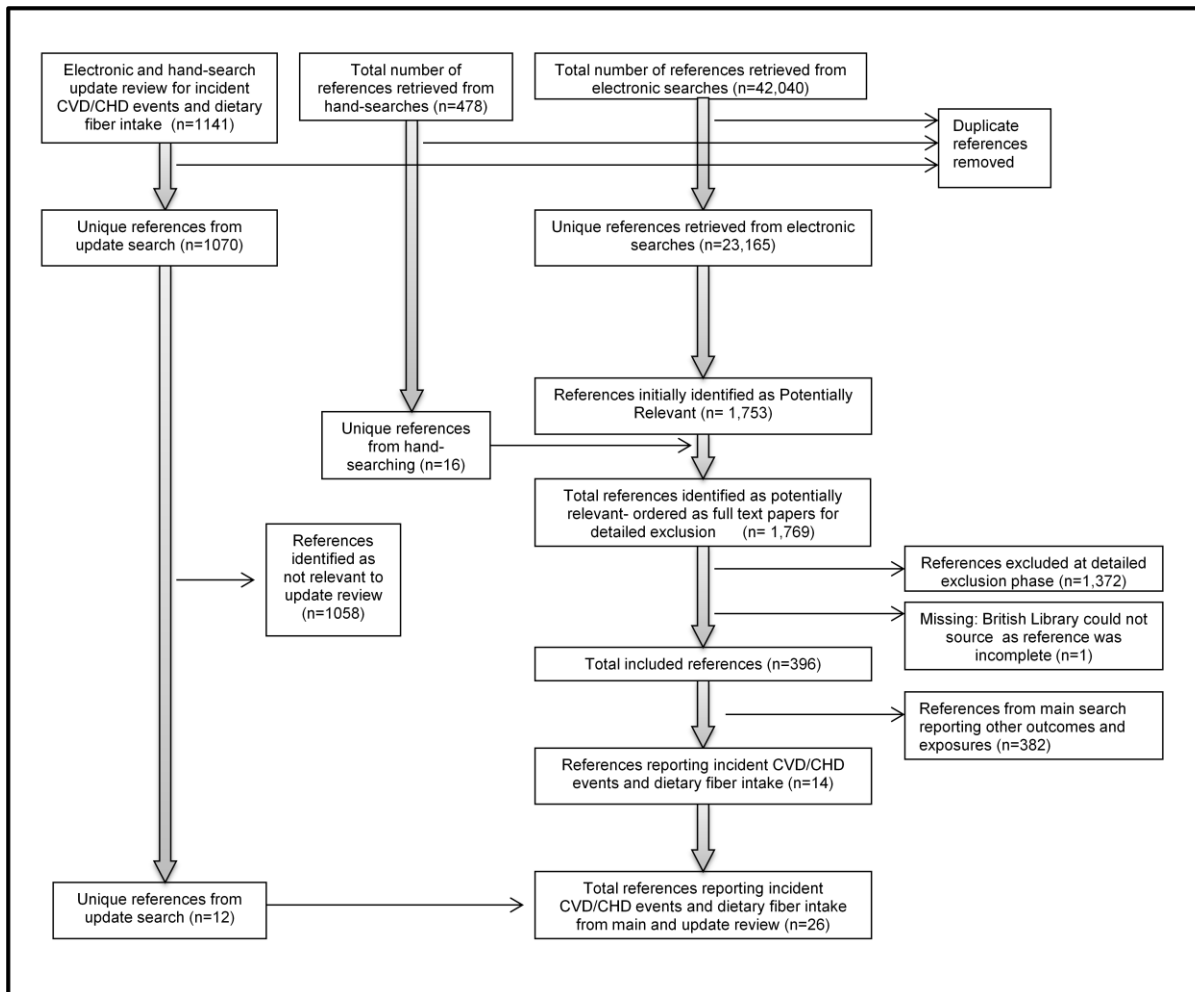


Web appendix: Supplementary material

Web figure 1: Medline search strategy for update searching adapted from the original search strategy (for all carbohydrate intake and all cardiometabolic health outcomes)

1. exp cohort studies/
2. cohort\$.tw.
3. epidemiologic methods/
4. or/1-3
5. (animals not (humans and animals)).sh.
6. 4 not 5
7. dietary fiber/
8. fibre\$.tw.
9. fiber\$.tw.
10. or/7-9
11. exp cardiovascular diseases/
12. stroke.tw.
13. "acute coronary syndrome".tw.
14. stemi.tw.
15. nstemi.tw.
16. (transient isch\$emic adj3 (accident or attack or incident)).tw.
17. exp coronary diseases/
18. (heart adj3 disease\$).tw.
19. (coronary adj3 disease\$).tw.
20. (cerebrovascular adj3 disease\$).tw.
21. exp heart diseases/
22. (CHD or CVD).tw.
23. (myocardial adj3 infarction).tw.
24. exp myocardial infarction/
25. exp myocardial ischemia/
26. or/11-25
27. 4 and 10 and 26
28. limit 27 to english language
29. limit 28 to yr="2011 -current"
30. limit 29 to clinical trial, all
31. 29 not 30
32. limit 31 to (addresses or autobiography or bibliography or biography or case reports or clinical trial, all or clinical trial, phase i or clinical trial, phase ii or clinical trial, phase iii or clinical trial, phase iv or clinical trial or comment or comparative study or congresses or consensus development conference or consensus development conference, nih or controlled clinical trial or dictionary or directory or editorial or evaluation studies or festschrift or in vitro or interactive tutorial or interview or lectures or legal cases or legislation or letter or news or newspaper article or patient education handout or periodical index or portraits or practice guideline or randomized controlled trial or "research support, american recovery and reinvestment act" or research support, nih, extramural or research support, nih, intramural or research support, non us gov't or research support, us gov't, non phs or research support, us gov't, phs or technical report or twin study or validation studies or video-audio media or webcasts)
33. 31 not 32

Web figure 2: Article retrieval and screening process for main review (all carbohydrates and cardio-metabolic diseases) and update review (dietary fibre and CVD/CHD risk)



Web Figure 3: Newcastle-Ottawa Quality Assessment Scale for Cohort Studies¹: Details of how the criteria were applied for cohort studies assessing the relationship between dietary fibre intake and CVD

Selection

- 1) Representativeness of the exposed cohort
 - ❖ Star assigned if cohort was truly or somewhat representative of the average fibre-consumer in the community (i.e. the sample was random or covered all persons living in one or a few geographical areas). Note that stars were assigned even where an age restriction may have been applied to the recruitment sample.
- 2) Selection of non-exposed cohort
 - ❖ Star assigned where non-exposed persons were drawn from the same population as the exposed participants.
- 3) Ascertainment of exposure
 - ❖ Star assigned where diet had been assessed using structured interview.
- 4) Demonstration that outcome of interest was not present at the start of study
 - ❖ Star assigned where the article stated that participants with prevalent CVD were excluded from analysis. Note that stars were not assigned to studies with mortality as an outcome unless participants with history of CVD had been excluded.

