Title: Post-diagnosis dietary patterns among cancer survivors in relation to all-cause and cancer-specific mortality: a systematic review and meta-analysis of cohort studies

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Supplementary Material

Contents

Supplementary S1: Search strategy

PubMed: ("dietary patterns" OR "a-priori dietary pattern" OR "a posteriori dietary pattern" OR "cluster analysis" OR "factor analysis" OR "diet quality index" OR "Principal Component Analysis" OR (diet* AND index) OR (diet* AND score) OR (nutri* AND index) OR (nutri* AND score) OR "reduced rank regression" OR "Western Pattern" OR" Prudent Pattern" OR "traditional pattern" OR "Mediterranean diet" OR "vegetarian diet" OR "DASH" OR "Nordic diet" OR (diet* AND pattern*) OR (diet* AND habit*) OR (diet* AND quality) OR (food AND quality) OR (nutri* AND quality) OR (food AND pattern*) OR (food AND habit*) OR (nutri* AND habit*) OR (nutri* AND pattern*) OR (eating AND habit*) OR (eating AND pattern*))AND ("Neoplasms"[Mesh] OR cancer) AND (survival OR recurrence OR mortality OR relapse) NOT letter NOT comment NOT editorial AND "humans"[MeSH Terms] AND "english"[Language] NOT letter NOT comment NOT editorial NOT review NOT "meta-analysis" NOT "meta analysis"

Scopus: ((“diet* AND pattern” OR “diet* AND score” OR “nutrition* AND index” OR “diet* AND index OR "diet* habit" OR "eating habit*" OR "Western Pattern" OR "Prudent Pattern" OR "traditional pattern" OR "Mediterranean diet" OR "vegetarian diet" OR "DASH" OR "Nordic diet") AND ("neoplas*" OR "cancer") AND ("survival" OR "recurrence" OR "mortality" OR "rel apse"))

Web of Science: ((diet* AND pattern) OR (diet* AND score) OR (nutrition* AND index) OR (diet* AND index) OR (diet* habit) OR (eating habit*) OR (Western AND Pattern) OR (Prudent AND Pattern) OR (traditional AND pattern) OR (Mediterranean AND diet) OR (vegetarian AND diet) OR (DASH) OR (Nordic AND diet)) AND (neoplas* OR cancer) AND (survival OR recurrence OR mortality OR relapse)

Supplementary S2: Excluded studies

Song M, Wu K, Meyerhardt JA, Yilmaz O, Wang M, Ogino S, Fuchs CS, Giovannucci EL, Chan AT. Low-Carbohydrate Diet Score and Macronutrient Intake in Relation to Survival After Colorectal Cancer Diagnosis. JNCI Cancer Spectr. 2018 Nov;2(4):pky077. doi: 10.1093/jncics/pky077. Epub 2019 Jan 28. PMID: 30734025; PMCID: PMC6350503.

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Lang S, Schimansky S, Beynon R, Penfold C, Davies A, Waylen A, Thomas S, Pring M, Pawlita M, Waterboer T, Ness AR. Dietary behaviors and survival in people with head and neck cancer: Results from Head and Neck 5000. Head Neck. 2019 Jul;41(7):2074-2084. doi: 10.1002/hed.25660. Epub 2019 Jan 30. PMID: 30698303; PMCID: PMC7116031.

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cancer: a prospective study in Spain. Int J Oral Maxillofac Surg. 2009 Jan;38(1):31-9. doi: 10.1016/j.ijom.2008.09.004. Epub 2008 Oct 31. PMID: 18951763.

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Supplementary S3: A-priori dietary patterns and all-cause mortality

