**Associations of dietary and lifestyle inflammation scores with mortality due to cardiovascular disease, cancer, and all causes among Black and White American men and women**

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**Online Supplementary Material**

(Data collection forms and study data available upon reasonable request from Suzanne Judd, PhD, Department of Biostatistics, School of Public Health, University of Alabama at Birmingham, AL, USA)

# Supplemental Table 1. Cumulative incidence of all-cause, all-cardiovascular disease, and all-cancer mortality over time according to quintiles of the dietary inflammation score (DIS) in REGARDS (*n* = 18,484), 2003–2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mortality type/DIS score quintiles** | **Time from baseline (years)** | | | |
| **2**  CIFa (95% CI) | **7**  CIFa (95% CI) | **12**  CIFa (95% CI) | **13**  CIFa (95% CI) |
| **All-cause** |  |  |  |  |
| 1 | 1.5 (1.1, 1.9) | 8.2 (7.3, 9.2) | 21.8 (20.2, 23.4) | 24.8 (22.8, 26.8) |
| 2 | 1.4 (1.0, 1.8) | 9.6 (8.7, 10.7) | 24.0 (22.4, 25.7) | 28.0 (25.9, 30.1) |
| 3 | 1.4 (1.0, 1.8) | 10.3 (9.3, 11.3) | 27.7 (26.0, 29.5) | 30.9 (28.8, 33.0) |
| 4 | 1.8 (1.4, 2.3) | 11.6 (10.5, 12.7) | 28.8 (27.0, 30.5) | 32.5 (30.4, 34.6) |
| 5 | 3.0 (2.5, 3.6) | 14.5 (13.4, 15.7) | 33.8 (32.0, 35.7) | 37.9 (35.7, 40.0) |
| **All-CVD** |  |  |  |  |
| 1 | 0.8 (0.5, 1.1) | 3.3 (2.7, 3.9) | 7.3 (6.4, 8.3) | 8.6 (7.4, 9.9) |
| 2 | 0.5 (0.3, 0.8) | 3.3 (2.8, 4.0) | 7.0 (6.1, 8.0) | 7.5 (6.5, 8.6) |
| 3 | 0.5 (0.3, 0.8) | 3.8 (3.2, 4.5) | 8.5 (7.4, 9.6) | 9.5 (8.3, 10.8) |
| 4 | 0.8 (0.6, 1.2) | 4.3 (3.7, 5.0) | 8.9 (7.9, 10.0) | 9.9 (8.7, 11.1) |
| 5 | 1.2 (0.9, 1.6) | 4.7 (4.1, 5.5) | 10.1 (9.0, 11.3) | 11.3 (10.0, 12.6) |
| **All-cancer** |  |  |  |  |
| 1 | 0.3 (0.2, 0.6) | 2.0 (1.6, 2.6) | 5.4 (4.6, 6.3) | 5.6 (4.7, 6.6) |
| 2 | 0.5 (0.3, 0.7) | 3.0 (2.5, 3.7) | 6.4 (5.5, 7.4) | 6.9 (5.9, 8.1) |
| 3 | 0.4 (0.3, 0.7) | 2.7 (2.2, 3.3) | 7.1 (6.2, 8.1) | 7.8 (6.7, 8.9) |
| 4 | 0.5 (0.3, 0.8) | 3.2 (2.6, 3.8) | 8.0 (7.0, 9.0) | 8.8 (7.7, 10.1) |
| 5 | 0.6 (0.3, 0.8) | 4.1 (3.5, 4.8) | 8.8 (7.8, 9.9) | 9.6 (8.4, 10.8) |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases; CIF, cumulative incidence function; DIS, diet inflammation score; REGARDS, REasons for Geographic and Racial Differences in Stroke.

a All CIF values expressed as percentages.

# Supplemental Table 2. Cumulative incidence of all-cause, all-cardiovascular disease, and all-cancer mortality over time according to quintiles of the lifestyle inflammation score (LIS) in REGARDS (*n* = 18,484), 2003–2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mortality type/LIS score quintiles** | **Time from baseline (years)** | | | |
| **2**  CIFa (95% CI) | **7**  CIFa (95% CI) | **12**  CIFa (95% CI) | **13**  CIFa (95% CI) |
| **All-cause** |  |  |  |  |
| 1 | 1.4 (1.1, 1.8) | 9.6 (8.7, 10.6) | 23.9 (22.4, 25.5) | 26.5 (24.7, 28.3) |
| 2 | 2.2 (1.8, 2.7) | 11.8 (10.8, 12.9) | 28.6 (26.9, 30.2) | 32.8 (30.8, 34.9) |
| 3 | 1.2 (0.8, 1.6) | 9.0 (8.0, 10.0) | 22.7 (21.0, 24.5) | 27.2 (24.9, 29.6) |
| 4 | 1.7 (1.3, 2.2) | 11.5 (10.4, 12.7) | 28.7 (26.8, 30.6) | 32.1 (29.9, 34.3) |
| 5 | 2.4 (1.9, 2.9) | 12.0 (11.0, 13.0) | 31.4 (29.7, 33.2) | 34.8 (32.7, 36.9) |
| **All-CVD** |  |  |  |  |
| 1 | 0.5 (0.3, 0.7) | 3.5 (2.9, 4.1) | 6.9 (6.1, 7.9) | 8.0 (6.9, 9.1) |
| 2 | 0.9 (0.6, 1.2) | 3.8 (3.2, 4.4) | 8.3 (7.3, 9.3) | 9.2 (8.1, 10.3) |
| 3 | 0.6 (0.4, 0.9) | 3.3 (2.7, 4.0) | 7.3 (6.3, 8.5) | 8.3 (7.1, 9.6) |
| 4 | 0.6 (0.4, 1.0) | 4.1 (3.4, 4.8) | 8.8 (7.7, 9.9) | 9.8 (8.5, 11.2) |
| 5 | 1.2 (0.9, 1.5) | 4.7 (4.1, 5.4) | 10.3 (9.2, 11.4) | 11.3 (10.0, 12.6) |
| **All-cancer** |  |  |  |  |
| 1 | 0.4 (0.3, 0.7) | 2.9 (2.4, 3.5) | 6.2 (5.4, 7.1) | 6.6 (5.7, 7.6) |
| 2 | 0.6 (0.4, 0.9) | 3.7 (3.1, 4.3) | 7.8 (6.9, 8.8) | 8.7 (7.6, 9.9) |
| 3 | 0.4 (0.2, 0.7) | 2.5 (2.0, 3.2) | 5.9 (5.0, 6.9) | 6.4 (5.4, 7.6) |
| 4 | 0.3 (0.2, 0.6) | 3.1 (2.5, 3.7) | 7.6 (6.5, 8.7) | 8.3 (7.1, 9.6) |
| 5 | 0.5 (0.3, 0.7) | 2.8 (2.3, 3.4) | 7.9 (7.0, 9.0) | 8.5 (7.4, 9.7) |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases; CIF, cumulative incidence function; LIS, lifestyle inflammation score; REGARDS, REasons for Geographic and Racial Differences in Stroke.

a All CIF values expressed as percentages.