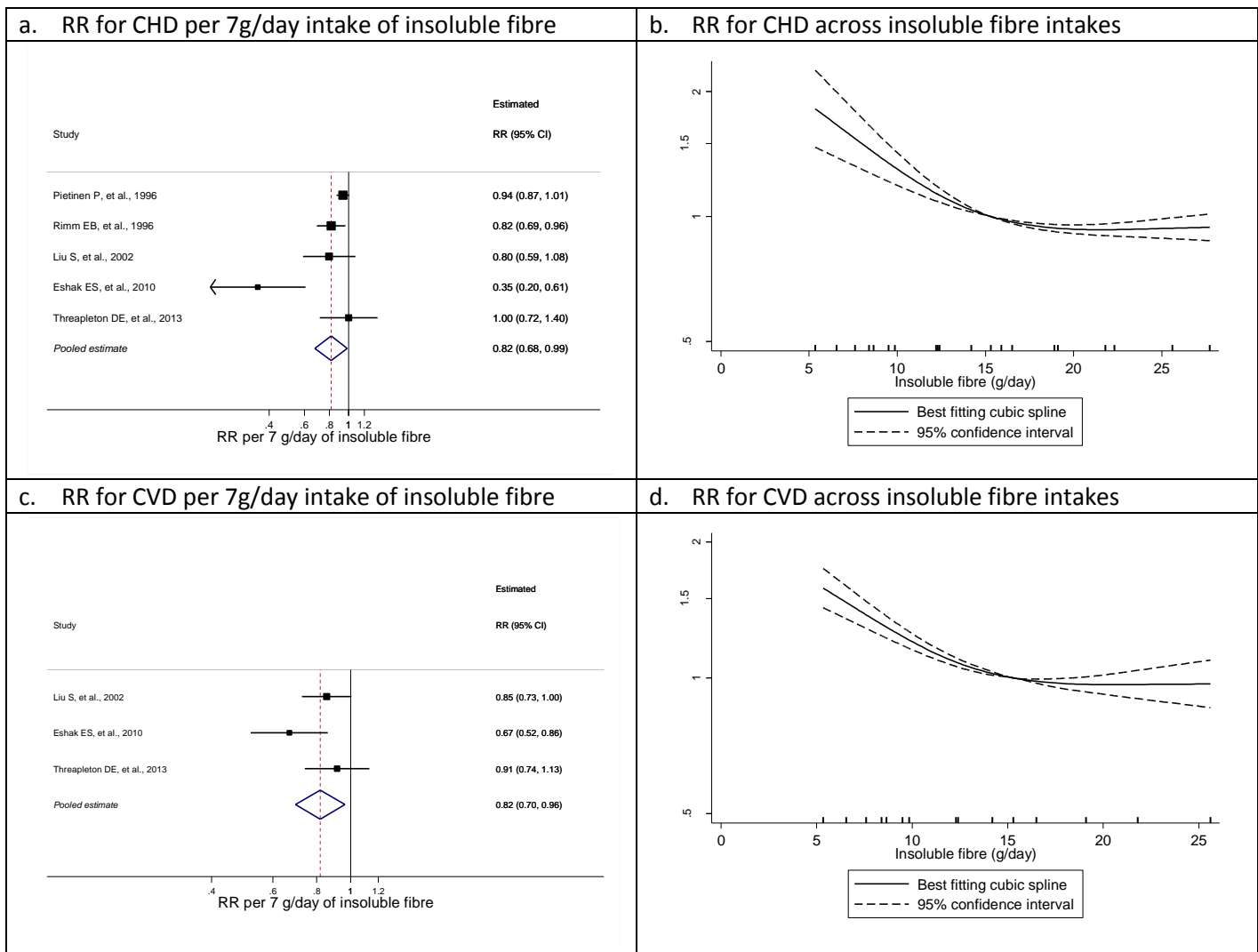
Comparability

- 1) Comparability of cohorts on the basis of the design or analysis
 - ❖ One star assigned where age was controlled for in analysis.
 - ❖ Second star assigned where other important potential confounders were controlled for in analysis.