Figure S1 (SF S1): Galbraith's plot

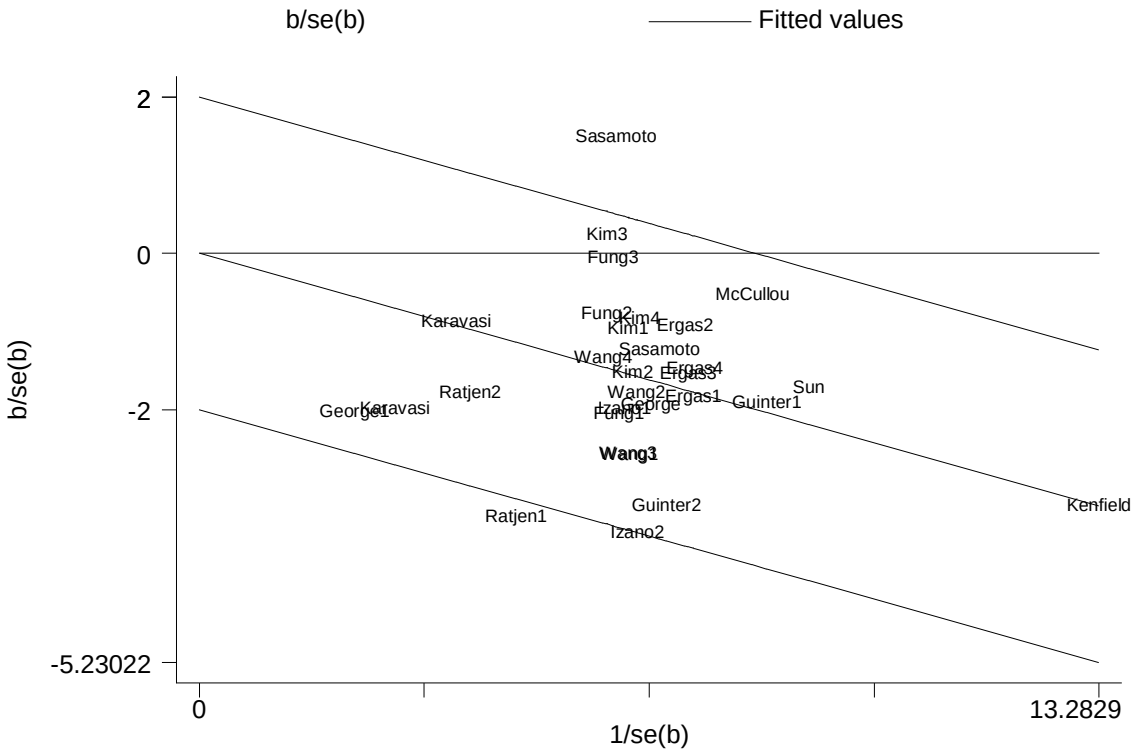
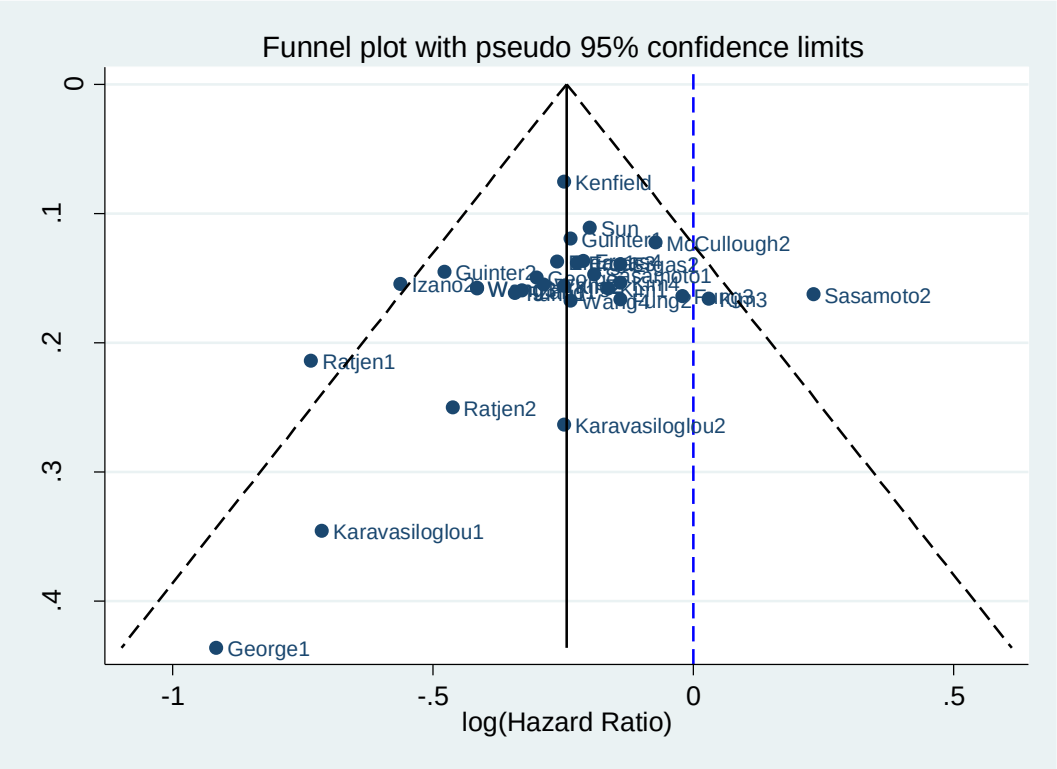


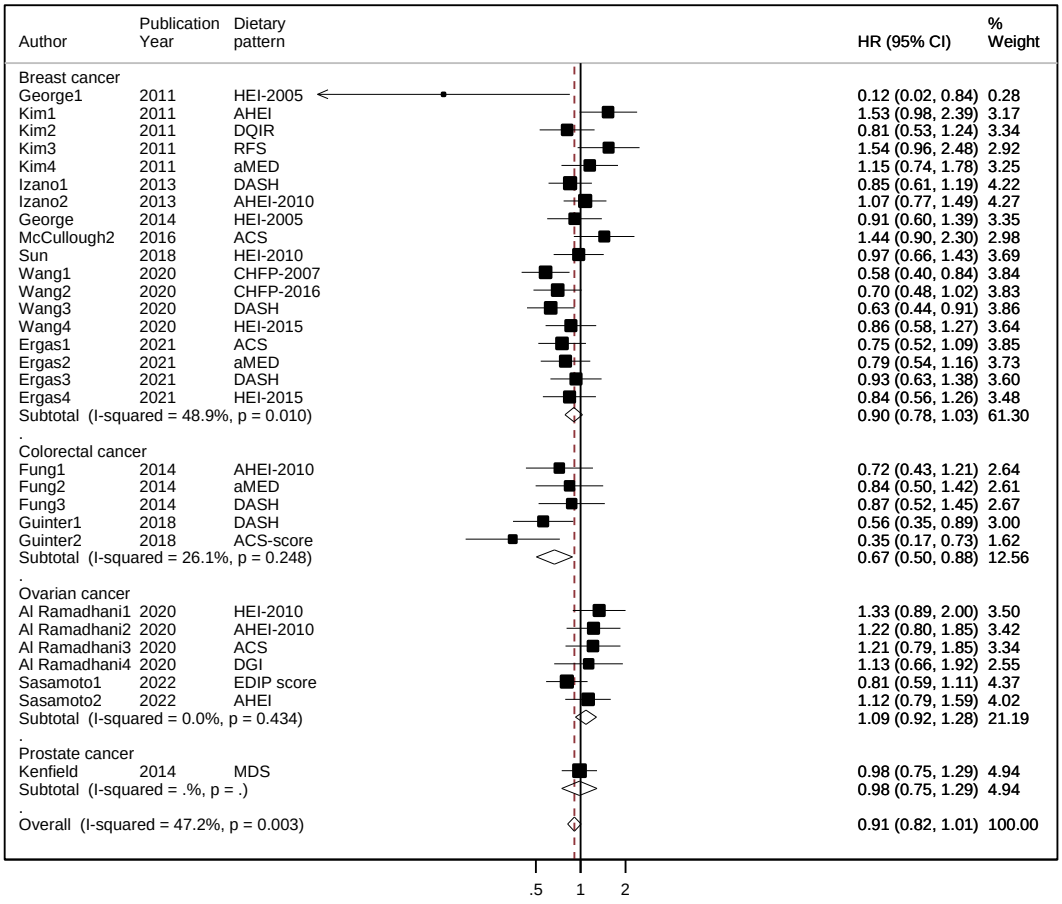
Figure S2 (SF S2): Funnel plot of a priori dietary patterns and all-cause mortality