# Supplemental Table 3. Joint/combined (cross-classification) associationsa of the dietary and lifestyle inflammation scores with all-cancer mortality risk in REGARDS (*n* = 17,757), United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **LIS quartiles** | | | | | | | | | | | | | | |
|  |  | **1** | | |  | **2** | | |  | **3** | | |  | **4** | | |
|  |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |
| **DIS quartiles** | **1** | 65 | 1 | Ref. |  | 49 | 1.18 | 0.82, 1.72 |  | 47 | 1.05 | 0.72, 1.53 |  | 36 | 1.48 | 0.98, 2.24 |
|  | **2** | 70 | 1.38 | 0.98, 1.93 |  | 69 | 1.69 | 1.20, 2.38 |  | 64 | 1.23 | 0.86, 1.74 |  | 50 | 1.55 | 1.07, 2.27 |
|  | **3** | 60 | 1.33 | 0.94, 1.90 |  | 61 | 1.66 | 1.17, 2.37 |  | 66 | 1.29 | 0.91, 1.83 |  | 72 | 1.78 | 1.26, 2.52 |
|  | **4** | 51 | 1.48 | 1.02, 2.15 |  | 68 | 2.05 | 1.44, 2.91 |  | 80 | 1.66 | 1.19, 2.34 |  | 110 | 2.17 b | 1.57, 3.01 |

Abbreviations: DIS, diet inflammation score; LIS, lifestyle inflammation score; REGARDS, REasons for Geographic and Racial Differences in Stroke.

a From multivariableCox proportional hazards model adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake. The interaction between the DIS and the LIS was modeled by including dummy variables representing the 2nd through 4th quartiles of the DIS and the LIS (3 dummy variables each, with quartile 1 as the referent group) as well as their product terms (9 total product terms). Excludes *n* = 727 participants with missing data for covariates.

b From DIS x LIS interaction term in the Cox proportional hazards model; relative excess risk due to interaction = 0.21, 95% CI: -0.57, 0.99; likelihood ratio test for multiplicative interaction: χ2 = 2.29, *P* = 0.99.

# Supplemental Table 4. Joint/combined (cross-classification) associationsa of the dietary and lifestyle inflammation scores with all-cardiovascular disease mortality risk in REGARDS (*n* = 17,757), United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **LIS quartiles** | | | | | | | | | | | | | | |
|  |  | **1** | | |  | **2** | | |  | **3** | | |  | **4** | | |
|  |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |  | # deaths | HR | 95% CI |
| **DIS quartiles** | **1** | 86 | 1.00 | Ref. |  | 48 | 0.79 | 0.55, 1.12 |  | 72 | 1.04 | 0.76, 1.42 |  | 62 | 1.52 | 1.09, 2.12 |
|  | **2** | 72 | 0.96 | 0.70, 1.32 |  | 68 | 1.11 | 0.81, 1.53 |  | 72 | 0.87 | 0.64, 1.20 |  | 71 | 1.34 | 0.97, 1.85 |
|  | **3** | 87 | 1.33 | 0.99, 1.80 |  | 60 | 1.09 | 0.78, 1.53 |  | 89 | 1.09 | 0.81, 1.48 |  | 78 | 1.14 | 0.83, 1.56 |
|  | **4** | 60 | 1.15 | 0.82, 1.62 |  | 58 | 1.20 | 0.85, 1.69 |  | 103 | 1.31 | 0.97, 1.77 |  | 130 | 1.46 b | 1.09, 1.95 |

Abbreviations: DIS, diet inflammation score; LIS, lifestyle inflammation score; REGARDS, REasons for Geographic and Racial Differences in Stroke; Ref, referent.

a From multivariableCox proportional hazards model adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake. The interaction between the DIS and the LIS was modeled by including dummy variables representing the 2nd through 4th quartiles of the DIS and the LIS (3 dummy variables each, with quartile 1 as the referent group) as well as their product terms (9 total product terms). Excludes *n* = 727 participants with missing data for covariates.

b From DIS x LIS interaction term in the Cox proportional hazards model; relative excess risk due to interaction = -0.21, 95% CI: -0.81, 0.39; likelihood ratio test for multiplicative interaction: χ2 = 14.1, *P* = 0.12.

