

Appendix 1:

Search Strategies and Data Extraction Form

Search Strategy

a) Saturated Fat

Database: EBM Reviews - Cochrane Central Register of Controlled Trials <June 2013>, EBM Reviews - Cochrane Database of Systematic Reviews <2005 to May 2013>, EBM Reviews - Database of Abstracts of Reviews of Effects <2nd Quarter 2013>

Search Strategy:

-
- 1 Fatty Acids/ (1129)
 - 2 fatty acid*.tw. (6220)
 - 3 Dietary Fats/ (2629)
 - 4 (saturated adj2 fat*).tw. (1201)
 - 5 Butyric Acid/ (11)
 - 6 ((butyric or butanoic) adj acid*).tw. (94)
 - 7 ((caproic or hexanoic) adj acid*).tw. (15)
 - 8 ((caprylic or octanoic) adj acid*).tw. (69)
 - 9 exp Decanoic Acids/ (24)
 - 10 ((capric or decanoic) adj acid*).tw. (14)
 - 11 exp Lauric Acids/ (25)
 - 12 ((lauric or docadecanoic) adj acid*).tw. (28)
 - 13 exp Myristic Acids/ (21)
 - 14 ((myristic or tetradecanoic) adj acid*).tw. (27)
 - 15 exp Palmitic Acids/ (159)
 - 16 ((palmitic or hexadecanoic) adj acid*).tw. (143)
 - 17 exp Stearic Acids/ (64)
 - 18 ((stearic or octadecanoic) adj acid*).tw. (84)
 - 19 Diet, Carbohydrate-Restricted/ (137)
 - 20 Diet, Fat-Restricted/ (643)
 - 21 Diet, High-Fat/ (18)
 - 22 Diet, Protein-Restricted/ (135)
 - 23 diet*.tw. (24216)
 - 24 ((low or restricted or free or high) adj1 fat).tw. (3370)
 - 25 23 and 24 (2192)
 - 26 Dairy Products/ (182)
 - 27 Butter/ (77)
 - 28 Cheese/ (42)
 - 29 Ice Cream/ (16)
 - 30 exp Milk/ (2043)
 - 31 Meat/ (254)
 - 32 Meat Products/ (25)
 - 33 exp Poultry/ (113)
 - 34 (butter or milk* or cheese* or cream* or meat*).tw. (9036)
 - 35 Plant Oils/ (786)
 - 36 (palm adj2 (oil or oils)).tw. (104)
 - 37 (lard or lards or tallow).tw. (29)
 - 38 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 (19591)
 - 39 Cardiovascular Diseases/ (3337)

- 40 exp Heart Diseases/ (30397)
- 41 exp Vascular Diseases/ (47611)
- 42 Cerebrovascular Disorders/ (1226)
- 43 exp Brain Ischemia/ (1769)
- 44 exp Carotid Artery Diseases/ (734)
- 45 exp Dementia, Vascular/ (253)
- 46 exp Intracranial Arterial Diseases/ (686)
- 47 exp "Intracranial Embolism and Thrombosis"/ (211)
- 48 exp Intracranial Hemorrhages/ (979)
- 49 exp Stroke/ (3427)
- 50 (coronar* adj5 (bypas* or graft* or disease* or event*)).tw. (14850)
- 51 (cerebrovasc* or cardiovasc* or mortal* or angina* or stroke or strokes).tw. (60598)
- 52 (myocardi* adj5 (infarct* or revascular* or ischaemi* or ischemi*)).tw. (15331)
- 53 (morbid* adj5 (heart* or coronar* or ischaem* or ischem* or myocard*)).tw. (869)
- 54 (vascular* adj5 (peripheral* or disease* or complication*)).tw. (3397)
- 55 (heart* adj5 (disease* or attack* or bypass*)).tw. (8650)
- 56 Diabetes Mellitus/ (1774)
- 57 exp Diabetes Mellitus, Type 2/ (6908)
- 58 diabetes.mp. or diabetic.tw. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (26087)
- 59 Mortality/ (255)
- 60 "Cause of Death"/ (879)
- 61 Fatal Outcome/ (11)
- 62 Hospital Mortality/ (598)
- 63 Mortality, Premature/ (1)
- 64 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 (126910)
- 65 38 and 64 (4244)

Database: Embase Classic+Embase <1947 to 2013 Week 28>

Search Strategy:

