**Supplemental Digital Content 2. Baseline characteristics\* by quartiles of genetic scores among**

**23, 016 participants in the Women’s Genome Health Study**

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|  | **Quartiles of Overall Fitness Genetic Score** | | | | | |  |
|  | ≤ 57.2  (n = 5805) | 57.3 – 60.2  (n = 5625) | | 60.3 – 63.4  (n = 5847) | > 63.4  (n = 5739) | | P-value† |
| Physical activity, kcal/wk | 975 (1172) | 991 (1193) | | 1007 (1322) | 985 (1253) | | 0.57 |
| Age at randomization | 54.5 (7.0) | 54.8 (7.2) | | 54.8 (7.1) | 54.7 (7.2) | | 0.16 |
| BMI, kg/m2 | 25.9 (5.0) | 25.9 (5.0) | | 26.0 (4.9) | 25.8 (4.9) | | 0.32 |
| Current smoker, % | 11.7 | 10.9 | | 11.7 | 11.9 | | 0.44 |
| Parental history of MI, % | 11.2 | 11.9 | | 11.9 | 11.6 | | 0.52 |
| Hypertension, % | 23.9 | 24.9 | | 25.0 | 24.6 | | 0.40 |
| Diabetes, % | 2.5 | 2.5 | | 2.6 | 2.7 | | 0.49 |
| Postmenopausal, % | 54.5 | 54.1 | | 54.0 | 54.7 | | 0.89 |
| Hormone therapy, % | 44.2 | 43.1 | | 43.9 | 44.1 | | 0.88 |
| Alcohol, g/d | 4.2 (8.4) | 4.3 (8.3) | | 4.2 (8.7) | 4.3 (8.3) | | 0.89 |
| Fiber, g/d | 19.2 (8.3) | 19.1 (8.0) | | 19.0 (8.0) | 19.1 (8.1) | | 0.42 |
|  | **Quartiles of Endurance Genetic Score** | | | | | |  |
|  | ≤ 22.7  (n = 5837) | 22.8 – 24.7  (n = 5693) | 24.8 – 26.6  (n = 5668) | | | > 26.6  (n = 5818) | P-value† |
| Physical activity, kcal/wk | 989 (1207) | 949 (1147) | 1010 (1348) | | | 1010(1236) | 0.13 |
| Age at randomization | 54.6 (7.0) | 54.6 (7.0) | 54.9 (7.3) | | | 54.7 (7.1) | 0.18 |
| BMI, kg/m2 | 26.0 (5.0) | 25.9 (5.0) | 25.9 (5.0) | | | 25.9 (4.9) | 0.34 |
| Current smoker, % | 11.5 | 11.5 | 11.5 | | | 11.9 | 0.49 |
| Family history of MI, % | 11.4 | 12.0 | 12.0 | | | 11.3 | 0.93 |
| Hypertension, % | 23.3 | 24.0 | 25.6 | | | 25.4 | 0.002 |
| Diabetes, % | 2.4 | 2.2 | 2.8 | | | 2.8 | 0.11 |
| Postmenopausal, % | 53.5 | 53.9 | 54.6 | | | 55.3 | 0.04 |
| Hormone therapy, % | 43.2 | 43.6 | 43.6 | | | 44.8 | 0.11 |
| Alcohol, g/d | 4.2 (8.3) | 4.2 (8.2) | 4.3 (8.7) | | | 4.4 (8.5) | 0.15 |
| Fiber, g/d | 19.1 (8.2) | 18.9 (8.1) | 19.3 (8.0) | | | 19.0 (8.0) | 0.95 |

**Supplemental Digital Content 2 (continued). Baseline characteristics\* by quartiles of genetic scores**

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|  | **Quartiles of Muscle Strength Genetic Score** | | | | | |  |
|  | ≤ 15.0  (n = 6012) | 15.1 – 16.3  (n = 5522) | | 16.4 – 18.0  (n = 6453) | > 18.0  (n = 5029) | | P-value† |
| Physical activity, kcal/wk | 983 (1213) | 1002 (1244) | | 1013 (1308) | 953 (1160) | | 0.33 |
| Age at randomization | 54.8 (7.1) | 54.7 (7.1) | | 54.7 (7.2) | 54.6 (7.1) | | 0.34 |
| BMI, kg/m2 | 26.0 (5.0) | 25.9 (5.0) | | 25.9 (5.0) | 25.8 (4.8) | | 0.08 |
| Current smoker, % | 12.0 | 11.8 | | 10.7 | 11.9 | | 0.56 |
| Family history of MI, % | 11.3 | 11.5 | | 11.6 | 12.3 | | 0.12 |
| Hypertension, % | 25.1 | 25.0 | | 24.7 | 23.4 | | 0.04 |
| Diabetes, % | 2.6 | 2.4 | | 2.7 | 2.6 | | 0.78 |
| Postmenopausal, % | 55.7 | 54.0 | | 54.4 | 52.9 | | 0.004 |
| Hormone therapy, % | 44.1 | 43.1 | | 44.6 | 43.4 | | 0.71 |
| Alcohol, g/d | 4.4 (8.4) | 4.3 (8.5) | | 4.2 (8.6) | 4.2 (8.0) | | 0.13 |
| Fiber, g/d | 19.0 (8.2) | 19.0 (8.0) | | 19.1 (7.9) | 19.1 (8.2) | | 0.73 |
|  | **Quartiles of VO2max Genetic Score** | | | | | |  |
|  | ≤ 20.9  (n = 5742) | 21.0 – 22.8  (n = 5819) | 22.9 – 24.6  (n = 5723) | | | > 24.6  (n = 5732) | P-value† |
| Physical activity, kcal/wk | 988 (1216) | 996 (1203) | 988 (1222) | | | 985 (1304) | 0.84 |
| Age at randomization | 54.6 (7.1) | 54.8 (7.1) | 54.7 (7.1) | | | 54.7 (7.1) | 0.19 |
| BMI, kg/m2 | 25.9 (4.9) | 25.9 (4.9) | 25.9 (5.0) | | | 25.9 (5.0) | 0.96 |
| Current smoker, % | 11.3 | 11.5 | 11.3 | | | 12.3 | 0.12 |
| Family history of MI, % | 11.2 | 11.6 | 12.1 | | | 11.8 | 0.21 |
| Hypertension, % | 24.5 | 24.6 | 24.8 | | | 24.5 | 0.99 |
| Diabetes, % | 2.5 | 2.6 | 2.6 | | | 2.5 | 0.97 |
| Postmenopausal, % | 54.1 | 54.4 | 54.6 | | | 54.2 | 0.86 |
| Hormone therapy, % | 43.4 | 44.9 | 43.2 | | | 43.8 | 0.95 |
| Alcohol, g/d | 4.3 (8.5) | 4.3 (8.5) | 4.2 (8.2) | | | 4.3 (8.5) | 0.996 |
| Fiber, g/d | 19.1 (8.1) | 19.2 (8.1) | 19.0 (8.1) | | | 19.0 (8.1) | 0.38 |

\*Data are means (standard deviation) for continuous variables; % for categorical variables

†P-values were calculated using linear regression for continuous variables and logistic regression for binary (categorical variables) with quartile medians as independent variable in all models.