

Table 4-B-I-4. Overview Table: Stroke, Myocardial Infarction and Heart Failure

Author, Year Study Design	Sample Size Location Duration Dietary Assessment	Population Age/Gender Cohort	Exposure Index/Score	Outcomes Measured	Health Outcome
Stroke					
1. Agnoli et al., 2011 Prospective Cohort	N = 40,681 Italy 8 y FFQ (188 item)	♀ 35–74 y ♂ 35–64 y 60% Women EPIC-Italy	HEI-2005 Total Score 0 - 100 DASH score Total Score 8 - 40 MDS Total Score 0 - 9 Italian Med Index, Total Score 0 - 11	Stroke (all types of stroke, ischemic stroke, and hemorrhagic stroke)	Stroke: All patterns except HEI-2005 inversely associated, strongest association for Italian Index (highest to lowest tertile): HR = 0.47 (95%CI = 0.30 - 0.75, P for trend <0.001) Ischemic Stroke: All patterns except MDS inversely associated, strongest association for Italian Index (highest to lowest tertile): HR = 0.37 (95%CI = 0.19 - 0.70, P for trend < 0.001)
2. Chiuve et al., 2012 Prospective Cohort	N = 112,488 U.S. 24 y FFQ (131-item) validated	♀ 30–55 y ♂ 40–75 y 64% Women NHS and HPFS	HEI - 2005 Total Score 0 - 100 AHEI - 2010 Total Score 0 - 110	CVD (CHD, stroke, or angina)	Comparing highest to lowest quintile of HEI-2005 and AHEI-2010 scores for each outcome (each adjusted for the other score): Stroke: HEI-2005: RR = 0.90 (95% CI = 0.77 - 1.05; P for trend = 0.12, NS) AHEI-2010: RR = 0.86 (95% CI = 0.74 - 1.00; P for trend = 0.03) P for similar effects of diet scores = 0.87, NS
3. Estruch et al., 2013 RCT	Initial N = 7,447 Final N = 6,924 Intent to treat analysis Spain 4.8 y FFQ (137-item) validated	55–80 y High CVD risk 57% Women PREDIMED Trial	Med diet + olive oil (OO) (N = 2,543) or Med diet + nuts (N = 2,454) vs control, low-fat diet (N = 2,450)	Major cardiovascular events (MI, stroke, or death from cardio-vascular causes)	Stroke: Med + OO vs control: HR = 0.67 (95% CI = 0.46 - 0.98, P = 0.04) Med + nuts vs control diet: HR = 0.54 (95% CI = 0.35 - 0.84, P = 0.006) Med diets combined vs control diet: HR = 0.61 (95% CI = 0.44 - 0.86, P for trend <0.005) For both Med diet groups, adherence to Med Diet scores were higher than the control group (P<0.0001 for all yearly comparisons of follow-up).
4. Folsom et al., 2007 Prospective Cohort	N = 20,993 U.S. 16 y FFQ (127-item) validated	55–69 y Women IWHS	DASH Score Total Score 0 - 11	CVD, CHD, and stroke mortality	Stroke mortality , comparing highest to lowest quintile of DASH scores: HR = 0.82 (95% CI = 0.55 - 1.23; P for trend = 0.44)
5. Fung et al., 2008 Prospective Cohort	N = 88,517 U.S. 24 y FFQ (116-item) validated (assessed 7X)	34–59 y Women NHS	DASH Score Total Score 8 - 40	CHD (nonfatal MI or fatal CHD) and stroke	Stroke , comparing highest to lowest quintile of the DASH scores: RR = 0.83 (95% CI = 0.71 - 0.96; P for trend = 0.007)
6. Fung et al., 2009 Prospective Cohort	N = 74,886 U.S. 20 y FFQ (116-item) validated (assessed 6X)	38–63 y Women NHS	aMed Total Score 0 - 9	CVD, CHD, and stroke	Stroke , comparing the highest to lowest quintile of aMed scores: RR = 0.87 (95% CI = 0.73 - 1.02; P for trend = 0.03)

