Supplementary Table 6a. Multivariable Model Examining the Association Between Stress/Distress (Composite Measure) and Hypertension

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Stress/Distress (Composite Measure)** | No | Referent |  |
| Yes | 1.24 (1.07-1.43) | 0.0045 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)**  | 0 | Referent | . |
| <250 | 1.04 (0.88-1.22) | 0.6582 |
|  ≥250 | 1.04 (0.84-1.29) | 0.6997 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 1.51 (1.26-1.80) | <.0001 |
| ≥20Gy | 1.07 (0.89-1.28) | 0.5022 |
| **Age at Evaluation** |  Per year | 1.06 (1.05-1.06) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.6508 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 1.11 (0.90-1.38) | 0.3198 |
| Other | 0.73 (0.41-1.28) | 0.2676 |
| **Sex** | Female | Referent | . |
| Male | 1.14 (0.99-1.31) | 0.0701 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.90 (0.74-1.09) | 0.2819 |
| ≥$60,000 | 0.90 (0.73-1.12) | 0.3499 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.01 (0.87-1.18) | 0.8812 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 1.05 (0.86-1.27) | 0.6552 |
| Now smoke | 1.13 (0.95-1.35) | 0.1635 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.94 (0.81-1.10) | 0.4567 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.85 (0.74-0.98) | 0.0225 |
| **Body Mass Index** | Underweight/Normal (<25) | Referent | . |
| Overweight (25 – 29.9) | 1.40 (1.14-1.72) | 0.0015 |
| Obesity (≥30) | 1.90 (1.57-2.29) | <.0001 |

Supplementary Table 6b. Multivariable Model Examining the Association Between Stress/Distress (Composite Measure) and Dyslipidemia

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Stress/Distress (Composite Measure)** | No | Referent | . |
| Yes | 1.29 (1.03-1.61) | 0.0263 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.00 (0.79-1.26) | 0.9952 |
|  ≥250 | 0.99 (0.72-1.34) | 0.9263 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 1.57 (1.20-2.05) | 0.0009 |
| ≥20Gy | 1.14 (0.87-1.49) | 0.3384 |
| **Age at Evaluation** |  Per year | 1.05 (1.04-1.06) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.02) | 0.8040 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 0.37 (0.22-0.62) | 0.0001 |
| Other | 1.31 (0.75-2.30) | 0.3456 |
| **Sex** | Female | Referent | . |
| Male | 1.52 (1.22-1.89) | 0.0002 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 1.08 (0.80-1.46) | 0.5951 |
| ≥$60,000 | 1.23 (0.90-1.68) | 0.1971 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 0.81 (0.65-1.01) | 0.0639 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 1.10 (0.83-1.45) | 0.5110 |
| Now smoke | 1.16 (0.90-1.50) | 0.2491 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.72 (0.57-0.90) | 0.0046 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.73 (0.59-0.89) | 0.0024 |
| **Body Mass Index** | Underweight/Normal (<25) | Referent | . |
| Overweight (25 – 29.9) | 1.97 (1.46-2.67) | <.0001 |
| Obesity (≥30) | 2.14 (1.60-2.87) | <.0001 |

Supplementary Table 6c. Multivariable Model Examining the Association Between Stress/Distress (Composite Measure) and Metabolic Syndromea

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Stress/Distress (Composite Measure)** | No | Referent | . |
| Yes | 1.35 (1.17-1.54) | <.0001 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.16 (1.00-1.34) | 0.0491 |
|  ≥250 | 0.97 (0.79-1.19) | 0.7615 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 0.97 (0.80-1.17) | 0.7404 |
| ≥20Gy | 0.80 (0.67-0.97) | 0.0236 |
| **Age at Evaluation** |  Per year | 1.04 (1.03-1.05) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.5193 |
| **Race/Ethnicity** | Non-Hispanic White | Referent |  |
| Non-Hispanic Black | 0.68 (0.53-0.88) | 0.0029 |
| Other | 1.09 (0.76-1.57) | 0.6370 |
| **Sex** | Female | Referent | . |
| Male | 1.20 (1.05-1.37) | 0.0062 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.92 (0.77-1.10) | 0.3588 |
| ≥$60,000 | 0.81 (0.66-0.99) | 0.0364 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.09 (0.94-1.25) | 0.2479 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 0.95 (0.78-1.15) | 0.5765 |
| Now smoke | 0.82 (0.69-0.97) | 0.0214 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.87 (0.76-1.01) | 0.0711 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.71 (0.62-0.81) | <.0001 |

a Body mass index was removed as a covariate in all multivariable models with metabolic syndrome as the outcome variable

Supplementary Table 6d. Multivariable Model Examining the Association Between Perceived Stress and Diabetes