Results from Egger's test (p-value=0.102>0.05) did not indicate any evidence of publication bias

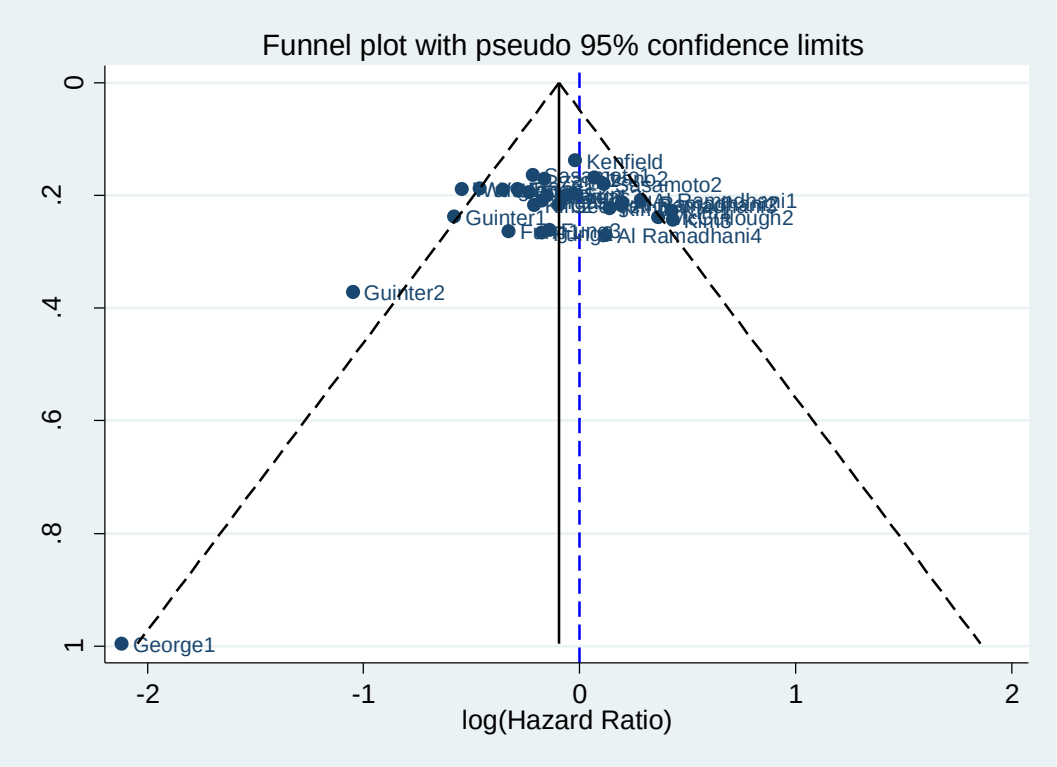
Supplementary S4: A priori dietary patterns and cancer-specific mortality

Figure S3 (SF S3): Forest plot showing the association between highest versus lowest adherence to a priori dietary patterns and cancer-specific mortality by cancer site and overall



Abbreviations: CHFP-2007: Chinese Food Pagoda-2007, CHFP-2016: Chinese Food Pagoda-2016, MDS: Mediterranean Diet Score, HEI-2015: Healthy Eating Index-2015, HEI-2005: Healthy Eating Index-2005, HEI-2010: Healthy Eating Index-2010, aMED, altMed: alternate Mediterranean Diet Score, MMDS: Modified Mediterranean Diet Score, HNFI: Healthy Nordic Food Index, RFS: Recommended Food Score, DASH: Dietary Approaches to Stop Hypertension, EDIP: Empirical dietary inflammatory pattern, ACS: American Cancer Society, DQIR: Diet Quality Index-Revised, AHEI: Alternate Healthy Eating Index, AHEI-2010: Alternate Healthy Eating Index-2010, DGI: Australian Dietary Guideline Index