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7.	Gardener et al., 2011 Prospective Cohort	N = 2568 U.S. 9 y FFQ (Block NCI), validated	Mean Age: 69±10 y 64% Women Northern Manhattan Study (NOMAS)	MDS (as MeDi) Total Score 0 - 9	Ischemic stroke, vascular death, and MI	Ischemic Stroke , comparing the highest to lowest quintile of MDS scores: HR = 0.98 (95% CI = 0.58 - 1.65; P = 0.62)
8.	Hoevenaars-Blom et al., 2012 Prospective Cohort	N = 34,708 The Netherlands 11.8 y FFQ (178-item)	20–65 y MORGEN 50–70 y PROSPECT 75% Women EPIC-NL	MDS Total Score 0 - 9	Fatal CVD, total CVD, composite CVD, stroke, and MI	Per 2 unit increment in MDS: Stroke : HR = 0.88 (95% CI = 0.78 - 1.00) Ischemic stroke : HR = 0.86 (95% CI = 0.72 - 1.01) Hemorrhagic stroke : HR = 0.87 (95% CI = 0.60 - 1.09)
9.	Kant et al., 2000 Prospective Cohort	N = 42,254 U.S. 5.6 y FFQ (62-item), validated	40–93 y Mean Age: 61.1 y Women Breast Cancer Detection and Demonstration Project (BCDDP)	RFS Total Score 0 - 23	All-cause and CHD and Stroke mortality	Stroke mortality , comparing highest to lowest quartile of RFS: HR = 0.58 (95% CI = 0.35 - 0.96, P for trend = 0.02)
10.	Michels and Wolk, 2002 Prospective Cohort	N = 59,038 Sweden 10 y FFQ (60-item)	40–76 y Women Swedish Mammography Cohort (SMC)	RFS Total Score 0 - 17 Non-RFS Total Score 0 - 21	All-cause and CHD and Stroke mortality	Stroke mortality : Comparing highest to lowest RFS: HR = 0.40 (95% CI = 0.22 - 0.73, P for trend = 0.007) Comparing highest to lowest Non-RFS: RR = 0.96 (95% CI = 0.47 - 1.97, P for trend = 0.98) NS
11.	Misirlis et al., 2012 Prospective Cohort	N = 23,601 Greece 10.6 y FFQ (190-item) validated	58% <55 y 23% 55–64 y 19% ≥65 y 60% Women EPIC-Greece	MDS Total Score 0 - 9	Cerebrovascular disease (CBVD)	Comparing highest to lowest MDS: CBVD : HR = 0.72 (95% CI = 0.54 - 0.97) CBVD mortality : HR = 0.76 (95% CI = 0.50 - 1.16, NS) Per 2 point increase in MDS: CBVD: HR = 0.85 (95% CI = 0.74 - 0.96) CBVD mortality: HR = 0.88 (95% CI = 0.73 - 1.06, NS)
12.	Nakamura et al., 2009 Prospective Cohort	N = 9,086 Japan 19 y FFQ (31-item) NIPPON DATA80	Mean Age 49.1±13.5 – 51.7±13.0 y 56% Women National Integrated Project for Prospective Observation of Non-Communicable Diseases and its Trends in the Aged	Reduced Salt Japanese Diet Score Total Score 0 - 7	CVD, stroke, and MI mortality	Stroke death , comparing highest to lowest tertile of Reduced Salt Japanese Diet scores: HR = 0.75 (95% CI = 0.56 - 0.99; P for trend = 0.038)
13.	Tognon et al., 2012 Prospective Cohort	N = 77,151 Sweden 9 y 3 FFQs: 2 84- and 1 64-item	30–60 y (included some aged 70 y) 51% Women VIP	MMDS Total Score 0 - 8	All-cause and CVD mortality	Comparing highest to lowest MMDS: Stroke mortality for men : HR = 0.98 (95% CI = 0.85 - 1.13, NS) Stroke mortality for women : HR = 1.00 (95% CI = 0.87 - 1.17, NS)

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Myocardial Infarction					