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Perceived Stress** | No | Referent | . |
| Yes | 1.40 (1.00-1.96) | 0.0484 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.18 (0.88-1.58) | 0.2744 |
|  ≥250 | 0.74 (0.45-1.21) | 0.2298 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 1.59 (1.12-2.27) | 0.0094 |
| ≥20Gy | 0.59 (0.37-0.93) | 0.0245 |
| **Age at evaluation** |  Per year | 1.04 (1.02-1.06) | <.0001 |
| **Age at diagnosis** |  Per year | 1.03 (1.00-1.05) | 0.0407 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 0.97 (0.63-1.50) | 0.8858 |
| Other | 1.70 (0.89-3.23) | 0.1056 |
| **Sex** | Female | Referent | . |
| Male | 1.01 (0.77-1.33) | 0.9403 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.80 (0.54-1.19) | 0.2727 |
| ≥$60,000 | 0.91 (0.59-1.38) | 0.6494 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.08 (0.79-1.46) | 0.6406 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 0.44 (0.25-0.77) | 0.0042 |
| Now smoke | 0.88 (0.60-1.29) | 0.5172 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.78 (0.57-1.08) | 0.1334 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.98 (0.74-1.30) | 0.8883 |
| **Body Mass Index** | Underweight/Normal (<25) | Referent | . |
| Overweight (25 – 29.9) | 2.04 (1.31-3.18) | 0.0015 |
| Obesity (≥30) | 3.39 (2.24-5.13) | <.0001 |

Supplementary Table 6e. Multivariable Model Examining the Association Between Perceived Stress and Metabolic Syndromea

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Perceived Stress** | No | Referent | . |
| Yes | 1.31 (1.12-1.52) | 0.0005 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.13 (0.98-1.31) | 0.0976 |
|  ≥250 | 0.94 (0.77-1.16) | 0.5731 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 0.97 (0.80-1.16) | 0.7166 |
| ≥20Gy | 0.79 (0.65-0.95) | 0.0143 |
| **Age at Evaluation** |  Per year | 1.04 (1.03-1.05) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.5517 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 0.67 (0.51-0.86) | 0.0022 |
| Other | 1.08 (0.75-1.56) | 0.6628 |
| **Sex** | Female | Referent | . |
| Male | 1.21 (1.06-1.38) | 0.0048 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.91 (0.76-1.08) | 0.2868 |
| ≥$60,000 | 0.80 (0.65-0.98) | 0.0288 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.07 (0.93-1.24) | 0.3216 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 0.96 (0.80-1.17) | 0.6961 |
| Now smoke | 0.82 (0.69-0.98) | 0.0287 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.89 (0.77-1.03) | 0.1130 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.69 (0.60-0.79) | <.0001 |

a Body mass index was removed as a covariate in all multivariable models with metabolic syndrome as the outcome variable

Supplementary Table 6f. Multivariable Model Examining the Association Between Posttraumatic Stress Symptoms and Hypertension

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Posttraumatic Stress Symptoms** | No | Referent | . |
| Yes | 1.22 (1.00-1.50) | 0.0493 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.04 (0.89-1.23) | 0.5975 |
|  ≥250 | 1.02 (0.82-1.27) | 0.8612 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 1.53 (1.28-1.83) | <.0001 |
| ≥20Gy | 1.05 (0.87-1.27) | 0.6036 |
| **Age at Evaluation** |  Per year | 1.05 (1.05-1.06) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.6644 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 1.11 (0.89-1.37) | 0.3545 |
| Other | 0.72 (0.41-1.26) | 0.2530 |
| **Sex** | Female | Referent | . |
| Male | 1.14 (0.99-1.32) | 0.0663 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.89 (0.73-1.07) | 0.2201 |
| ≥$60,000 | 0.88 (0.71-1.08) | 0.2132 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.00 (0.86-1.16) | 0.9633 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 1.04 (0.85-1.26) | 0.7092 |
| Now smoke | 1.14 (0.96-1.36) | 0.1373 |
| **Risky or Heavy Drinking** | No | Referent | . |
| Yes | 0.94 (0.81-1.10) | 0.4555 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.83 (0.72-0.95) | 0.0089 |
| **Body Mass Index** | Underweight/Normal (<25) | Referent | . |
| Overweight (25 – 29.9) | 1.38 (1.13-1.70) | 0.0019 |
| Obesity (≥30) | 1.92 (1.59-2.31) | <.0001 |

Supplementary Table 6g. Multivariable Model Examining the Association Between Anxiety and Hypertension