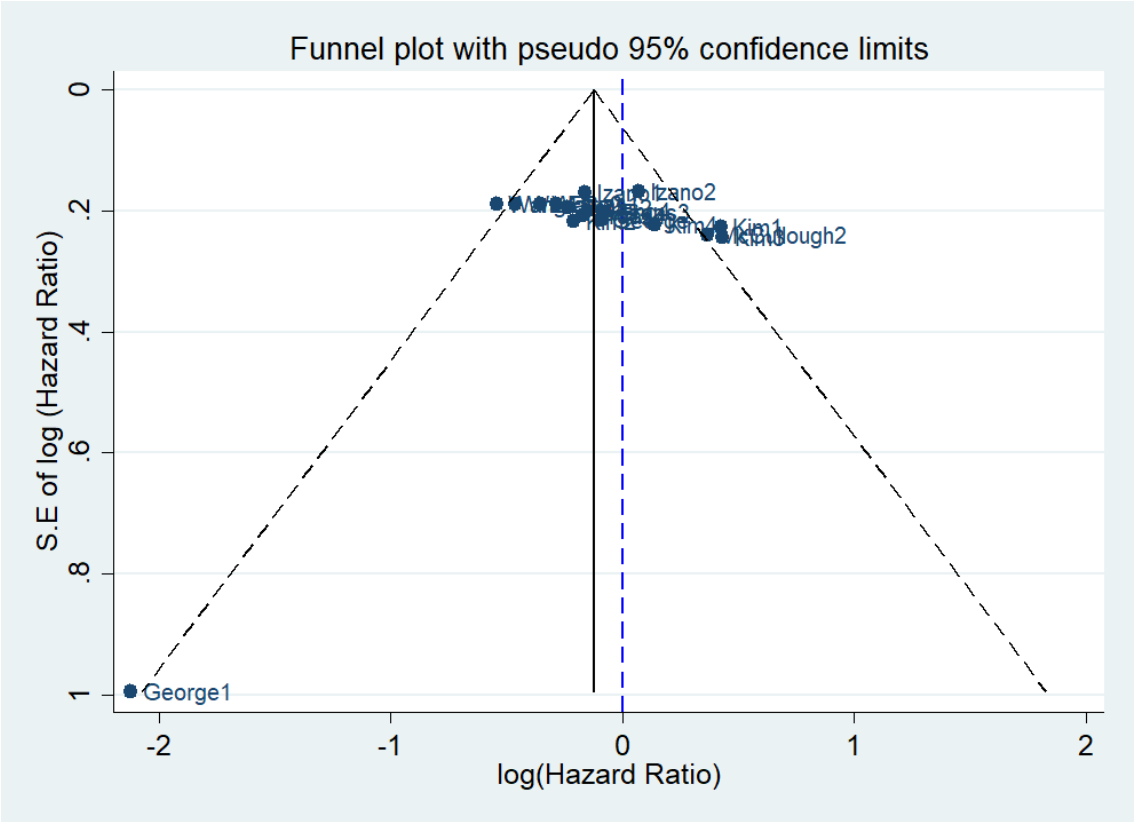
Figure S4 (SF S4): Funnel plot of a priori dietary patterns and cancer-specific mortality among all studies



Results from Egger's test (p-value=0.281>0.05) indicate no evidence of publication bias.

Supplementary S5: A priori dietary patterns and cancer-specific mortality - Further analysis of breast cancer studies

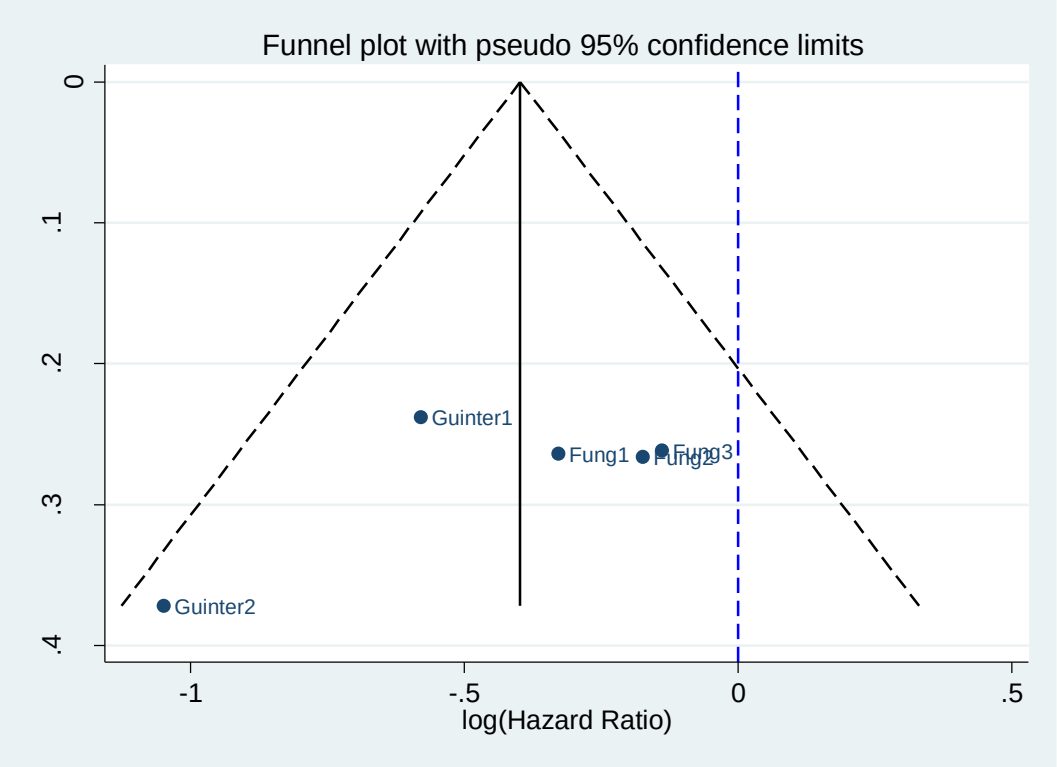
Figure S5 (SF S5): Funnel plot of a priori dietary patterns and breast cancer mortality



Results from Egger's test (p-value=0.838>0.05) indicate no evidence of publication bias.

Supplementary S6: A priori dietary patterns and cancer-specific mortality - Further analysis of colorectal cancer studies

Figure S6 (SF S6): Funnel plot of a priori dietary patterns and colorectal cancer mortality



Due to the small number of studies (n<10), Egger's test, Galbraith's plot, Influence plot, and Cumulative meta-analysis were not performed.

