

## Appendix S1: Search terms and search strategies from Scopus and Medline databases.

### Scopus

(( TITLE-ABS-KEY ("prevent\*") ) OR ( TITLE-ABS-KEY ("delay\*") ) OR ( TITLE-ABS-KEY ("reduc\*") )) AND (( TITLE-ABS-KEY ("systematic review") ) OR ( TITLE-ABS-KEY ("meta analysis") )) AND (( TITLE-ABS-KEY ("lifestyle change" OR "lifestyle modification" OR "lifestyle adaptation" OR "lifestyle intervention" OR "lifestyle therapy" OR "lifestyle treatment") ) OR ( TITLE-ABS-KEY ("behavior change" OR "behavior modification" OR "behavior adaptation" OR "behavior intervention" OR "behavior therapy" OR "behavior treatment" OR "non-pharmacological\*" OR "nonpharmacological\*") ) OR ((( TITLE-ABS-KEY ("low salt") ) OR ( TITLE-ABS-KEY ("weight reduction") ) OR ( TITLE-ABS-KEY ("carbohydrate-restricted diet") ) OR ( TITLE-ABS-KEY ("Mediterranean diet") ) OR ( TITLE-ABS-KEY ("fat-restricted diet") ) OR ( TITLE-ABS-KEY ("reducing diet") ) OR ( TITLE-ABS-KEY ("diet therapy") ) OR ( TITLE-ABS-KEY ("diet\* control") ) OR ( TITLE-ABS-KEY ("dietary control") )) OR (( TITLE-ABS-KEY ("low glycemic index") ) OR ( TITLE-ABS-KEY ("low carbohydrate") ) OR ( TITLE-ABS-KEY ("dietary approach to stop hypertension") ) OR ( TITLE-ABS-KEY ("healthy eat\*") ) OR ( TITLE-ABS-KEY ("clean food") ) OR ( TITLE-ABS-KEY ("salt restriction") ))) OR (( TITLE-ABS-KEY ("strength training") ) OR ( TITLE-ABS-KEY ("weight training") ) OR (( TITLE-ABS-KEY ("physical activity") ) OR ( TITLE-ABS-KEY ( sport ) ) OR ( TITLE-ABS-KEY ( exercise ) ) OR ( TITLE-ABS-KEY ( workout ) ) OR ( TITLE-ABS-KEY ("work out") ) OR ( TITLE-ABS-KEY ("resistance training") )) ) OR (( TITLE-ABS-KEY ("smoking cessation") ) OR ( TITLE-ABS-KEY ("smoking quit\*") ) OR ( TITLE-ABS-KEY ("smoking reduc\*") ) OR ( TITLE-ABS-KEY ("tobacco cessation") ) OR ( TITLE-ABS-KEY ("tobacco quit\*") ) OR ( TITLE-ABS-KEY ("tobacco reduc\*") )) OR (( TITLE-ABS-KEY ("alcohol cessation") ) OR ( TITLE-ABS-KEY ("alcohol reduc\*") )) OR (( TITLE-ABS-KEY ( sleep ) ) OR ( TITLE-ABS-KEY ("stress reduc\*") ))) ) AND (( TITLE-ABS-KEY ("cardiovascular disease" OR "coronary artery disease" OR "acute coronary syndrome" OR "myocardial infarction") ) OR ( TITLE-ABS-KEY ("ischemic heart disease" OR "angina pectoris" OR "unstable angina" OR stroke OR "cerebrovascular disease" OR "cardiovascular death" OR "cardiovascular mortality") )) )

### Medline

Search((((((((("Cardiovascular Diseases"[Mesh]) OR "cardiovascular disease") OR "coronary artery disease") OR "acute coronary syndrome") OR "myocardial infarction") OR "ischemic heart disease") OR stroke) OR "cerebrovascular disease") OR "cardiovascular death") OR "cardiovascular mortality")) AND((((((((((((("Life Style"[Mesh]) OR "lifestyle change") OR "lifestyle modification") OR "lifestyle adaptation") OR "lifestyle intervention") OR "lifestyle therapy") OR "lifestyle treatment") OR "behavior change") OR "behavior modification") OR "behavior adaptation") OR "behavior intervention") OR "behavior therapy") OR "behavior treatment")) OR((((((((("non-pharmacological\*") OR "nonpharmacological\*") OR ((("non-pharmacological\*") OR "nonpharmacological\*")) OR "Diet, Carbohydrate-Restricted"[Mesh]) OR "Diet, Mediterranean"[Mesh]) OR "Diet, Fat-Restricted"[Mesh]) OR "Diet, Reducing"[Mesh]) OR "Diet Therapy"[Mesh]) OR "diet\* control") OR "dietary control") OR "low glycemic index") OR "low carbohydrate") OR "dietary approach to stop hypertension") OR "healthy eat\*") OR "clean food")) OR((((((((("physical activity") OR exercise) OR sport) OR workout) OR "work out") OR "resistance training") OR "strength training") OR "weight training")) OR((((((((("Smoking Cessation"[Mesh]) OR "smoking cessation") OR "smoking quit\*") OR "smoking reduc\*") OR "Tobacco Use Cessation"[Mesh]) OR "tobacco cessation") OR "tobacco quit\*") OR "tobacco reduc\*")) OR(((("alcohol cessation") OR "alcohol reduc\*") OR ((("alcohol cessation") OR "alcohol reduc\*")))) OR(((sleep) OR ((("Stress, Psychological/prevention and control"[Mesh]))) OR "stress reduc\*")) AND(((prevent\*) OR delay\*) OR reduc\*) Filters: Systematic Reviews

**Table S1.** Characteristics of included systematic reviews and meta-analyses.

| Author                         | Year | Population               | Intervention/<br>factor   | Outcome                           | Type of included<br>studies   | Age       | % Male   | Total <i>n</i> | Setting   |
|--------------------------------|------|--------------------------|---------------------------|-----------------------------------|---|-----------|----------|----------------|---|
| <i>Food patterns</i>           |      |                          |                           |                                   |   |           |          |                |   |
| Onvani <sup>1</sup>            | 2016 | General population       | HEI and AHEI              | All-causes and, CVD mortality     | Cohort study: 12<br>Cross-sectional: 1  | 18–82     | 0–100    | 636–424,663    | US: 11<br>UK: 1<br>Asian: 1   |
| Semlitsch <sup>2</sup>         | 2016 | HT patients with obesity | Diet intervention         | All-causes mortality, CVD         | Parallel RCT: 4<br>Cluster RCT: 3<br>Factorial RCT: 1                         | 47–66     | 27–64    | 30–587         | US: 4<br>UK: 1<br>European: 2<br>Unknown: 1                                   |
| Guo <sup>3</sup>               | 2017 | General population       | CVH score                 | All-causes and CVD mortality, CVD | Cohort: 13  | 43–69     | 36.3–100 | 2981–95,429    | US: 7<br>UK: 1<br>Asian: 5  |
| Schwingshackl <sup>4</sup>     | 2018 | General population       | HEI, AHEI, and DASH score | All-causes and CVD mortality, CVD | Cohort: 68  | 18–104    | 0–100    | 298–460,770    | US: 26<br>UK: 1<br>European: 3<br>Asian: 2<br>Australia: 1<br>Multi-centre: 1 |
| Shivappa <sup>5</sup>          | 2018 | General subject          | DII score                 | CVD                               | Cohort: 11<br>Cross-sectional: 1<br>Case-control: 1<br>Nested case-control: 1 | NR        | 0–100    | 171–3725       | US: 3<br>UK: 1<br>European: 7<br>Australia: 3                                 |
| Sofi <sup>6</sup>              | 2008 | General population       | Mediterranean diet        | All-causes and CVD mortality      | Cohort: 12  | 20–90     | 0–100    | 161–214,284    | US: 4<br>European: 7<br>Australia: 1  |
| Sofi <sup>7</sup>              | 2010 | General population       | Mediterranean diet        | All-causes and CVD mortality, CVD | Cohort: 7   | 20–95     | 0–100    | 1199–485,044   | US: 2<br>European: 5  |
| Psaltopoulou <sup>8</sup>      | 2013 | General population       | Mediterranean diet        | Stroke                            | Cohort: 9<br>Case-control: 3<br>Cross-sectional: 10                           | 37.2–80.3 | 0–72     | 575–74,886     | US: 9<br>UK: 1<br>European: 10<br>Australia: 2                                |
| Martínez-González <sup>9</sup> | 2014 | General population       | Mediterranean diet        | CVD                               | RCT: 2<br>Cohort: 12  | NR        | NR       | NR             | NR  |
| Kontogianni <sup>10</sup>      | 2014 | General population       | DASH, Mediterranean diet  | Stroke                            | NR  | NR        | NR       | NR             | NR  |

| Author                          | Year | Population                 | Intervention/<br>factor     | Outcome                           | Type of included<br>studies                      | Age       | % Male | Total <i>n</i> | Setting  |
|---------------------------------|------|----------------------------|-----------------------------|-----------------------------------|--|-----------|--------|----------------|--|
| Liyanage <sup>11</sup>          | 2016 | High risk of CVD (i.e. DM) | Mediterranean diet          | All-causes and CVD mortality, CVD | Parallel RCT: 6                                  | 37–41     | 0–100  | 48–7447        | US: 1<br>UK: 1<br>European: 2<br>Asian: 2                  |
| Grosso <sup>12</sup>            | 2017 | General population         | Mediterranean diet          | CVD mortality, CVD                | Cohort: 20<br>Parallel RCT: 4<br>Case-control: 4 | 48–67.3   | 0–100  | 605–380,296    | US: 5<br>European: 17<br>Asian: 1<br>Australia: 1          |
| Rosato <sup>13</sup>            | 2019 | General population         | Mediterranean diet          | CHD/MI, Stroke, CVD               | Cohort: 21<br>Case-control: 5                    | 20–92     | 0–100  | 46–347,000     | US: 7<br>UK: 1<br>European: 19<br>Asian: 1<br>Australia: 1 |
| Chen <sup>14</sup>              | 2019 | General population         | Mediterranean diet          | Stroke                            | Cohort: 20                                       | 42–72     | NR     | NR             | US: 6<br>European: 11<br>UK: 1<br>Asian: 2                 |
| <i>Food patterns: DASH diet</i> |      |                            |                             |                                   |  |           |        |                |  |
| Abargouei <sup>15</sup>         | 2013 | General population         | DASH diet                   | CVD mortality, CVD                | Cohort: 6  | 35–79     | 0–100  | 20933–88,517   | US: 3<br>European: 3                                       |
| Kwok <sup>16</sup>              | 2014 | General population         | Vegetarian diet             | CVD mortality, CVD                | Cohort: 8  | 25–100    | 24–100 | 1904–73,308    | US: 2<br>UK: 3<br>European: 2<br>Asian: 1                  |
| Feng <sup>17</sup>              | 2018 | General population         | DASH diet                   | Stroke                            | Prospective Cohort: 12                           | 20–83     | 0–100  | 1867–172,043   | US: 4<br>UK: 2<br>European: 4<br>Asian: 2                  |
| Yang <sup>18</sup>              | 2019 | General population         | DASH diet                   | CHD                               | Cohort: 7  | 20–79     | 0–100  | 1867–153,802   | US: 4<br>UK: 2<br>European: 1                              |
| <i>Food groups</i>              |      |                            |                             |                                   |  |           |        |                |  |
| Law <sup>19</sup>               | 1998 | General population         | Fruit and vegetable intakes | CHD                               | Cohort: 11                                       | 25–75     | 0–100  | 343–87,245     | US: 5<br>UK: 3<br>European: 2                              |
| Hu <sup>20</sup>                | 2014 | General population         | Fruit and vegetable intakes | Stroke                            | Cohort: 20                                       | 40.7–72.4 | NR     | 552–174,888    | US: 6<br>European: 8<br>Asian: 6                           |
| Whelton <sup>21</sup>           | 2004 | General population         | Fish intake                 | CHD                               | Cohort: 14<br>Case-control: 5                    | 22–87     | 0–100  | 272–84,688     | US: 8<br>European: 9                                       |