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Anxiety** | No | 1.0 | . |
| Yes | 1.28 (1.06-1.55) | 0.0090 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | 1.0 | . |
| <250 | 1.05 (0.89-1.23) | 0.5730 |
|  ≥250 | 1.02 (0.82-1.27) | 0.8604 |
| **Chest Radiation** | None | 1.0 | . |
| <20Gy | 1.50 (1.26-1.79) | <.0001 |
| ≥20Gy | 1.05 (0.87-1.26) | 0.6398 |
| **Age at Evaluation** |  Per year | 1.06 (1.05-1.06) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.5028 |
| **Race/Ethnicity** | Non-Hispanic White | 1.0 | . |
| Non-Hispanic Black | 1.13 (0.92-1.40) | 0.2392 |
| Other | 0.72 (0.41-1.26) | 0.2503 |
| **Sex** | Female | 1.0 | . |
| Male | 1.14 (0.99-1.31) | 0.0746 |
| **Household Income** | ≤$19,999 | 1.0 | . |
| $20,000-$59,999 | 0.90 (0.74-1.09) | 0.2742 |
| ≥$60,000 | 0.89 (0.72-1.10) | 0.2697 |
| **Marital Status** | Single/Widowed/Divorced | 1.0 | . |
| Married/Living as married | 1.00 (0.86-1.16) | 0.9603 |
| **Smoking** | Never smoke | 1.0 | . |
| Ever smoke | 1.03 (0.85-1.25) | 0.7667 |
| Now smoke | 1.12 (0.94-1.34) | 0.2113 |
| **Risky or Heavy Drinking** | No | 1.0 | . |
| Yes | 0.92 (0.79-1.07) | 0.2744 |
| **Physical Activity** | Physical inactivity (<150) | 1.0 | . |
| Physical activity (≥150) | 0.83 (0.72-0.96) | 0.0118 |
| **Body Mass Index** | Underweight/Normal (<25) | 1.0 | . |
| Overweight (25 – 29.9) | 1.40 (1.14-1.73) | 0.0013 |
| Obesity (≥30) | 1.94 (1.61-2.35) | <.0001 |

Supplementary Table 6h. Multivariable Model Examining the Association Between Anxiety and Metabolic Syndromea

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Anxiety** | No | Referent | . |
| Yes | 1.34 (1.12- 1.59) | 0.0012 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.15 (1.00- 1.33) | 0.0579 |
|  ≥250 | 0.97 (0.79- 1.18) | 0.7411 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 0.98 (0.81- 1.18) | 0.8144 |
| ≥20Gy | 0.81 (0.67- 0.98) | 0.0269 |
| **Age at Evaluation** |  Per year | 1.04 (1.03- 1.05) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98- 1.01) | 0.5420 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 0.65 (0.51- 0.84) | 0.0011 |
| Other | 1.06 (0.73- 1.53) | 0.7610 |
| **Sex** | Female | Referent | . |
| Male | 1.21 (1.06- 1.38) | 0.0040 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.88 (0.74- 1.05) | 0.1668 |
| ≥$60,000 | 0.76 (0.63- 0.93) | 0.0076 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.08 (0.94- 1.25) | 0.2791 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 0.95 (0.78- 1.15) | 0.5789 |
| Now smoke | 0.84 (0.71- 1.00) | 0.0454 |
| **Risky or Heavy drinking** | No | Referent | . |
| Yes | 0.87 (0.75- 1.00) | 0.0507 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.69 (0.60- 0.79) | <.0001 |

aBody mass index was removed as a covariate in all multivariable models with metabolic syndrome as the outcome variable

Supplementary Table 6i. Multivariable Model Examining the Association Between Depression and Metabolic Syndromea

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Relative Risk (95% CI)** | ***P-value*** |
| **Depression** | No | Referent | . |
| Yes | 1.25 (1.06-1.47) | 0.0071 |
| **Anthracyclines in Doxorubicin Equivalents****(mg/m2)** | 0 | Referent | . |
| <250 | 1.15 (1.00-1.33) | 0.0535 |
|  ≥250 | 0.97 (0.80-1.19) | 0.7975 |
| **Chest Radiation** | None | Referent | . |
| <20Gy | 0.98 (0.81-1.18) | 0.8188 |
| ≥20Gy | 0.81 (0.67-0.98) | 0.0292 |
| **Age at Evaluation** |  Per year | 1.04 (1.03-1.05) | <.0001 |
| **Age at Diagnosis** |  Per year | 1.00 (0.98-1.01) | 0.5463 |
| **Race/Ethnicity** | Non-Hispanic White | Referent | . |
| Non-Hispanic Black | 0.66 (0.51-0.85) | 0.0013 |
| Other | 1.08 (0.75-1.56) | 0.6699 |
| **Sex** | Female | Referent | . |
| Male | 1.20 (1.05-1.36) | 0.0061 |
| **Household Income** | ≤$19,999 | Referent | . |
| $20,000-$59,999 | 0.89 (0.74-1.06) | 0.1821 |
| ≥$60,000 | 0.76 (0.63-0.93) | 0.0071 |
| **Marital Status** | Single/Widowed/Divorced | Referent | . |
| Married/Living as married | 1.09 (0.94-1.25) | 0.2441 |
| **Smoking** | Never smoke | Referent | . |
| Ever smoke | 0.95 (0.79-1.15) | 0.6040 |
| Now smoke | 0.85 (0.71-1.00) | 0.0550 |
| **Risky or Heavy drinking** | No | Referent | . |
| Yes | 0.87 (0.76-1.01) | 0.0652 |
| **Physical Activity** | Physical inactivity (<150) | Referent | . |
| Physical activity (≥150) | 0.69 (0.60-0.79) | <.0001 |

a Body mass index was removed as a covariate in all multivariable models with metabolic syndrome as the outcome variable