Supplementary S7: A posteriori dietary patterns and cancer-specific mortality

Figure S7 (SF S7): Forest plot showing the association between highest versus lowest adherence to a "prudent/healthy" dietary pattern and cancer-specific mortality by cancer site and overall, among cancer survivors

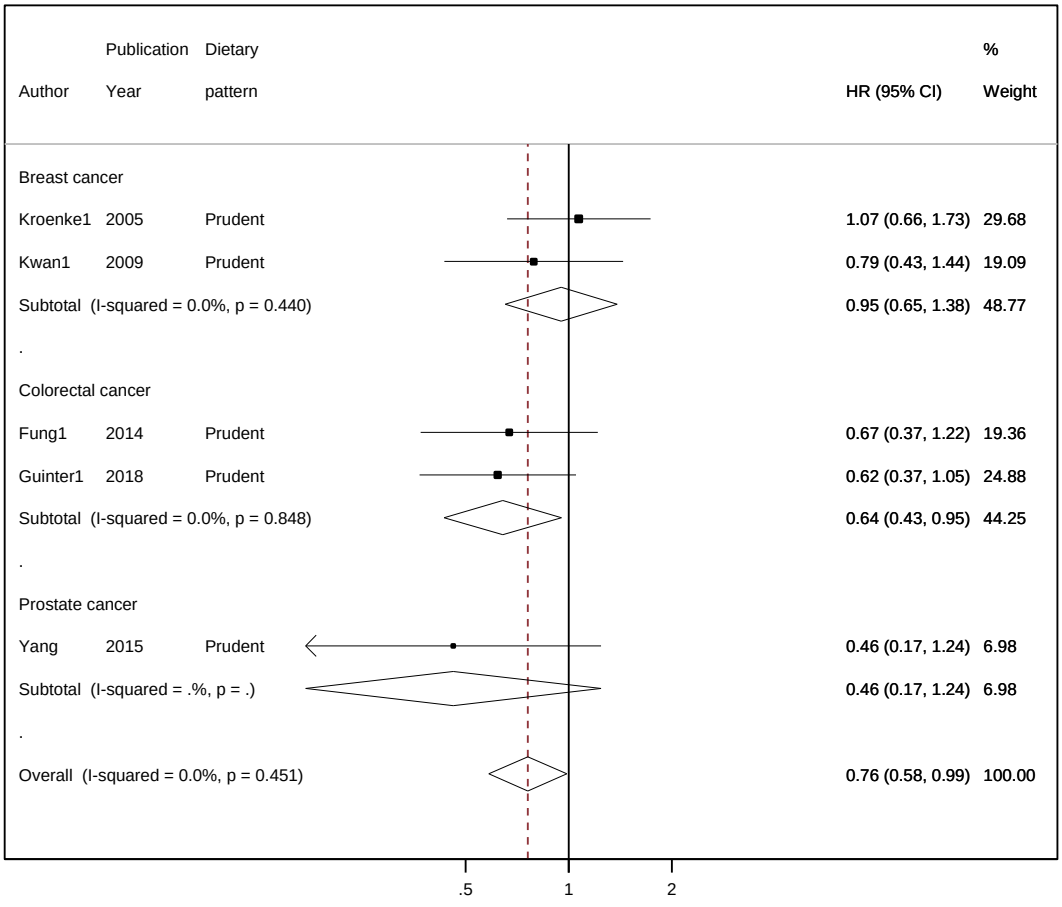
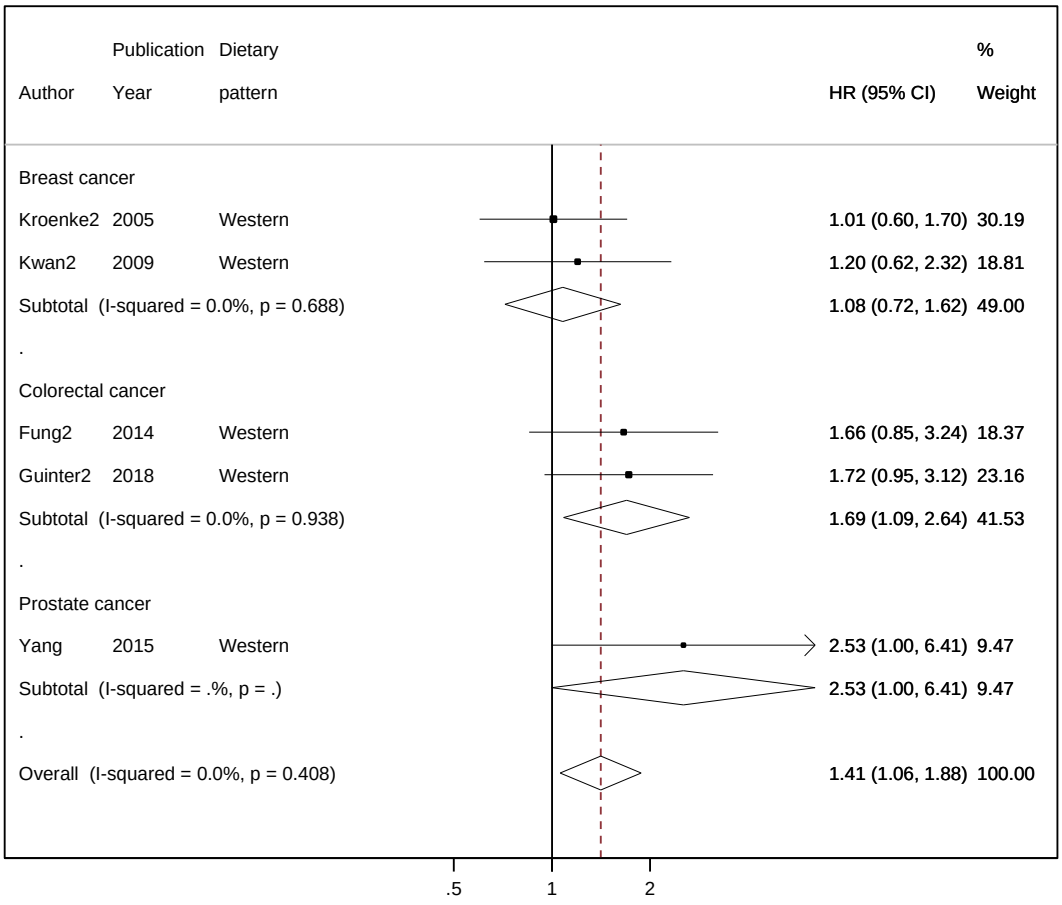