# Supplemental Table 5. Adjusted associations of the dietary inflammation score (DIS) with all-cause mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **DIS quintiles** | **Stratum 1**a | | |  |  | **Stratum 2**a | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 362 | 1.00 | Ref. |  | 267 | 1.00 | Ref. |  |
|  | 2 | 387 | 1.02 | 0.88, 1.18 |  | 324 | 1.10 | 0.93, 1.29 |  |
|  | 3 | 433 | 1.11 | 0.96, 1.28 |  | 346 | 1.16 | 0.98, 1.36 |  |
|  | 4 | 433 | 1.13 | 0.98, 1.30 |  | 391 | 1.24 | 1.06, 1.46 |  |
|  | 5 | 501 | 1.22 | 1.06, 1.41 |  | 449 | 1.44 | 1.23, 1.69 | 0.58 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 117 | 1.00 | Ref. |  | 512 | 1.00 | Ref. |  |
|  | 2 | 143 | 1.08 | 0.85, 1.38 |  | 568 | 1.05 | 0.93, 1.19 |  |
|  | 3 | 176 | 1.21 | 0.95, 1.53 |  | 603 | 1.11 | 0.99, 1.25 |  |
|  | 4 | 240 | 1.52 | 1.22, 1.90 |  | 584 | 1.09 | 0.96, 1.23 |  |
|  | 5 | 331 | 1.69 | 1.36, 2.09 |  | 619 | 1.20 | 1.06, 1.37 | <0.01 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 532 | 1.00 | Ref. |  | 97 | 1.00 | Ref. |  |
|  | 2 | 554 | 1.05 | 0.93, 1.18 |  | 157 | 1.09 | 0.84, 1.40 |  |
|  | 3 | 552 | 1.15 | 1.02, 1.30 |  | 227 | 1.10 | 0.87, 1.40 |  |
|  | 4 | 498 | 1.14 | 1.00, 1.29 |  | 326 | 1.29 | 1.03, 1.62 |  |
|  | 5 | 439 | 1.25 | 1.10, 1.43 |  | 511 | 1.44 | 1.16, 1.80 | 0.35 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 322 | 1.00 | Ref. |  | 307 | 1.00 | Ref. |  |
|  | 2 | 380 | 0.97 | 0.84, 1.13 |  | 331 | 1.15 | 0.98, 1.34 |  |
|  | 3 | 439 | 1.05 | 0.91, 1.21 |  | 340 | 1.21 | 1.04, 1.42 |  |
|  | 4 | 459 | 1.07 | 0.93, 1.24 |  | 365 | 1.29 | 1.11, 1.51 |  |
|  | 5 | 570 | 1.20 | 1.04, 1.39 |  | 380 | 1.45 | 1.24, 1.70 | 0.39 |
| **Regular**c**non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 528 | 1.00 | Ref. |  | 101 | 1.00 | Ref. |  |
|  | 2 | 605 | 1.06 | 0.94, 1.19 |  | 105 | 1.04 | 0.79, 1.37 |  |
|  | 3 | 684 | 1.14 | 1.01, 1.28 |  | 93 | 1.09 | 0.82, 1.45 |  |
|  | 4 | 704 | 1.17 | 1.04, 1.31 |  | 118 | 1.25 | 0.95, 1.63 |  |
|  | 5 | 825 | 1.34 | 1.19, 1.50 |  | 124 | 1.21 | 0.93, 1.58 | 0.84 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 280 | 1.00 | Ref. |  | 348 | 1.00 | Ref. |  |
|  | 2 | 295 | 1.02 | 0.87, 1.20 |  | 416 | 1.08 | 0.94, 1.25 |  |
|  | 3 | 378 | 1.16 | 0.99, 1.35 |  | 401 | 1.11 | 0.96, 1.28 |  |
|  | 4 | 417 | 1.28 | 1.09, 1.49 |  | 406 | 1.09 | 0.94, 1.27 |  |
|  | 5 | 493 | 1.30 | 1.12, 1.52 |  | 457 | 1.34 | 1.16, 1.55 | 0.25 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 365 | 1.00 | Ref. |  | 264 | 1.00 | Ref. |  |
|  | 2 | 403 | 1.04 | 0.90, 1.20 |  | 308 | 1.08 | 0.92, 1.27 |  |
|  | 3 | 459 | 1.12 | 0.97, 1.29 |  | 320 | 1.15 | 0.97, 1.35 |  |
|  | 4 | 482 | 1.16 | 1.01, 1.34 |  | 342 | 1.20 | 1.02, 1.41 |  |
|  | 5 | 612 | 1.37 | 1.20, 1.57 |  | 338 | 1.23 | 1.04, 1.45 | 0.53 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 247 | 1.00 | Ref. |  | 382 | 1.00 | Ref. |  |
|  | 2 | 248 | 1.01 | 0.85, 1.21 |  | 463 | 1.08 | 0.94, 1.24 |  |
|  | 3 | 284 | 1.17 | 0.98, 1.38 |  | 495 | 1.11 | 0.97, 1.27 |  |
|  | 4 | 302 | 1.21 | 1.02, 1.43 |  | 522 | 1.14 | 1.00, 1.31 |  |
|  | 5 | 331 | 1.40 | 1.18, 1.66 |  | 619 | 1.26 | 1.10, 1.45 | 0.58 |
| **Ever smoked** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 294 | 1.00 | Ref. |  | 335 | 1.00 | Ref. |  |
|  | 2 | 271 | 0.96 | 0.81, 1.13 |  | 440 | 1.14 | 0.99, 1.32 |  |
|  | 3 | 285 | 0.99 | 0.84, 1.16 |  | 494 | 1.25 | 1.09, 1.44 |  |
|  | 4 | 271 | 0.96 | 0.81, 1.14 |  | 553 | 1.35 | 1.18, 1.56 |  |
|  | 5 | 295 | 1.15 | 0.97, 1.36 |  | 655 | 1.46 | 1.27, 1.68 | 0.03 |

Abbreviations: CI, confidence interval; DIS, diet inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio > 30 mg/g) at baseline; scored 0–3.