-
- 1 saturated fatty acid/ (8740)
 - 2 fatty acid*.tw. (178909)
 - 3 fat intake/ (39999)
 - 4 (saturated adj2 fat*).tw. (15807)
 - 5 butyric acid/ (10350)
 - 6 ((butyric or butanoic) adj acid*).tw. (6881)
 - 7 hexanoic acid/ (1581)
 - 8 ((caproic or hexanoic) adj acid*).tw. (1622)
 - 9 octanoic acid/ (3111)
 - 10 ((caprylic or octanoic) adj acid*).tw. (1788)
 - 11 exp decanoic acid derivative/ (977)
 - 12 ((capric or decanoic) adj acid*).tw. (841)
 - 13 lauric acid derivative/ (685)
 - 14 ((lauric or docadecanoic) adj acid*).tw. (1587)
 - 15 myristic acid derivative/ (589)
 - 16 ((myristic or tetradecanoic) adj acid*).tw. (1916)
 - 17 palmitic acid derivative/ (4131)
 - 18 ((palmitic or hexadecanoic) adj acid*).tw. (8535)
 - 19 stearic acid derivative/ (3016)
 - 20 ((stearic or octadecanoic) adj acid*).tw. (5561)
 - 21 low carbohydrate diet/ (1440)
 - 22 low fat diet/ (6669)
 - 23 lipid diet/ (19491)
 - 24 protein restriction/ (6159)
 - 25 diet*.tw. (494333)
 - 26 ((low or restricted or free or high) adj1 fat).tw. (41474)
 - 27 25 and 26 (30740)
 - 28 dairy product/ (7808)
 - 29 butter/ (2899)
 - 30 cheese/ (6850)
 - 31 ice cream/ (925)
 - 32 milk/ (60943)
 - 33 meat/ (32908)
 - 34 raw meat/ (209)
 - 35 exp red meat/ (2760)
 - 36 exp white meat/ (13344)
 - 37 (butter or milk* or cheese* or cream* or meat*).tw. (180425)
 - 38 vegetable oil/ (10682)
 - 39 palm oil/ (1937)
 - 40 (palm adj2 (oil or oils)).tw. (2403)
 - 41 (lard or lards).mp. or tallow.tw. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword] (4326)
 - 42 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 (484627)
 - 43 cardiovascular disease/ (173210)

44 exp heart disease/ (1375887)
45 exp vascular disease/ (1856001)
46 cerebrovascular disease/ (48788)
47 exp brain ischemia/ (97800)
48 exp carotid artery disease/ (48141)
49 exp multiinfarct dementia/ (8212)
50 exp cerebral artery disease/ (3561)
51 brain embolism/ (5908)
52 exp occlusive cerebrovascular disease/ (24447)
53 exp brain hemorrhage/ (85444)
54 exp cerebrovascular accident/ (60561)
55 (coronar* adj5 (bypass* or graft* or disease* or event*)).tw. (196964)
56 (myocardi* adj5 (infarct* or revascular* or ischaemi* or ischemi*)).tw. (240249)
57 (morbid* adj5 (heart* or coronar* or ischaem* or ischem* or myocard*)).tw. (6061)
58 (vascular* adj5 (peripheral* or disease* or complication*)).tw. (85242)
59 (cerebrovasc* or cardiovasc* or mortal* or angina* or stroke or strokes).tw. (1151893)
60 (heart* adj5 (disease* or attack* or bypass*)).tw. (195760)
61 diabetes mellitus/ (352728)
62 non insulin dependent diabetes mellitus/ (128440)
63 (diabetes or diabetic).tw. (542973)
64 mortality/ (524249)
65 "cause of death"/ (69347)
66 fatality/ (85732)
67 premature mortality/ (276)
68 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or
62 or 63 or 64 or 65 or 66 or 67 (4032199)
69 42 and 68 (69558)
70 exp case control study/ (84571)
71 control group/ (58476)
72 statistical analysis/ (188256)
73 ((case* adj5 control*) or (case adj3 comparison*) or control group*).ti,ab. (494579)
74 cohort.ti,ab. (314269)
75 cohort analysis/ (151164)
76 longitudinal study/ (62552)
77 longitudinal.ti,ab. (164680)
78 prospective study/ (240811)
79 prospective.ti,ab. (437872)
80 retrospective study/ (328430)
81 retrospective.ti,ab. (354891)
82 epidemiology/ (187360)
83 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 (2099158)
84 69 and 83 (8746)
85 Animals/ not (Humans/ and Animals/) (1381092)
86 84 not 85 (8455)
87 limit 86 to embase (7198)
88 from 87 keep 7001-7198 (198)