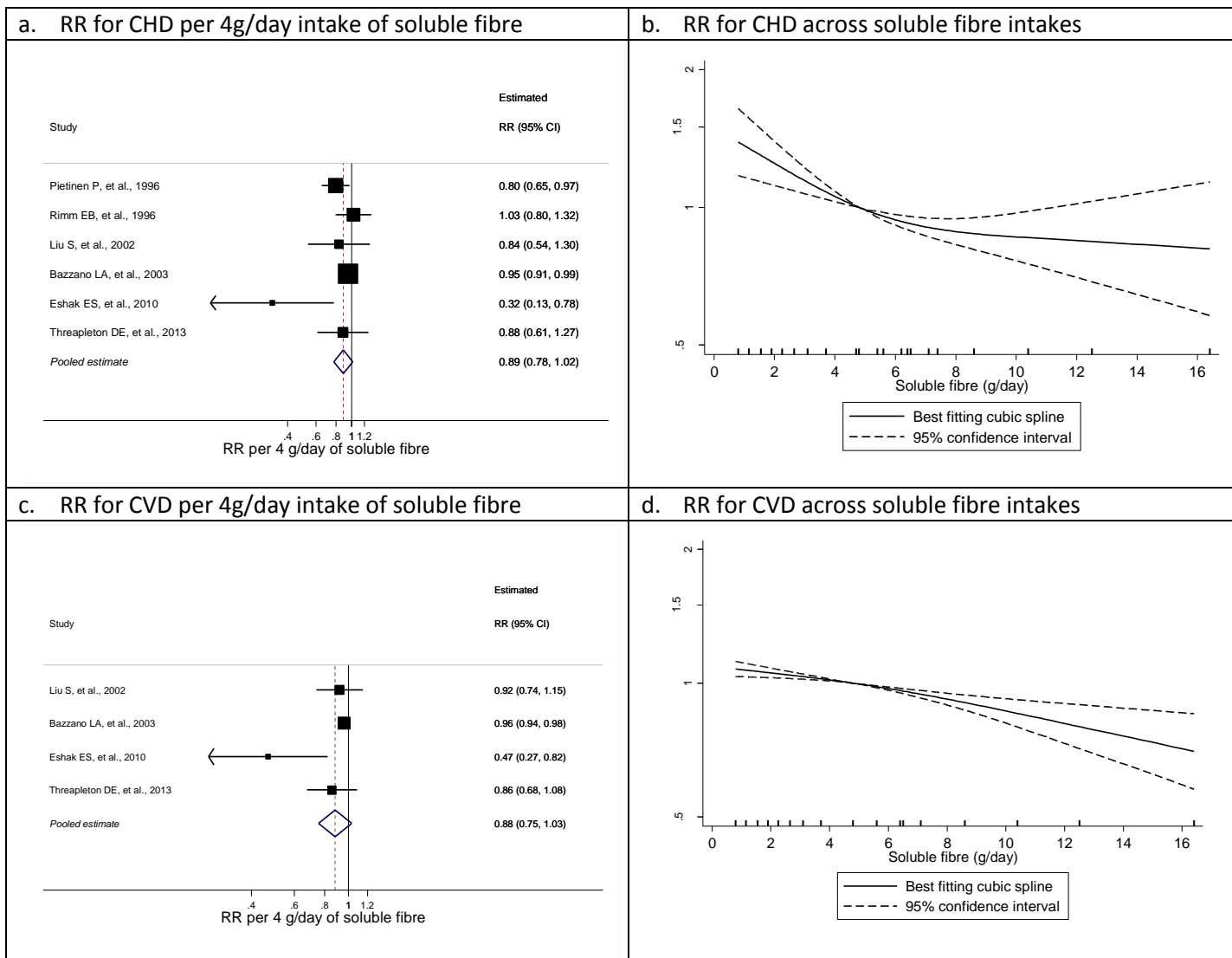
Outcome

- 1) Assessment of outcome
 - ❖ Star assigned where outcomes were identified through medical records/ record linkage.
- 2) Was follow-up long enough for outcomes to occur
 - ❖ Star assigned where follow-up was a minimum of 3 years, as per the review protocol.
- 3) Adequacy of follow up of cohorts
 - ❖ Star assigned where the loss to follow-up had been estimated for the study and reported in the article and where loss was less than 30%.

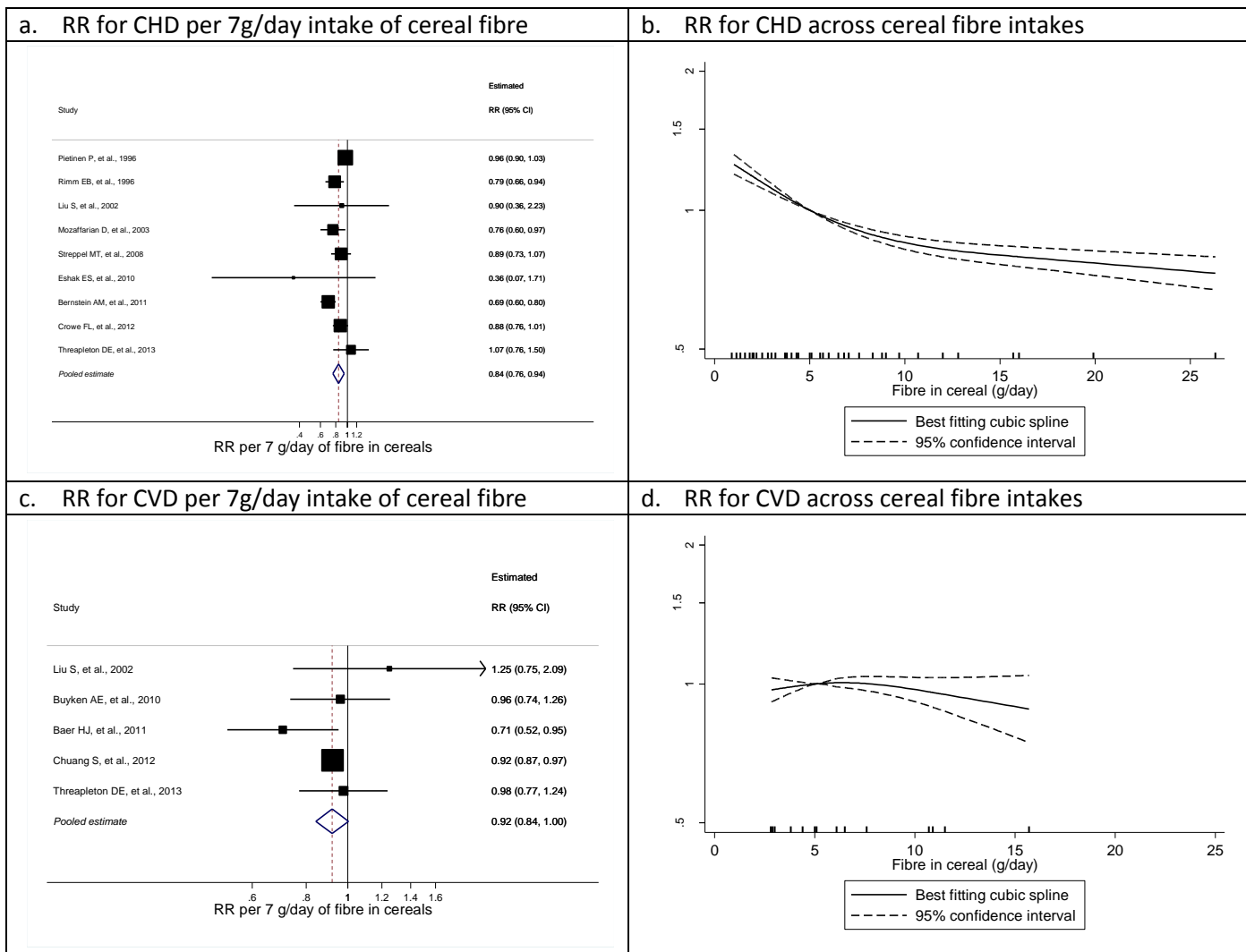
Web figure 4: Insoluble fibre intake and risk of CHD and CVD