| Author                    | Year | Population         | Intervention/<br>factor        | Outcome                                 | Type of included<br>studies                        | Age     | % Male | Total <i>n</i> | Setting   |
|---------------------------|------|--------------------|--------------------------------|---|--|---------|--------|----------------|---|
|                           |      |                    |                                |   |  |         |        |                | Asian: 2  |
| Crippa <sup>22</sup>      | 2014 | General population | Coffee intake                  | All-causes and<br>CVD mortality         | Cohort: 21   | NR      | 0–100  | 1440–45,4775   | US: 8<br>UK: 2<br>European: 7<br>Asian: 4                 |
| Kwok <sup>23</sup>        | 2015 | General population | Chocolate intake               | CVD                                     | Cohort: 7<br>Parallel RCT: 1<br>Cross-sectional: 1 | 49–75   | 0–100  | 470–37,103     | US: 2<br>UK: 1<br>European: 5<br>Australia: 1             |
| Yuan <sup>24</sup>        | 2017 | General population | Chocolate intake               | CVD                                     | Cohort: 14   | 35–84   | 0–100  | 590–92,678     | US: 5<br>UK: 1<br>European: 5<br>Asian: 2<br>Australia: 1 |
| Pang <sup>25</sup>        | 2015 | General population | Green tea<br>consumption       | All-causes and<br>CVD mortality,<br>CVD | Cohort: 8<br>Parallel RCT: 1                       | 40–89   | 0–72   | 51–100,938     | NR  |
| Shao <sup>26</sup>        | 2016 | General population | Nut intake                     | Stroke                                  | Cohort: 11   | 30–86.7 | 0–100  | 2893–120,852   | US: 6<br>European: 2<br>Asian: 2<br>Australia: 1          |
| Weng <sup>27</sup>        | 2016 | General population | Nut intake                     | CVD                                     | Cohort: 13<br>Parallel RCT: 1                      | 24–80   | NR     | 6309–86,016    | US: 12<br>European: 2                                     |
| Wei <sup>28</sup>         | 2016 | General population | Whole grain<br>intake          | All-causes and<br>CVD mortality         | Cohort: 11   | 42–72   | 0–100  | 535–367,442    | US: 8<br>European: 3                                      |
| Marventano <sup>29</sup>  | 2016 | General population | Legume intake                  | CVD                                     | Cohort: 14   | 20–86   | 0–100  | 3932–84,136    | US: 6<br>European: 5<br>Asian: 3                          |
| <i>Food nutrients</i>     |      |                    |                                |   |  |         |        |                |   |
| Hooper <sup>30</sup>      | 2000 | General population | Low or modified<br>fat diet    | All-causes and<br>CVD mortality         | RCT: 27  | 25–88   | 0–100  | 21–9032        | NR  |
| Studer <sup>31</sup>      | 2005 | General population | Diet intervention,<br>n-3 PUFA | All-causes and<br>CVD mortality         | RCT: 31  | NR      | NR     | NR             | NR  |
| Skeaff <sup>32</sup>      | 2009 | General population | Fat intake                     | CVD mortality,<br>CHD                   | NR   | NR      | NR     | NR             | NR  |
| Mozaffarian <sup>33</sup> | 2010 | General population | n-6 PUFA                       | CVD mortality                           | RCT: 8   | NR      | 0–100  | 55–9057        | NR  |
| Ramsden <sup>34</sup>     | 2010 | General population | PUFA, n-6 PUFA                 | All-causes and<br>CVD mortality         | RCT: 7   | NR      | NR     | 55–9057        | NR  |

| Author                              | Year | Population         | Intervention/<br>factor            | Outcome  | Type of included<br>studies            | Age       | % Male | Total <i>n</i> | Setting  |
|-------------------------------------|------|--------------------|------------------------------------|--|--|-----------|--------|----------------|--|
| Lista <sup>35</sup>                 | 2012 | General population | Marine omega-3<br>PUFA             | All-causes and<br>CVD mortality,<br>CVD              | RCT: 21                                | NR        | NR     | NR             | NR   |
| Abdelhamid <sup>36</sup>            | 2019 | General population | omega-3 PUFA                       | All-causes and<br>CVD mortality,<br>CVD, CHD, stroke | RCT: 79                                | NR        | NR     | 11–18,645      | NR   |
| Martínez-<br>González <sup>37</sup> | 2014 | General population | Olive oil                          | CHD, stroke  | Case-control: 3<br>RCT: 1<br>Cohort: 5 | 49–78     | NR     | 342–40,142     | European: 9  |
| Schwingshackl <sup>38</sup>         | 2014 | General population | MUFA, olive oil,<br>oleic acid     | All-causes and<br>CVD mortality,<br>CVD, CHD, stroke | Cohort: 42                             | 20–87     | 0–100  | 161–161,808    | US: 13<br>European: 20<br>UK: 1<br>Israel: 1<br>Asian: 4<br>Australia: 1 |
| Farvid <sup>39</sup>                | 2015 | General population | Dietary linoleic<br>consumption    | CHD  | Cohort: 13                             | 35–61     | 0–100  | 1643–84,564    | US: 6<br>European: 6<br>Asian: 1   |
| Harcombe <sup>40</sup>              | 2016 | General population | Low or modified<br>fat diet        | All-causes and<br>CVD mortality                      | RCT: 10                                | NR        | 0–100  | 52–48,835      | NR   |
| Harcombe <sup>41</sup>              | 2017 | General population | Dietary fat intake                 | CVD mortality  | Cohort: 7                              | 30–79     | 39–100 | 2676–43,757    | NR   |
| Muto <sup>42</sup>                  | 2018 | General population | Saturated Fatty<br>acid            | stroke   | Cohort: 11                             | 34–89     | 0–100  | 832– 87,025    | US: 4<br>European: 2<br>Asian: 5   |
| Hollman <sup>43</sup>               | 2010 | General population | Flavonoid intake                   | Stroke   | Cohort: 6                              | 39.3–61.5 | 0–100  | NR             | US: 2<br>European: 4   |
| Kim <sup>44</sup>                   | 2017 | General population | Flavonoid intake                   | All-causes and<br>CVD mortality,<br>CHD              | Cohort: 15                             | 30–84     | 0–100  | 805–66,360     | US: 4<br>UK: 1<br>European: 8<br>Asian: 1<br>Australia: 1                |
| Kimble <sup>45</sup>                | 2019 | General population | Flavonoid intake<br>(Anthocyanins) | CVD, CVD<br>mortality, CHD,<br>stroke                | Cohort: 19                             | 25–75     | 0–100  | NR             | US: 7<br>European: 11<br>Australia: 1                                    |
| D'Elia <sup>46</sup>                | 2011 | General population | Potassium intake                   | Stroke, CVD, CHD                                     | Cohort: 11                             | 25–79     | 0–100  | 859–58,730     | US: 6<br>European: 3<br>Asian: 2   |
| Chen <sup>47</sup>                  | 2013 | General population | Dietary fibre<br>intake            | Stroke   | Cohort: 6                              | 30–79     | 0–100  | 20674–86,387   | US: 2<br>European: 2<br>Asian: 2   |

| Author                                 | Year | Population                            | Intervention/<br>factor                 | Outcome   | Type of included<br>studies       | Age       | % Male   | Total <i>n</i> | Setting  |
|--|------|---------------------------------------|---|---|-----------------------------------|-----------|----------|----------------|--|
| Kim <sup>48</sup>                      | 2016 | General population                    | Dietary fibre<br>intake                 | CVD mortality,<br>CHD                               | Cohort: 15                        | 20–85     | 0–100    | 859–388,122    | US: 5<br>European: 7<br>Asian: 1<br>Australia: 2     |
| Li <sup>49</sup>                       | 2017 | General population                    | Dietary fibre<br>intake                 | Ischemic stroke                                     | Cohort: 8                         | 30–83     | 0–100    | 1772–96,677    | US: 3<br>European: 3<br>Asian: 2                     |
| Reynolds <sup>50</sup>                 | 2019 | General population                    | Whole grain,<br>Dietary fibre<br>intake | All-cause mortality<br>CVD mortality<br>CHD, stroke | Cohort:185<br>RCT: 58             | 18–73     | 0–100    | 7–40,067       | NR   |
| <i>Food nutrients: Salt diet</i>       |      |                                       |   |   |                                   |           |          |                |  |
| Aburto <sup>51</sup>                   | 2013 | General population<br>and HT patients | Low salt diet                           | All-causes<br>mortality, CVD,<br>CHD                | Parallel RCT: 42<br>Cohort: 14    | NR        | NR       | 16–2382        | NR   |
| Adler <sup>52</sup>                    | 2014 | General population<br>and HT patients | Low salt diet                           | All-causes and<br>CVD mortality,<br>CVD             | Parallel RCT: 6<br>Cluster RCT: 2 | 38.5–83.3 | 22.1–100 | NR             | Asian: 3<br>Australia: 1                             |
| Jayedi <sup>53</sup>                   | 2019 | General population                    | Low salt diet                           | Stroke  | Cohort: 14<br>Case-cohort: 2      | 48–69     | NR       | 464–77,500     | US: 6<br>European: 4<br>Asian: 5<br>International: 1 |
| <i>Food nutrients: Dietary calcium</i> |      |                                       |   |   |                                   |           |          |                |  |
| Wang <sup>54</sup>                     | 2014 | General population                    | Dietary calcium<br>intake               | CVD mortality                                       | Cohort:11                         | 4–74      | 0–100    | 2605–388,229   | US: 3<br>European: 4<br>Asian: 4<br>Canada: 1        |

AHEI: alternate healthy eating index; CVD: cardiovascular diseases; CHD: coronary heart disease; CVH: cardiovascular health; DII: dietary inflammatory index; DM: diabetes mellitus; DASH: Dietary Approaches to Stop Hypertension; HT: hypertension; HEI: healthy eating index; NR: not reported; MUFA: monounsaturated fatty acid; PUFA: polyunsaturated fatty acid; RCT: randomized-controlled trial; US: United States; UK: United Kingdom.