# Supplemental Table 6. Adjusted associations of the lifestyle inflammation score (LIS) with all-cause mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **LIS quintiles** | **Stratum 1**a | | |  |  | **Stratum 2**a | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 482 | 1.00 | Ref. |  | 282 | 1.00 | Ref. |  |
|  | 2 | 527 | 1.04 | 0.92, 1.18 |  | 365 | 1.18 | 1.01, 1.38 |  |
|  | 3 | 345 | 1.00 | 0.87, 1.14 |  | 217 | 1.02 | 0.86, 1.22 |  |
|  | 4 | 366 | 1.10 | 0.96, 1.26 |  | 336 | 1.06 | 0.90, 1.24 |  |
|  | 5 | 396 | 1.29 | 1.13, 1.48 |  | 577 | 1.21 | 1.04, 1.40 | 0.33 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 107 | 1.00 | Ref. |  | 657 | 1.00 | Ref. |  |
|  | 2 | 176 | 1.37 | 1.08, 1.74 |  | 716 | 1.05 | 0.95, 1.17 |  |
|  | 3 | 171 | 1.28 | 1.00, 1.63 |  | 391 | 0.96 | 0.85, 1.09 |  |
|  | 4 | 204 | 1.46 | 1.15, 1.85 |  | 498 | 1.01 | 0.90, 1.14 |  |
|  | 5 | 349 | 1.70 | 1.36, 2.12 |  | 624 | 1.14 | 1.02, 1.28 | 0.02 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 604 | 1.00 | Ref. |  | 160 | 1.00 | Ref. |  |
|  | 2 | 651 | 1.10 | 0.98, 1.23 |  | 241 | 1.07 | 0.88, 1.31 |  |
|  | 3 | 369 | 1.01 | 0.89, 1.16 |  | 193 | 0.96 | 0.78, 1.19 |  |
|  | 4 | 422 | 1.10 | 0.97, 1.25 |  | 280 | 1.01 | 0.83, 1.23 |  |
|  | 5 | 529 | 1.30 | 1.16, 1.47 |  | 444 | 1.12 | 0.93, 1.35 | 0.62 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 428 | 1.00 | Ref. |  | 336 | 1.00 | Ref. |  |
|  | 2 | 487 | 1.05 | 0.92, 1.19 |  | 405 | 1.16 | 1.00, 1.34 |  |
|  | 3 | 310 | 0.92 | 0.79, 1.07 |  | 252 | 1.12 | 0.95, 1.32 |  |
|  | 4 | 389 | 0.97 | 0.84, 1.12 |  | 313 | 1.23 | 1.05, 1.43 |  |
|  | 5 | 556 | 1.14 | 1.00, 1.30 |  | 417 | 1.38 | 1.19, 1.60 | 0.16 |
| **Regular**c**non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 685 | 1.00 | Ref. |  | 79 | 1.00 | Ref. |  |
|  | 2 | 792 | 1.09 | 0.99, 1.21 |  | 98 | 1.05 | 0.78, 1.42 |  |
|  | 3 | 493 | 1.01 | 0.90, 1.14 |  | 67 | 0.92 | 0.66, 1.27 |  |
|  | 4 | 592 | 1.09 | 0.98, 1.22 |  | 109 | 0.96 | 0.72, 1.29 |  |
|  | 5 | 784 | 1.22 | 1.09, 1.36 |  | 188 | 1.28 | 0.98, 1.67 | 0.71 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 346 | 1.00 | Ref. |  | 418 | 1.00 | Ref. |  |
|  | 2 | 433 | 1.14 | 0.99, 1.32 |  | 458 | 1.04 | 0.91, 1.19 |  |
|  | 3 | 274 | 1.07 | 0.91, 1.26 |  | 288 | 0.95 | 0.81, 1.10 |  |
|  | 4 | 343 | 1.15 | 0.99, 1.34 |  | 358 | 1.01 | 0.88, 1.17 |  |
|  | 5 | 467 | 1.18 | 1.02, 1.36 |  | 506 | 1.29 | 1.13, 1.48 | 0.11 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 490 | 1.00 | Ref. |  | 274 | 1.00 | Ref. |  |
|  | 2 | 570 | 1.13 | 1.00, 1.28 |  | 322 | 1.02 | 0.87, 1.20 |  |
|  | 3 | 329 | 0.98 | 0.85, 1.13 |  | 233 | 1.03 | 0.87, 1.23 |  |
|  | 4 | 399 | 1.04 | 0.91, 1.19 |  | 303 | 1.13 | 0.96, 1.33 |  |
|  | 5 | 533 | 1.20 | 1.06, 1.37 |  | 440 | 1.28 | 1.09, 1.49 | 0.38 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 334 | 1.00 | Ref. |  | 430 | 1.00 | Ref. |  |
|  | 2 | 353 | 1.12 | 0.96, 1.30 |  | 539 | 1.05 | 0.92, 1.19 |  |
|  | 3 | 207 | 0.98 | 0.83, 1.17 |  | 355 | 0.98 | 0.85, 1.13 |  |
|  | 4 | 246 | 1.14 | 0.97, 1.35 |  | 456 | 1.08 | 0.94, 1.23 |  |
|  | 5 | 272 | 1.31 | 1.11, 1.54 |  | 701 | 1.23 | 1.09, 1.40 | 0.95 |
| **Ever smoked** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 314 | 1.00 | Ref. |  | 450 | 1.00 | Ref. |  |
|  | 2 | 307 | 1.05 | 0.90, 1.23 |  | 585 | 1.10 | 0.97, 1.24 |  |
|  | 3 | 159 | 0.82 | 0.68, 0.99 |  | 403 | 1.09 | 0.95, 1.25 |  |
|  | 4 | 266 | 1.06 | 0.89, 1.25 |  | 436 | 1.08 | 0.95, 1.24 |  |
|  | 5 | 370 | 1.18 | 1.01, 1.37 |  | 603 | 1.27 | 1.12, 1.45 | 0.16 |

Abbreviations: CI, confidence interval; LIS, lifestyle inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, former smoking status (yes, no), and the DIS (equal weights). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio >30 mg/g) at baseline; scored 0–3.

# Supplemental Table 7. Adjusted associations of the dietary inflammation score (DIS) with all-cardiovascular disease mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **DIS quartiles** | **Stratum 1**a | | |  | **Stratum 2**a | | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 165 | 1.00 | Ref. |  | 103 | 1.00 | Ref. |  |
|  | 2 | 162 | 0.86 | 0.69, 1.07 |  | 121 | 1.10 | 0.84, 1.43 |  |
|  | 3 | 186 | 1.03 | 0.83, 1.28 |  | 128 | 1.03 | 0.79, 1.34 |  |
|  | 4 | 177 | 0.94 | 0.75, 1.17 |  | 174 | 1.33 | 1.03, 1.72 | 0.07 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 51 | 1.00 | Ref. |  | 217 | 1.00 | Ref. |  |
|  | 2 | 63 | 1.00 | 0.69, 1.45 |  | 220 | 0.94 | 0.78, 1.14 |  |
|  | 3 | 83 | 1.20 | 0.84, 1.71 |  | 231 | 0.98 | 0.81, 1.19 |  |
|  | 4 | 121 | 1.36 | 0.97, 1.90 |  | 230 | 1.01 | 0.82, 1.23 | 0.38 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 223 | 1.00 | Ref. |  | 45 | 1.00 | Ref. |  |
|  | 2 | 211 | 0.97 | 0.80, 1.17 |  | 72 | 0.92 | 0.64, 1.34 |  |
|  | 3 | 200 | 1.01 | 0.83, 1.23 |  | 114 | 1.09 | 0.77, 1.54 |  |
|  | 4 | 158 | 1.02 | 0.82, 1.27 |  | 193 | 1.22 | 0.88, 1.70 | 0.60 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 140 | 1.00 | Ref. |  | 128 | 1.00 | Ref. |  |
|  | 2 | 161 | 0.89 | 0.71, 1.12 |  | 122 | 1.03 | 0.80, 1.32 |  |
|  | 3 | 175 | 0.94 | 0.75, 1.18 |  | 139 | 1.14 | 0.89, 1.45 |  |
|  | 4 | 212 | 1.02 | 0.81, 1.28 |  | 139 | 1.18 | 0.92, 1.52 | 0.69 |
| **Regular**c **non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 233 | 1.00 | Ref. |  | 35 | 1.00 | Ref. |  |
|  | 2 | 249 | 0.95 | 0.79, 1.14 |  | 34 | 0.97 | 0.61, 1.56 |  |
|  | 3 | 280 | 1.03 | 0.86, 1.23 |  | 33 | 0.96 | 0.59, 1.55 |  |
|  | 4 | 299 | 1.06 | 0.88, 1.27 |  | 51 | 1.40 | 0.90, 2.17 | 0.45 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 114 | 1.00 | Ref. |  | 154 | 1.00 | Ref. |  |
|  | 2 | 109 | 0.85 | 0.66, 1.11 |  | 174 | 1.03 | 0.83, 1.28 |  |
|  | 3 | 135 | 0.95 | 0.74, 1.22 |  | 178 | 1.08 | 0.87, 1.35 |  |
|  | 4 | 162 | 1.02 | 0.79, 1.31 |  | 189 | 1.15 | 0.92, 1.45 | 0.74 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 144 | 1.00 | Ref. |  | 124 | 1.00 | Ref. |  |
|  | 2 | 155 | 0.94 | 0.75, 1.19 |  | 128 | 0.97 | 0.75, 1.24 |  |
|  | 3 | 180 | 1.06 | 0.85, 1.33 |  | 134 | 0.98 | 0.76, 1.25 |  |
|  | 4 | 187 | 1.04 | 0.83, 1.31 |  | 164 | 1.16 | 0.91, 1.49 | 0.68 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 73 | 1.00 | Ref. |  | 195 | 1.00 | Ref. |  |
|  | 2 | 87 | 1.19 | 0.87, 1.62 |  | 196 | 0.86 | 0.71, 1.06 |  |
|  | 3 | 87 | 1.13 | 0.83, 1.55 |  | 227 | 0.96 | 0.79, 1.17 |  |
|  | 4 | 93 | 1.25 | 0.91, 1.72 |  | 258 | 1.01 | 0.82, 1.23 | 0.39 |
| **Ever smoke** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 122 | 1.00 | Ref. |  | 146 | 1.00 | Ref. |  |
|  | 2 | 105 | 0.90 | 0.69, 1.17 |  | 178 | 0.99 | 0.79, 1.24 |  |
|  | 3 | 116 | 0.94 | 0.72, 1.21 |  | 198 | 1.10 | 0.88, 1.36 |  |
|  | 4 | 127 | 1.11 | 0.85, 1.43 |  | 224 | 1.10 | 0.88, 1.37 | 0.72 |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases, DIS, diet inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio >30 mg/g) at baseline; scored 0–3.

