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369	Trichopoulou, A, Bamia, C, Norat, T, Overvad, K, Schmidt, EB, Tjonneland, A, Halkjaer, J, Clavel-Chapelon, F, Vercambre, MN, Boutron-Ruault, MC, Linseisen, J, Rohrmann, S, Boeing, H, Weikert, C, Benetou, V, Psaltopoulou, T, Orfanos, P, Boffetta, P, Masala, G, Pala, V, Panico, S, Tumino, R, Sacerdote, C, Bueno-de-Mesquita, HB, Ocke, MC, Peeters, PH, Van der Schouw, YT, Gonzalez, C, Sanchez, MJ, Chirlaque, MD, Moreno, C, Larranaga, N, Van Guelpen, B, Jansson, JH, Bingham, S, Khaw, KT, Spencer, EA, Key, T, Riboli, E, Trichopoulos, D. Modified Mediterranean diet and survival after myocardial infarction: the EPIC-Elderly study. Eur J Epidemiol. 2007. 22:871-81 https://www.ncbi.nlm.nih.gov/pubmed/17926134	Health Status
370	Trichopoulou, A. Mediterranean diet, traditional foods, and health: evidence from the Greek EPIC cohort. Food Nutr Bull. 2007. 28:236-40 https://www.ncbi.nlm.nih.gov/pubmed/24683683	Study design
371	Trichopoulou, A. Olive oil, Mediterranean diet and health. Clinica e Investigacion en Arteriosclerosis. 2010. 22:19-20 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L361246403	Study Design
372	Trichopoulou, A.,Psaltopoulou, T.,Orfanos, P.,Hsieh, C. C.,Trichopoulos, D. 2007. Low-carbohydrate-high-protein diet and long-term survival in a general population cohort Eur J Clin Nutr, 61(5): 575-81. https://www.ncbi.nlm.nih.gov/pubmed/17136037	Intervention/Exposure: did not describe the macronutrient distribution of the diet for the categories analyzed
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374	Turunen, AW, Verkasalo, PK, Kiviranta, H, Pukkala, E, Jula, A, Mannisto, S, Rasanen, R, Marniemi, J, Vartiainen, T. Mortality in a cohort with high fish consumption. Int J Epidemiol. 2008. 37:1008-17 https://www.ncbi.nlm.nih.gov/pubmed/18579573	Intervention/Exposure
375	van der Pols, JC, Gunnell, D, Williams, GM, Holly, JM, Bain, C, Martin, RM. Childhood dairy and calcium intake and cardiovascular mortality in adulthood: 65-year follow-up of the Boyd Orr cohort. Heart. 2009. 95:1600-6 https://www.ncbi.nlm.nih.gov/pubmed/19643770	Intervention/Exposure
376	Vasto, S, Buscemi, S, Barera, A, Di Carlo, M, Accardi, G, Caruso, C. Mediterranean diet and healthy ageing: a Sicilian perspective. Gerontology. 2014. 60:508-18 https://www.ncbi.nlm.nih.gov/pubmed/25170545	Study Design

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378	Veronese, N, Li, Y, Manson, JE, Willett, WC, Fontana, L, Hu, FB. Combined associations of body weight and lifestyle factors with all cause and cause specific mortality in men and women: prospective cohort study. Bmj. 2016. 355:i5855 https://www.ncbi.nlm.nih.gov/pubmed/27884868	Intervention/Exposure
379	Virtanen, HEK, Voutilainen, S, Koskinen, TT, Mursu, J, Kokko, P, Ylilauri, MPT, Tuomainen, TP, Salonen, JT, Virtanen, JK. Dietary proteins and protein sources and risk of death: the Kuopio Ischaemic Heart Disease Risk Factor Study. Am J Clin Nutr. 2019. 109:1462-1471 https://www.ncbi.nlm.nih.gov/pubmed/30968137	Outcome
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381	Wang, DD, Li, Y, Afshin, A, Springmann, M, Mozaffarian, D, Stampfer, MJ, Hu, FB, Murray, CJL, Willett, WC. Global Improvement in Dietary Quality Could Lead to Substantial Reduction in Premature Death. J Nutr. 2019. 149:1065-1074 https://www.ncbi.nlm.nih.gov/pubmed/31049577	Study Design, Intervention/Exposure, Outcome, Country
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384	Waskiewicz, A, Piotrowski, W, Szostak-Wegierek, D, Cicha-Mikolajczyk, A. Relationship between 28-year food consumption trends and the 10-year global risk of death due to cardiovascular diseases in the adult Warsaw population. Kardiol Pol. 2015. 73:650-5 https://www.ncbi.nlm.nih.gov/pubmed/26310505	Intervention/Exposure, Outcome
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393	Yu, D, Zhang, X, Xiang, YB, Yang, G, Li, H, Gao, YT, Zheng, W, Shu, XO. Adherence to dietary guidelines and mortality: A report from prospective cohort studies of 134,000 Chinese adults in urban Shanghai. American Journal of Clinical Nutrition. 2014. 100:693-700 http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L373681291	Country
394	Zahra, A, Lee, EW, Sun, LY, Park, JH. Cardiovascular disease and diabetes mortality, and their relation to socio-economical, environmental, and health behavioural factors in worldwide view. Public Health. 2015. 129:385-95 https://www.ncbi.nlm.nih.gov/pubmed/25724438	Study Design, Outcome, Country
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398	Zhou, M, Wang, H, Zeng, X, Yin, P, Zhu, J, Chen, W, Li, X, Wang, L, Wang, L, Liu, Y, Liu, J, Zhang, M, Qi, J, Yu, S, Afshin, A, Gakidou, E, Glenn, S, Krish, VS, Miller-Petrie, MK, Mountjoy-Venning, WC, Mullany, EC, Redford, SB, Liu, H, Naghavi, M, Hay, SI, Wang, L, Murray, CJL, Liang, X. Mortality, morbidity, and risk factors in China and its provinces, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2019. 394:1145-1158 https://www.ncbi.nlm.nih.gov/pubmed/31248666	Study Design, Intervention/Exposure
399	Zhuang, P, Cheng, L, Wang, J, Zhang, Y, Jiao, J. Saturated Fatty Acid Intake Is Associated with Total Mortality in a Nationwide Cohort Study. J Nutr. 2019. 149:68-77 https://www.ncbi.nlm.nih.gov/pubmed/30608597	Intervention/Exposure
400	Zhuang, P, Zhang, Y, He, W, Chen, X, Chen, J, He, L, Mao, L, Wu, F, Jiao, J. Dietary Fats in Relation to Total and Cause-Specific Mortality in a Prospective Cohort of 521 120 Individuals With 16 Years of Follow-Up. Circ Res. 2019. 124:757-768 https://www.ncbi.nlm.nih.gov/pubmed/30636521	Intervention/Exposure