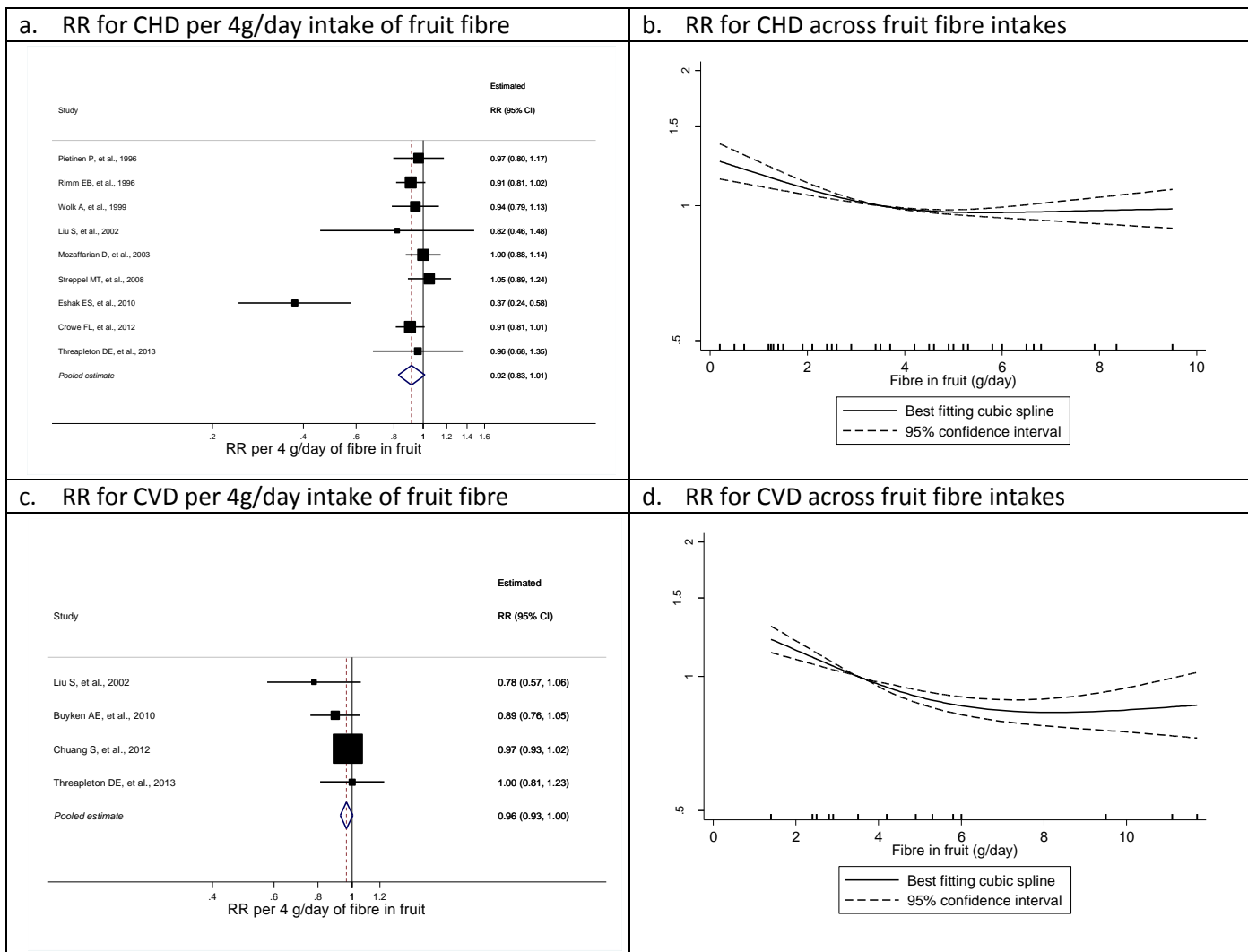
Web figure 5: Soluble fibre intake and risk of CHD and CVD



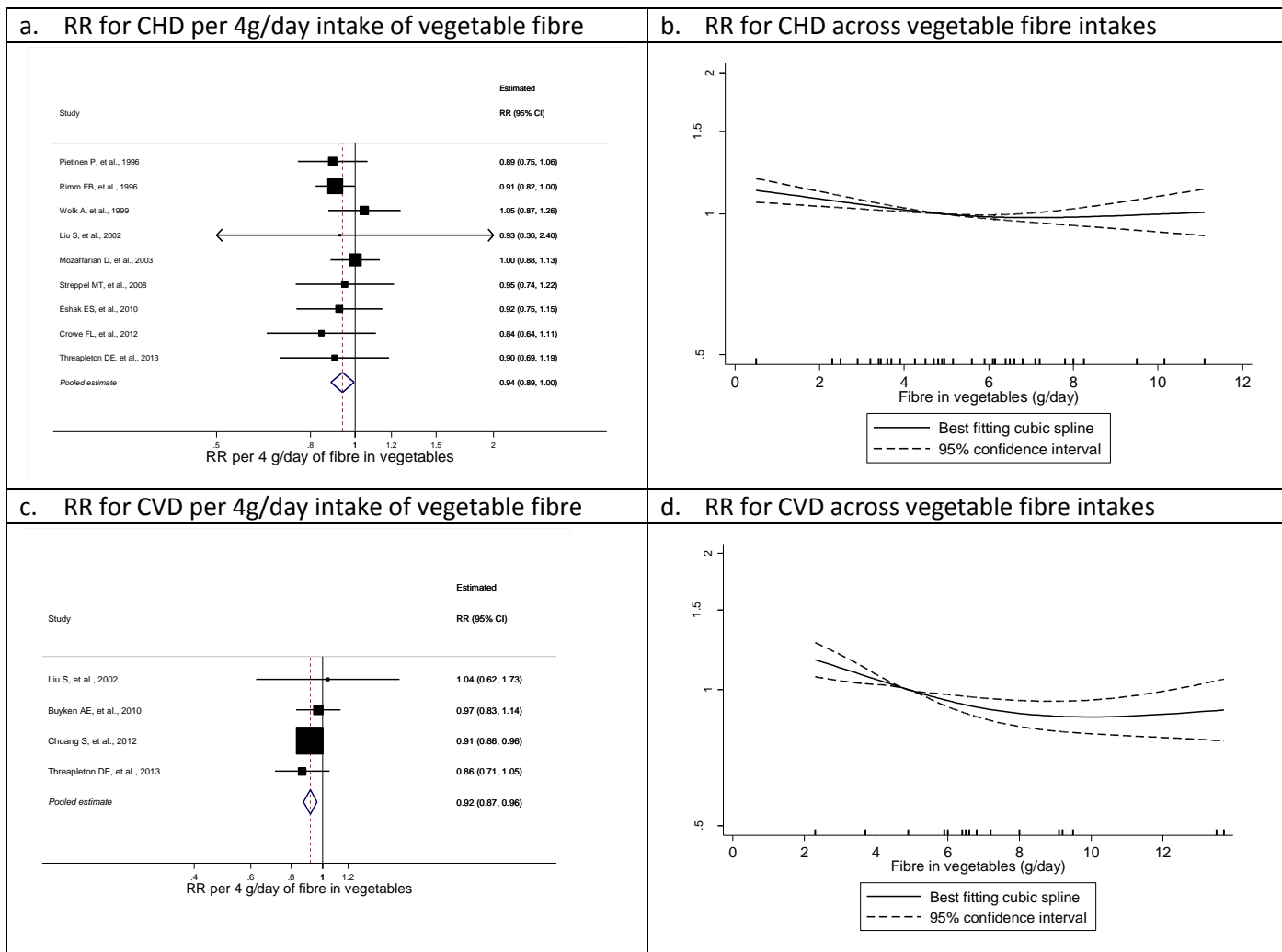
Web figure 6: Cereal fibre intake and risk of CHD and CVD



Web figure 7: Fruit fibre intake and risk of CHD and CVD



Web figure 8: Vegetable fibre intake and risk of CHD and CVD



Web Table 1: Quality assessment of studies included in meta-analyses, using the Newcastle-Ottawa Scale for assessing cohort studies¹