Database: Ovid MEDLINE(R) Daily Update <July 18, 2013>, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

- 1 Fatty Acids/ (65352)
- 2 fatty acid*.mp. (190264)
- 3 Dietary Fats/ (42612)
- 4 (saturated adj2 fat*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (13016)
- 5 Butyric Acid/ (2140)
- 6 ((butyric or butanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (7597)
- 7 ((caproic or hexanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1235)
- 8 ((caprylic or octanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1853)
- 9 exp Decanoic Acids/ (1603)
- 10 ((capric or decanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1866)
- 11 exp Lauric Acids/ (1527)
- 12 ((lauric or docadecanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1920)
- 13 exp Myristic Acids/ (2529)
- 14 ((myristic or tetradecanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (3151)
- 15 exp Palmitic Acids/ (13061)
- 16 ((palmitic or hexadecanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (14261)
- 17 exp Stearic Acids/ (4802)
- 18 ((stearic or octadecanoic) adj acid*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (7430)
- 19 Diet, Carbohydrate-Restricted/ (787)
- 20 Diet, Fat-Restricted/ (2789)

- 21 Diet, High-Fat/ (2174)
- 22 Diet, Protein-Restricted/ (1876)
- 23 diet*.mp. (509729)
- 24 ((low or restricted or free or high) adj1 fat).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (33871)
- 25 23 and 24 (26849)
- 26 Dairy Products/ (4549)
- 27 Butter/ (1198)
- 28 Cheese/ (4534)
- 29 Ice Cream/ (500)
- 30 exp Milk/ (64581)
- 31 Meat/ (24386)
- 32 Meat Products/ (4506)
- 33 exp Poultry/ (123652)
- 34 (butter or milk* or cheese* or cream* or meat*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (172446)
- 35 Plant Oils/ (13799)
- 36 (palm adj2 (oil or oils)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1982)
- 37 (lard or lards or tallow).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (2406)
- 38 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 (542722)
- 39 Cardiovascular Diseases/ (98649)
- 40 exp Heart Diseases/ (880643)
- 41 exp Vascular Diseases/ (1312808)
- 42 Cerebrovascular Disorders/ (43021)
- 43 exp Brain Ischemia/ (80601)
- 44 exp Carotid Artery Diseases/ (36889)
- 45 exp Dementia, Vascular/ (5326)
- 46 exp Intracranial Arterial Diseases/ (46653)
- 47 exp "Intracranial Embolism and Thrombosis"/ (17907)
- 48 exp Intracranial Hemorrhages/ (54032)
- 49 exp Stroke/ (82307)
- 50 (coronar* adj5 (bypas* or graft* or disease* or event*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (249654)
- 51 (cerebrovasc* or cardiovasc* or mortal* or angina* or stroke or strokes).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (1060157)
- 52 (myocardi* adj5 (infarct* or revascular* or ischaemi* or ischemi*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (241640)
- 53 (morbid* adj5 (heart* or coronar* or ischaem* or ischem* or myocardi*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (4596)

- 54 (vascular* adj5 (peripheral* or disease* or complication*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (93435)
- 55 (heart* adj5 (disease* or attack* or bypass*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (220824)
- 56 Diabetes Mellitus/ (90088)
- 57 exp Diabetes Mellitus, Type 2/ (84692)
- 58 (diabetes or diabetic).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier] (456003)
- 59 Mortality/ (34587)
- 60 "Cause of Death"/ (35319)
- 61 Fatal Outcome/ (49662)
- 62 Hospital Mortality/ (21951)
- 63 Mortality, Premature/ (196)
- 64 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 (2827977)
- 65 38 and 64 (58248)
- 66 exp Case-Control Studies/ (645408)
- 67 Control Groups/ (1518)
- 68 Matched-Pair Analysis/ (4183)
- 69 ((case* adj5 control*) or (case adj3 comparison*) or control group*).ti,ab. (383654)
- 70 cohort.ti,ab. (243620)
- 71 exp Cohort Studies/ (1335430)
- 72 longitudinal.ti,ab. (139824)
- 73 prospective.ti,ab. (348052)
- 74 retrospective.ti,ab. (263475)
- 75 Epidemiologic Studies/ (6168)
- 76 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 (2036590)
- 77 65 and 76 (7508)
- 78 Animals/ not (Humans/ and Animals/) (3910383)
- 79 77 not 78 (6274)