**Table S2.** Details of diet intervention and dietary factors.

|  | Year | Intervention/Exposure  | Mode of deliver/type of questionnaire                         | Setting               | Behavioral intervention (BI) | Support device | Duration   |
|--|------|--|---|-----------------------|------------------------------|----------------|--|
| <i>Food Patterns: Healthy diet</i>       |      |  |   |                       |                              |                |  |
| Onvani <sup>1</sup>                      | 2016 | Healthy diet   | HEI, AHEI score   | NA                    | NA                           | NA             | 6.2–22 years   |
| Semlitsch <sup>2</sup>                   | 2016 | Low CBH, low fat, low calorie diet; increased fish, vegetables, complex CBH, and fiber consumption | Supervised and education                                      | Clinic-based          | No                           | No             | 0.5–3 years  |
| Guo <sup>3</sup>                         | 2017 | Healthy diet   | CVH score   | NA                    | NA                           | NA             | 4–18.7 years   |
| Schwingshackl <sup>4</sup>               | 2018 | Healthy diet   | HEI, AHEI, DASH score   | NA                    | NA                           | NA             | 3–24 years   |
| Shivappa <sup>5</sup>                    | 2018 | Healthy diet   | Dietary inflammatory index                                    | NA                    | NA                           | NA             | 4.3–26 years   |
| <i>Food Patterns: Mediterranean diet</i> |      |  |   |                       |                              |                |  |
| Sofi <sup>6</sup>                        | 2008 | Mediterranean diet   | Mediterranean diet adherence score (0–9)                      | NA                    | NA                           | NA             | 3.7–18 years   |
| Sofi <sup>7</sup>                        | 2010 | Mediterranean diet   | Mediterranean diet adherence score (0–9)                      | NA                    | NA                           | NA             | 4.5–20 years   |
| Psaltopoulou <sup>8</sup>                | 2013 | Mediterranean diet   | Mediterranean diet adherence score (0–9)                      | NA                    | NA                           | NA             | 2.2–20 years   |
| Martínez-González <sup>9</sup>           | 2014 | Mediterranean diet   | The Mediterranean Diet Score                                  | NA                    | NA                           | NA             | NR   |
| Kontogianni <sup>10</sup>                | 2014 | Mediterranean and DASH diet  | Validated FFQ   | NA                    | NA                           | NA             | NR   |
| Liyanage <sup>11</sup>                   | 2016 | Mediterranean diet   | Education and supplement                                      | Clinic based          | No                           | No             | 6 months – 9 years                                   |
| Grosso <sup>12</sup>                     | 2017 | Mediterranean diet assessed by mMed, tMed, aMed, rMed, MedDiet, MeDi, IMed score                   | Supervised and educational                                    | Clinic and home based | No                           | No             | RCTs: 2–5 years<br>Observational studies: 2–20 years |
| Chen <sup>14</sup>                       | 2019 | Mediterranean diet   | FFQ, 7-d food record, 14-point Med-Diet adherence screener    | NA                    | NA                           | NA             | 3–21 years   |
| Rosato <sup>13</sup>                     | 2019 | Mediterranean diet   | Mediterranean diet score                                      | NA                    | NA                           | NA             | 6–20 year  |
| <i>Food Patterns: DASH diet</i>          |      |  |   |                       |                              |                |  |
| Abargouei <sup>15</sup>                  | 2013 | DASH diet  | quintiles of eight DASH dietary pattern components            | NA                    | NA                           | NA             | 7–24 years   |
| Kontogianni <sup>10</sup>                | 2014 | Mediterranean and DASH diet  | validated FFQ   | NA                    | NA                           | NA             | NR   |
| Feng <sup>17</sup>                       | 2018 | DASH diet  | FFQ   | NA                    | NA                           | NA             | 5.7–24 years   |
| Yang <sup>18</sup>                       | 2019 | DASH diet  | FFQ   | NA                    | NA                           | NA             | 2.8–24 years   |
| <i>Food Patterns: Vegetarians diet</i>   |      |  |   |                       |                              |                |  |
| Kwok <sup>16</sup>                       | 2014 | Vegetarian diet  | NR  | NA                    | NA                           | NA             | 6–23 years   |
| <i>Food groups: Fruit and vegetable</i>  |      |  |   |                       |                              |                |  |
| Law <sup>19</sup>                        | 1998 | Fruit and vegetable  | FFQ, 7 day weighted inventory, 4 week and 1 year diet history | NA                    | NA                           | NA             | 4–24 years   |
| Hu <sup>20</sup>                         | 2014 | Fruit and vegetable  | FFQ, 24 hr food recall  | NA                    | NA                           | NA             | 3–37 years   |
| <i>Food groups: Fish intake</i>          |      |  |   |                       |                              |                |  |

|                                 | Year | Intervention/Exposure  | Mode of deliver/type of questionnaire   | Setting      | Behavioral intervention (BI) | Support device | Duration                                     |
|---------------------------------|------|--|---|--------------|------------------------------|----------------|--|
| Whelton <sup>21</sup>           | 2004 | Fish intake  | Analyzed based on the number of servings per week   | NA           | NA                           | NA             | 4–30 years                                   |
| <i>Food groups: Coffee</i>      |      |  |   |              |                              |                |  |
| Crippa <sup>22</sup>            | 2014 | Coffee intake  | NR  | NA           | NA                           | NA             | 7.1–24 years                                 |
| <i>Food groups: Chocolate</i>   |      |  |   |              |                              |                |  |
| Kwok <sup>23</sup>              | 2015 | Chocolate intake   | FFQ   | NA           | NA                           | NA             | 8–16 years                                   |
| Yuan <sup>24</sup>              | 2017 | Chocolate intake   | FFQ and self-report   | NA           | NA                           | NA             | 4.7–16 years                                 |
| <i>Food groups: Green tea</i>   |      |  |   |              |                              |                |  |
| Jun Pang <sup>25</sup>          | 2015 | Green tea intake   | NR  | NA           | NA                           | NA             | 9 weeks – 13 years                           |
| <i>Food groups: Nut</i>         |      |  |   |              |                              |                |  |
| Shao <sup>26</sup>              | 2016 | Nut intake   | FFQ   | NA           | NA                           | NA             | 4.4–30 years                                 |
| Weng <sup>27</sup>              | 2016 | Nut intake   | NR  | NA           | NA                           | NA             | 4.8–26 years                                 |
| <i>Food groups: Whole grain</i> |      |  |   |              |                              |                |  |
| Wei <sup>28</sup>               | 2016 | Whole grain  | FFQ   | NA           | NA                           | NA             | 5.5–26 years                                 |
| Reynolds <sup>50</sup>          | 2019 | Whole grain, dietary fibre   | RCT: meal supplement<br>Cohort: FFQ, 24-hr recall, 7 day dietary record   | NA           | NA                           | NA             | 6 weeks – 24 years                           |
| <i>Food groups: Legume</i>      |      |  |   |              |                              |                |  |
| Marventano <sup>29</sup>        | 2016 | Legume consumption   | NR  | NA           | NA                           | NA             | 4.9–26 years                                 |
| <i>Food nutrients: Fat</i>      |      |  |   |              |                              |                |  |
| Hooper <sup>30</sup>            | 2000 | Reduce fat intake 15%-30% of TE, replace SFA by linoleic acid, reduce cholesterol intake | Education, meal supplement  | Clinic-based | NR                           | NR             | 0.43–9.3 years                               |
| Studer <sup>31</sup>            | 2005 | n-3 PUFA Dietary intervention  | NR  | NR           | NR                           | NR             | n-3 PUFA 1.2–1.9 years<br>diet 2.5–4.2 years |
| Skeaff <sup>32</sup>            | 2009 | Fat intake   | FFQ, 24 hr recall, weighed diet records, cross-check dietary history, dietary history, 4 day estimated food record, 7 day weighed diet record | NA           | NA                           | NA             | NR   |
| Mozaffarian <sup>33</sup>       | 2010 | Increased n-6 PUFA   | Education, meal supplement  | Clinic-based | No                           | No             | 1–8 years                                    |
| Ramsden <sup>34</sup>           | 2010 | Increased mixed n-3/n-6 PUFA, only n-6 PUFA  | NR  | NR           | NR                           | NR             | 2–4 years                                    |
| Lista <sup>35</sup>             | 2012 | Marine omega-3 FA  | NR  | Clinic-based | NR                           | NR             | 1–9 years                                    |
| Martínez-González <sup>37</sup> | 2014 | Olive oil  | FFQ   | NA           | NA                           | NA             | 4.8–10.4 years                               |
| Schwingshackl <sup>38</sup>     | 2014 | MUFA, MUFA: SFA, olive oil, Oleic acid   | NR  | NR           | NR                           | NR             | 3.7–30 years                                 |
| Farvid <sup>39</sup>            | 2015 | Dietary linoleic acid  | FFQ, 24 hr food recall, 7-day weight food record  | NA           | NA                           | NA             | 5.3–30 years                                 |



|  | Year | Intervention/Exposure  | Mode of deliver/type of questionnaire  | Setting      | Behavioral intervention (BI) | Support device | Duration          |
|--|------|--|--|--------------|------------------------------|----------------|-------------------|
| Harcombe <sup>40</sup>                 | 2016 | 64 g Corn oil, 58 g olive oil, 40 g fat/day, 85 g soya-bean oil, 20%–40% calories from fat, 8%–10% calories from SFA | NR   | Clinic-based | NR                           | NR             | Mean 4.7 years    |
| Harcombe <sup>41</sup>                 | 2017 | Dietary fat  | NR   | NA           | NA                           | NA             | 6–20 years        |
| Muto <sup>42</sup>                     | 2018 | Saturated fat intake   | FFQ and 24-hr food recall  | NA           | NA                           | NA             | 7.6–20 years      |
| Abdelhamid <sup>36</sup>               | 2019 | Omega-3 PUFA   | Diet education, meal supplement, oil supplement  | Clinic-based | NR                           | NR             | 1 year            |
| <i>Food nutrients: Flavonoid</i>       |      |  |  |              |                              |                |                   |
| Hollman <sup>43</sup>                  | 2010 | Flavonoid intake   | Dietary history, FFQ, 4 day food record  | NA           | NA                           | NA             | 6.1–28 years      |
| Kim <sup>44</sup>                      | 2017 | Flavonoid intake   | FFQ, Interviews, 4 day food records  | NA           | NA                           | NA             | 4.8–28 years      |
| Kimble <sup>45</sup>                   | 2019 | Flavonoid intake (Anthocyanins)  | FFQ, Dietary history interview, 4 day food diary   | NA           | NA                           | NA             | 5–41 years        |
| <i>Food nutrients: Potassium</i>       |      |  |  |              |                              |                |                   |
| D'Elia <sup>46</sup>                   | 2011 | Potassium intake   | FFQ, 24 h dietary recall, Overnight urine K, 24 h urine collection                         | NA           | NA                           | NA             | 5–19 years        |
| <i>Food nutrients: Dietary fiber</i>   |      |  |  |              |                              |                |                   |
| Chen <sup>47</sup>                     | 2013 | Dietary fiber intake   | NR   | NA           | NA                           | NA             | 8–18 years        |
| Kim <sup>48</sup>                      | 2016 | Dietary fiber intake   | FFQ, 24-hour dietary recall, cross-check dietary history method, 7-day food diary          | NA           | NA                           | NA             | 5.9–40 years      |
| Li <sup>49</sup>                       | 2017 | Dietary fiber intake   | FFQ  | NA           | NA                           | NA             | 8.6–18 years      |
| <i>Food nutrients: Low salt</i>        |      |  |  |              |                              |                |                   |
| Aburto <sup>51</sup>                   | 2013 | Low salt diet  | Education, meal supplement   | Clinic-based | NR                           | NR             | 1 month – 3 years |
| Adler <sup>52</sup>                    | 2014 | Low salt diet  | Education, meal supplement   | Clinic-based | Yes                          | No             | 1.5–3 years       |
| Jayed <sup>53</sup>                    | 2019 | Low salt diet  | FFQ, 24-hour dietary recall, 24 h urinary sodium excretion, 3 day weighting dietary record | NA           | NA                           | NA             | 4.9–28 years      |
| <i>Food nutrients: Dietary calcium</i> |      |  |  |              |                              |                |                   |
| Wang <sup>54</sup>                     | 2014 | Dietary or supplement calcium  | NR   | NA           | NA                           | NA             | 5.5–28 years      |

AHEI: alternate healthy eating index; CVD: cardiovascular diseases; CHD: coronary heart disease; CVH: cardiovascular health; DII: dietary inflammatory index; DASH: Dietary Approaches to Stop Hypertension; HT: hypertension; HEI: healthy eating index; NA: not applicable; NR: not reported; MUFA: monounsaturated fatty acid; PUFA: polyunsaturated fatty acid; RCT: randomized-controlled trial; SFA: saturated fatty acid.