Author	Study	Selection	Comparability	Outcome/ Exposure
Pietinen et al ³	Alpha-Tocopherol Beta-Carotene Study	***	**	**
Rimm et al ⁴	Health Professionals' Follow-up Study	**	**	***
Wolk et al ⁵	Nurses' Health Study	**	**	***
Liu et al ⁶	The Women's Health Study	**	**	**
Bazzano et al ⁷	NHANES I	****	**	***
Mozaffarian et al ⁸	Cardiovascular Health Study	***	**	**
Streppel et al ⁹	Zutphen Elderly Study	***	**	***
Buyken et al ¹⁰	Blue Mountains Eye Study	**	**	***
Eshak et al ¹¹	Japan Collaborative Cohort Study	***	**	***
Akbaraly et al ¹²	Whitehall II	*	**	***
Baer et al ¹³	Nurses' Health Study	**	**	**
Bernstein et al ¹⁴	Nurses' Health Study	**	**	***
Kokubo et al ¹⁵	Japan Public Health Centre-based cohort	***	**	***
Park et al ¹⁶	National Institute of Health-AARP Diet and Health Study	***	**	**
Chuang et al ¹⁷	EPIC	***	**	**
Crowe et al ¹⁸	EPIC -Heart	***	**	**
Wallstrom et al ¹⁹	Malmo Diet and Cancer Cohort	****	**	***
Threapleton et al ²⁰	UK Women's Cohort Study	**	**	**

Note that scores may differ between publications from the same cohort study as scores were assigned on the information provided within each separate report.

Web Table 2: Study subgroup pooled risk estimates for CVD, CHD and total fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male	0.91 (0.89, 0.92)	0%	5	0.8		0.90 (0.84, 0.96)	53%	5	0.07	
	Mixed	0.86 (0.73, 1.02)	73%	3	0.03	0.1	0.92 (0.87, 0.98)	33%	4	0.2	0.9
	Female	0.93 (0.85, 1.01)	0%	2	0.6		0.89 (0.80, 1.00)	0%	3	0.4	
method used to assess fibre	AOAC	0.91 (0.88, 0.94)	54%	8	0.03		0.89 (0.84, 0.93)	40%	10	0.09	
	not AOAC	0.89 (0.75, 1.06)	14%	2	0.3	1	0.95 (0.90, 1.00)	0%	2	0.9	0.2
median intake in study	≤overall median	0.91 (0.88, 0.94)	61%	6	0.02		0.89 (0.84, 0.95)	51%	8	0.05	
	>overall median	0.90 (0.85, 0.95)	0%	4	0.4	0.7	0.93 (0.89, 0.97)	0%	4	0.5	0.5
includes non-fatal events	Yes	0.94 (0.91, 0.96)	8%	4	0.4		0.92 (0.88, 0.95)	30%	10	0.2	
	No	0.90 (0.87, 0.93)	21%	6	0.3	0.2	0.85 (0.75, 0.96)	15%	2	0.3	0.3
length of follow-up	<10 years	0.91 (0.89, 0.92)	0%	2	0.9		0.89 (0.82, 0.97)	57%	4	0.07	
	≥10 years	0.91 (0.87, 0.95)	48%	8	0.06	0.1	0.92 (0.88, 0.96)	21%	8	0.3	0.8
geographic location	Americas	0.93 (0.89, 0.96)	75%	3	0.02		0.89 (0.82, 0.96)	58%	5	0.05	
	EU	0.90 (0.86, 0.94)	0%	4	0.4	0.6	0.93 (0.90, 0.97)	0%	5	0.6	0.4
	Other	0.88 (0.80, 0.95)	32%	3	0.2		0.80 (0.68, 0.92)	0%	2	0.6	
adjusted for age	yes	0.91 (0.88, 0.94)	46%	10	0.06		0.91 (0.87, 0.94)	33%	12	0.1	
	no			0					0		
adjusted for alcohol	yes	0.91 (0.88, 0.94)	54%	8	0.03		0.91 (0.87, 0.94)	33%	12	0.1	
	No	0.89 (0.69, 1.14)	24%	2	0.2	0.9			0		
adjusted for anthropometry	yes	0.91 (0.88, 0.94)	46%	10	0.06		0.91 (0.87, 0.94)	39%	11	0.09	
	No			0					1		0.7
adjusted for energy intake	yes	0.91 (0.88, 0.94)	46%	10	0.06		0.91 (0.87, 0.94)	33%	12	0.1	
	No			0					0		
adjusted for family history	yes			1			0.83 (0.76, 0.90)	0%	3	0.9	
	No	0.91 (0.88, 0.94)	51%	9	0.04	0.8	0.94 (0.91, 0.96)	0%	9	0.4	0.02
adjusted for physical activity	yes	0.91 (0.88, 0.94)	51%	9	0.04		0.91 (0.87, 0.95)	36%	11	0.1	
	No			1		0.7	0.88 (0.78, 0.99)		1		0.7
adjusted for gender	yes	0.91 (0.88, 0.94)	46%	10	0.06		0.91 (0.87, 0.94)	33%	12	0.1	
	No			0					0		
adjusted for smoking	yes	0.91 (0.88, 0.94)	46%	10	0.06		0.91 (0.87, 0.94)	33%	12	0.1	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

Web Table 3: Study subgroup pooled risk estimates for CVD, CHD and insoluble fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male			0			0.89 (0.79, 1.02)	56%	2	0.1	
	Mixed	0.67 (0.52, 0.86)		1		0.8	0.35 (0.20, 0.61)		1		0.2
	Female	0.88 (0.77, 1.00)	0%	2	0.06		0.88 (0.71, 1.11)	0%	2	0.3	
method used to assess fibre	AOAC	0.77 (0.61, 0.98)	61%	2	0.1	0.6	0.67 (0.46, 0.97)	76%	3	0.02	0.3
	not AOAC	0.91 (0.74, 1.13)		1			0.94 (0.88, 1.01)	0%	2	0.7	
median intake in study	≤overall median	0.82 (0.70, 0.96)	46%	3	0.2		0.69 (0.42, 1.13)	80%	3	0.006	0.6
	>overall median			0			0.94 (0.87, 1.01)		1		
includes non-fatal events	Yes	0.85 (0.73, 1.00)		1		0.8	0.91 (0.84, 0.98)	10%	4	0.3	0.05
	No	0.79 (0.58, 1.07)	71%	2	0.06		0.35 (0.20, 0.61)		1		
length of follow-up	<10 years	0.85 (0.73, 1.00)		1		0.8	0.89 (0.80, 0.99)	34%	3	0.2	0.5
	≥10 years	0.79 (0.58, 1.07)	71%	2	0.06		0.61 (0.22, 1.69)	90%	2	0.001	
geographic location	Americas	0.85 (0.73, 1.00)		1			0.81 (0.70, 0.94)	0%	2	0.9	
	EU	0.91 (0.74, 1.13)		1			0.94 (0.88, 1.01)	0%	2	0.7	0.8
	Other	0.67 (0.52, 0.86)		1			0.35 (0.20, 0.61)		1		
adjusted for age	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	no			0					0		
adjusted for alcohol	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		
adjusted for anthropometry	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		
adjusted for energy intake	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		
adjusted for family history	yes	0.85 (0.73, 1.00)		1		0.8	0.81 (0.70, 0.94)	0%	2	0.9	0.8
	No	0.79 (0.58, 1.07)	71%	2	0.06		0.75 (0.49, 1.15)	84%	3	0.002	
adjusted for physical activity	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		
adjusted for gender	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		
adjusted for smoking	yes	0.82 (0.70, 0.96)	46%	3	0.2		0.82 (0.68, 0.99)	73%	5	0.005	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