# Supplemental Table 8. Adjusted associations of the lifestyle inflammation score (LIS) with all-cardiovascular disease mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **LIS quartiles** | **Stratum 1**a | | |  | **Stratum 2**a | | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 194 | 1.00 | Ref. |  | 111 | 1.00 | Ref. |  |
|  | 2 | 156 | 0.87 | 0.70, 1.07 |  | 78 | 1.09 | 0.82, 1.46 |  |
|  | 3 | 196 | 0.96 | 0.79, 1.18 |  | 140 | 0.97 | 0.75, 1.24 |  |
|  | 4 | 144 | 1.16 | 0.93, 1.45 |  | 197 | 1.22 | 0.96, 1.56 | 0.57 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 37 | 1.00 | Ref. |  | 268 | 1.00 | Ref. |  |
|  | 2 | 59 | 1.31 | 0.87, 1.98 |  | 175 | 0.89 | 0.73, 1.08 |  |
|  | 3 | 95 | 1.37 | 0.94, 2.01 |  | 241 | 0.90 | 0.75, 1.08 |  |
|  | 4 | 127 | 1.70 | 1.17, 2.47 |  | 214 | 1.09 | 0.90, 1.32 | 0.14 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 234 | 1.00 | Ref. |  | 71 | 1.00 | Ref. |  |
|  | 2 | 170 | 0.95 | 0.78, 1.16 |  | 64 | 0.88 | 0.63, 1.24 |  |
|  | 3 | 208 | 0.98 | 0.81, 1.18 |  | 128 | 0.91 | 0.68, 1.22 |  |
|  | 4 | 180 | 1.21 | 0.99, 1.48 |  | 161 | 1.11 | 0.83, 1.48 | 0.96 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 162 | 1.00 | Ref. |  | 143 | 1.00 | Ref. |  |
|  | 2 | 119 | 0.92 | 0.73, 1.17 |  | 115 | 0.94 | 0.74, 1.21 |  |
|  | 3 | 197 | 0.99 | 0.80, 1.23 |  | 139 | 0.92 | 0.73, 1.17 |  |
|  | 4 | 210 | 1.27 | 1.02, 1.57 |  | 131 | 1.07 | 0.84, 1.37 | 0.66 |
| **Regular**c **non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 275 | 1.00 | Ref. |  | 30 | 1.00 | Ref. |  |
|  | 2 | 212 | 0.95 | 0.79, 1.14 |  | 22 | 0.80 | 0.46, 1.38 |  |
|  | 3 | 294 | 0.98 | 0.83, 1.16 |  | 41 | 0.79 | 0.49, 1.28 |  |
|  | 4 | 280 | 1.16 | 0.97, 1.39 |  | 60 | 1.26 | 0.81, 1.97 | 0.53 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 128 | 1.00 | Ref. |  | 177 | 1.00 | Ref. |  |
|  | 2 | 105 | 1.08 | 0.83, 1.40 |  | 129 | 0.84 | 0.67, 1.06 |  |
|  | 3 | 144 | 1.04 | 0.81, 1.32 |  | 191 | 0.91 | 0.74, 1.12 |  |
|  | 4 | 143 | 1.12 | 0.88, 1.44 |  | 198 | 1.23 | 1.00, 1.53 | 0.21 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 182 | 1.00 | Ref. |  | 123 | 1.00 | Ref. |  |
|  | 2 | 132 | 0.97 | 0.77, 1.22 |  | 102 | 0.89 | 0.68, 1.16 |  |
|  | 3 | 176 | 0.95 | 0.77, 1.17 |  | 160 | 0.97 | 0.76, 1.23 |  |
|  | 4 | 176 | 1.20 | 0.97, 1.49 |  | 165 | 1.16 | 0.91, 1.48 | 0.93 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 99 | 1.00 | Ref. |  | 206 | 1.00 | Ref. |  |
|  | 2 | 67 | 0.92 | 0.67, 1.25 |  | 167 | 0.94 | 0.77, 1.16 |  |
|  | 3 | 98 | 1.13 | 0.86, 1.50 |  | 238 | 0.97 | 0.80, 1.17 |  |
|  | 4 | 76 | 1.37 | 1.01, 1.86 |  | 265 | 1.21 | 1.00, 1.46 | 0.67 |
| **Ever smoke** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 138 | 1.00 | Ref. |  | 167 | 1.00 | Ref. |  |
|  | 2 | 67 | 0.83 | 0.62, 1.11 |  | 167 | 0.98 | 0.79, 1.21 |  |
|  | 3 | 133 | 0.88 | 0.69, 1.12 |  | 203 | 1.03 | 0.84, 1.27 |  |
|  | 4 | 132 | 1.11 | 0.87, 1.42 |  | 209 | 1.22 | 0.98, 1.51 | 0.75 |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases; LIS, lifestyle inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, former smoking status (yes, no), and the DIS (equal weights). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio >30 mg/g) at baseline; scored 0–3.

