

**Table E-2. Observational studies**

Author, year, PMID, country	Study name	Study Design	Funding source/Conflict of interest	Study start date(s)	Eligibility Criteria	Study Population
Amiano, 2014, 24360762, Spain	Spanish Cohort of the European Prospective Investigation into Cancer and Nutrition (EPIC)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1992	20-69 years from five Spanish regions. Exclusions: diagnosis of CHD before the recruitment period and subjects with implausible dietary data	Primary Prevention, Healthy
Ascherio, 1995, 7885425, US	Health Professional Follow-up Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No Data on funding or affiliations/No Data regarding conflict of interest	1986	Inclusion Criteria: mail health professionals; aged 40 to 75. Exclusion Criteria: previously diagnosed stroke, myocardial infarction, coronary artery surgery, angina pectoris, peripheral arterial disease, diabetes mellitus, transient ischemic attack, or other cardiovascular disease, stroke, cancer; Daily caloric intake outside range of 800 and 4200 kcal; incompleteness of data on food consumption (more than 70 blanks out of 131 listed food items); no information on fish intake at baseline	Primary Prevention, Healthy
Belin, 2011, 21610249, US	Women's Health Initiative	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	nd	Women, 50-79 y, Healthy	Primary Prevention, Healthy
Bell, 2014, 24496442, US	VITAL	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported (funding or affiliations reported)/No conflict of interest (explicitly stated)	2000	Men and women aged 50-76 y who completed a FFQ accurately. Patients were excluded if they reported an abnormally high (>5000 kcal for men, >4000 kcal for women) or low (<800 kcal for men, <600 kcal for women) daily energy intake, or had a condition that would affect absorption of supplements (eg gastric bypass surgery).	Primary Prevention, Healthy
Brouwer, 1996, 16569549, Netherlands	Rotterdam Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	1990	People aged 55 years and older who had no atrial fibrillation (primary study) people aged 55 years and older who had no heart failure (secondary study)	Primary Prevention, Healthy: The population is a mixture of people
de Goede, 2010, 20335635, Netherlands	MORGEN	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No Data on funding or affiliations/No conflict of interest	1993	20-65 y with no history of MI or stroke	Primary Prevention, Healthy

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De Goede, 2013, 22633188, Netherlands	MORGEN	Nested Case Control	Authors report industry affiliation	1993	20-65 y with no history of MI or stroke: N=179 cases, N=179 control matched on age, gender, and enrollment date	Primary Prevention, Healthy
de Oliveira, 2013, 24351702, US	Multi-Ethnic Study of Atherosclerosis (MESA)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	2000	US adults aged 45-84 years, free of clinical CVD at baseline. N=6814 participants in MESA, reduced to subset of N=2837, who had plasma phospholipid FA measurements, data met quality control checks, and were not taking fish oils (under study design); N=2837 US adults, multiethnic cohort	Primary Prevention, Healthy
Dolecek, 1992, 24351702, US	Multiple Risk Factor Intervention Trial	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	1973	12866 middle-aged men determined to be at high risk of CHD based on smoking status, dbp, and serum cholesterol levels	Primary Prevention, Increased CVD Risk (ie, diabetes, metabolic syndrome*, hypertension, dyslipidemia, or chronic kidney disease): a mix of population
Hara, 2013, 23047296, Japan	OACIS	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	2006	Consecutive patients with AMI who were registered in the OACIS between January 2006 and December 2009 and who were discharged alive and whose blood samples were collected at least 10 days after the onset of AMI and within 14 days before and after discharge	Secondary Prevention (history of CVD event): Acute MI
Hellstrand, 2014, 25008580, Sweden	MDC (Malmo Diet and Cancer)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	1991	Participants from Malmo Diet and Cancer cohort without prevalent CVD and diabetes. Participants live in southern part of Sweden, in city of Malmo. Aged 44-74 yrs.	Primary Prevention, Healthy
Hu, 2002, 11939867, US	Nurses' Health Study (NHS)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1980	Registered female nurses a part of the Nurses' Health Study and were between the age of 34-59, and free of cardiovascular disease and cancer at baseline in 1980	Primary Prevention, Healthy
Iso, 2006, 16401768, Japan	Japan Public Health Center-Based (JPHC) Study - Cohort I	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	January 1, 1990	Men and women who were born between 1930 and 1949 (40 to 59 years of age) and who were registered in 14 administrative districts supervised by 4 public health center (PHC) areas on January 1, 1990. We excluded men who reported myocardial infarction, angina pectoris, stroke, or cancer at baseline.	Primary Prevention, Healthy