b) Trans fats

The searches for your topic on fatty acids and specific morbidities/mortalities were run using the OvidSP search platform in the following database(s): MEDLINE, EMBASE EBM Reviews CCTR, and EBM Reviews HTA and EBM Reviews NHS EED. A search was run using the EBSCOHost search platform in the following database CINAHL. All searches include articles indexed as of November 28, 2012. The search strategy retrieved a total of **18,181** articles. All references were saved in an EndNote library used to identify the **4,162** duplicates. You received the remaining **14,019** unique references to review.

** This search was updated on September 26, 2013**

MEDLINE:

The search strategy for OvidSP MEDLINE (1946 to **November 28, 2012**) retrieved **3845** references of which **3753**. I used a combination of MeSH and free text terms for

Set	History	Results	Comments
1	fatty acids/ or exp fatty acids, unsaturated/	238528	Fatty Acids Subject Terms
2	exp Diet/	178565	Diet Subject Terms
3	infant formula/ or exp food/	986844	Food Subject Terms
4	exp plants, edible/ or vegetables/ or plants, genetically modified/	54998	Vegetable Subject Terms
5	exp plant oils/ or corn oil/ or safflower oil/ or soybean oil/	22227	Plant Oil Subject terms
6	dietary fats/ or butter/ or margarine/ or fats, unsaturated/	42323	Dietary Fat Subject Terms
7	Or/1-6	1314584	Combined Food, Fat Subject Terms
8	exp Cardiovascular Diseases/	1771867	Selected mortality/morbidity disease subject terms
9	exp Stroke/	74703	Selected mortality/morbidity disease subject terms
10	diabetes mellitus/ or exp diabetes mellitus, type 1/ or exp diabetes mellitus, type 2/ or diabetes, gestational/ or prediabetic state/	208676	Selected mortality/morbidity disease subject terms
11	mortality/ or "cause of death"/ or fatal outcome/ or hospital mortality/ or mortality, premature/	126803	General mortality/morbidity subject terms
12	Or/8-11	2026933	Combined mortality/morbidity

			disease subject terms
13	(conjugat* or unsaturat* or "trans fat*" or ruminant* or bovin* or rumenic* or "animal fat" or (trans adj2 fatty adj2 acid*) or (Trans adj2 isomer*) or "trans-fat*" or (fat* adj2 intake)).mp.	341697	Fatty acid textword terms
14	7 and 12 and 13	5027	Base clinical set results
15	humans/ not animals/	11319854	Human limit
16	14 and 15	3845	Final Results

EMBASE

The search strategy for OvidSP Embase <1974 to 2012 Week 47> retrieved **12828** references of which **9845**. I used a combination of EMBASE and free text terms for

Set	History	Results	Comments
1	fatty acid/ or exp unsaturated fatty acid/ or arachidonic acid/ or linoleic acid/ or vaccenic acid/ or (linoleic or linoelaidic or transvaccenic or oleic or vaccenic or ruminic or (fatty adj3 acid*)).mp.	262303	Fatty Acids Subject Terms
2	exp diet/ or exp diet restriction/ or (diet or diets or dietary).mp.	548184	Diet Subject Terms
3	artificial milk/ or exp food/ or (infant adj2 formula*).mp. or (milk* or yogurt* or yougurt* or yoghurt* or cheese* cream or creams or creamed or creamer* or kefir).mp.	626293	Food Subject Terms
4	exp vegetable/ or (edible adj2 plant*).mp.	115788	Vegetable Subject Terms
5	exp vegetable oil/ or ((vegetable or corn or soybean or safflower or plant) adj2 (oil or oils)).mp	56175	Plant Oil Subject terms
6	fat intake/ or cholesterol intake/ or animal product/ or lard/ or (shortening or lard or lards or oleo or oleos or crisco or margarine*).mp.	91576	Dietary Fat Subject Terms
7	Or/1-6	1294549	Combined Food, Fat Subject Terms
8	exp cardiovascular disease/	2745491	Selected mortality/morbidity disease subject terms
9	cerebrovascular accident/ or cardioembolic stroke/ or lacunar stroke/	45071	Selected mortality/morbidity disease subject terms
10	diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic	626794	Selected mortality/morbidity disease subject terms

	ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or impaired glucose tolerance/ or (diabetic or diabetes).mp.		
11	mortality/ or cancer mortality/ or cardiovascular mortality/ or childhood mortality/ or infant mortality/ or maternal mortality/ or premature mortality/ or standardized mortality ratio/ or surgical mortality/ or death/ or brain death/ or "cause of death"/ or exp child death/ or dying/ or fatality/ or heart death/ or sudden death/ or mortality/	784588	General mortality/morbidity subject terms
12	Or/8-11	3646186	Combined mortality/morbidity disease subject terms
13	(conjugat* or unsaturat* or "trans fat*" or ruminant* or bovin* or rumenic* or "animal fat" or (trans adj2 fatty adj2 acid*) or (Trans adj2 isomer*) or "trans-fat*" or (fat* adj2 intake)).mp.	432935	Fatty acid textword terms
14	7 and 12 and 13	16242	Base clinical set results
15	Human/ not animal/	406	Human limit
16	14 and 15	12828	Final Results

EBM Reviews CCTR

The search strategy for Database: EBM Reviews - Cochrane Central Register of Controlled Trials <November 2012> retrieved **598** references of which **57**. I used a combination of MeSH, EMBASE descriptor and free text terms for

Set	History	Results	Comments
-----	---------	---------	----------

1	fatty acids/ or exp fatty acids, unsaturated/ or (linoleic or linoelaidic or transvaccenic or oleic or vaccenic or ruminic or (fatty adj3 acid*)).mp. or fatty acid/ or exp unsaturated fatty acid/ or arachidonic acid/ or linoleic acid/ or vaccenic acid/	12923	Fatty Acids Subject Terms
2	exp diet/ or exp diet restriction/ or (diet or diets or dietary).mp.	29723	Diet Subject Terms
3	infant formula/ or exp food/ or (infant adj2 formula*).mp. or (milk* or yogurt* or yoghurt* or cheese* cream or creams or creamed or creamer* or kefir).mp. or artificial milk/ or exp food/	29426	Food Subject Terms
4	exp plants, edible/ or vegetables/ or exp vegetable/ or (edible adj2 plant*).mp.	1911	Vegetable Subject Terms
5	exp plant oils/ or corn oil/ or safflower oil/ or soybean oil/ or ((corn or soybean or safflower or plant) adj2 (oil or oils)).mp. or exp vegetable oil/ or ((vegetable or corn or soybean or safflower or plant) adj2 (oil or oils)).mp.	1593	Plant Oil Subject terms
6	dietary fats/ or butter/ or margarine/ or fats, unsaturated/ or (shortening or lard or lards or oleo or oleos or crisco or margarine*).mp. or fat intake/ or cholesterol intake/ or animal product/ or lard/	4306	Dietary Fat Subject Terms
7	Or/1-6	54691	Combined Food, Fat Subject Terms
8	exp Cardiovascular Diseases/ or exp cardiovascular disease/	59077	Selected mortality/morbidity disease subject terms
9	exp Stroke/ or cerebrovascular accident/ or cardioembolic stroke/ or lacunar stroke/	3231	Selected mortality/morbidity disease subject terms
10	diabetes mellitus/ or exp diabetes mellitus, type 1/ or exp diabetes mellitus, type 2/ or diabetes, gestational/ or prediabetic state/ or diabetic.mp. or diabetes.mp. or () diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or	22222	Selected mortality/morbidity disease subject terms

	diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or impaired glucose tolerance/ or (diabetic or diabetes).mp.		
11	mortality/ or "cause of death"/ or fatal outcome/ or hospital mortality/ or mortality, premature/ or cancer mortality/ or cardiovascular mortality/ or childhood mortality/ or infant mortality/ or maternal mortality/ or premature mortality/ or standardized mortality ratio/ or surgical mortality/ or death/ or brain death/ or exp child death/ or dying/ or fatality/ or heart death/ or sudden death/	77535	General mortality/morbidity subject terms
12	Or/8-10	2560	Combined mortality/morbidity disease subject terms
13	(conjugat* or unsaturat* or "trans fat*" or ruminant* or bovin* or ruminic* or "animal fat" or (trans adj2 fatty adj2 acid*) or (Trans adj2 isomer*) or "trans-fat*" or (fat* adj2 intake)).mp.	6313	Fatty acid textword terms
14	7 and 12 and 13	598	Final Results