Figure S8 (SF S8): Forest plot showing the association between highest versus lowest adherence to "western/unhealthy" dietary pattern and cancer-specific mortality by cancer type and overall, among cancer survivors



Supplementary S8: Sensitivity analysis

Figure S9 (SF S9): Influence plot of a priori dietary patterns and all-cause mortality-all studies

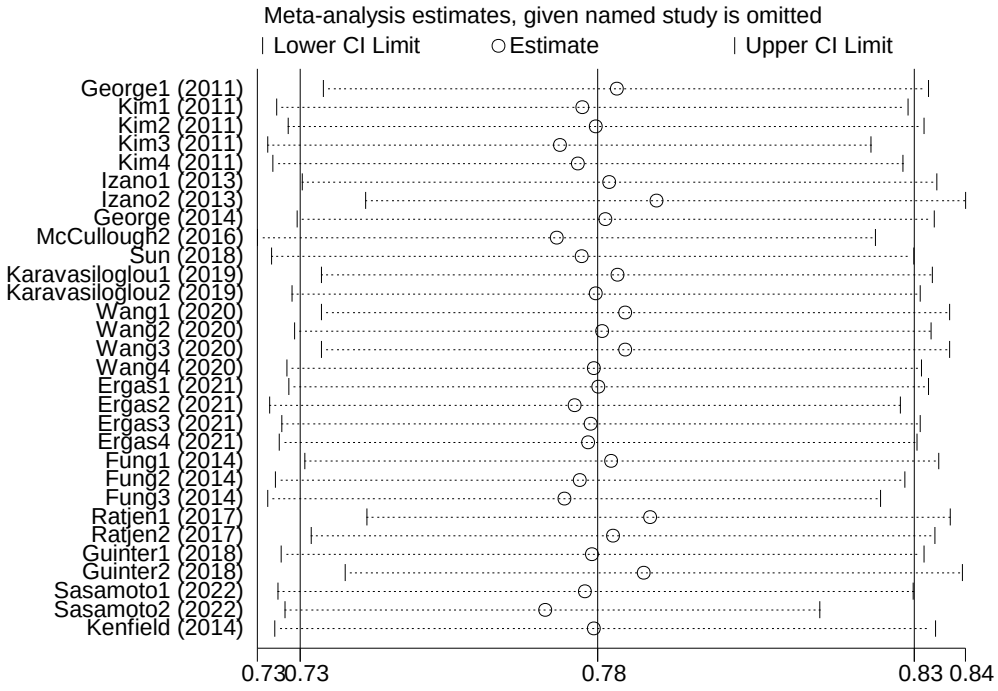


Figure S10 (SF S10): Influence plot of a priori dietary patterns and breast cancer mortality

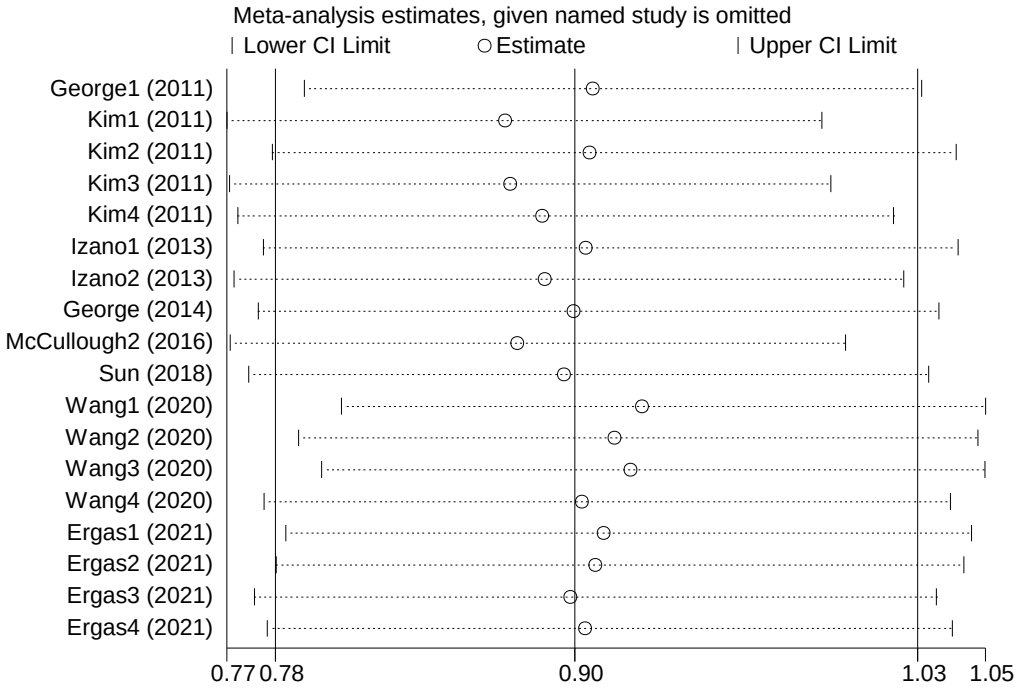


Figure S11 (SF S11): Cumulative meta-analysis of a priori dietary patterns and all-cause mortality

