**Supplementary**

Table 1. Description of participant demographic characteristics for the analytic sample and the total SANHANES-1 interviewed sample aged 15 and older

|  |  |  |
| --- | --- | --- |
|  | Analytic sample a | Total interviewed sample |
| *Total (n)* | 3944 | 15 492 |
| *Sex* |  |  |
| Male | 1403 (35.6%) | 6461 (41.7%) |
| Female | 2541 (64.4%) | 9031 (58.3%) |
| Age (years), mean (SD) | 40.0 (18.2) | 38.6 (17.7) |
| Race |  |  |
| African, n (%) | 2591 (65.7%) | 10 290 (66.9%) |
| White, n (%) | 100 (2.5%) | 733 (4.7%) |
| Coloured (Mixed race), n (%) | 1104 (28.0%) | 3016 (19.6%) |
| Indian, n (%) | 149 (3.8%) | 1313 (8.5%) |
| Psychological distress, n (%) | 706 (17.9%) | 2661 (17.6%) |

a. Participants aged ≥15 who had available measures for psychological distress and serum CRP

Table 2. Bi-variate tests of association between covariates and psychological distress and ln-CRP.

|  |  |  |
| --- | --- | --- |
|  | Psychological distress | ln CRP |
|  | Test statistic (p-value) | Test statistic (p-value) |
| Sex | Chi2=9.8 (0.002) | ANOVA SSB=258.1 (<0.001) |
| Race | Chi2=68.5 (<0.001) | ANOVA SSB=14.5 (0.063) |
| age | OR=1.02 (<0.001) | Pearson’s CC=0.359 (<0.001) |
| BMI status | Chi2=10.4 (0.015) | ANOVA SSB=1024.5 (<0.001) |
| Tobacco smoking | Chi2=12.7 (0.002) | ANOVA SSB=11.3 (0.056) |
| High risk alcohol use | Chi2=3.91 (0.048) | ANOVA SSB=21.4 (0.001) |
| Hypertension | Chi2=28.6 (<0.001) | ANOVA SSB=384.2 (<0.001) |
| High blood sugar | Chi2=26.6 (<0.001) | ANOVA SSB=348.1 (<0.001) |
| Cardiac disease | Chi2=112.3 (<0.001) | ANOVA SSB=46.1 (<0.001) |
| Anti-inflammatory use | Chi2=16.5 (<0.001) | ANOVA SSB=58.9 (<0.001) |
| Lifetime experience of traumatic events | Chi2=48.4 (<0.001) | ANOVA SSB=0.504 (0.614) |

SSB – Sum of squares between groups in ANOVA

Pearson’s CC – Pearson’s Correlation coefficient

Table 3. Regression models examining the association of psychological distress with ln-CRP by age group

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | 15-24  (n=1 093) | | 25-34  (n=667) | | 35-44  (n=597) | | 45-54  (n=654) | | 55-64  (n=514) |  | >=65  (n=419) |  |
|  |  | *B* (SE) | p | *B* (SE) | p | *B* (SE) | P | *B* (SE) | p | *B*(SE) | p | *B*(SE) | p |
| Unadjusted |  | 0.15 (0.209) | 0.468 | 0.24 (0.289) | 0.409 | 0.05 (0.178) | 0.785 | 0.02 (0.159) | 0.921 | 0.25 (0.251) | 0.313 | 0.78 (0.228) | 0.001 \* |
| Model 1 |  | 0.09 (0.205) | 0.667 | 0.32 (0.305) | 0.295 | 0.01 (0.174) | 0.950 | -0.10 (0.176) | 0.570 | 0.12 (0.246) | 0.613 | 0.60 (0.199) | 0.003 \* |
| Model 2 |  | 0.12 (0.183) | 0.504 | 0.27 (0.212) | 0.203 | 0.14 (0.152) | 0.343 | 0.12 (0.153) | 0.422 | 0.10 (0.245) | 0.693 | 0.67 (0.213) | 0.002 \* |
| Model 3 |  | 0.15 (0.207) | 0.469 | 0.17 (0.259) | 0.504 | 0.04 (0.176) | 0.835 | -0.04 (0.157) | 0.820 | 0.19 (0.245) | 0.437 | 0.75 (0.230) | 0.001 \* |
| Model 4 |  | 0.18 (0.207) | 0.389 | 0.25 (0.281) | 0.365 | 0.09 (0.189) | 0.644 | 0.03 (0.159) | 0.834 | 0.26 (0.251) | 0.298 | 0.78 (0.227) | 0.001 \* |
| Model 5 |  | 0.06 (0.174) | 0.744 | 0.29 (0.210) | 0.174 | 0.05 (0.154) | 0.737 | -0.04 (0.159) | 0.821 | -0.07 (0.230) | 0.759 | 0.49 (0.196) | 0.014 \* |

*B*: regression coefficient, SE: standard error of the regression coefficient, p: p-value

Model 1: adjusted for demographics; (age, sex and race in the whole sample, and age and race in the male and female subsamples).

Model 2: adjusted for life-style factors; BMI status, smoking, alcohol.

Model 3: adjusted for health status and medication use: cardiac disease, diabetes (high blood sugar), anti-inflammatory use, and hypertension.

Model 4: adjusted for lifetime experience of traumatic events.

Model 5: Adjusted for all variables in models 1-4.

\* Statistically significant findings, p<0.05

Table 4. Regression models examining the association of psychological distress with ln-CRP by population group

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | African  (n=2 591) | | White  (n=100) | | Coloured  (n=1104) | | Indian  (n=149) | |
|  |  | *B* (SE) | p | *B* (SE) | p | *B* (SE) | P | *B* (SE) | p |
| Unadjusted |  | 0.33 (0.104) | 0.001 \* | -0.71 (0.895) | 0.428 | 0.10 (0.176) | 0.565 | 1.09 (0.497) | 0.029 \* |
| Model 1 |  | 0.20 (0.119) | 0.099 | -1.16 (0.765) | 0.130 | -0.07 (0.162) | 0.679 | 0.90 (0.449) | 0.046 \* |
| Model 2 |  | 0.25 (0.084) | 0.003 \* | -0.24 (0.780) | 0.760 | 0.058 (0.161) | 0.720 | 0.91 (0.383) | 0.019 \* |
| Model 3 |  | 0.23 (0.094) | 0.017 \* | -0.97 (0.575) | 0.094 | 0.050 (0.167) | 0.764 | 0.99 (0.387) | 0.011 \* |
| Model 4 |  | 0.35 (0.104) | 0.001 \* | -0.72 (0.893) | 0.422 | 0.114 (0.178) | 0.521 | 1.09 (0.492) | 0.027 \* |
| Model 5 |  | 0.16 (0.088) | 0.068 | -0.74 (0.655) | 0.262 | -0.028 (0.152) | 0.854 | 0.81 (0.335) | 0.017 \* |

*B*: regression coefficient, SE: standard error of the regression coefficient, p: p-value

Model 1: adjusted for demographics; (age, sex and race in the whole sample, and age and race in the male and female subsamples).

Model 2: adjusted for life-style factors; BMI status, smoking, alcohol.

Model 3: adjusted for health status and medication use: cardiac disease, diabetes (high blood sugar), anti-inflammatory use, and hypertension.

Model 4: adjusted for lifetime experience of traumatic events.

Model 5: Adjusted for all variables in models 1-4.

\* Statistically significant findings, p<0.05