**Table S3:** Pooled risk ratios of dietary factors according to outcomes.

| Year  | Types of study | Population                               | No. of primary studies              | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias |                |
|---|----------------|--|-------------------------------------|---------|--------------------|-------------------------------|------------------|--------------|----------------|
| <i>Healthy diet (all-cause mortality)</i>       |                |  |                                     |         |                    |                               |                  |              |                |
| Studer <sup>31</sup>                            | 2005           | Diet intervention (RCT)                  | General population                  | 17      | 115310             | 0.97 (0.92–1.04)              | 23               | NR           | Critically low |
| Onvani <sup>1</sup>                             | 2016           | HEI and AHEI (highest vs lowest)         | General population                  | 12      | NR                 | 0.77 (0.76–0.78)              | NR               | No           | Critically low |
| Guo <sup>3</sup>                                | 2017           | CVH score (highest vs lowest)            | General population                  | 6       | NR                 | 0.54 (0.41–0.69)              | 65.1             | No           | Critically low |
| Schwingshackl <sup>4</sup>                      | 2018           | HEI and AHEI (highest vs lowest)         | General population                  | 13      | NR                 | 0.78 (0.77–0.80)              | 59               | No           | Critically low |
| <i>Healthy diet (CVD mortality)</i>             |                |  |                                     |         |                    |                               |                  |              |                |
| Studer <sup>31</sup>                            | 2005           | Diet intervention (RCT)                  | General population                  | 18      | 115310             | 0.91 (0.82–1.02)              | 27               | NR           | Critically low |
| S. Onvani <sup>1</sup>                          | 2016           | HEI and AHEI (highest vs lowest)         | General population                  | 9       | NR                 | 0.77 (0.74–0.80)              | NR               | No           | Critically low |
| Leilei Guo <sup>3</sup>                         | 2017           | CVH score (highest vs lowest)            | General population                  | 6       | NR                 | 0.30 (0.18–0.51)              | 66.3             | No           | Critically low |
| Nitin Shivappa <sup>5</sup>                     | 2018           | DII (highest vs lowest)                  | General population                  | 6       | NR                 | 1.37 (1.11–1.70)              | 77               | NR           | Critically low |
| <i>Healthy diet (CVD)</i>                       |                |  |                                     |         |                    |                               |                  |              |                |
| Semlitsch <sup>2</sup>                          | 2016           | Diet intervention (RCT)                  | Obesity/overweight with HT patients | 1       | 585                | 0.70 (0.57–0.87)              | NR               | NR           | Low            |
| Schwingshackl <sup>4</sup>                      | 2018           | HEI and AHEI (highest vs lowest)         | General population                  | 28      | NR                 | 0.78 (0.76–0.80)              | 49               | P 0.16       | Critically low |
| Shivappa <sup>5</sup>                           | 2018           | DII (highest vs lowest)                  | General population                  | 6       | NR                 | 1.35 (1.11–1.63)              | 36               | NR           | Critically low |
| <i>Mediterranean diet (All-cause mortality)</i> |                |  |                                     |         |                    |                               |                  |              |                |
| Sofi <sup>6</sup>                               | 2008           | Cohort (per 2 points increased in score) | General population                  | 8       | NR                 | 0.91 (0.89–0.94)              | 48.8             | NR           | Critically low |
| Sofi <sup>7</sup>                               | 2010           | Cohort (per 2 points increased in score) | General population                  | 8       | NR                 | 0.92 (0.90–0.94)              | 33               | No           | Critically low |
| Liyanage <sup>11</sup>                          | 2016           | RCT                                      | High risk population                | 5       | 10671              | 1.00 (0.86–1.15)              | NR               | NR           | Critically low |
| <i>Mediterranean diet (CVD mortality)</i>       |                |  |                                     |         |                    |                               |                  |              |                |
| Sofi <sup>6</sup>                               | 2008           | Cohort (per 2 points increased in score) | General population                  | 3       | NR                 | 0.91 (0.87–0.95)              | 32.6             | NR           | Critically low |
| Sofi <sup>7</sup>                               | 2010           | Cohort (per 2 points increased in score) | General population                  | 6       | NR                 | 0.90 (0.87–0.93)              | 35               | No           | Critically low |

|                                    | Year | Types of study                                     | Population           | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|------------------------------------|------|--|----------------------|------------------------|---------|--------------------|-------------------------------|------------------|----------------|
| Liyanage <sup>11</sup>             | 2016 | RCT  | High risk population | 4                      | 10623   | 0.90 (0.72–1.11)   | NR                            | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | Cohort (highest vs lowest)                         | General population   | 13                     | NR      | 0.75 (0.68–0.83)   | 75%                           | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | RCT  | General population   | 4                      | NR      | 0.59 (0.38–0.93)   | 46                            | NR               | Critically low |
| Rosato <sup>13</sup>               | 2019 | Cohort (highest vs lowest)                         | General population   | 7                      | NR      | 0.73 (0.67–0.81)   | 47.1                          | NR               | Critically low |
| <i>Mediterranean diet (CVD)</i>    |      |  |                      |                        |         |                    |                               |                  |                |
| Martínez-González <sup>9</sup>     | 2014 | RCT  | General population   | 2                      | NR      | 0.64 (0.53–0.79)   | 54.5                          | NR               | Critically low |
| Liyanage <sup>11</sup>             | 2016 | RCT  | High risk population | 3                      | 9052    | 0.63 (0.53–0.75)   | NR                            | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | Cohort (highest vs lowest)                         | General population   | 13                     | NR      | 0.73 (0.66–0.80)   | 36%                           | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | RCT  | General population   | 4                      | NR      | 0.55 (0.39–0.76)   | 38                            | No               | Critically low |
| Rosato <sup>13</sup>               | 2019 | Cohort (highest vs lowest)                         | General population   | 11                     | 54894   | 0.81 (0.74–0.88)   | 79.9                          | NR               | Critically low |
| <i>Mediterranean diet (CHD)</i>    |      |  |                      |                        |         |                    |                               |                  |                |
| Liyanage <sup>11</sup>             | 2016 | RCT  | High risk population | 3                      | 9052    | 0.65 (0.50–0.85)   | NR                            | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | Cohort (highest vs lowest)                         | General population   | 4                      | NR      | 0.72 (0.60–0.86)   | No                            | NR               | Critically low |
| Rosato <sup>13</sup>               | 2019 | Cohort and case control (highest vs lowest)        | General population   | 11                     | NR      | 0.70 (0.62–0.82)   | 44.5                          | Yes              | Critically low |
| <i>Mediterranean diet (Stroke)</i> |      |  |                      |                        |         |                    |                               |                  |                |
| Psaltopoulou <sup>8</sup>          | 2013 | Cohort (highest vs lowest)                         | General population   | 12                     | NR      | 0.71 (0.57–0.89)   | 69.1                          | No               | Critically low |
| Kontogianni <sup>10</sup>          | 2014 | Cohort (highest vs lowest)                         | General population   | NR                     | 195,875 | 0.68 (0.58–0.79)   | 0.0                           | NR               | Critically low |
| Chen <sup>14</sup>                 | 2019 | Cohort (every increased 4 points in MedDiet score) | General population   | 20                     | NR      | 0.84 (0.81–0.88)   | 11.5                          | Yes              | Critically low |
| Liyanage <sup>11</sup>             | 2016 | RCT  | High risk population | 3                      | 9052    | 0.65 (0.48–0.88)   | NR                            | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | Cohort (highest vs lowest)                         | General population   | 5                      | NR      | 0.76 (0.60–0.96)   | 52%                           | NR               | Critically low |
| Grosso <sup>12</sup>               | 2017 | RCT  | General population   | 2                      | NR      | 0.64 (0.47–0.86)   | 0                             | NR               | Critically low |

|  | Year | Types of study                              | Population         | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|--|------|---|--------------------|------------------------|---------|--------------------|-------------------------------|------------------|----------------|
| Rosato <sup>13</sup>                         | 2019 | Cohort and case control (highest vs lowest) | General population | 5                      | 2997    | 0.82 (0.73–0.92)   | 0                             | yes              | Critically low |
| <i>DASH diet (CHD)</i>                       |      |   |                    |                        |         |                    |                               |                  |                |
| Abargouei <sup>15</sup>                      | 2013 | Cohort (highest vs lowest)                  | General population | 3                      | 144,337 | 0.79 (0.71–0.88)   | 0                             | Yes              | Critically low |
| Yang <sup>18</sup>                           | 2019 | Cohort (highest vs lowest)                  | General population | 7                      | NR      | 0.82 (0.78–0.87)   | 0                             | No               | Critically low |
| Yang <sup>18</sup>                           | 2019 | Every 4 points increased in DASH diet score | General population | 7                      | NR      | 0.95 (0.94–0.97)   | NR                            | No               | Critically low |
| <i>DASH diet (Stroke)</i>                    |      |   |                    |                        |         |                    |                               |                  |                |
| Abargouei <sup>15</sup>                      | 2013 | Cohort (highest vs lowest)                  | General population | 3                      | 150,191 | 0.81 (0.72–0.92)   | 0                             | Yes              | Critically low |
| Feng <sup>17</sup>                           | 2018 | Cohort (highest vs lowest)                  | General population | 11                     | 474228  | 0.88 (0.83–0.93)   | 4                             | Yes              | Critically low |
| <i>Vegetarian diet (CVD mortality)</i>       |      |   |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>16</sup>                           | 2014 | Cohort (highest vs lowest)                  | General population | 7                      | NR      | 0.87 (0.68–1.11)   | 97                            | NR               | Critically low |
| <i>Vegetarian diet (CHD)</i>                 |      |   |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>16</sup>                           | 2014 | Cohort (highest vs lowest)                  | General population | 7                      | NR      | 0.71 (0.57–0.87)   | 83                            | NR               | Critically low |
| <i>Vegetarian diet (Stroke)</i>              |      |   |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>16</sup>                           | 2014 | Cohort (highest vs lowest)                  | General population | 6                      | NR      | 0.93 (0.70–1.23)   | 79                            | NR               | Critically low |
| <i>Vegetables and fruits (CVD mortality)</i> |      |   |                    |                        |         |                    |                               |                  |                |
| Kim <sup>48</sup>                            | 2016 | Vegetables; Cohort (highest vs lowest)      | General population | 3                      | NR      | 0.95 (0.89–1.02)   | NR                            | NR               | Critically low |
| Kim <sup>48</sup>                            | 2016 | Fruits; Cohort (highest vs lowest)          | General population | 3                      | NR      | 0.96 (0.83–1.11)   | NR                            | NR               | Critically low |
| <i>Vegetables and fruits (CHD)</i>           |      |   |                    |                        |         |                    |                               |                  |                |
| Law <sup>19</sup>                            | 1998 | Fruits; Cohort (highest vs lowest)          | General population | 3                      | NR      | 0.86 (0.71–1.05)   | Yes                           | NR               | Critically low |
| Law <sup>19</sup>                            | 1998 | Vegetables; Cohort (highest vs lowest)      | General population | 2                      | NR      | 0.82 (0.66–1.02)   | Yes                           | NR               | Critically low |
| <i>Vegetables and fruits (Stroke)</i>        |      |   |                    |                        |         |                    |                               |                  |                |
| Hu <sup>20</sup>                             | 2014 | Fruits; Cohort (highest vs lowest)          | General population | 19                     | NR      | 0.77 (0.71–0.84)   | 52.3                          | Yes              | Critically low |
| Hu <sup>20</sup>                             | 2014 | Vegetables; Cohort (highest vs lowest)      | General population | 16                     | NR      | 0.86 (0.79–0.93)   | 40.3                          | Yes              | Critically low |
| <i>Nuts (CHD)</i>                            |      |   |                    |                        |         |                    |                               |                  |                |