Web Table 4: Study subgroup pooled risk estimates for CVD, CHD and soluble fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male			0			0.89 (0.70, 1.15)	59%	2	0.1	
	Mixed	0.71 (0.35, 1.42)	84%	2	0.01	0.7	0.61 (0.21, 1.73)	83%	2	0.02	0.9
	Female	0.87 (0.69, 1.05)	0%	2	0.2		0.86 (0.65, 1.14)	0%	2	0.9	
method used to assess fibre	AOAC	0.87 (0.68, 1.08)	69%	3	0.004	0.9	0.90 (0.74, 1.11)	54%	4	0.09	0.3
	not AOAC	0.86 (0.68, 1.08)		1			0.82 (0.86, 0.97)	0%	2	0.6	
median intake in study	≤overall median	0.71 (0.35, 1.42)	84%	2	0.01	0.7	0.82 (0.63, 1.06)	77%	3	0.01	0.9
	>overall median	0.89 (0.76, 1.05)	0%	2	0.7		0.86 (0.65, 1.14)	0%	2	0.9	
includes non-fatal events	Yes	0.96 (0.94, 0.98)	0%	2	0.7	0.3	0.94 (0.91, 0.98)	0%	5	0.4	0.08
	No	0.67 (0.37, 1.20)	73%	2	0.05		0.32 (0.13, 0.78)		1		
length of follow-up	<10 years	0.92 (0.74, 1.15)		1		1	0.88 (0.74, 1.04)	18%	3	0.3	0.7
	≥10 years	0.83 (0.65, 1.07)	72%	3	0.03		0.81 (0.57, 1.15)	66%	3	0.05	
geographic location	Americas	0.96 (0.94, 0.98)	0%	2	0.7	0.1	0.95 (0.91, 0.99)	0%	3	0.7	0.2
	EU	0.86 (0.68, 1.08)		1			0.82 (0.68, 0.97)	0%	2	0.6	
	Other	0.47 (0.27, 0.82)		1			0.32 (0.13, 0.78)		1		
adjusted for age	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	no			0					0		
adjusted for alcohol	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		
adjusted for anthropometry	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		
adjusted for energy intake	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		
adjusted for family history	yes	0.92 (0.74, 1.15)		1		0.7	0.98 (0.78, 1.22)	0%	2	0.4	0.6
	No	0.83 (0.65, 1.07)	72%	3	0.03		0.84 (0.69, 1.03)	66%	4	0.03	
adjusted for physical activity	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		
adjusted for gender	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		
adjusted for smoking	yes	0.88 (0.75, 1.03)	59%	4	0.06		0.89 (0.78, 1.02)	47%	6	0.09	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

Web Table 5: Study subgroup pooled risk estimates for CVD, CHD and cereal fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male	0.92 (0.88, 0.97)	0%	2	0.8		0.89 (0.79, 1.01)	58%	3	0.09	
	Mixed			0		0.8	0.83 (0.73, 0.96)	6%	3	0.3	0.7
	Female	0.91 (0.69, 1.21)	56%	3	0.1		0.84 (0.59, 1.18)	64%	3	0.06	
method used to assess fibre	AOAC	0.91 (0.79, 1.04)	33%	4	0.2	0.7	0.80 (0.73, 0.87)	20%	7	0.3	0.04
	not AOAC	0.98 (0.77, 1.24)		1			0.97 (0.91, 1.03)	0%	2	0.5	
median intake in study	≤overall median	0.90 (0.52, 1.57)	72%	2	0.06	0.5	0.74 (0.66, 0.81)	0%	5	0.7	0.004
	>overall median	0.93 (0.88, 0.98)	0%	3	0.9		0.95 (0.89, 1.00)	0%	4	0.5	
includes non-fatal events	Yes	1.25 (0.75, 2.09)		1		0.4	0.84 (0.74, 0.96)	72%	7	0.01	0.9
	No	0.91 (0.85, 0.99)	11%	4	0.3		0.80 (0.45, 1.14)	21%	2	0.3	
length of follow-up	<10 years	1.25 (0.75, 2.09)		1		0.2	0.86 (0.74, 1.00)	59%	4	0.06	0.5
	≥10 years	0.91 (0.85, 0.99)	11%	4	0.3		0.84 (0.71, 0.98)	60%	5	0.04	
geographic location	Americas	0.90 (0.52, 1.57)	72%	2	0.06		0.74 (0.67, 0.82)	0%	4	0.7	
	EU	0.92 (0.88, 0.98)	0%	2	0.6	0.8	0.95 (0.89, 1.00)	0%	4	0.5	0.08
	Other	0.96 (0.74, 1.26)		1			0.36 (0.07, 1.71)		1		
adjusted for age	yes	0.92 (0.84, 1.00)	15%	5	0.3		0.84 (0.76, 0.94)	65%	9	0.003	
	no			0					0		
adjusted for alcohol	yes	0.91 (0.80, 1.04)	35%	4	0.2	0.8	0.84 (0.76, 0.94)	65%	9	0.003	
	No	0.96 (0.74, 1.26)		1						0	
adjusted for anthropometry	yes	0.92 (0.84, 1.00)	15%	5	0.3		0.86 (0.76, 0.96)	67%	8	0.004	0.5
	No			0			0.76 (0.60, 0.97)		1		
adjusted for energy intake	yes	0.93 (0.88, 0.98)	0%	4	0.7	0.2	0.84 (0.76, 0.94)	65%	9	0.003	
	No	0.71 (0.52, 0.95)		1						0	
adjusted for family history	yes	0.90 (0.52, 1.57)	72%	2	0.06	<0.001	0.73 (0.66, 0.82)	0%	3	0.5	0.03
	No	0.93 (0.88, 0.98)	0%	3	0.9		0.91 (0.84, 0.99)	27%	6	0.2	
adjusted for physical activity	yes	0.93 (0.88, 0.98)	0%	3	0.5	0.4	0.84 (0.74, 0.95)	70%	8	0.002	0.8
	No	0.83 (0.61, 1.12)	56%	2	0.1		0.89 (0.73, 1.07)		1		
adjusted for gender	yes	0.92 (0.84, 1.00)	15%	5	0.3		0.84 (0.76, 0.94)	65%	9	0.003	
	No			0					0		
adjusted for smoking	yes	0.92 (0.84, 1.00)	15%	5	0.3		0.84 (0.76, 0.94)	65%	9	0.003	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