EBM Reviews HTA

The search strategy for OvidSP EBM Reviews - Health Technology Assessment <4th Quarter 2012> retrieved 5 references of which 5 were unique. I used a combination of MeSH, EMBASE descriptors and free text terms for

Set	History	Results	Comments
1	fatty acids/ or exp fatty acids, unsaturated/ or (linoleic or linoelaidic or transvaccenic or oleic or vaccenic or ruminic or (fatty adj3 acid*)).mp. or fatty acid/ or exp unsaturated fatty acid/ or arachidonic acid/ or linoleic acid/ or vaccenic acid/	32	Fatty Acids Subject Terms
2	exp diet/ or exp diet restriction/ or (diet or diets or dietary).mp.	113	Diet Subject Terms
3	infant formula/ or exp food/ or (infant adj2	60	Food Subject Terms

	formula*).mp. or (milk* or yogurt* or yoghurt* or cheese* cream or creams or creamed or creamer* or kefir).mp. or artificial milk/ or exp food/		
4	exp plants, edible/ or vegetables/ or exp vegetable/ or (edible adj2 plant*).mp.	2	Vegetable Subject Terms
5	exp plant oils/ or corn oil/ or safflower oil/ or soybean oil/ or ((corn or soybean or safflower or plant) adj2 (oil or oils)).mp. or exp vegetable oil/ or ((vegetable or corn or soybean or safflower or plant) adj2 (oil or oils)).mp.	1	Plant Oil Subject terms
6	dietary fats/ or butter/ or margarine/ or fats, unsaturated/ or (shortening or lard or lards or oleo or oleos or crisco or margarine*).mp. or fat intake/ or cholesterol intake/ or animal product/ or lard/	3	Dietary Fat Subject Terms
7	Or/1-6	186	Combined Food, Fat Subject Terms
8	exp Cardiovascular Diseases/ or exp cardiovascular disease/	1082	Selected mortality/morbidity disease subject terms
9	exp Stroke/ or cerebrovascular accident/ or cardioembolic stroke/ or lacunar stroke/	1	Selected mortality/morbidity disease subject terms
10	diabetes mellitus/ or exp diabetes mellitus, type 1/ or exp diabetes mellitus, type 2/ or diabetes, gestational/ or prediabetic state/ or diabetic.mp. or diabetes.mp. or () diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipotrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipotrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram	354	Selected mortality/morbidity disease subject terms

	syndrome/ or pregnancy diabetes mellitus/ or impaired glucose tolerance/ or (diabetic or diabetes).mp.		
11	mortality/ or "cause of death"/ or fatal outcome/ or hospital mortality/ or mortality, premature/ or cancer mortality/ or cardiovascular mortality/ or childhood mortality/ or infant mortality/ or maternal mortality/ or premature mortality/ or standardized mortality ratio/ or surgical mortality/ or death/ or brain death/ or exp child death/ or dying/ or fatality/ or heart death/ or sudden death/	15	General mortality/morbidity subject terms
12	Or/8-10	1385	Combined mortality/morbidity disease subject terms
13	(conjugat* or unsaturat* or "trans fat*" or ruminant* or bovin* or ruminic* or "animal fat" or (trans adj2 fatty adj2 acid*) or (Trans adj2 isomer*) or "trans-fat*" or (fat* adj2 intake)).mp.	15	Fatty acid textword terms
14	7 and 12 and 13	5	Final Results

EBM Reviews NHS Economic Evaluation Database

The search strategy for EBM Reviews - NHS Economic Evaluation Database <4th Quarter 2012> retrieved 9 references of which 9 were unique. I used a combination of MeSH, EMBASE descriptors and free text terms for