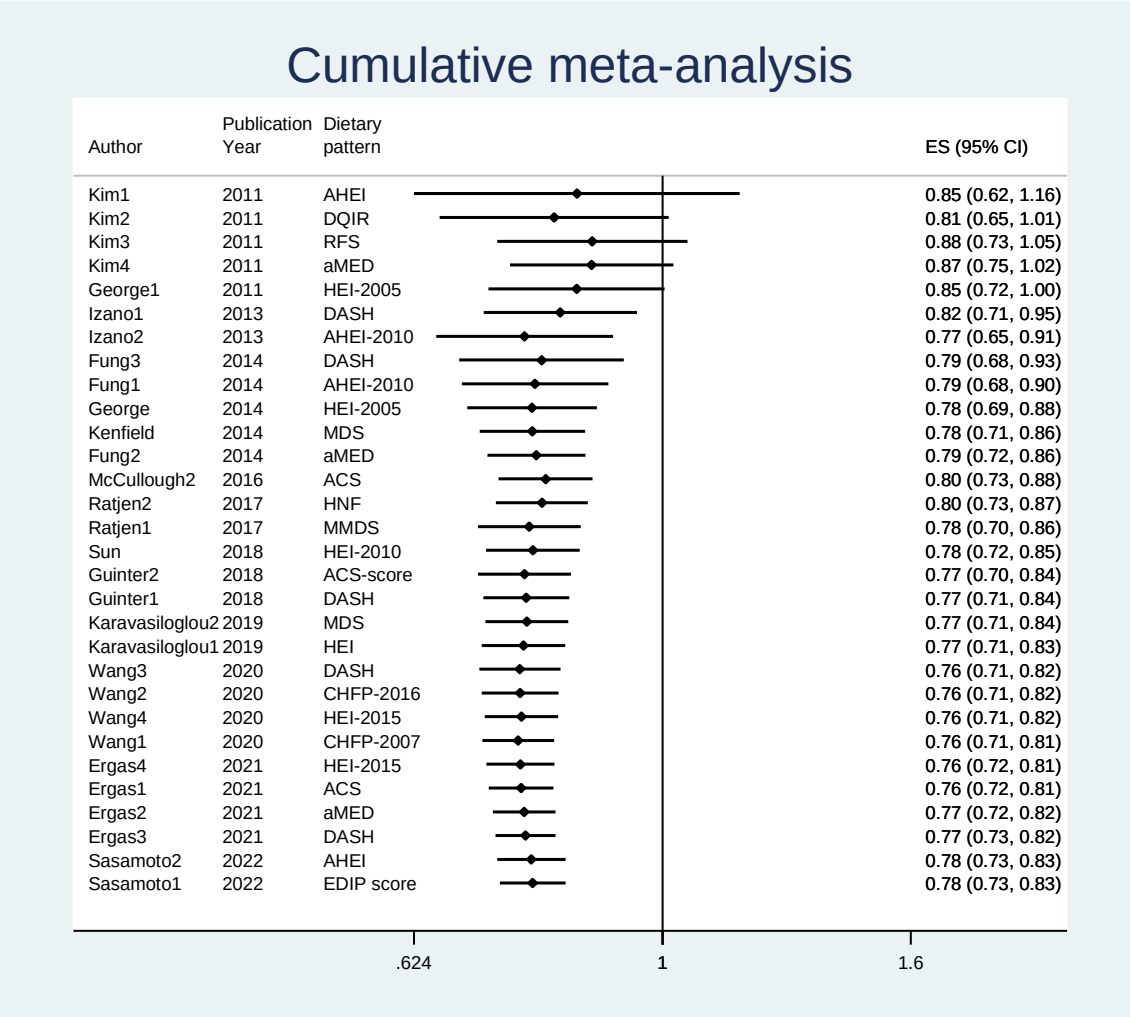
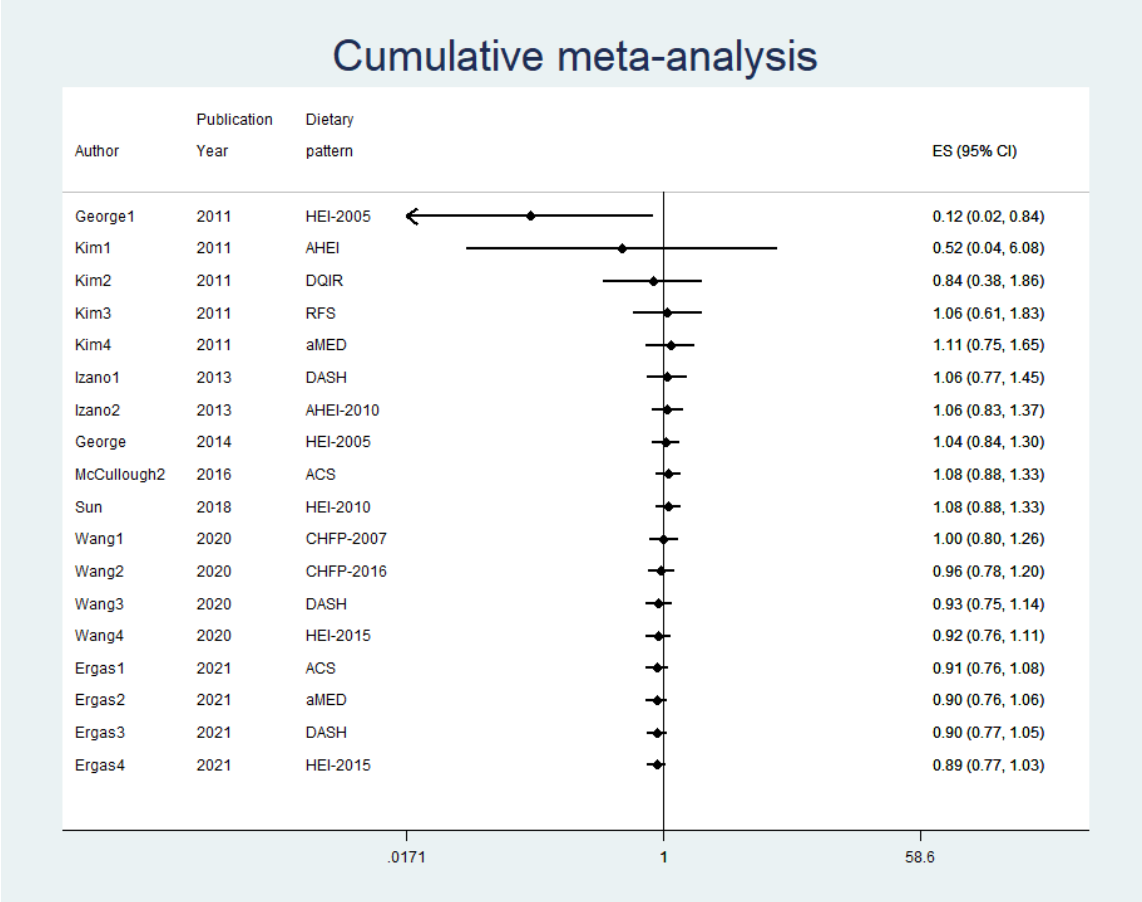