Web Table 6: Study subgroup pooled risk estimates for CVD, CHD and fruit fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male	0.97 (0.93, 1.01)	0%	2	0.3		0.96 (0.88, 1.04)	1%	3	0.4	
	Mixed			0		0.7	0.77 (0.57, 1.04)	89%	3	<0.001	0.6
method used to assess fibre	AOAC	0.91 (0.71, 1.15)	42%	2	0.2		0.94 (0.80, 1.09)	0%	3	0.9	
	not AOAC	0.94 (0.86, 1.02)	29%	3	0.2	0.7	0.90 (0.79, 1.02)	71%	7	0.002	0.7
median intake in study	≤overall median	1.00 (0.81, 1.23)		1			0.94 (0.87, 1.03)	0%	2	1	
	>overall median			0			0.87 (0.73, 1.04)	80%	5	<0.001	0.7
includes non-fatal events	Yes	0.96 (0.93, 1.00)	0%	4	0.4		0.94 (0.87, 1.03)	0%	4	0.7	
	No	0.78 (0.57, 1.06)		1		0.3	0.94 (0.88, 0.99)	0%	7	0.9	0.3
length of follow-up	<10 years	0.97 (0.93, 1.01)	0%	3	0.6		0.64 (0.23, 1.75)	95%	2	<0.001	
	≥10 years	0.78 (0.57, 1.06)		1		0.3	0.95 (0.88, 1.02)	0%	4	0.7	0.7
geographic location	Americas	0.97 (0.93, 1.01)	0%	3	0.6		0.86 (0.70, 1.05)	79%	5	<0.001	
	EU	0.78 (0.57, 1.06)		1		0.5	0.94 (0.87, 1.02)	0%	4	0.7	
	Other	0.97 (0.93, 1.02)	0%	2	0.8		0.95 (0.88, 1.03)	0%	4	0.5	0.5
adjusted for age	yes	0.89 (0.76, 1.05)		1					1		
	no	0.96 (0.93, 1.00)	0%	4	0.4		0.92 (0.83, 1.01)	62%	9	0.007	
adjusted for alcohol	yes			0		0.4	0.92 (0.83, 1.01)	62%	9	0.007	
	No	0.97 (0.92, 1.02)	3%	3	0.4				0		
adjusted for anthropometry	yes	0.89 (0.76, 1.05)		1			0.90 (0.80, 1.01)	65%	8	0.006	0.6
	No	0.96 (0.93, 1.00)	0%	4	0.4		1.00 (0.88, 1.14)		1		
adjusted for energy intake	yes			0			0.92 (0.83, 1.01)	62%	9	0.007	
	No	0.96 (0.93, 1.00)	0%	4	0.4				0		
adjusted for family history	yes	0.78 (0.57, 1.06)		1		0.3	0.92 (0.83, 1.01)	0%	3	0.9	0.9
	No	0.97 (0.93, 1.01)	0%	3	0.6		0.90 (0.77, 1.05)	76%	6	<0.001	
adjusted for physical activity	yes	0.97 (0.92, 1.02)	3%	3	0.4	0.4	0.90 (0.80, 1.00)	63%	8	0.009	0.4
	No	0.89 (0.76, 1.05)		1			1.05 (0.89, 1.24)		1		
adjusted for gender	yes	0.96 (0.93, 1.00)	0%	4	0.4		0.92 (0.83, 1.01)	62%	9	0.007	
	No			0					0		
adjusted for smoking	yes	0.96 (0.93, 1.00)	0%	4	0.4		0.92 (0.83, 1.01)	62%	9	0.007	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

Web Table 7: Study subgroup pooled risk estimates for CVD, CHD and vegetable fibre intake

Subgroup of studies	Subgroup	RR (95%CI)	CVD				CHD				
			I ²	n	P _{het} [*]	P _{het} [†]	RR (95%CI)	I ²	n	P _{het} [*]	P _{het} [†]
subjects' gender	Male	0.92 (0.87, 0.97)	0%	2	0.5		0.91 (0.84, 0.98)	0%	3	0.9	
	Mixed			0		0.7	0.96 (0.97, 1.06)	0%	3	0.5	0.5
	Female	0.88 (0.74, 1.06)	0%	2	0.5		1.00 (0.86, 1.16)	0%	3	0.7	
method used to assess fibre	AOAC	0.92 (0.87, 0.97)	0%	3	0.7		0.95 (0.89, 1.01)	0%	7	0.7	
	not AOAC	0.86 (0.71, 1.05)		1		0.6	0.90 (0.77, 1.04)	0%	2	1	0.5
median intake in study	≤overall median	0.91 (0.86, 0.96)	0%	2	0.6		0.90 (0.82, 1.00)	0%	5	1	
	>overall median	0.98 (0.84, 1.13)	0%	2	0.8	0.5	0.96 (0.89, 1.03)	0%	4	0.4	0.4
includes non-fatal events	Yes	1.04 (0.62, 1.73)		1		0.7	0.94 (0.88, 1.00)	0%	7	0.7	1
	No	0.91 (0.87, 0.96)	0%	3	0.7		0.94 (0.80, 1.10)	0%	2	0.9	
length of follow-up	<10 years	1.04 (0.62, 1.73)		1		0.6	0.93 (0.87, 1.00)	0%	4	0.6	
	≥10 years	0.91 (0.87, 0.96)	0%	3	0.7		0.95 (0.86, 1.05)	0%	5	0.7	0.8
geographic location	Americas	1.04 (0.62, 1.73)		1		0.7	0.96 (0.89, 1.03)	0%	4	0.4	
	EU	0.91 (0.86, 0.96)	0%	2	0.6		0.90 (0.75, 1.15)	0%	4	0.9	0.5
	Other	0.97 (0.83, 1.14)		1			0.92 (0.75, 1.15)		1		
adjusted for age	yes	0.92 (0.87, 0.96)	0%	4	0.8		0.94 (0.89, 1.00)	0%	9	0.9	
	no			0					0		
adjusted for alcohol	yes	0.91 (0.86, 0.96)	0%	3	0.8		0.94 (0.89, 1.00)	0%	9	0.9	
	No	0.97 (0.83, 1.14)		1		0.5			0		
adjusted for anthropometry	yes	0.92 (0.87, 0.96)	0%	4	0.8		0.92 (0.86, 0.99)	0%	8	0.9	
	No			0			1.00 (0.88, 1.13)		1		0.3
adjusted for energy intake	yes	0.92 (0.87, 0.96)	0%	4	0.8		0.94 (0.89, 1.00)	0%	9	0.9	
	No			0					0		
adjusted for family history	yes	1.04 (0.62, 1.73)		1		0.7	0.94 (0.86, 1.02)	0%	3	0.4	
	No	0.91 (0.87, 0.96)	0%	3	0.7		0.94 (0.87, 1.02)	0%	6	0.8	0.9
adjusted for physical activity	yes	0.91 (0.86, 0.96)	0%	3	0.8		0.94 (0.88, 1.00)	0%	8	0.8	
	No	0.97 (0.83, 1.14)		1		0.5	0.95 (0.74, 1.22)		1		0.9
adjusted for gender	yes	0.92 (0.87, 0.96)	0%	4	0.8		0.94 (0.89, 1.00)	0%	9	0.9	
	No			0					0		
adjusted for smoking	yes	0.92 (0.87, 0.96)	0%	4	0.8		0.94 (0.89, 1.00)	0%	9	0.9	
	No			0					0		

