Supplemental Table 1. Distribution of cardiovascular disease outcomes in the analytic sample.

| Cardiovascular Diseases | Total (N) | Frequency (\%) |
| :--- | :--- | :--- |
| Stroke | 8,460 | $364(4.3)$ |
| Coronary heart disease | 8,419 | $421(5.0)$ |
| Myocardial infarction | 8,439 | $512(6.1)$ |

Supplemental Table 2. Distribution of participants in the poor, intermediate, and ideal composite LS7 score categories.

| LS7 metrics | Frequency (\%) | CVD Outcome(s) (\%) |
| :--- | :--- | :--- |
| Poor | $675(11.23)$ | $260(38.5)$ |
| Intermediate | $2,319(38.59)$ | $520(22.4)$ |
| Ideal | $3,016(50.18)$ | $248(8.2)$ |

Supplemental Table 3a. Associations between social determinants of health and individual LS7 metrics.

## Smoking

| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- |
| Health insurance | $1.22(1.04-1.44)$ | 0.012 | $1.05(0.87-1.26)$ | 0.574 |
| Regular healthcare provider | $1.42(1.27-1.57)$ | 0.007 | $1.23(1.09-1.39)$ | 0.141 |
| No avoidance of medical care due <br> to cost | $1.51(1.33-1.71)$ | 0.000 | $1.32(0.73-1.08)$ | 0.066 |


| Low Physical Activity |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| Health insurance | $1.07(0.90-1.26)$ | 0.425 | $1.09(0.90-1.33)$ | 0.341 |
| Regular healthcare provider | $0.88(0.79-0.98)$ | 0.032 | $1.02(0.90-1.16)$ | 0.663 |
| No avoidance of medical care due | $1.28(1.13-1.46)$ | 0.00 | $1.89(1.73-1.98)$ | 0.055 |
| to cost |  |  |  |  |


| Elevated Body Mass Index |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| Health insurance | $0.70(0.59-0.83)$ | 0.001 | $0.74(0.61-0.90)$ | 0.053 |
| Regular healthcare provider | $0.89(0.80-1.04)$ | 0.061 | $1.26(1.06-1.49)$ | 0.391 |
| No avoidance of medical care due | $0.97(0.84-1.11)$ | 0.706 | $0.92(0.78-1.07)$ | 0.286 |

## Poor Diet

| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- |
| Health insurance | $1.05(0.84-1.30)$ | 0.635 | $1.06(0.75-1.23)$ | 0.776 |
| Regular healthcare provider | $1.21(1.06-1.39)$ | 0.005 | $1.12(0.95-1.31)$ | 0.288 |
| No avoidance of medical care due <br> to cost | $1.08(0.91-1.28)$ | 0.347 | $1.10(0.91-1.33)$ | 0.168 |

## Diabetes

| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :---: |
| Health insurance | $1.57(1.46-1.71)$ | 0.002 | $1.59(1.46-1.77)$ | $<0.001^{\mathrm{a}}$ |
| Regular healthcare provider | $1.45(1.39-1.51)$ | 0.000 | $1.58(1.50-1.68)$ | $<0.001^{\mathrm{a}}$ |
| No avoidance of medical care due <br> to cost | $1.23(1.07-1.41)$ | 0.003 | $1.13(0.96-1.32)$ | $0.026^{\mathrm{a}}$ |

High Cholesterol

| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :---: |
| Health insurance | $1.63(1.51-1.77)$ | 0.001 | $1.68(1.53-1.86)$ | $0.001^{\mathrm{a}}$ |
| Regular healthcare provider | $1.41(1.36-1.47)$ | 0.000 | $1.51(1.44-1.59)$ | $0.011^{\mathrm{a}}$ |
| No avoidance of medical care due <br> to cost | $1.68(1.47-1.92)$ | 0.016 | $1.72(1.48-2.01)$ | $<0.001^{\mathrm{a}}$ |


| Hypertension |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Social Determinants of Health | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| Health insurance | $1.66(1.56-1.78)$ | 0.004 | $1.69(1.57-1.84)$ | $<0.001^{\mathrm{a}}$ |
| Regular healthcare provider | $1.48(1.43-1.53)$ | 0.000 | $1.59(1.53-1.67)$ | $0.006^{\mathrm{a}}$ |
| No avoidance of medical care due <br> to cost | $1.45(1.28-1.63)$ | 0.000 | $1.50(1.31-1.73)$ | $0.003^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; $\mathrm{OR}=$ odds ratio; $\mathrm{CI}=$ confidence interval; ${ }^{\text {a indicates factors found to be statistically significant. }}$
Supplemental Table 3b. Associations between sociodemographic characteristics and Life's Simple 7 (LS7) composite score.