Figure S12 (SF S12): Cumulative meta-analysis a priori dietary patterns and breast cancer mortality



Supplementary S9: Subgroup analysis by risk of bias

Figure S13 (SF S13): Forest plot showing the association between highest vs lowest adherence to a priori dietary patterns and all-cause mortality among cancer survivors by risk of bias

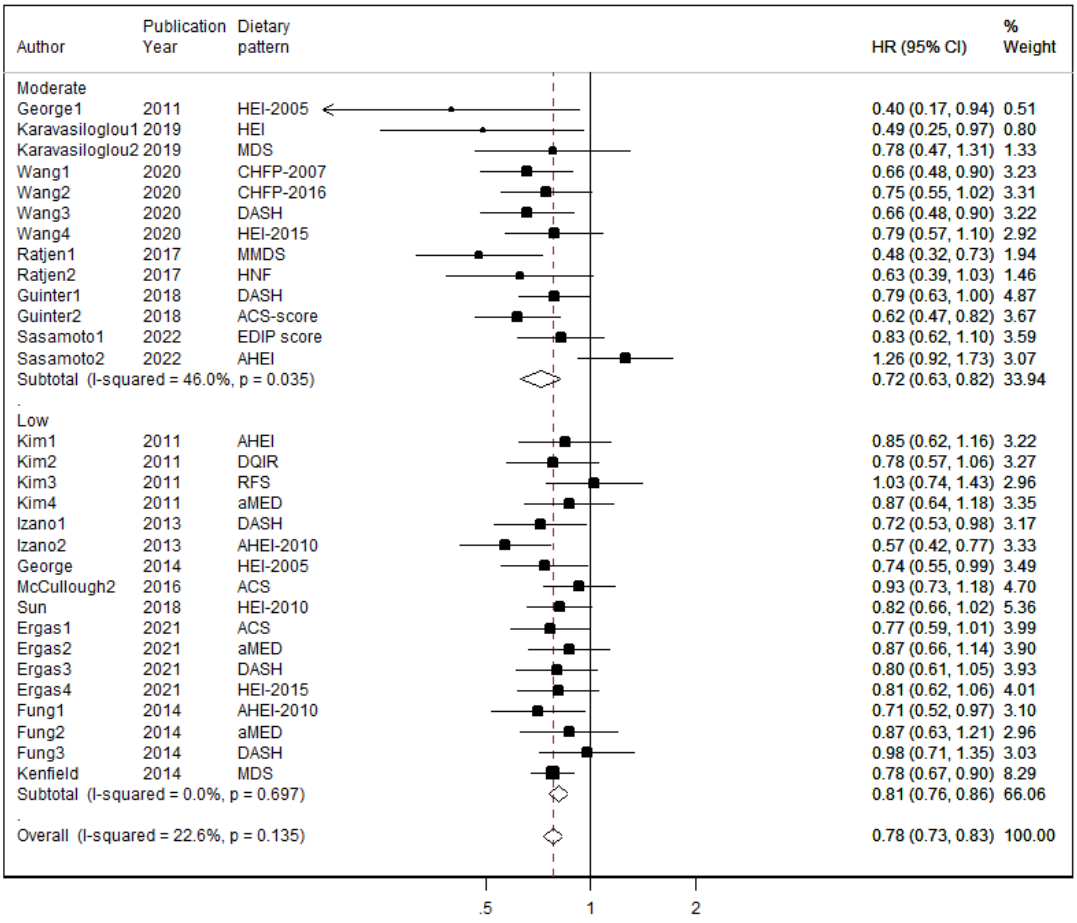


Figure S14 (SF S14): Funnel plot of a-priori dietary patterns and all-cause mortality by risk of bias