# Supplemental Table 9. Adjusted associations of the dietary inflammation score (DIS) with all-cancer mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **DIS quartiles** | **Stratum 1**a | | |  | **Stratum 2**a | | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 107 | 1.00 | Ref. |  | 90 | 1.00 | Ref. |  |
|  | 2 | 126 | 1.09 | 0.84, 1.41 |  | 127 | 1.33 | 1.01, 1.74 |  |
|  | 3 | 142 | 1.19 | 0.92, 1.53 |  | 117 | 1.20 | 0.91, 1.59 |  |
|  | 4 | 181 | 1.45 | 1.13, 1.87 |  | 128 | 1.28 | 0.96, 1.70 | 0.30 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 47 | 1.00 | Ref. |  | 150 | 1.00 | Ref. |  |
|  | 2 | 67 | 1.24 | 0.85, 1.81 |  | 186 | 1.19 | 0.95, 1.48 |  |
|  | 3 | 77 | 1.35 | 0.94, 1.95 |  | 182 | 1.15 | 0.92, 1.43 |  |
|  | 4 | 121 | 1.68 | 1.19, 2.38 |  | 188 | 1.26 | 1.00, 1.59 | 0.44 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 164 | 1.00 | Ref. |  | 33 | 1.00 | Ref. |  |
|  | 2 | 184 | 1.18 | 0.96, 1.46 |  | 69 | 1.25 | 0.82, 1.89 |  |
|  | 3 | 169 | 1.18 | 0.95, 1.47 |  | 90 | 1.24 | 0.83, 1.86 |  |
|  | 4 | 157 | 1.37 | 1.09, 1.72 |  | 152 | 1.42 | 0.97, 2.09 | 1.00 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 115 | 1.00 | Ref. |  | 82 | 1.00 | Ref. |  |
|  | 2 | 136 | 0.96 | 0.75, 1.23 |  | 117 | 1.55 | 1.16, 2.05 |  |
|  | 3 | 135 | 0.92 | 0.72, 1.19 |  | 124 | 1.62 | 1.22, 2.15 |  |
|  | 4 | 188 | 1.16 | 0.91, 1.49 |  | 121 | 1.67 | 1.25, 2.24 | 0.02 |
| **Regular**c **non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 158 | 1.00 | Ref. |  | 38 | 1.00 | Ref. |  |
|  | 2 | 220 | 1.28 | 1.04, 1.58 |  | 33 | 0.88 | 0.55, 1.42 |  |
|  | 3 | 219 | 1.23 | 1.00, 1.51 |  | 40 | 1.16 | 0.74, 1.81 |  |
|  | 4 | 265 | 1.44 | 1.16, 1.78 |  | 44 | 1.19 | 0.76, 1.87 | 0.49 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 83 | 1.00 | Ref. |  | 113 | 1.00 | Ref. |  |
|  | 2 | 128 | 1.43 | 1.08, 1.89 |  | 125 | 1.04 | 0.81, 1.35 |  |
|  | 3 | 155 | 1.58 | 1.20, 2.07 |  | 104 | 0.92 | 0.70, 1.21 |  |
|  | 4 | 181 | 1.66 | 1.27, 2.18 |  | 128 | 1.18 | 0.90, 1.54 | 0.05 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 118 | 1.00 | Ref. |  | 79 | 1.00 | Ref. |  |
|  | 2 | 156 | 1.25 | 0.98, 1.59 |  | 97 | 1.15 | 0.85, 1.55 |  |
|  | 3 | 178 | 1.39 | 1.09, 1.76 |  | 81 | 0.95 | 0.69, 1.30 |  |
|  | 4 | 203 | 1.47 | 1.15, 1.87 |  | 106 | 1.28 | 0.94, 1.73 | 0.23 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 102 | 1.00 | Ref. |  | 95 | 1.00 | Ref. |  |
|  | 2 | 121 | 1.19 | 0.91, 1.55 |  | 132 | 1.19 | 0.91, 1.56 |  |
|  | 3 | 139 | 1.33 | 1.03, 1.73 |  | 120 | 1.06 | 0.80, 1.39 |  |
|  | 4 | 139 | 1.37 | 1.05, 1.79 |  | 170 | 1.37 | 1.05, 1.79 | 0.47 |
| **Ever smoke** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 86 | 1.00 | Ref. |  | 111 | 1.00 | Ref. |  |
|  | 2 | 83 | 1.03 | 0.76, 1.40 |  | 170 | 1.32 | 1.04, 1.69 |  |
|  | 3 | 61 | 0.76 | 0.55, 1.06 |  | 198 | 1.50 | 1.18, 1.90 |  |
|  | 4 | 77 | 1.07 | 0.78, 1.47 |  | 232 | 1.60 | 1.26, 2.04 | 0.01 |

Abbreviations: CI, confidence interval; DIS, diet inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio >30 mg/g) at baseline; scored 0–3.