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Itakura, 2011, 21099130, Japan	JELIS	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry only donated materials/Authors report industry affiliation	1996-1999	Hypercholesterolemia >250mg/dL total cholesterol or >170mg/dL LDL; everyone was on a statin (10mg pravastatin or 5mg simvastatin qd)	Primary Prevention, Increased CVD Risk (ie, diabetes, metabolic syndrome*, hypertension, dyslipidemia, or chronic kidney disease): Dyslipidemia (>250mg/dL total cholesterol or >170mg/dL LDL)
Joensen, 2010, 19825219, Denmark	Danish Diet, Cancer, and Health cohort study (DCH)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	December 1993	Healthy, 50-64 years old. All born in Denmark, lived in the urban areas of Copenhagen and Aarhus, and not at time of invitation registered with a cancer diagnosis in the Danish Cancer Registry. Excluded those with diagnosis of ACS or cancer before entry into study. excluded 1619 individuals from study because they did not fill in questionnaire/or had diagnosis of ACS or cancer before entry into study	Primary Prevention, Healthy
Khaw, 2012, 22802735, UK	European Prospective Investigation into Cancer (EPIC) Norfolk	Nested Case Control	No industry relationship reported/No conflict of interest	1993	Men and women aged 40-79 years in Norfolk, UK	Primary Prevention, Healthy
Koh, 2013, 24343844, China	The Singapore Chinese Health Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1993	We excluded individuals who had baseline cancer (n = 1936) or reported extreme energy intakes (<600 or >3000 kcal/day for women and <700 or >3700 kcal/day for men; n = 1023).	Primary Prevention, Healthy
Larsson, 2012, 22265275, Sweden	Swedish Mammography Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1997	All women in the Swedish population register born between 1914 and 1948 and living in Vastmanland and Uppsala counties in central Sweden. Only women who completed the 1997 questionnaire are included in this study. Participants who did not provide or provided incorrect national identification numbers, who reported implausible energy intakes (>3 standard deviations from the natural logarithm transformed mean), who had a previous diagnosis of cancer (other than nonmelanoma skin cancer) or HF were excluded. Only women with no baseline history of MI or diabetes were included.	Primary Prevention, Healthy

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Lemaitre, 2012, 22743310, US	Cardiovascular Health Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Authors report industry affiliation	1989	The cohort consisted of 5201 noninstitutionalized men and women aged 65 y, recruited in 1989 1990, plus an additional 687 black participants recruited in 1992 and 1993. Each paper excluded participants with their outcome of interest at baseline.	Primary Prevention, Healthy
Levitan, 2009, 19383731, Sweden	Cohort of Swedish Men	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1997	Men. Excluded based on previous diagnosis of cancer (except non-melanoma skin cancer), implausible energy intake (.3 standard deviations from the natural logarithm transformed mean) (n = 562) or a history of HF at baseline (n = 743) were also excluded. In the primary analyses men with baseline history of MI (n = 2077) or diabetes (n = 3157) were excluded because they had higher rates of HF and may have changed their diets because of their diagnosis.	Primary Prevention, Healthy
Matsumoto, 2013, 23098619, US	Physician's Health Study (Also see Morris 7598116 entry)	Nested Case Control	No industry relationship reported/No conflict of interest	1995-2001	An ancillary study of PHS: randomly selected 1000 incident CHD cases that provided blood samples between 1995 and 2001. Density sampling technique to select 1 control who was alive and free of confirmed CHD at the time of the index case diagnosis and matched on age at blood collection (within 1 year), year of birth (within 2 years), and time of blood collection (within 3 months).	Primary Prevention, Healthy
Miyagawa, 2014, 24468152, Japan	NIPPON-DATA	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No conflict of interest	1980	A total of 10,546 community residents free from CVDs at baseline(4639 men and 5907 women, aged 30 and greater) from 300 randomly selected districts from all-over Japan participated in the survey, with the participation rate of about 77%. Accordingly, these participants were thought to be representative of the Japanese population. A total of 1356 men and women excluded from this analysis for the following reasons: history of CVD (n 350), missing information (e.g., nutrition, lifestyle questionnaire) at baseline (n = 124), intake of energy more than 5000 kcal/day or less than 500 kcal/day (n 139) and lost to follow-up due to incomplete residential addresses at the baseline survey (n = 1104).	Primary Prevention, Healthy