| Sociodemographic characteristics | Bivariate analysis OR (95\% CI) | $P$-value | Multivariate analysis OR (95\% CI) | P-value |
| :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |
| 18-24 | referent | referent | referent | referent |
| 45-64 | 0.31 (0.26-0.37) | $<0.001^{\text {a }}$ | 0.13 (0.09-0.20) | $<0.001^{\text {a }}$ |
| $\geq 65$ | 0.24 (0.20-0.30) | $<0.001^{\text {a }}$ | 0.11 (0.07-0.17) | $<0.001^{\text {a }}$ |
| Sex |  |  |  |  |
| Female | referent | referent | referent | referent |
| Male | 0.87 (0.76-0.99) | 0.043 | 0.77 (0.67-0.88) | $<0.001{ }^{\text {a }}$ |
| Marital status |  |  |  |  |
| Not married | referent | referent | referent | referent |
| Married | 1.23 (1.07-1.41) | $0.002^{\text {a }}$ | 1.10 (0.94-1.28) | 0.207 |
| Education |  |  |  |  |
| College | referent | referent | referent | referent |
| High school or less | 0.52 (0.46-0.60) | $<0.001{ }^{\text {a }}$ | 0.67 (0.58-0.77) | $<0.001^{\text {a }}$ |
| Income |  |  |  |  |
| $\geq 50,000$ | referent |  | referent |  |
| <15,000 | 0.30 (0.24-0.37) | $0.001^{\mathrm{a}}$ | 0.37 (0.29-0.48) | referent |
| 25,000-34,999 | 0.40 (0.32-0.50) | <0.05 ${ }^{\text {a }}$ | 0.45 (0.35-0.56) | $0.001{ }^{\text {a }}$ |
| 35,000-49,999 | 0.49 (0.38-0.65) | $<0.001^{\text {a }}$ | 0.51 (0.39-0.68) | $<0.001^{\text {a }}$ |

$\mathrm{OR}=$ odds ratio; $\mathrm{CI}=$ confidence interval; ${ }^{\mathrm{a}}$ indicates statistically significant.

Table 4a. Relationships of Life's Simple 7 composite score levels and myocardial infarction (MI).

| LS7 Metrics | MI Cases | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Poor | $174 / 664$ | referent | referent | referent | referent |
| Intermediate | $311 / 2,294$ | $0.44(0.36-0.54)$ | $<0.001^{\mathrm{a}}$ | $0.48(0.38-0.61)$ | $<0.001^{\mathrm{a}}$ |
| Ideal | $128 / 3,001$ | $0.13(0.97-0.16)$ | $<0.001^{\mathrm{a}}$ | $0.18(0.14-0.24)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; MI= Myocardial infarction; LS7=Life's simple 7; OR=odds ratio; CI =confidence interval; a indicates statistically significant.

Table 4b. Relationships of Life's Simple 7 composite score levels and coronary heart disease (CHD).

| LS7 Metrics | CHD Cases | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Poor | $133 / 649$ | referent | referent | referent | referent |
| Intermediate | $269 / 2,287$ | $0.51(0.41-0.65)$ | $<0.001^{\mathrm{a}}$ | $0.53(0.40-0.68)$ | $<0.001^{\mathrm{a}}$ |
| Ideal | $98 / 3,001$ | $0.13(0.99-0.17)$ | $<0.001^{\mathrm{a}}$ | $0.19(0.14-0.26)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; $\mathrm{CHD}=$ Coronary heart disease; $\mathrm{LS} 7=$ Life's simple 7; $\mathrm{OR}=\mathrm{odds}$ ratio; $\mathrm{CI}=$ confidence interval; ${ }^{\text {a }}$ indicates statistically significant.

Table 4 c . Relationships of Life's Simple 7 composite score levels and stroke.

| LS7 Metrics | Stroke Cases | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Poor | $94 / 670$ | referent | referent | referent | referent |
| Intermediate | $212 / 2,308$ | $0.62(0.48-0.80)$ | $<0.001^{\mathrm{a}}$ | $0.66(0.49-0.88)$ | $0.004^{\mathrm{a}}$ |
| Ideal | $109 / 3,013$ | $0.22(0.17-0.31)$ | $<0.001^{\mathrm{a}}$ | $0.32(0.24-0.45)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; LS7=Life's simple 7; OR=odds ratio; CI =confidence interval; ${ }^{\text {a }}$ indicates statistically significant.

Table 4d. Association between Life's Simple 7 composite score and myocardial infarction (MI) outcome.

| MI | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- |
| LS7 composite score | $0.61(0.58-0.64)$ | $<0.001^{\mathrm{a}}$ | $0.67(0.63-0.71)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; MI= Myocardial infarction; LS7=Life's simple 7; OR=odds ratio; CI =confidence interval; ${ }^{a}$ indicates statistically significant.

Table 4e. Association between Life's Simple 7 composite score and coronary heart disease (CHD) outcome.

| CHD | Crude OR (95\% CI) | P-value | *Adjusted OR (95\% CI) | P-value |
| :--- | :--- | :--- | :--- | :--- |
| LS7 composite score | $0.63(0.59-0.66)$ | $<0.001^{\mathrm{a}}$ | $0.69(0.64-0.74)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; $\mathrm{CHD}=$ coronary heart disease; LS7=Life's simple 7; $\mathrm{OR}=\mathrm{odds}$ ratio; $\mathrm{CI}=$ confidence interval; ${ }^{\text {a }}$ indicates statistically significant.

Table 4f. Association between Life's Simple 7 composite score and stroke outcome.

| Stroke | Crude OR $\mathbf{( 9 5 \%} \mathbf{~ C I})$ | P-value | *Adjusted OR $(\mathbf{9 5 \%} \mathbf{C I})$ | P-value |
| :--- | :--- | :--- | :--- | :--- |
| LS7 composite score | $0.67(0.63-0.70)$ | $<0.001^{\mathrm{a}}$ | $0.73(0.68-0.78)$ | $<0.001^{\mathrm{a}}$ |

*Adjusted for gender, age, marital status, income, and education; LS7=Life's simple 7; OR=odds ratio; CI =confidence interval; ${ }^{\text {a }}$ indicates statistically significant.

