

Supplemental Table I. Meta-analysis of beta coefficients for association between adherence to recommended physical activity and cardiometabolic risk factors

| Risk factors         | Physical activity         |              |
|----------------------|---------------------------|--------------|
|                      | beta coefficient (95% CI) | P value      |
| Waist, cm            | -2.013 (-3.379 to -0.648) | <b>0.004</b> |
| BMI                  | -0.036 (-0.060 to -0.011) | <b>0.004</b> |
| Systolic BP, mmHg    | 0.716 (-1.099 to 2.531)   | 0.439        |
| Diastolic BP, mmHg   | 0.864 (-0.721 to 2.448)   | 0.285        |
| HDL-C, mg/dL         | 0.044 (0.010 to 0.077)    | <b>0.010</b> |
| Triglycerides, mg/dL | -0.047 (-0.123 to 0.030)  | 0.235        |
| Insulin, uU/mL       | -0.098 (-0.186 to -0.011) | <b>0.027</b> |
| 2h glucose, mg/dL    | -0.046 (-0.091 to -0.002) | <b>0.041</b> |
| HOMA-IR              | -0.102 (-0.190 to -0.014) | <b>0.023</b> |
| HOMA- $\beta$        | -0.085 (-0.159 to -0.011) | <b>0.024</b> |
| HbA1c                | -0.021 (-0.069 to 0.027)  | 0.388        |

BMI: body mass index; BP: blood pressure; HbA1c: hemoglobin A1c; CI: confidence interval; HDL-C: high-density lipoprotein-cholesterol; HOMA-IR: Homeostatic Model Assessment for Insulin Resistance; HOMA- $\beta$ : homeostasis model assessment of  $\beta$ -cell function.

Supplemental Table II. Differences in the cardiometabolic risk factors between adults who adhered or did not adhere to the recommended physical activity (defined as moderate activity &gt;300 minutes/week)

| Risk factors         | Nonadherence           | Adherence              | beta coefficient          | P value          |
|----------------------|------------------------|------------------------|---------------------------|------------------|
| Waist, cm            | 104.6 (104.1 to 105.9) | 102.8 (102.0 to 103.7) | -1.797 (-2.850 to -0.744) | <b>0.001</b>     |
| BMI                  | 30.2 (29.7 to 30.7)    | 28.9 (28.5 to 29.3)    | -0.045 (-0.065 to -0.024) | <b>&lt;0.001</b> |
| Systolic BP, mmHg    | 125.2 (124.0 to 126.4) | 125.3 (124.2 to 126.5) | 0.126 (-1.324 to 1.577)   | 0.863            |
| Diastolic BP, mmHg   | 70.3 (69.3 to 71.3)    | 70.4 (69.5 to 71.3)    | 0.119 (-1.295 to 1.533)   | 0.868            |
| HDL-C, mg/dL         | 50.9 (50.1 to 51.8)    | 52.6 (51.5 to 53.7)    | 0.031 (0.007 to 0.056)    | <b>0.014</b>     |
| Triglycerides, mg/dL | 117.5 (113.4 to 121.7) | 109.7 (105.9 to 113.5) | -0.069 (-0.116 to -0.022) | <b>0.005</b>     |
| Insulin, uU/mL       | 13.8 (13.2 to 14.4)    | 12.4 (11.9 to 13.0)    | -0.100 (-0.149 to -0.051) | <b>&lt;0.001</b> |
| 2h glucose, mg/dL    | 123.9 (121.1 to 126.8) | 118.2 (115.3 to 121.0) | -0.048 (-0.082 to -0.013) | <b>0.008</b>     |
| HOMA-IR              | 3.6 (3.4 to 3.8)       | 3.3 (3.1 to 3.4)       | -0.099 (-0.151 to -0.048) | <b>&lt;0.001</b> |
| HOMA- $\beta$        | 116.8 (112.2 to 121.6) | 105.5 (101.6 to 109.6) | -0.102 (-0.148 to -0.055) | <b>&lt;0.001</b> |
| HbA1c                | 5.61 (5.59 to 5.65)    | 5.61 (5.59 to 5.63)    | 0.000 (-0.030 to 0.031)   | 0.979            |

Data are presented as mean with confidence interval in parenthesis.

BMI: body mass index; BP: blood pressure; HbA1c: hemoglobin A1c; HDL-C: high-density lipoprotein-cholesterol; HOMA-IR: Homeostatic Model Assessment for Insulin Resistance; HOMA- $\beta$ : homeostasis model assessment of  $\beta$ -cell function.

Supplemental Table III. The associations between adherence to PAG for aerobic activity and the proportion of diabetes

|                                       | Nonadherence        | Adherence           | beta coefficient    | P value          |
|---------------------------------------|---------------------|---------------------|---------------------|------------------|
| Unadjusted proportion of diabetes (%) | 29.4 (27.0 to 31.7) | 23.6 (21.9 to 25.3) | -5.8 (-8.6 to -3.0) | <b>&lt;0.001</b> |
| Adjusted proportion of diabetes (%)   | 31.4 (28.3 to 34.6) | 30.0 (27.5 to 32.6) | -1.5 (-5.3 to 2.3)  | 0.438            |

Data are presented as mean with 95% confidence intervals in parenthesis.

CI: confidence interval; PAG: Physical Activity Guidelines for American

Supplemental Table IV. Standardized beta coefficients for associations between sedentary time and the proportion of diabetes

|            | beta coefficient (95% CI) | P value      |
|------------|---------------------------|--------------|
| Unadjusted | 2.7 (0.2 to 5.3)          | <b>0.035</b> |
| Adjusted   | 1.6 (-1.9 to 5.1)         | 0.365        |

CI: confidence interval