|   | Year                       | Types of study | Population                      | No. of primary studies | Total n | Pooled RR (95% CI)        | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias |                |
|---|----------------------------|----------------|---------------------------------|------------------------|---------|---------------------------|-------------------------------|------------------|--------------|----------------|
|   | Weng <sup>27</sup>         | 2016           | Cohort (per 1 serving/week)     | General population     | 13      | NR                        | 0.90 (0.87–0.94)              | 68.2             | NR           | Critically low |
|   | Weng <sup>27</sup>         | 2016           | Cohort (highest vs lowest)      | General population     | 14      | NR                        | 0.68 (0.59–0.78)              | 62.7             | No           | Critically low |
| <i>Nut (stroke)</i>                       |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Shao <sup>26</sup>         | 2016           | Cohort (highest vs lowest)      | General population     | 11      | NR                        | 0.88 (0.80–0.97)              | 0.0              | No           | Low            |
|   | Shao <sup>26</sup>         | 2016           | Cohort (per 12 g/day)           | General population     |         | NR                        | 0.86 (0.79–0.94)              | NR               | NR           | Low            |
| <i>Whole grains (all-cause mortality)</i> |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Wei <sup>28</sup>          | 2016           | Cohort (highest vs lowest)      | General population     | 11      | NR                        | 0.87 (0.84–0.90)              | 67.3             | Yes          | Critically low |
|   | Wei <sup>28</sup>          | 2016           | Cohort (per 3 servings/day)     | General population     | 10      | NR                        | 0.81 (0.76–0.85)              | 79.3             | NR           | Critically low |
|   | Reynolds <sup>50</sup>     | 2019           | Cohort (highest vs lowest)      | General population     | 9       | 10.7 million person-years | 0.81 (0.72–0.90)              | 97.4             | No           | low            |
| <i>Whole grain (CVD mortality)</i>        |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Wei <sup>28</sup>          | 2016           | Cohort (highest vs lowest)      | General population     | 9       | NR                        | 0.81 (0.74–0.89)              | 56.9             | No           | Critically low |
|   | Wei <sup>28</sup>          | 2016           | Cohort (per 3 servings/day)     | General population     | 8       | NR                        | 0.74 (0.66–0.83)              | 76.3             | NR           | Critically low |
|   | Reynolds <sup>50</sup>     | 2019           | Cohort (highest vs lowest)      | General population     | 2       | 2.0 million person-years  | 0.66 (0.56–0.77)              | 47.9             | No           | low            |
| <i>Whole grain (CHD)</i>                  |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Reynolds <sup>50</sup>     | 2019           | Cohort Highest vs lowest)       | General population     | 6       | 2.8 million person-years  | 0.80 (0.70–0.91)              | 79.1             | No           | low            |
| <i>Whole grain (Stroke)</i>               |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Reynolds <sup>50</sup> 350 | 2019           | Cohort (highest vs lowest)      | General population     | 3       | 1.1 million person-years  | 0.86 (0.61 to 1.21)           | 65.2             | No           | low            |
| <i>Legumes (CVD mortality)</i>            |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Kim <sup>48</sup>          | 2016           | Cohort (highest vs lowest)      | General population     | 2       | NR                        | 0.89 (0.82–0.98)              | NR               | NR           | Critically low |
| <i>Legumes (CHD)</i>                      |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Marventano <sup>29</sup>   | 2016           | Cohort (highest vs lowest)      | General population     | 12      | NR                        | 0.90 (0.84–0.97)              | 34               | No           | Critically low |
| <i>Legumes (stroke)</i>                   |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Marventano <sup>29</sup>   | 2016           | Cohort (highest vs lowest)      | General population     | 8       | NR                        | 1.01 (0.89–1.14)              | 59               | No           | Critically low |
| <i>Fish intake (CVD mortality)</i>        |                            |                |                                 |                        |         |                           |                               |                  |              |                |
|   | Whelton <sup>21</sup>      | 2004           | Cohort (per 2–<4 portions/week) | General population     | 11      | NR                        | 0.75 (0.62–0.92)              | NR               | NR           | Critically low |

|  | Year | Types of study                     | Population         | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|--|------|------------------------------------|--------------------|------------------------|---------|--------------------|-------------------------------|------------------|----------------|
| Skeaff <sup>32</sup>                   | 2009 | Cohort (highest vs lowest)         | General population | 22                     | 317988  | 0.82 (0.71, 0.94)  | 51.6                          | NR               | Critically low |
| <i>Fish intake (CHD)</i>               |      |                                    |                    |                        |         |                    |                               |                  |                |
| Whelton <sup>21</sup>                  | 2004 | Cohort (per 2–<4 portion/week)     | General population | 9                      | NR      | 0.83 (0.69–0.99)   | NR                            | NR               | Critically low |
| Skeaff <sup>32</sup>                   | 2009 | Cohort (highest vs lowest)         | General population | 7                      | 204734  | 0.87 (0.71, 1.06)  | 70.7                          | NR               | Critically low |
| <i>Olive oil (CHD)</i>                 |      |                                    |                    |                        |         |                    |                               |                  |                |
| Martínez-González <sup>37</sup>        | 2014 | Cohort (highest vs lowest) and RCT | General population | 4                      | NR      | 0.94 (0.78–1.14)   | 66                            | Yes              | Critically low |
| <i>Olive oil (stroke)</i>              |      |                                    |                    |                        |         |                    |                               |                  |                |
| Martínez-González <sup>37</sup>        | 2014 | Cohort (highest vs lowest) and RCT | General population | 3                      | NR      | 0.76 (0.67–0.86)   | 0                             | No               | Critically low |
| <i>Chocholate (CVD mortality)</i>      |      |                                    |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>23</sup>                     | 2015 | Cohort (highest vs lowest)         | General population | 3                      | NR      | 0.55 (0.36–0.83)   | 67                            | NR               | Critically low |
| <i>Chocholate (CHD)</i>                |      |                                    |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>23</sup>                     | 2015 | Cohort (highest vs lowest)         | General population | 5                      | NR      | 0.71 (0.56–0.92)   | 61                            | NR               | Critically low |
| Yuan <sup>24</sup>                     | 2017 | Cohort (highest vs lowest)         | General population | 6                      | NR      | 0.90 (0.82–0.97)   | 24.3                          | No               | Critically low |
| <i>Chocholate (stroke)</i>             |      |                                    |                    |                        |         |                    |                               |                  |                |
| Kwok <sup>23</sup>                     | 2015 | Cohort (highest vs lowest)         | General population | 5                      | NR      | 0.79 (0.70–0.87)   | 0                             | NR               | Critically low |
| Yuan <sup>24</sup>                     | 2017 | Cohort (highest vs lowest)         | General population | 8                      | NR      | 0.84 (0.78–0.90)   | 0                             | Yes              | Critically low |
| <i>Coffee (all-cause mortality)</i>    |      |                                    |                    |                        |         |                    |                               |                  |                |
| Crippa <sup>22</sup>                   | 2014 | Cohort (per 1 cup/day)             | General population | 15                     | NR      | 0.92 (0.91–0.94)   | 58.1                          | No               | Critically low |
| <i>Coffee (CVD mortality)</i>          |      |                                    |                    |                        |         |                    |                               |                  |                |
| Crippa <sup>22</sup>                   | 2014 | Cohort (per 1 cup/day)             | General population | 13                     | NR      | 0.89 (0.86–0.91)   | 58.8                          | No               | Critically low |
| <i>Green tea (all-cause mortality)</i> |      |                                    |                    |                        |         |                    |                               |                  |                |
| Pang <sup>25</sup>                     | 2015 | Cohort (1-3 cup vs <1 cups/day)    | General population | 2                      | 31196   | 0.79 (0.47–1.32)   | 91                            | No               | Critically low |
| <i>Green tea (CVD mortality)</i>       |      |                                    |                    |                        |         |                    |                               |                  |                |
| Pang <sup>25</sup>                     | 2015 | Cohort (1-3 cup vs <1 cups/day)    | General population | 1                      | 27894   | 0.88 (0.75–1.03)   | NR                            | No               | Critically low |
| <i>Green tea (CVD)</i>                 |      |                                    |                    |                        |         |                    |                               |                  |                |

|   | Year | Types of study                  | Population         | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|---|------|---------------------------------|--------------------|------------------------|---------|--------------------|-------------------------------|------------------|----------------|
| Pang <sup>25</sup>                            | 2015 | Cohort (1-3 cup vs <1 cups/day) | General population | 2                      | 41755   | 0.93 (0.85–1.01)   | 0                             | No               | Critically low |
| <i>Green tea (Stroke)</i>                     |      |                                 |                    |                        |         |                    |                               |                  |                |
| Pang <sup>25</sup>                            | 2015 | Cohort (1-3 cup vs <1 cups/day) | General population | 5                      | 67884   | 0.64 (0.47–0.86)   | 87                            | No               | Critically low |
| <i>Total fat intake (all-cause mortality)</i> |      |                                 |                    |                        |         |                    |                               |                  |                |
| Hooper <sup>30</sup>                          | 2000 | RCT                             | General population | NR                     | NR      | 0.98 (0.86–1.12)   | No                            | Yes              | Critically low |
| Harcombe <sup>40</sup>                        | 2016 | RCT                             | General population | 10                     | 62421   | 0.99 (0.94–1.05)   | NR                            | NR               | Critically low |
| <i>Total fat intake (CVD mortality)</i>       |      |                                 |                    |                        |         |                    |                               |                  |                |
| Hooper <sup>30</sup>                          | 2000 | RCT                             | General population | NR                     | NR      | 0.91 (0.77–1.07)   | No                            | NR               | Critically low |
| Skeaff <sup>32</sup>                          | 2009 | RCT                             | General population | 2                      | 46810   | 1.00 (0.80, 1.24)  | 0                             | NR               | Critically low |
| Skeaff <sup>32</sup>                          | 2009 | Cohort (highest vs lowest)      | General population | 6                      | 45416   | 0.94 (0.74, 1.18)  | 62.1                          | NR               | Critically low |
| Harcombe <sup>40</sup>                        | 2016 | RCT                             | General population | 10                     | 62421   | 0.98 (0.88–1.08)   | NR                            | NR               | Critically low |
| Harcombe <sup>41</sup>                        | 2017 | Cohort (highest vs lowest)      | General population | 6                      | NR      | 1.04 (0.98–1.10)   | 56.09                         | No               | Critically low |
| <i>Total fat intake (CHD)</i>                 |      |                                 |                    |                        |         |                    |                               |                  |                |
| Skeaff <sup>32</sup>                          | 2009 | RCT                             | General population | 2                      | 46810   | 0.93 (0.84, 1.04)  | 0                             | NR               | Critically low |
| Skeaff <sup>32</sup>                          | 2009 | Cohort (highest vs lowest)      | General population | 4                      | 147403  | 0.93 (0.84, 1.03)  | 0                             | NR               | Critically low |
| <i>Saturated Fat (CVD mortality)</i>          |      |                                 |                    |                        |         |                    |                               |                  |                |
| Skeaff <sup>32</sup>                          | 2009 | Cohort (highest vs lowest)      | General population | 8                      | 80655   | 1.14 (0.82, 1.60)  | 72.1                          | NR               | Critically low |
| Harcombe <sup>41</sup>                        | 2017 | Cohort (highest vs lowest)      | General population | 6                      | NR      | 1.08 (0.94–1.25)   | 78.43                         | No               | Critically low |
| <i>Saturated Fat (CHD)</i>                    |      |                                 |                    |                        |         |                    |                               |                  |                |
| Skeaff <sup>32</sup>                          | 2009 | Cohort (highest vs lowest)      | General population | 5                      | 147818  | 0.93 (0.83, 1.05)  | 0.09                          | NR               | Critically low |
| <i>Saturated Fat (Stroke)</i>                 |      |                                 |                    |                        |         |                    |                               |                  |                |
| Muto <sup>42</sup>                            | 2018 | Cohort (highest vs lowest)      | General population | 11                     | NR      | 0.89 (0.82, 0.96)  | 38.9                          | Yes              | Critically low |
| <i>Trans fatty acid (CVD mortality)</i>       |      |                                 |                    |                        |         |                    |                               |                  |                |
| Skeaff <sup>32</sup>                          | 2009 | Cohort (highest vs lowest)      | General population | 3                      | 68625   | 1.32 (1.08, 1.61)  | 0                             | NR               | Critically low |