Set	History	Results	Comments
1	fatty acids/ or exp fatty acids, unsaturated/ or (linoleic or linoelaidic or transvaccenic or oleic or vaccenic or ruminic or (fatty adj3 acid*)).mp. or fatty acid/ or exp unsaturated fatty acid/ or arachidonic acid/ or linoleic acid/ or vaccenic acid/	110	Fatty Acids Subject Terms
2	exp diet/ or exp diet restriction/ or (diet or diets or dietary).mp.	333	Diet Subject Terms
3	infant formula/ or exp food/ or (infant adj2 formula*).mp. or (milk* or yogurt* or yoghurt* or cheese* cream or creams or creamed or creamer* or kefir).mp. or artificial milk/ or exp food/	174	Food Subject Terms
4	exp plants, edible/ or vegetables/ or exp vegetable/ or (edible adj2 plant*).mp.	9	Vegetable Subject Terms
5	exp plant oils/ or corn oil/ or safflower oil/ or soybean oil/ or ((corn or soybean or safflower or plant) adj2 (oil or oils)).mp. or exp vegetable oil/ or ((vegetable or corn or soybean or safflower or plant)	8	Plant Oil Subject terms

	adj2 (oil or oils).mp.		
6	dietary fats/ or butter/ or margarine/ or fats, unsaturated/ or (shortening or lard or lards or oleo or oleos or crisco or margarine*).mp. or fat intake/ or cholesterol intake/ or animal product/ or lard/	36	Dietary Fat Subject Terms
7	Or/1-6	569	Combined Food, Fat Subject Terms
8	exp Cardiovascular Diseases/ or exp cardiovascular disease/	1819	Selected mortality/morbidity disease subject terms
9	exp Stroke/ or cerebrovascular accident/ or cardioembolic stroke/ or lacunar stroke/	5	Selected mortality/morbidity disease subject terms
10	diabetes mellitus/ or exp diabetes mellitus, type 1/ or exp diabetes mellitus, type 2/ or diabetes, gestational/ or prediabetic state/ or diabetic.mp. or diabetes.mp. or () diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or diabetes mellitus/ or exp diabetic angiopathy/ or diabetic cardiomyopathy/ or diabetic coma/ or diabetic foot/ or diabetic hypertension/ or diabetic ketoacidosis/ or diabetic macular edema/ or diabetic nephropathy/ or diabetic neuropathy/ or diabetic obesity/ or diabetic retinopathy/ or insulin dependent diabetes mellitus/ or lipoatrophic diabetes mellitus/ or non insulin dependent diabetes mellitus/ or nonketotic diabetic coma/ or wolfram syndrome/ or pregnancy diabetes mellitus/ or impaired glucose tolerance/ or (diabetic or diabetes).mp.	879	Selected mortality/morbidity disease subject terms
11	mortality/ or "cause of death"/ or fatal outcome/ or hospital mortality/ or mortality, premature/ or cancer mortality/ or cardiovascular mortality/ or childhood mortality/ or infant mortality/ or maternal mortality/ or premature mortality/ or standardized mortality ratio/ or surgical mortality/ or death/ or brain death/	186	General mortality/morbidity subject terms

	or exp child death/ or dying/ or fatality/ or heart death/ or sudden death/		
12	Or/8-10	2520	Combined mortality/morbidity disease subject terms
13	(conjugat* or unsaturat* or "trans fat*" or ruminant* or bovin* or rumenic* or "animal fat" or (trans adj2 fatty adj2 acid*) or (Trans adj2 isomer*) or "trans-fat*" or (fat* adj2 intake)).mp.	114	Fatty acid textword terms
14	7 and 12 and 13	9	Final Results

CINAHL:

The search strategy for EBSCOHost CINAHL (1983 to November 28, 2012) retrieved **896** references of which **344** were unique. I used a combination of CINAHL descriptors and free text terms for