P_{het}^{*} Heterogeneity within each subgroup; P_{het}[†] Heterogeneity between each subgroup. Abbreviations: AOAC Association of Official Analytical Chemists; CI confidence intervals; EU European Union; n Number of studies; RR relative risk. Note, where numbers do not sum to the total number of studies in the analysis, this is because this information was not available from a study.

References

1. Wells GA, Shea B, O'Connell D, Peterson J, Welch V, Losos M, et al. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses. [Online] Available at: http://www.ohri.ca/programs/clinical_epidemiology/oxford.asp. [Accessed Oct 2013].
2. Moher D, Liberati A, Tetzlaff J, Altman DG. The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. doi:10.1371/journal.pmed1000097 *PLoS Med* 2009;6(6):e1000097.
3. Pietinen P, Rimm EB, Korhonen P, Hartman AM, Willett WC, Albanes D, et al. Intake of dietary fiber and risk of coronary heart disease in a cohort of Finnish men. The Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study. *Circulation* 1996;94(11):2720-27.
4. Rimm EB, Ascherio A, Giovannucci E, Spiegelman D, Stampfer MJ, Willett WC. Vegetable, fruit, and cereal fiber intake and risk of coronary heart disease among men. *Journal of the American Medical Association* 1996;275(6):447-51.
5. Wolk A, Manson JE, Stampfer MJ, Colditz GA, Hu FB, Speizer FE, et al. Long-term intake of dietary fiber and decreased risk of coronary heart disease among women. *Journal of the American Medical Association* 1999;281(21):1998-2004.
6. Liu S, Buring JE, Sesso HD, Rimm EB, Willett WC, Manson JE. A prospective study of dietary fiber intake and risk of cardiovascular disease among women. *Journal of the American College of Cardiology* 2002;39(1):49-56.
7. Bazzano LA, He J, Ogden LG, Loria CM, Whelton PK, National Health Nutrition Examination Survey. Dietary fiber intake and reduced risk of coronary heart disease in US men and women: the National Health and Nutrition Examination Survey I Epidemiologic Follow-up Study. *Archives of Internal Medicine* 2003;163(16):1897-904.
8. Mozaffarian D, Kumanyika SK, Lemaitre RN, Olson JL, Burke GL, Siscovick DS. Cereal, fruit, and vegetable fiber intake and the risk of cardiovascular disease in elderly individuals. *Journal of the American Medical Association* 2003;289(13):1659-66.
9. Streppel MT, Ocke MC, Boshuizen HC, Kok FJ, Kromhout D. Dietary fiber intake in relation to coronary heart disease and all-cause mortality over 40 y: the Zutphen Study. *Am J Clin Nutr* 2008;88(4):1119-25.
10. Buyken AE, Flood V, Empson M, Roachchina E, Barclay AW, Brand-Miller J, et al. Carbohydrate nutrition and inflammatory disease mortality in older adults. *Am J Clin Nutr* 2010;92(3):634-43.
11. Eshak ES, Iso H, Date C, Kikuchi S, Watanabe Y, Wada Y, et al. Dietary fiber intake is associated with reduced risk of mortality from cardiovascular disease among Japanese men and women. *Journal of Nutrition* 2010;140(8):1445-53.
12. Akbaraly TN, Ferrie JE, Berr C, Brunner EJ, Head J, Marmot MG, et al. Alternative healthy eating index and mortality over 18 y of follow-up: Results from the Whitehall II cohort. *Am J Clin Nutr* 2011;94(1):247-53.
13. Baer HJ, Glynn RJ, Hu FB, Hankinson SE, Willett WC, Colditz GA, et al. Risk factors for mortality in the nurses' health study: a competing risks analysis. *American Journal of Epidemiology* 2011;173(3):319-29.
14. Bernstein AM, Rosner BA, Willett WC. Cereal fiber and coronary heart disease: a comparison of modeling approaches for repeated dietary measurements, intermediate outcomes, and long follow-up. *Eur J Epidemiol* 2011;26(11):877-86.
15. Kokubo Y, Iso H, Saito I, Yamagishi K, Ishihara J, Inoue M, et al. Dietary fiber intake and risk of cardiovascular disease in the Japanese population: The Japan Public Health Center-based study cohort. *European Journal of Clinical Nutrition* 2011;65(11):1233-41.

16. Park Y, Subar AF, Hollenbeck A, Schatzkin A. Dietary fiber intake and mortality in the NIH-AARP diet and health study. *Archives of Internal Medicine* 2011;171(12):1061-68.
17. Chuang S-C, Norat T, Murphy N, Olsen A, Tjønneland A, Overvad K, et al. Fiber intake and total and cause-specific mortality in the European Prospective Investigation into Cancer and Nutrition cohort. *Am J Clin Nutr* 2012;96(1):164-74.
18. Crowe FL, Key TJ, Appleby PN, Overvad K, Schmidt EB, Egeberg R, et al. Dietary fibre intake and ischaemic heart disease mortality: the European Prospective Investigation into Cancer and Nutrition-Heart study. *European Journal of Clinical Nutrition* 2012;66(8):950-56.
19. Wallstrom P, Sonestedt E, Hlebowicz J, Ericson U, Drake I, Persson M, et al. Dietary fiber and saturated fat intake associations with cardiovascular disease differ by sex in the Malmo diet and cancer cohort: A prospective study. *PLoS ONE* 2012;7(2).
20. Threapleton DE, Greenwood DC, Burley VJ, Aldwairji M, Cade JE. Dietary fibre and cardiovascular disease mortality in the UK Women's Cohort Study. *Eur J Epidemiol* 2013;28(4):335-46.