# Supplemental Table 10. Adjusted associations of the lifestyle inflammation score (LIS) with all-cancer mortality risk according to categories of selected participant characteristics in REGARDS (*n* = 17,757), 2003–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant characteristics** | **LIS quartiles** | **Stratum 1**a | | |  | **Stratum 2**a | | | ***P*interaction** |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **Sex** |  |  |  | **Men** |  |  |  | **Women** |  |
|  | 1 | 137 | 1.00 | Ref. |  | 109 | 1.00 | Ref. |  |
|  | 2 | 153 | 1.20 | 0.95, 1.52 |  | 94 | 1.37 | 1.04, 1.81 |  |
|  | 3 | 145 | 1.10 | 0.87, 1.39 |  | 112 | 0.87 | 0.66, 1.13 |  |
|  | 4 | 121 | 1.54 | 1.20, 1.99 |  | 147 | 1.13 | 0.88, 1.47 | 0.05 |
| **Age** |  |  |  | **Age <65 years** |  |  |  | **Age >65 years** |  |
|  | 1 | 46 | 1.00 | Ref. |  | 200 | 1.00 | Ref. |  |
|  | 2 | 76 | 1.54 | 1.06, 2.22 |  | 171 | 1.17 | 0.95, 1.43 |  |
|  | 3 | 74 | 1.07 | 0.74, 1.56 |  | 183 | 0.99 | 0.80, 1.21 |  |
|  | 4 | 116 | 1.73 | 1.22, 2.46 |  | 152 | 1.17 | 0.94, 1.46 | 0.17 |
| **Race** |  |  |  | **White** |  |  |  | **Black** |  |
|  | 1 | 188 | 1.00 | Ref. |  | 58 | 1.00 | Ref. |  |
|  | 2 | 188 | 1.36 | 1.11, 1.66 |  | 59 | 0.98 | 0.68, 1.41 |  |
|  | 3 | 157 | 0.98 | 0.79, 1.21 |  | 100 | 0.97 | 0.70, 1.34 |  |
|  | 4 | 141 | 1.36 | 1.08, 1.71 |  | 127 | 1.21 | 0.88, 1.66 | 0.34 |
| **Region of residence** |  |  |  | **Stroke belt**b |  |  |  | **Non-stroke belt** |  |
|  | 1 | 151 | 1.00 | Ref. |  | 95 | 1.00 | Ref. |  |
|  | 2 | 133 | 1.11 | 0.88, 1.41 |  | 114 | 1.47 | 1.12, 1.93 |  |
|  | 3 | 145 | 0.86 | 0.69, 1.09 |  | 112 | 1.20 | 0.91, 1.58 |  |
|  | 4 | 145 | 1.10 | 0.86, 1.39 |  | 123 | 1.69 | 1.29, 2.23 | 0.10 |
| **Regular**c **non-aspirin NSAID use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 216 | 1.00 | Ref. |  | 29 | 1.00 | Ref. |  |
|  | 2 | 213 | 1.24 | 1.02, 1.50 |  | 34 | 1.30 | 0.79, 2.14 |  |
|  | 3 | 213 | 0.98 | 0.81, 1.19 |  | 44 | 1.02 | 0.64, 1.63 |  |
|  | 4 | 220 | 1.35 | 1.10, 1.65 |  | 48 | 1.14 | 0.71, 1.81 | 0.77 |
| **Regular**c **aspirin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 127 | 1.00 | Ref. |  | 119 | 1.00 | Ref. |  |
|  | 2 | 136 | 1.36 | 1.06, 1.73 |  | 110 | 1.14 | 0.88, 1.48 |  |
|  | 3 | 144 | 1.09 | 0.85, 1.38 |  | 113 | 0.89 | 0.68, 1.15 |  |
|  | 4 | 140 | 1.22 | 0.95, 1.57 |  | 128 | 1.43 | 1.10, 1.86 | 0.14 |
| **Statin use** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 164 | 1.00 | Ref. |  | 82 | 1.00 | Ref. |  |
|  | 2 | 172 | 1.39 | 1.12, 1.72 |  | 75 | 1.01 | 0.74, 1.38 |  |
|  | 3 | 149 | 0.94 | 0.75, 1.18 |  | 108 | 1.05 | 0.78, 1.40 |  |
|  | 4 | 170 | 1.39 | 1.11, 1.74 |  | 98 | 1.17 | 0.86, 1.58 | 0.11 |
| **Comorbidities**d |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 136 | 1.00 | Ref. |  | 110 | 1.00 | Ref. |  |
|  | 2 | 133 | 1.25 | 0.98, 1.59 |  | 114 | 1.09 | 0.84, 1.42 |  |
|  | 3 | 125 | 1.00 | 0.79, 1.28 |  | 132 | 0.95 | 0.74, 1.23 |  |
|  | 4 | 107 | 1.24 | 0.96, 1.62 |  | 161 | 1.19 | 0.93, 1.53 | 0.91 |
| **Ever smoke** |  |  |  | **No** |  |  |  | **Yes** |  |
|  | 1 | 83 | 1.00 | Ref. |  | 163 | 1.00 | Ref. |  |
|  | 2 | 59 | 1.25 | 0.89, 1.75 |  | 188 | 1.15 | 0.93, 1.43 |  |
|  | 3 | 88 | 1.04 | 0.77, 1.41 |  | 169 | 0.97 | 0.78, 1.21 |  |
|  | 4 | 77 | 1.27 | 0.92, 1.74 |  | 191 | 1.29 | 1.03, 1.60 | 0.95 |

Abbreviations: CI, confidence interval; LIS, lifestyle inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke; NSAID, nonsteroidal anti-inflammatory drug.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, former smoking status (yes, no), and the DIS (equal weights). Excludes *n* = 727 participants with missing data for covariates.

b North Carolina, South Carolina, Arkansas, Georgia, Tennessee, Alabama, Mississippi, and Louisiana.

c Twice a week or more.

d Included diabetes, heart disease (surgery or procedure on arteries, angioplasty or stenting of coronary arteries, repair of an aortic aneurism, self-reported myocardial infarction, or evidence of a myocardial infarction via electrocardiogram), or kidney disease (based on glomerular filtration rate >60 mL/min/1.73 square meters or a urinary albumin:creatinine ratio >30 mg/g) at baseline; scored 0–3.

# Supplemental Table 11. Adjusted associationsa of equal-weight dietary and lifestyle inflammation scores with all-cause, all-cardiovascular diseases, and all-cancer mortality risk among participants in REGARDS (*n* = 17,757), United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Equal-weights scores, quintiles** | **All-cause mortality** | | |  | **All-CVD mortality** | | |  | **All-cancer mortality** | | |
| # Deaths | HRa | 95% CI |  | # Deaths | HRa | 95% CI |  | # Deaths | HRa | 95% CI |
| **Equal-weight DIS** |  |  |  |  |  |  |  |  |  |  |  |
| **1** | 591 | 1.00 | Ref. |  | 199 | 1.00 | Ref. |  | 144 | 1.00 | Ref. |
| **2** | 699 | 1.09 | 0.98, 1.22 |  | 209 | 0.95 | 0.78, 1.15 |  | 199 | 1.29 | 1.04, 1.60 |
| **3** | 778 | 1.15 | 1.03, 1.28 |  | 254 | 1.07 | 0.89, 1.30 |  | 191 | 1.18 | 0.95, 1.48 |
| **4** | 880 | 1.27 | 1.14, 1.42 |  | 277 | 1.14 | 0.94, 1.38 |  | 228 | 1.39 | 1.12, 1.73 |
| **5** | 945 | 1.38 | 1.23, 1.54 |  | 277 | 1.13 | 0.93, 1.39 |  | 256 | 1.53 | 1.22, 1.91 |
| **Equal-weight LIS** |  |  |  |  |  |  |  |  |  |  |  |
| **1** | 510 | 1.00 | Ref. |  | 151 | 1.00 | Ref. |  | 136 | 1.00 | Ref. |
| **2** | 757 | 1.09 | 0.97, 1.22 |  | 238 | 1.11 | 0.91, 1.37 |  | 210 | 1.16 | 0.93, 1.44 |
| **3** | 1025 | 1.18 | 1.06, 1.32 |  | 326 | 1.21 | 0.99, 1.47 |  | 249 | 1.11 | 0.90, 1.38 |
| **4** | 895 | 1.31 | 1.17, 1.46 |  | 277 | 1.26 | 1.03, 1.55 |  | 244 | 1.43 | 1.15, 1.78 |
| **5** | 706 | 1.66 | 1.46, 1.87 |  | 224 | 1.60 | 1.28, 2.00 |  | 179 | 1.73 | 1.36, 2.20 |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases, DIS, diet inflammation score; LIS, lifestyle inflammation score; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years). Excludes *n* = 727 participants with missing data for covariates.

b From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, former smoking status (yes, no), and the DIS (equal weights). Excludes *n* = 727 participants with missing data for covariates.