| Year                                  | Types of study | Population                 | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias |                |
|---------------------------------------|----------------|----------------------------|------------------------|---------|--------------------|-------------------------------|------------------|--------------|----------------|
| <i>Trans fatty acid (CHD)</i>         |                |                            |                        |         |                    |                               |                  |              |                |
| Skeaff <sup>32</sup>                  | 2009           | Cohort (highest vs lowest) | General population     | 5       | 148070             | 1.25 (1.07, 1.46)             | 44               | NR           | Critically low |
| <i>MUFA (all-cause mortality)</i>     |                |                            |                        |         |                    |                               |                  |              |                |
| Schwingshackl <sup>38</sup>           | 2014           | Cohort (highest vs lowest) | General population     | 17      | NR                 | 0.89 (0.83–0.96)              | 64               | Yes          | Critically low |
| <i>MUFA (CVD mortality)</i>           |                |                            |                        |         |                    |                               |                  |              |                |
| Skeaff <sup>32</sup>                  | 2009           | Cohort (highest vs lowest) | General population     | 5       | 25681              | 0.85 (0.60, 1.20)             | 70.9             | NR           | Critically low |
| Schwingshackl <sup>38</sup>           | 2014           | Cohort (highest vs lowest) | General population     | 14      | NR                 | 0.88 (0.80–0.96)              | 50               | Yes          | Critically low |
| <i>MUFA (CHD)</i>                     |                |                            |                        |         |                    |                               |                  |              |                |
| Skeaff <sup>32</sup>                  | 2009           | Cohort (highest vs lowest) | General population     | 3       | 103646             | 0.87 (0.74, 1.03)             | 27.4             | NR           | Critically low |
| Schwingshackl <sup>38</sup>           | 2014           | Cohort (highest vs lowest) | General population     | 15      | NR                 | 0.96 (0.90–1.01)              | 41               | No           | Critically low |
| <i>MUFA (Stroke)</i>                  |                |                            |                        |         |                    |                               |                  |              |                |
| Schwingshackl <sup>38</sup>           | 2014           | Cohort (highest vs lowest) | General population     | 11      | NR                 | 0.83 (0.71–0.97)              | 70               | No           | Critically low |
| <i>n-3 PUFA (All-cause mortality)</i> |                |                            |                        |         |                    |                               |                  |              |                |
| Lista <sup>35</sup>                   | 2012           | RCT                        | General population     | 17      | 50468              | 0.95 (0.89–1.02)*             | 28               | NR           | Critically low |
| Abdelhamid <sup>36</sup>              | 2019           | RCT                        | General population     | 39      | 92653              | 0.98 (0.93–1.03)              | 11.64            | Yes          | High           |
| <i>n-3 PUFA (CVD mortality)</i>       |                |                            |                        |         |                    |                               |                  |              |                |
| Skeaff <sup>32</sup>                  | 2009           | RCT                        | General population     | 12      | 37369              | 0.88 (0.76–1.01)              | 11.5             | NR           | Critically low |
| Lista <sup>35</sup>                   | 2012           | RCT                        | General population     | 13      | 46737              | 0.91 (0.83–0.99)*             | 32               | NR           | Critically low |
| Abdelhamid <sup>36</sup>              | 2019           | RCT                        | General population     | 25      | 67772              | 0.95 (0.87–1.03)              | 24               | Yes          | High           |
| <i>n-3 PUFA (CVD)</i>                 |                |                            |                        |         |                    |                               |                  |              |                |
| Skeaff <sup>32</sup>                  | 2009           | RCT                        | General population     | 7       | 14659              | 0.89 (0.82–0.98)              | 0                | NR           | Critically low |
| Lista <sup>35</sup>                   | 2012           | RCT                        | General population     | 14      | 45285              | 0.90 (0.85–0.96)              | 53               | NR           | Critically low |
| Abdelhamid <sup>36</sup>              | 2019           | RCT                        | General population     | 38      | 90378              | 0.99 (0.94–1.04)              | 37               | Yes          | High           |
| <i>n-3 PUFA (CHD)</i>                 |                |                            |                        |         |                    |                               |                  |              |                |
| Abdelhamid <sup>36</sup>              | 2019           | RCT                        | General population     | 28      | 84301              | 0.93 (0.88–0.97)              | 0                | Yes          | High           |
| <i>n-3 PUFA (Stroke)</i>              |                |                            |                        |         |                    |                               |                  |              |                |
| Abdelhamid <sup>36</sup>              | 2019           | RCT                        | General population     | 28      | 89358              | 1.06 (0.97–1.16)              | 0                | No           | High           |
| <i>n-6 PUFA (all-cause mortality)</i> |                |                            |                        |         |                    |                               |                  |              |                |



|   | Year | Types of study                              | Population         | No. of primary studies | Total n                   | Pooled RR (95% CI)  | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|---|------|---|--------------------|------------------------|---------------------------|---------------------|-------------------------------|------------------|----------------|
| Ramsden <sup>34</sup>                               | 2010 | RCT   | General population | 4                      | NR                        | 1.16 (0.95–1.42)    | NR                            | NR               | Critically low |
| <i>n-6 PUFA (CVD mortality)</i>                     |      |   |                    |                        |                           |                     |                               |                  |                |
| Mozaffarian <sup>33</sup>                           | 2010 | RCT   | General population | 8                      | 13614                     | 0.81 (0.70, 0.95)   | 37                            | Yes              | Low            |
| Ramsden <sup>34</sup>                               | 2010 | RCT   | General population | 3                      | NR                        | 1.17 (0.82–1.68)    | NR                            | NR               | Critically low |
| <i>n-6 PUFA (CHD)</i>                               |      |   |                    |                        |                           |                     |                               |                  |                |
| Skeaff <sup>32</sup>                                | 2009 | Cohort (highest vs lowest)                  | General population | 3                      | 66102                     | 1.05 (0.92, 1.20)   | 0                             | NR               | Critically low |
| Farvid <sup>39</sup>                                | 2015 | Cohort (highest vs lowest)                  | General population | 14                     | NR                        | 0.85 (0.78–0.92)    | 35.5                          | No               | Critically low |
| <i>Combined n-3, n-6 PUFA (all-cause mortality)</i> |      |   |                    |                        |                           |                     |                               |                  |                |
| Ramsden <sup>34</sup>                               | 2010 | RCT   | General population | 4                      | NR                        | 0.92 (0.80–1.06)    | NR                            | NR               | Critically low |
| <i>Combined n-3, n-6 PUFA (CVD mortality)</i>       |      |   |                    |                        |                           |                     |                               |                  |                |
| Skeaff <sup>32</sup>                                | 2009 | RCT   | General population | 6                      | 4528                      | 0.84 (0.62, 1.12)   | 12.4                          | NR               | Critically low |
| Ramsden <sup>34</sup>                               | 2010 | RCT   | General population | 4                      | NR                        | 0.81 (0.64–1.03)    | NR                            | NR               | Critically low |
| <i>Combined n-3, n-6 PUFA (CHD)</i>                 |      |   |                    |                        |                           |                     |                               |                  |                |
| Skeaff <sup>32</sup>                                | 2009 | RCT   | General population | 9                      | 15085                     | 0.83 (0.69, 1.00)   | 44.2                          | NR               | Critically low |
| <i>Fibre intake (All-cause mortality)</i>           |      |   |                    |                        |                           |                     |                               |                  |                |
| Reynolds <sup>50 350</sup>                          | 2019 | Cohort (highest vs lowest)                  | General population | 10                     | 12.3 millions person-year | 0.85 (0.79–0.91)    | 75.8                          | NR               | low            |
| <i>Fibre intake (CVD mortality)</i>                 |      |   |                    |                        |                           |                     |                               |                  |                |
| Kim <sup>48</sup>                                   | 2016 | Cohort (highest vs lowest)                  | General population | 8                      | NR                        | 0.76 (0.67–0.87)    | 40.1                          | No               | Critically low |
| Kim <sup>48</sup>                                   | 2016 | Cohort (per 10 g/day)                       | General population | 8                      | NR                        | 0.91 (0.88–0.94)    | 30.8                          | No               | Critically low |
| Reynolds <sup>50 350</sup>                          | 2019 | Cohort (highest vs lowest)                  | General population | 10                     | 6.9 million person-years  | 0.69 (0.60 to 0.81) | 51.3                          | Yes              | low            |
| <i>Fibre intake (CHD)</i>                           |      |   |                    |                        |                           |                     |                               |                  |                |
| Law <sup>19</sup>                                   | 1998 | Fruit fiber; cohort (highest vs lowest)     | General population | 3                      | NR                        | 0.86 (0.79–0.95)    | Yes                           | NR               | Critically low |
| Law <sup>19</sup>                                   | 1998 | Vegetable fiber; cohort (highest vs lowest) | General population | 3                      | NR                        | 0.81 (0.71–0.93)    | Yes                           | NR               | Critically low |
| Reynolds <sup>50 350</sup>                          | 2019 | Cohort (highest vs lowest)                  | General population | 9                      | 2.7 million person-years  | 0.76 (0.69 to 0.83) | 14.3                          | No               | low            |
| <i>Fibre intake (Stroke)</i>                        |      |   |                    |                        |                           |                     |                               |                  |                |

