

Supplemental Table 1. Mean values for cardiorespiratory and musculoskeletal fitness performance according to weight status categories

|                                  | n      | UW          | NW          | OW          | OB          | p      | Post hoc*                                |
|----------------------------------|--------|-------------|-------------|-------------|-------------|--------|--|
| <b>Cardiorespiratory fitness</b> |        |             |             |             |             |        |  |
| 13 years                         |        |             |             |             |             |        |  |
| Boys                             | 8,217  | 45.50±0.45  | 48.32±0.08  | 45.16±0.12  | 41.38±0.21  | <0.001 | UW<NW; UW>OB; NW>OW; NW >OB; OW>OB       |
| Girls                            | 8,288  | 41.04±0.41  | 41.40±0.07  | 39.53±0.09  | 37.46±0.18  | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| 14 years                         |        |             |             |             |             |        |  |
| Boys                             | 20,280 | 45.91±0.20  | 47.04±0.05  | 43.93±0.09  | 40.11±0.17  | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| Girls                            | 18,792 | 39.17±0.19  | 39.43±0.04  | 37.39±0.07  | 35.58±0.14  | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| 15 years                         |        |             |             |             |             |        |  |
| Boys                             | 9,889  | 44.24±0.21  | 45.28±0.07  | 42.03±0.15  | 38.20±0.32  | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| Girls                            | 8,095  | 36.64±0.21  | 36.98±0.05  | 35.36±0.10  | 33.59±0.24  | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| <b>Musculoskeletal fitness</b>   |        |             |             |             |             |        |  |
| 13 years                         |        |             |             |             |             |        |  |
| Boys                             | 8,217  | 154.39±2.11 | 164.08±0.39 | 154.00±0.55 | 140.06±1.02 | <0.001 | UW<NW; UW>OB; NW>OW; NW >OB; OW>OB       |
| Girls                            | 8,288  | 133.19±1.89 | 130.76±0.35 | 122.43±0.45 | 116.44±0.85 | <0.001 | UW>OW; UW>OB; NW>OW; NW >OB; OW>OB       |
| 14 years                         |        |             |             |             |             |        |  |
| Boys                             | 20,280 | 163.47±0.96 | 170.19±0.23 | 159.19±0.42 | 145.19±0.81 | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| Girls                            | 18,792 | 132.57±0.92 | 130.68±0.21 | 122.59±0.33 | 113.47±0.71 | <0.001 | UW>OW UW>OB; NW>OW; NW >OB; OW>OB        |
| 15 years                         |        |             |             |             |             |        |  |
| Boys                             | 9,889  | 170.49±0.98 | 175.97±0.30 | 164.80±0.70 | 154.47±1.46 | <0.001 | UW<NW; UW>OW UW>OB; NW>OW; NW >OB; OW>OB |
| Girls                            | 8,095  | 127.66±1.08 | 127.86±0.27 | 120.09±0.53 | 114.17±1.20 | <0.001 | UW>OW UW>OB; NW>OW; NW >OB; OW>OB        |

Data are mean ± SE

UW, underweight; NW, normal weight; OW, overweight; OB, obese.

\* Post hoc hypothesis tests determined with the Bonferroni correction for multiple comparisons.

Analysis adjusted by country and socio-economic status.