1. Gardener et al., 2011 Prospective Cohort	N = 2568 U.S. 9 y FFQ (Block NCI), validated	Mean Age: 69±10 y 64% Women Northern Manhattan Study (NOMAS)	MDS (as MeDi) Total Score 0 - 9	Ischemic stroke, vascular death, and MI	MI, comparing the 2nd with the lowest quintile of MDS scores: HR = 0.55 (95% CI = 0.31 - 1.00; P <0.05)
2. Hansen-Krone et al., 2012 Prospective Cohort	N = 18,062 Norway 10.8 y FFQ (37-item)	25–69 y Mean Age: 42 ±11 y 52% Women Tromso study	Smart Diet score Total Score 15 - 45 (this study 13 - 39)	MI (fatal and non-fatal)	MI, comparing highest to lowest tertile of Smart Diet scores: HR = 0.83 (95% CI = 0.66 - 1.06, P for trend = 0.1, NS)
3. Hoevenaar-Blom et al., 2012 Prospective Cohort	N = 34,708 The Netherlands 11.8 y FFQ (178-item)	20–65 y MORGEN 50–70 y PROSPECT 75% Women EPIC-NL	MDS Total Score 0 - 9	Fatal CVD, total CVD, composite CVD, stroke, and MI	MI, per 2 unit increment in MDS: HR = 0.86 (95% CI = 0.79 - 0.93)
4. Nakamura et al., 2009 Prospective Cohort	N = 9,086 Japan 19 y FFQ (31-item) NIPPON DATA80	Mean Age: 49.1±13.5 – 51.7±13.0 y 56% Women National Integrated Project for Prospective Observation of Non-Communicable Diseases and its Trends in the Aged	Reduced Salt Japanese Diet Score Total Score 0 - 7	CVD, stroke, and MI mortality	Acute MI death, comparing highest to lowest tertile of Reduced Salt Japanese Diet scores: HR = 0.84 (95% CI = 0.55 - 1.27; P for trend = 0.42, NS)
5. Tognon et al., 2012 Prospective Cohort	N = 77,151 Sweden 9 y 3 FFQs: 2 84- and 1 64-item	30–60 y (included some aged 70 y) 51% Women VIP	MMDS Total Score 0 - 8	All-cause and CVD mortality	Comparing highest to lowest MMDS: MI mortality for men: HR = 0.96 (95% CI = 0.89 - 1.04, NS) MI mortality for women: HR = 0.84 (95% CI = 0.71 - 0.99, P for trend < 0.05)
Heart Failure					
1. Belin et al., 2011 Prospective Cohort	N = 79,752 (CVD) N = 83,183 (HF) U.S. 10 y FFQ (WHI)	50–79 y Women, Postmenopausal WHI	AHEI Total Score 2.5 - 87.5 Dietary Modification Index (DMI) Total Score 6 - 30	Composite CVD (nonfatal MI, CHD death, coronary artery bypass graft/ coronary angioplasty, stroke, and HF) and HF alone	HF, comparing highest to lowest quintiles: DMI: HR = 0.91 (95% CI = 0.78 - 1.06, P for trend = 0.045) AHEI: HR = 0.70 (95% CI = 0.59 - 0.82, P for trend <0.001)
2. Levitan et al., 2009a Prospective Cohort	N = 36,019 Sweden 7 y FFQ (96-item)	48–83 y Women SMC	1) DASH score of Fung 2) DASH score of Folsom 3) DASH Food score of NHLBI 4) DASH Nutrient score of NHLBI	Heart Failure (HF)	HF, comparing highest to lowest quartile of DASH scores (Fung): HR = 0.63 (95% CI = 0.48 - 0.81, P for trend <0.0001) DASH scores (NHLBI Food Rec): HR = 0.69 (95% CI = 0.52 - 0.90, P for trend = 0.007) DASH scores (NHLBI Nutrient Rec): HR = 0.69 (95% CI = 0.51 - 0.93, P for trend = 0.02) DASH score (Folsom) NS
3. Levitan et al., 2009b Prospective Cohort	N = 38,987 Sweden 9 y FFQ (96-item)	45–79 y Men CSM	DASH score Total Score 8 - 40	Heart Failure (HF)	HF, comparing highest to lowest quartile of DASH scores: RR = 0.78 (95% CI = 0.65 - 0.95; P for trend = 0.006).