|   | Year | Types of study                                 | Population            | No. of primary studies | Total n                  | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|---|------|--|-----------------------|------------------------|--------------------------|--------------------|-------------------------------|------------------|----------------|
| Chen <sup>47</sup>                            | 2013 | Cohort (highest vs lowest)                     | Stroke                | 6                      | 279253                   | 0.87 (0.77–0.99)   | 36.4                          | No               | Critically low |
| Chen <sup>47</sup>                            | 2013 | Cohort (per 10 g/day)                          | Stroke                | NR                     | NR                       | 0.88 (0.79–0.97)   | 47.6                          | NR               | Critically low |
| Li <sup>49</sup>                              | 2017 | Cohort (highest vs lowest)                     | Ischemic stroke       | 8                      | NR                       | 0.85 (0.79–0.91)   | 4.5                           | No               | Critically low |
| Reynolds <sup>50</sup>                        | 2019 | Cohort (highest vs lowest)                     | General population    | 9                      | 4.6 million person-years | 0.78 (0.69–0.88)   | 38.5                          | No               | low            |
| <i>Low salt diet (all-cause mortality)</i>    |      |  |                       |                        |                          |                    |                               |                  |                |
| Aburto <sup>51</sup>                          | 2013 | Cohort and RCT (lowest vs highest)             | General population    | 7                      | 21515                    | 0.94 (0.83–1.06)   | 61                            | NR               | Critically low |
| Adler <sup>52</sup>                           | 2014 | RCT  | Hypertensive patients | 7                      | 6603                     | 0.96 (0.83–1.10)   | 0.0                           | NR               | Low            |
| <i>Low salt diet (CVD mortality)</i>          |      |  |                       |                        |                          |                    |                               |                  |                |
| Aburto <sup>51</sup>                          | 2013 | Cohort and RCT (lowest vs highest)             | General population    | 7                      | 41881                    | 0.93(0.75–1.15)    | 80                            | NR               | Critically low |
| Adler <sup>52</sup>                           | 2014 | RCT  | Hypertensive patients | 3                      | 2656                     | 0.67 (0.45–1.01)   | 0.0                           | NR               | Low            |
| <i>Low salt diet (CVD)</i>                    |      |  |                       |                        |                          |                    |                               |                  |                |
| Aburto <sup>51</sup>                          | 2013 | Cohort and RCT (lowest vs highest)             | General population    | 9                      | 46483                    | 0.89 (0.75–1.08)   | 78                            | NR               | Critically low |
| Adler <sup>52</sup>                           | 2014 | RCT  | Hypertensive patients | 4                      | 3397                     | 0.76 (0.57–1.01)   | 0.0                           | NR               | Low            |
| <i>Low salt diet (stroke)</i>                 |      |  |                       |                        |                          |                    |                               |                  |                |
| Aburto <sup>51</sup>                          | 2013 | Cohort and RCT (lowest vs highest)             | General population    | 10                     | 72878                    | 0.81 (0.70–0.93)   | 49                            | NR               | Critically low |
| Jayedi <sup>53</sup>                          | 2019 | Cohort (every 1g/d decreased in sodium intake) | General population    | 14                     | 253449                   | 0.94 (0.90–0.98)   | 60.4                          | Yes              | Critically low |
| <i>Flavonoid intake (all-cause mortality)</i> |      |  |                       |                        |                          |                    |                               |                  |                |
| Kim <sup>44</sup>                             | 2017 | Cohort (highest vs lowest)                     | General population    | 8                      | NR                       | 0.86 (0.73–1.00)   | 67.6                          | No               | Critically low |
| <i>Flavonoid intake (CVD mortality)</i>       |      |  |                       |                        |                          |                    |                               |                  |                |
| Kim <sup>44</sup>                             | 2017 | Cohort (highest vs lowest)                     | General population    | 13                     | NR                       | 0.86 (0.75–0.98)   | 50.6                          | No               | Critically low |
| Kimble <sup>45</sup>                          | 2019 | Cohort (highest vs lowest)                     | General population    | 7                      | NR                       | 0.92 (0.87–0.97)   | 0                             | No               | Critically low |
| <i>Flavonoid intake (CHD)</i>                 |      |  |                       |                        |                          |                    |                               |                  |                |
| Kimble <sup>45</sup>                          | 2019 | Cohort (highest vs lowest)                     | General population    | 5                      | NR                       | 0.91 (0.83–0.99)   | 12.0                          | No               | Critically low |
| <i>Flavonoid intake (stroke)</i>              |      |  |                       |                        |                          |                    |                               |                  |                |
| Hollman <sup>43</sup>                         | 2010 | Cohort (highest vs lowest)                     | General population    | 6                      | NR                       | 0.80 (0.65–0.98)   | 54                            | NR               | Critically low |

|   | Year | Types of study             | Population         | No. of primary studies | Total n | Pooled RR (95% CI) | Heterogeneity, I <sup>2</sup> | Publication bias | Risk of bias   |
|---|------|----------------------------|--------------------|------------------------|---------|--------------------|-------------------------------|------------------|----------------|
| Kimble <sup>45</sup>                        | 2019 | Cohort (highest vs lowest) | General population | 10                     | NR      | 1.00 (0.93–1.07)   | 15.1                          | No               | Critically low |
| <i>Potassium (CHD)</i>                      |      |                            |                    |                        |         |                    |                               |                  |                |
| D'Elia <sup>46</sup>                        | 2011 | Cohort (highest vs lowest) | General population | 6                      | 81612   | 0.92 (0.81–1.04)   | 45                            | No               | Critically low |
| <i>Potassium (stroke)</i>                   |      |                            |                    |                        |         |                    |                               |                  |                |
| D'Elia <sup>46</sup>                        | 2011 | Cohort (highest vs lowest) | General population | 11                     | 233606  | 0.79 (0.68–0.90)   | 55                            | No               | Critically low |
| <i>Calcium intake (all-cause mortality)</i> |      |                            |                    |                        |         |                    |                               |                  |                |
| Wang <sup>54</sup>                          | 2014 | Cohort (highest vs lowest) | General population | 6                      | 225189  | 0.83 (0.70–1.00)   | 74.9                          | No               | Critically low |
| <i>Calcium intake (CVD mortality)</i>       |      |                            |                    |                        |         |                    |                               |                  |                |
| Wang <sup>54</sup>                          | 2014 | Cohort (highest vs lowest) | General population | 9                      | 709499  | 0.97 (0.89–1.07)   | 18.8                          | No               | Critically low |

\*Pooled OR; AHEI: alternate healthy eating index; CVD: cardiovascular diseases; CHD: coronary heart disease; CVH: cardiovascular health; DII: dietary inflammatory index; DM: diabetes mellitus; DASH: Dietary Approaches to Stop Hypertension; HT: hypertension; HEI: healthy eating index; NR: not reported; MUFA: monounsaturated fatty acid; PUFA: polyunsaturated fatty acid; RCT: randomized-controlled trial; SFA: saturated fatty acid.

**Table S4.** Results of methodological quality assessment, according to AMSTAR 2.

| Author, year                          | 1   | 2           | 3   | 4           | 5   | 6   | 7           | 8           | 9           | 10  | 11  | 12  | 13  | 14  | 15  | 16  | Confidence     |
|---------------------------------------|-----|-------------|-----|-------------|-----|-----|-------------|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|----------------|
| Onvani <sup>1</sup> , 2016            | Yes | No          | No  | Partial yes | Yes | Yes | No          | Partial yes | Yes         | No  | Yes | No  | No  | Yes | Yes | No  | Critically low |
| Semlitsch <sup>2</sup> , 2016         | Yes | No          | Yes | Yes         | Yes | Yes | Yes         | Yes         | Yes         | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Low            |
| Guo <sup>3</sup> , 2017               | Yes | No          | No  | Partial yes | No  | Yes | No          | Partial yes | Yes         | No  | Yes | Yes | Yes | Yes | Yes | Yes | Critically low |
| Schwingshackl <sup>4</sup> , 2018     | No  | Yes         | Yes | Partial yes | No  | No  | No          | Partial yes | Yes         | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Shivappa <sup>5</sup> , 2018          | Yes | No          | No  | Partial yes | Yes | No  | No          | Partial yes | Yes         | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Sofi <sup>6</sup> , 2008              | Yes | No          | No  | Partial yes | No  | Yes | No          | Partial yes | Partial yes | No  | Yes | Yes | Yes | Yes | Yes | Yes | Critically low |
| Sofi <sup>7</sup> , 2010              | Yes | No          | No  | Partial yes | Yes | Yes | No          | Partial yes | Partial yes | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Psaltopoulou <sup>8</sup> , 2013      | Yes | No          | No  | Partial yes | No  | Yes | No          | Partial yes | Yes         | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Martínez-González <sup>9</sup> , 2014 | No  | No          | Yes | Partial yes | No  | No  | No          | Partial yes | No          | No  | No  | No  | No  | Yes | Yes | Yes | Critically low |
| Kontogianni <sup>10</sup> , 2014      | Yes | No          | Yes | Partial yes | No  | No  | No          | No          | No          | No  | Yes | No  | No  | Yes | No  | Yes | Critically low |
| Liyanage <sup>11</sup> , 2016         | Yes | Partial yes | Yes | Partial yes | Yes | Yes | Partial yes | Yes         | Yes         | No  | Yes | Yes | Yes | No  | No  | Yes | Critically low |
| Grosso <sup>12</sup> , 2017           | Yes | No          | No  | Partial yes | Yes | No  | No          | Yes         | Yes         | No  | Yes | Yes | Yes | Yes | Yes | Yes | Critically low |
| Abargouei <sup>15</sup> , 2013        | Yes | No          | Yes | Partial yes | Yes | Yes | No          | Partial yes | No          | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Kwok <sup>16</sup> , 2014             | Yes | No          | No  | Partial yes | Yes | Yes | No          | Yes         | Partial yes | No  | Yes | No  | Yes | Yes | No  | Yes | Critically low |
| Law <sup>19</sup> , 1998              | Yes | No          | No  | Partial yes | No  | No  | No          | Partial yes | No          | No  | Yes | No  | No  | Yes | No  | No  | Critically low |
| Hu <sup>20</sup> , 2014               | Yes | No          | Yes | Partial yes | No  | No  | No          | Partial yes | Yes         | No  | Yes | Yes | Yes | Yes | Yes | Yes | Critically low |
| Whelton <sup>21</sup> , 2004          | Yes | No          | Yes | Partial yes | No  | No  | No          | Partial yes | No          | No  | Yes | No  | No  | No  | No  | No  | Critically low |
| Crippa <sup>22</sup> , 2014           | Yes | No          | No  | Partial yes | Yes | No  | Yes         | Partial yes | No          | No  | Yes | No  | No  | Yes | Yes | Yes | Critically low |
| Kwok <sup>23</sup> , 2015             | Yes | No          | Yes | Partial yes | Yes | Yes | No          | Partial yes | Yes         | No  | Yes | Yes | Yes | Yes | No  | Yes | Critically low |





## Reference

1. Onvani S, Haghghatdoost F, Surkan PJ, et al. Adherence to the Healthy Eating Index and Alternative Healthy Eating Index dietary patterns and mortality from all causes, cardiovascular disease and cancer: a meta-analysis of observational studies. *J Hum Nutr Diet* 2017;30(2):216-26. doi: 10.1111/jhn.12415
2. Semlitsch T, Jeitler K, Berghold A, et al. Long-term effects of weight-reducing diets in people with hypertension. *Cochrane Database Syst Rev* 2016;3:CD008274. doi: 10.1002/14651858.CD008274.pub3
3. Guo L, Zhang S. Association between ideal cardiovascular health metrics and risk of cardiovascular events or mortality: A meta-analysis of prospective studies. *Clin Cardiol* 2017;40(12):1339-46. doi: 10.1002/clc.22836
4. Schwingshackl L, Bogensberger B, Hoffmann G. Diet Quality as Assessed by the Healthy Eating Index, Alternate Healthy Eating Index, Dietary Approaches to Stop Hypertension Score, and Health Outcomes: An Updated Systematic Review and Meta-Analysis of Cohort Studies. *J Acad Nutr Diet* 2018;118(1):74-100.e11. doi: 10.1016/j.jand.2017.08.024
5. Shivappa N, Godos J, Hébert JR, et al. Dietary inflammatory index and cardiovascular risk and mortality—a meta-analysis. *Nutrients* 2018;10(2) doi: 10.3390/nu10020200
6. Sofi F, Cesari F, Abbate R, et al. Adherence to Mediterranean diet and health status: meta-analysis. *Bmj* 2008;337:a1344. doi: 10.1136/bmj.a1344
7. Sofi F, Abbate R, Gensini GF, et al. Accruing evidence on benefits of adherence to the Mediterranean diet on health: an updated systematic review and meta-analysis. *Am J Clin Nutr* 2010;92(5):1189-96. doi: 10.3945/ajcn.2010.29673
8. Psaltopoulou T, Sergentanis TN, Panagiotakos DB, et al. Mediterranean diet, stroke, cognitive impairment, and depression: A meta-analysis. *Ann Neurol* 2013;74(4):580-91. doi: 10.1002/ana.23944
9. Martinez-Gonzalez MA, Bes-Rastrollo M. Dietary patterns, Mediterranean diet, and cardiovascular disease. *Curr Opin Lipidol* 2014;25(1):20-26. doi: 10.1097/MOL.0000000000000044
10. Kontogianni MD, Panagiotakos DB. Dietary patterns and stroke: a systematic review and re-meta-analysis. *Maturitas* 2014;79(1):41-7. doi: 10.1016/j.maturitas.2014.06.014
11. Liyanage T, Ninomiya T, Wang A, et al. Effects of the Mediterranean Diet on Cardiovascular Outcomes-A Systematic Review and Meta-Analysis. *PLoS One* 2016;11(8):e0159252. doi: 10.1371/journal.pone.0159252
12. Grosso G, Marventano S, Yang J, et al. A comprehensive meta-analysis on evidence of Mediterranean diet and cardiovascular disease: Are individual components equal? *Crit Rev Food Sci Nutr* 2017;57(15):3218-32. doi: 10.1080/10408398.2015.1107021
13. Rosato V, Temple NJ, La Vecchia C, et al. Mediterranean diet and cardiovascular disease: a systematic review and meta-analysis of observational studies. *Eur J Nutr* 2019;58(1):173-91. doi: 10.1007/s00394-017-1582-0
14. Chen GC, Neelakantan N, Martín-Calvo N, et al. Adherence to the Mediterranean diet and risk of stroke and stroke subtypes. *Eur J Epidemiol* 2019;34(4):337-49. doi: 10.1007/s10654-019-00504-7
15. Salehi-Abargouei A, Maghsoudi Z, Shirani F, et al. Effects of Dietary Approaches to Stop Hypertension (DASH)-style diet on fatal or nonfatal cardiovascular diseases-Incidence: A systematic review and meta-analysis on observational prospective studies. *Nutrition* 2013;29(4):611-18. doi: 10.1016/j.nut.2012.12.018
16. Kwok CS, Umar S, Myint PK, et al. Vegetarian diet, Seventh Day Adventists and risk of cardiovascular mortality: a systematic review and meta-analysis. *Int J Cardiol* 2014;176(3):680-6. doi: 10.1016/j.ijcard.2014.07.080
17. Feng Q, Fan S, Wu Y, et al. Adherence to the dietary approaches to stop hypertension diet and risk of stroke: A meta-analysis of prospective studies. *Medicine* 2018;97(38) doi: 10.1097/MD.00000000000012450