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Morris, 1995, 7598116, US	Physician's Health Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1982-1983	US male physicians, aged 40-84 years, with no history of MI, stroke, transient ischemic attacks, cancer (excluding nonmelanoma skin cancer), liver or renal disease, peptic ulcer, gout, current use of aspirin, other platelet-active drugs, or nonsteroidal anti-inflammatory agents. originally these participants were enrolled in MRFIT trial, which was terminated early	Primary Prevention, Healthy
Nagata, 2002, 12397000, Japan	Takayama Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1992	Residents of Takayama, Japan, aged 35 years or older	Primary Prevention, Healthy
Ninomiya, 2013, 24267237, Japan	Hisayama Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/conflict of interest: this study was sponsored by Mochida pharmaceutical Co., Ltd. (Tokyo, Japan). The sponsor of the study had no role in the study design, conduct of the study, data collection, data interpretation or preparation of the report. Ninomiya and Kiyohara received honoraria for lecture fees from Mochida Pharmaceutical Co., Ltd. Other authors declare that they have no competing interests.	2002	A total of 3328 residents aged 40 years or older (77.6% of the total population in this age group) underwent the examination. After excluding 30 subjects who did not consent to participate in the study, 190 subjects with a history of cardiovascular disease, and 5 subjects without available data on serum fatty acid levels, the remaining 3103 participants were enrolled in the study.	Primary Prevention, Healthy

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Pietinen, 1997, 9149659, Finland	The Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	1985	To be eligible, they had to be 50-69 years of age men, to smoke five or more cigarettes per day at entry, and to give written informed consent. The exclusion criteria included a history of cancer or other serious disease limiting participation; use of vitamin E, vitamin A, or beta-carotene supplements in excess of predefined doses; and treatment with anticoagulant agents.	Primary Prevention, Healthy
Strøm, 2012, 22146511, Denmark	-	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No Data regarding conflict of interest	1996	Eligible for recruitment were all pregnant women living in Denmark who were fluent in Danish. We excluded women who reported taking fish oil as a supplement during pregnancy. Preeclampsia and gestational diabetes were excluded. finally, questionnaires with a total energy intake <4200 kJ or >16 700 kJ were excluded.	Primary Prevention, Healthy
Takata, 2013, 23788668, China	Shanghai Women s Health Study (SWHS) Shanghai Men s Health Study (SMHS)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1997	Residents of 8 communities in urban Shanghai, China, who were aged 40 70 years between 1997 and 2000 for the SWHS and aged 40 74 years between 2002 and 2006 for the SMHS. We excluded participants with a reported total energy intake outside the range of 500 4,000 kcal/day (45 women, 91 men) and those with no follow-up (8 women, 14 men). We further excluded participants who died during the first year of follow-up (145 women, 248 men) to minimize the possibility of reverse causality. One male participant who did not answer all questions about smoking history was also excluded. combination of two studies: SWHS and SMHS	Primary Prevention, Healthy