# Supplemental Table 12. Adjusted associationsa of the Dietary Inflammation Index (DII) with all-cause, all-cardiovascular diseases, and all-cancer mortality risk among participants in REGARDS (*n* = 17,757), United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DII quintiles** | **All-cause mortality** | | |  | **All-CVD mortality** | | |  | **All-cancer mortality** | | |
| # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **1** | 635 | 1.00 | Ref. |  | 215 | 1.00 | Ref. |  | 166 | 1.00 | Ref. |
| **2** | 696 | 1.02 | 0.92, 1.14 |  | 207 | 0.88 | 0.73, 1.07 |  | 184 | 1.07 | 0.86, 1.31 |
| **3** | 778 | 1.05 | 0.94, 1.17 |  | 262 | 1.00 | 0.83, 1.20 |  | 187 | 1.02 | 0.83, 1.26 |
| **4** | 843 | 1.12 | 1.01, 1.25 |  | 253 | 0.93 | 0.77, 1.12 |  | 238 | 1.30 | 1.07, 1.60 |
| **5** | 941 | 1.22 | 1.10, 1.36 |  | 279 | 1.00 | 0.83, 1.20 |  | 243 | 1.29 | 1.05, 1.58 |

Abbreviations: CI, confidence interval; CVD, cardiovascular diseases, DII, diet inflammatory index; HR, hazards ratio; Ref., reference; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

1 From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years). Excludes *n* = 727 participants with missing data for covariates.

# Supplemental Table 13. Adjusted associationsa (excluding comorbidities as a covariate) of the dietary and lifestyle inflammation scores with all-cause, all-cardiovascular diseases, and all-cancer mortality risk among participants in REGARDS (*n* = 17,757), United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Inflammation score, quintiles** | **All-cause mortality** | | | |  | **All-CVD mortality** | | | |  | **All-cancer mortality** | | | |
| # Deaths | HR | 95% CI | *P*trend |  | # Deaths | HR | 95% CI | *P*trend |  | # Deaths | HR | 95% CI | *P*trend |
| **DIS quintiles**b | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 629 | 1.00 | Ref. |  |  | 218 | 1.00 | Ref. |  |  | 154 | 1.00 | Ref. |  |
| 2 | 711 | 1.06 | 0.95, 1.19 |  |  | 210 | 0.89 | 0.74, 1.08 |  |  | 191 | 1.17 | 0.94, 1.44 |  |
| 3 | 779 | 1.14 | 1.02, 1.27 |  |  | 240 | 0.97 | 0.81, 1.17 |  |  | 203 | 1.22 | 0.99, 1.51 |  |
| 4 | 824 | 1.17 | 1.05, 1.30 |  |  | 259 | 1.01 | 0.84, 1.22 |  |  | 224 | 1.31 | 1.06, 1.62 |  |
| 5 | 950 | 1.32 | 1.19, 1.48 | <0.01 |  | 289 | 1.09 | 0.90, 1.33 | 0.17 |  | 246 | 1.39 | 1.11, 1.73 | <0.01 |
| **LIS quintiles**c | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 764 | 1.00 | Ref. |  |  | 229 | 1.00 | Ref. |  |  | 197 | 1.00 | Ref. |  |
| 2 | 892 | 1.16 | 1.05, 1.27 |  |  | 265 | 1.14 | 0.96, 1.36 |  |  | 244 | 1.22 | 1.01, 1.48 |  |
| 3 | 562 | 1.08 | 0.97, 1.21 |  |  | 179 | 1.15 | 0.94, 1.40 |  |  | 146 | 1.02 | 0.82, 1.27 |  |
| 4 | 702 | 1.21 | 1.09, 1.35 |  |  | 219 | 1.26 | 1.04, 1.52 |  |  | 187 | 1.23 | 1.00, 1.51 |  |
| 5 | 973 | 1.52 | 1.37, 1.68 | <0.01 |  | 324 | 1.70 | 1.42, 2.04 | <0.01 |  | 244 | 1.40 | 1.15, 1.71 | <0.01 |

Abbreviations: CVD, cardiovascular disease; DIS, diet inflammation score; LIS, lifestyle inflammation score; REGARDS, REasons for Geographic and Racial Differences in Stroke; ref, referent.

a From multivariableCox proportional hazards models; models for DIS adjusted for age, sex/HRT use, race, income, education, insurance, marital status, region, aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years); models for LIS adjusted for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, former smoking status (yes, no), and the DIS (equal weights). Excludes *n* = 727 participants with missing data for covariates.

b DIS quintile ranges were as follows: quintile 1, -10.4 to -2.1; quintile 2, -2.2 to -0.6; quintile 3, -0.7 to 0.6; quintile 4, 0.6 to 2.2; quintile 5, 2.1 to 10.0.

c LIS quintile ranges were as follows: quintile 1, -1.1 to -0.2; quintile 2, -0.2 to 0.5; quintile 3, 0.5 to 0.8; quintile 4, 0.9 to 1.3; quintile 5, 1.4 to 2.4.

# Supplemental Table 14. Adjusted associationsa of the dietary and lifestyle inflammation scores with all-cause, all-cardiovascular diseases, and all-cancer mortality risk among participants (excluding those with extremely high β-carotene supplement intakes) in REGARDS, (*n* = 16,446)b, United States, 2003–2016

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **All-cause mortality** | | |  | **All-CVD mortality** | | |  | **All-cancer mortality** | | |
| **DIS quintiles** | # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |  | # Deaths | HR | 95% CI |
| **1** | 507 | 1.00 | Ref. |  | 168 | 1.00 | Ref. |  | 121 | 1.00 | Ref. |
| **2** | 636 | 1.08 | 0.96, 1.22 |  | 193 | 0.97 | 0.79, 1.19 |  | 169 | 1.21 | 0.96, 1.53 |
| **3** | 726 | 1.16 | 1.03, 1.30 |  | 223 | 1.03 | 0.84, 1.27 |  | 187 | 1.27 | 1.01, 1.61 |
| **4** | 792 | 1.22 | 1.08, 1.36 |  | 248 | 1.11 | 0.90, 1.35 |  | 217 | 1.41 | 1.12, 1.78 |
| **5** | 929 | 1.36 | 1.21, 1.53 |  | 284 | 1.18 | 0.96, 1.46 |  | 240 | 1.48 | 1.17, 1.87 |

Abbreviations: CVD, cardiovascular disease; DIS, Diet Inflammation Score; Ref., reference; REGARDS, REasons for Geographic and Racial Differences in Stroke.

a From multivariablemodel adjusting for age, sex/HRT use, race, income, education, insurance, marital status, region, comorbidities (score 0–3), aspirin/NSAID use, statin use, total energy intake, physical activity (none, 1–3 times/week, ≥4 times/week), body mass index (healthy weight, overweight, obese), alcohol intake (none, moderate, heavy), and tobacco use (pack-years).

b Excludes participants with extreme intakes (≥4.2 mg) of β-carotene supplements (*n* = 1,370) or with missing covariates (*n* = 668).