Set	History	Results	Comments
S1	S1 (MH "Fatty Acids") OR (MH "Fatty Acids, Unsaturated+") OR (TX linoleic OR linoelaidic OR transvaccenic OR oleic OR vaccenic OR ruminic OR (fatty N3 acid*))	13,796	Fatty Acids Subject Terms
S2	(MH "Diet+") OR (TX diet or diets or dietary)	90,079	Diet Subject Terms
S3	(MH "Infant Formula") OR (MH "Food+") OR (TX (infant N2 formula*) OR milk* or yogurt* or yougurt* or cheese* cream or creams or creamed or creamer* or kefir)	61,708	Food Subject Terms
S4	(MH "Plants, Edible+") OR (MH "Vegetables+")	15,039	Vegetable Subject Terms
S5	(MH "Plant Oils") OR (MH "Corn Oil") OR (MH "Safflower Oil") OR (MH "Soybean Oil") OR (TX (corn or soybean or safflower or plant) N2 (oil or oils))	1,944	Plant Oil Subject terms
S6	(MH "Butter") OR (MH "Cholesterol, Dietary") OR (MH "Margarine") OR (MH "Olive Oil") OR (MH "Fats, Unsaturated+") OR (TX shortening or lard or lards or oleo or oleos or crisco or margarine)	3,697	Dietary Fat Subject Terms
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	127,380	Combined Food, Fat Subject Terms
S8	(MH "Cardiovascular Diseases+")	219,883	Selected mortality/morbidity disease subject terms
S9	(MH "Stroke") OR (MH "Stroke Patients")	28,195	Selected mortality/morbidity disease subject terms
S10	(MH "Diabetes Mellitus") OR (MH "Diabetes Mellitus,	76,834	Selected

	Type 1") OR (MH "Diabetes Mellitus, Type 2") OR (MH "Diabetes Mellitus, Gestational") OR (MH "Prediabetic State") OR (TX diabetic OR diabetes)		mortality/morbidity disease subject terms
S11	(MH "Mortality") OR (MH "Cause of Death") OR (MH "Hospital Mortality") OR (MH "Fatal Outcome") OR (TX prematur* N2 mortal*)	2560	General mortality/morbidity subject terms
S12	S12 S8 OR S9 OR S10 OR S11	292,321	Combined mortality/morbidity disease subject terms
S13	(TX conjugat* OR unsaturat* OR (trans N2 fat*) OR ruminant* OR bovin* OR rumenic* OR (animal N2 fat) OR (trans N2 fatty N2 acid*) OR (Trans N2 isomer*) OR (fat* N2 intake))	6,843	Fatty acid textword terms
S14	S7 AND S12 AND S13	965	Base Clinical Set
S15	((MH "Human") OR (TX human*))	806,042	Human terms
S16	NOT (MH "Animals+") OR (MH "Birds+") OR (MH "Mammals+") OR (MH "Reptiles+") OR (TX animal*)	784,188	Animal terms
S17	S14 AND (S15 OR S16)	363	Group 3 results
S18	S14 AND (S15 NOT S16)	533	Combined final results Search 1
S19	S17 OR S18	896	FINAL Results

WHO Trans-fatty acids systematic review Extraction form

Reviewer initials:
Date:
Article code:

Article first author:	Journal:	Year:	Volume (issue):	Pages:
Title:			Name of Cohort:	
Design <input type="checkbox"/> Prospective cohort <input type="checkbox"/> Nested Case-control <input type="checkbox"/> Case-control <input type="checkbox"/> Retrospective cohort <input type="checkbox"/> Case-series <input type="checkbox"/> Meta-analysis <input type="checkbox"/> Review <input type="checkbox"/> Other _____ If prospective, indicate duration: _____				
Country of conduct:	Genders: # Men: _____ # Women _____	Sample size (n): Cases: _____ Control: _____		
Sample description (disease status [healthy, diabetes, hyperlipidemia, etc.], gender, age, nationality, race, occupation, etc.):				Age (mean ± SD, range):
Method of recruitment: Cases: Controls:				
Duration of Follow-Up	What trans-fats were assessed?	Method of trans assessment? Dietary Biomarker		
What outcomes were assessed (check all that apply)? <input type="checkbox"/> CHD <input type="checkbox"/> MI <input type="checkbox"/> CVD <input type="checkbox"/> Stroke <input type="checkbox"/> Cause-specific mortality <input type="checkbox"/> Total mortality <input type="checkbox"/> Other: _____		How outcome was confirmed (check all that apply)? <input type="checkbox"/> self-report <input type="checkbox"/> MD confirmed <input type="checkbox"/> other: _____		
What models were presented? <input type="checkbox"/> Unadjusted <input type="checkbox"/> Age-adjusted <input type="checkbox"/> Multivariate adjusted List confounders: _____ _____ _____		Statistical analyses (COX PH; Logistic Regression etc): Stratified? <input type="checkbox"/> No <input type="checkbox"/> Sex <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____		
Sensitivity analyses? Describe.				