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Vedtofte, 2011, 21865326, Denmark	Glostrup Population Studies	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No Data on funding or affiliations/No Data regarding conflict of interest	1964	Four of the Glostrup cohorts were included in the present project: 1) the 1914 cohort: randomly sampled subjects born in 1914 and examined in 1974 or 1984; 2) the 1936 cohort: randomly sampled subjects born in 1936 and examined in 1976, 1981, and 1987; 3) the MONICA-I cohort: subjects randomly sampled from births in 1922, 1932, 1942, and 1952 and examined in 1982; and 4) the MONICA-III cohort: subjects randomly sampled from births in 1932, 1942, 1952, and 1962 and examined in 1991. Those who had been given a previous diagnosis of IHD (n = 38), those who reported that they had diabetes mellitus (n = 79), and those with missing values in the confounding variables (n = 33) were excluded.	Primary Prevention, Healthy
Vedtofte, 2014, 24964401, US, Finland, Sweden	Pooling Project of Cohort Studies on Diet and Coronary Disease	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	various across cohorts: 1966- 1992	a published prospective study with at least 150 incident CHD cases; a study determining usual dietary intake using a FFQ, a dietary history interview, or a 7 d weighed food record at baseline; a validation or a repeatability study of the dietary intake assessment method	Primary Prevention, Healthy
Virtanen, 2009, 19933935 Finland	Kuopio Ischemic Heart Disease Risk Factor Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No conflict of interest	1984	Men who were 42, 48, 54, or 60 years old at the baseline examination. Subjects with a history of AF at baseline were excluded from the analyses. Also excluded men with missing data on serum PUFAs or hair methylmercury concentration.	Primary Prevention, Healthy
Wang, 2010, 20713915, US	Women's Health Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1992	female US health professionals, aged 39 years and free from cardiovascular disease and cancer (except nonmelanoma skin cancer). Excluded: women who had hypertension at baseline, defined as having a self-reported physician diagnosis of hypertension, self-reported current systolic BP 140 mm Hg or diastolic BP 90 mm Hg, or use of antihypertensive treatment, implausible total daily energy intake, incomplete FFQ, and prerandomization cardiovascular disease or cancer.	Primary Prevention, Healthy

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Wang, 2011, 21734059, US	Women's Health Study	Nested Case Control	No industry relationship reported/No conflict of interest	1992	female U.S. health professionals, aged $\geq 39$ y and free from CVD and cancer (except nonmelanoma skin cancer)	Primary Prevention, Healthy
Warensjö, 2008, 18614742, Sweden	ULSAM	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No Data on funding or affiliations/No Data regarding conflict of interest	1970	all men born between 1920 and 1924 living in Uppsala at that time.	Primary Prevention, Healthy
Woodward, 2011, 21345851, UK	Scottish Heart Health Extended Cohort Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No conflict of interest	1984	3944 participants, predominantly aged 40-59 years, in Scotland. Anyone with evidence of CVD at baseline was excluded from all the analyses reported here.	Primary Prevention, Healthy
Xun, 2011, 21205024, US	Coronary Artery Risk Development in Young Adults (CARDIA)	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1985	age 18-30 in 1985, balanced by age (18-24 and 25-30), gender, ethnicity (African American and Caucasian), and education (high school or below and beyond high school). We excluded participants who reported implausible total energy intake ( $< 800$ or $> 8000$ kcal/d for men, and $< 600$ or $> 6000$ kcal/d for women), participants with missing data on exposure variables at all diet assessments, and pregnant women at any examination.	Primary Prevention, Healthy
Yamagishi, 2008, 18786479, Japan	JACC	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1988-1990	Nationwide community-based sample; 40-79 years old; no history of heart disease/stroke/cancer at baseline; completed fish intake on FFQ	Primary Prevention, Healthy
Yamagishi, 2008, 19061714, US	Atherosclerosis Risk in Communities (ARIC) Study	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	Industry funded/No conflict of interest	1987	Aged 45-64 at baseline (1987-89), initially free of coronary heart disease, stroke and HF, and who had cholesterol ester and phospholipid plasma fatty acids measured	Primary Prevention, Healthy: The population is a mixture of people
Yuan, 2001, 11682363, China	Shanghai	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported/No Data regarding conflict of interest	1986	male, age 45-64 years, and no history of cancer.	Primary Prevention, Healthy



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Zeng, 2014, 24966412, China	Guangzhou	Prospective, longitudinal study of intake (eg, FFQ, biomarker)	No industry relationship reported (funding or affiliations reported)/ No conflict of interest (explicitly stated)	2008	Aged 40–75y who had been Guangzhou residents for at least 5y. Excluded participants with confirmed chronic diseases such as diabetes, CVDs, liver or renal failure, or cancer (n = 184), and those who were using antihypertensive therapy at baseline (n = 248), had missing erythrocyte FA values (n = 894), or had missing BP measurements (n = 2).	Primary Prevention, Healthy