18. Yang ZQ, Yang Z, Duan ML. Dietary approach to stop hypertension diet and risk of coronary artery disease: a meta-analysis of prospective cohort studies. *Int J Food Sci Nutr* 2019;70(6):668-74. doi: 10.1080/09637486.2019.1570490
19. Law MR, Morris JK. By how much does fruit and vegetable consumption reduce the risk of ischaemic heart disease? *Eur J Clin Nutr* 1998;52(8):549-56.
20. Hu D, Huang J, Wang Y, et al. Fruits and vegetables consumption and risk of stroke: A meta-analysis of prospective cohort studies. *Stroke* 2014;45(6):1613-19. doi: 10.1161/STROKEAHA.114.004836
21. Whelton SP, He J, Whelton PK, et al. Meta-analysis of observational studies on fish intake and coronary heart disease. *Am J Cardiol* 2004;93(9):1119-23. doi: 10.1016/j.amjcard.2004.01.038
22. Crippa A, Discacciati A, Larsson SC, et al. Coffee consumption and mortality from all causes, cardiovascular disease, and cancer: a dose-response meta-analysis. *Am J Epidemiol* 2014;180(8):763-75. doi: 10.1093/aje/kwu194
23. Kwok CS, Boekholdt SM, Lentjes MA, et al. Habitual chocolate consumption and risk of cardiovascular disease among healthy men and women. *Heart* 2015;101(16):1279-87. doi: 10.1136/heartjnl-2014-307050
24. Yuan S, Li X, Jin Y, et al. Chocolate consumption and risk of coronary heart disease, stroke, and diabetes: A meta-analysis of prospective studies. *Nutrients* 2017;9(7) doi: 10.3390/nu9070688
25. Pang J, Zhang Z, Zheng TZ, et al. Green tea consumption and risk of cardiovascular and ischemic related diseases: A meta-analysis. *Int J Cardiol* 2016;202:967-74. doi: 10.1016/j.ijcard.2014.12.176
26. Shao C, Tang H, Zhao W, et al. Nut intake and stroke risk: A dose-response meta-analysis of prospective cohort studies. *Sci Rep* 2016;6:30394. doi: 10.1038/srep30394
27. Weng YQ, Yao J, Guo ML, et al. Association between nut consumption and coronary heart disease: a meta-analysis. *Coron Artery Dis* 2016;27(3):227-32. doi: 10.1097/mca.0000000000000331
28. Wei H, Gao Z, Liang R, et al. Whole-grain consumption and the risk of all-cause, CVD and cancer mortality: a meta-analysis of prospective cohort studies. *Br J Nutr* 2016;116(3):514-25. doi: 10.1017/s0007114516001975
29. Marventano S, Izquierdo Pulido M, Sanchez-Gonzalez C, et al. Legume consumption and CVD risk: a systematic review and meta-analysis. *Public Health Nutr* 2017;20(2):245-54. doi: 10.1017/s1368980016002299
30. Hooper L, Summerbell CD, Higgins JP, et al. Reduced or modified dietary fat for preventing cardiovascular disease. *Cochrane Database Syst Rev* 2001(3):Cd002137. doi: 10.1002/14651858.cd002137
31. Studer M, Briel M, Leimenstoll B, et al. Effect of different antilipidemic agents and diets on mortality: a systematic review. *Arch Intern Med* 2005;165(7):725-30. doi: 10.1001/archinte.165.7.725
32. Skeaff CM, Miller J. Dietary fat and coronary heart disease: summary of evidence from prospective cohort and randomised controlled trials. *Ann Nutr Metab* 2009;55(1-3):173-201. doi: 10.1159/000229002
33. Mozaffarian D, Micha R, Wallace S. Effects on coronary heart disease of increasing polyunsaturated fat in place of saturated fat: A systematic review and meta-analysis of randomized controlled trials. *PLoS Med* 2010;7(3) doi: 10.1371/journal.pmed.1000252
34. Ramsden CE, Hibbeln JR, Majchrzak SF, et al. N-6 Fatty acid-specific and mixed polyunsaturate dietary interventions have different effects on CHD risk: A meta-analysis of randomised controlled trials. *British Journal of Nutrition* 2010;104(11):1586-600. doi: 10.1017/S0007114510004010
35. Delgado-Lista J, Perez-Martinez P, Lopez-Miranda J, et al. Long chain omega-3 fatty acids and cardiovascular disease: A systematic review. *British Journal of Nutrition* 2012;107(SUPPL. 2):S201-S13. doi: 10.1017/S0007114512001596
36. Abdelhamid AS, Brown TJ, Brainard JS, et al. Omega-3 fatty acids for the primary and secondary prevention of cardiovascular disease. *Cochrane Database Syst Rev* 2020;3:Cd003177. doi: 10.1002/14651858.CD003177.pub5 [published Online First: 2020/03/03]



37. Martinez-Gonzalez MA, Dominguez LJ, Delgado-Rodriguez M. Olive oil consumption and risk of CHD and/or stroke: a meta-analysis of case-control, cohort and intervention studies. *Br J Nutr* 2014;112(2):248-59. doi: 10.1017/s0007114514000713
38. Schwingshackl L, Hoffmann G. Monounsaturated fatty acids, olive oil and health status: a systematic review and meta-analysis of cohort studies. *Lipids Health Dis* 2014;13:154. doi: 10.1186/1476-511x-13-154
39. Farvid MS, Ding M, Pan A, et al. Dietary linoleic acid and risk of coronary heart disease: A systematic review and meta-analysis of prospective cohort studies. *Circulation* 2014;130(18):1568-78. doi: 10.1161/CIRCULATIONAHA.114.010236
40. Harcombe Z, Baker JS, DiNicolantonio JJ, et al. Evidence from randomised controlled trials does not support current dietary fat guidelines: a systematic review and meta-analysis. *Open Heart* 2016;3(2):e000409. doi: 10.1136/openhrt-2016-000409
41. Harcombe Z, Baker JS, Davies B. Evidence from prospective cohort studies does not support current dietary fat guidelines: a systematic review and meta-analysis. *Br J Sports Med* 2017;51(24):1743-49. doi: 10.1136/bjsports-2016-096550
42. Muto M, Ezaki O. High dietary saturated fat is associated with a low risk of intracerebral hemorrhage and ischemic stroke in Japanese but not in non-Japanese: A review and meta-analysis of prospective cohort studies. *J Atheroscler Thromb* 2018;25(5):375-92. doi: 10.5551/jat.41632
43. Hollman PC, Geelen A, Kromhout D. Dietary flavonol intake may lower stroke risk in men and women. *J Nutr* 2010;140(3):600-4. doi: 10.3945/jn.109.116632
44. Kim Y, Je Y. Flavonoid intake and mortality from cardiovascular disease and all causes: A meta-analysis of prospective cohort studies. *Clinical Nutrition ESPEN* 2017;20:68-77. doi: 10.1016/j.clnesp.2017.03.004
45. Kimble R, Keane KM, Lodge JK, et al. Dietary intake of anthocyanins and risk of cardiovascular disease: A systematic review and meta-analysis of prospective cohort studies. *Crit Rev Food Sci Nutr* 2019;59(18):3032-43. doi: 10.1080/10408398.2018.1509835 [published Online First: 2018/10/03]
46. D'Elia L, Barba G, Cappuccio FP, et al. Potassium intake, stroke, and cardiovascular disease: A meta-analysis of prospective studies. *J Am Coll Cardiol* 2011;57(10):1210-19. doi: 10.1016/j.jacc.2010.09.070
47. Chen GC, Lv DB, Pang Z, et al. Dietary fiber intake and stroke risk: A meta-analysis of prospective cohort studies. *Eur J Clin Nutr* 2013;67(1):96-100. doi: 10.1038/ejcn.2012.158
48. Kim Y, Je Y. Dietary fibre intake and mortality from cardiovascular disease and all cancers: A meta-analysis of prospective cohort studies. *Arch Cardiovasc Dis* 2016;109(1):39-54. doi: 10.1016/j.acvd.2015.09.005
49. Li M, Cui F, Yang F, et al. Association between fiber intake and ischemic stroke risk: A meta-analysis of prospective studies. *International Journal of Clinical and Experimental Medicine* 2017;10(3):4659-68.
50. Reynolds A, Mann J, Cummings J, et al. Carbohydrate quality and human health: a series of systematic reviews and meta-analyses. *Lancet* 2019;393(10170):434-45. doi: 10.1016/S0140-6736(18)31809-9
51. Aburto NJ, Ziolkovska A, Hooper L, et al. Effect of lower sodium intake on health: systematic review and meta-analyses. *Bmj* 2013;346:f1326. doi: 10.1136/bmj.f1326
52. Adler AJ, Taylor F, Martin N, et al. Reduced dietary salt for the prevention of cardiovascular disease. *Cochrane Database Syst Rev* 2014(12):Cd009217. doi: 10.1002/14651858.CD009217.pub3
53. Jayedi A, Ghomashi F, Zargar MS, et al. Dietary sodium, sodium-to-potassium ratio, and risk of stroke: A systematic review and nonlinear dose-response meta-analysis. *Clin Nutr* 2019;38(3):1092-100. doi: 10.1016/j.clnu.2018.05.017
54. Wang X, Chen H, Ouyang Y, et al. Dietary calcium intake and mortality risk from cardiovascular disease and all causes: A meta-analysis of prospective cohort studies. *BMC Med* 2014;12(1):1-10. doi: 10.1186/s12916-014-0158-6