S4 Table. Risk for Insulin Resistance by Different Obesity Indices in Male and Female Adolescents

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| Independent variable(obesity index) | Male |  | Female |
| No. of people | HOMA-IR >2.5 | Age-adjusted OR(95% CI) | No. of people | HOMA-IR >2.5 | Age-adjusted OR (95% CI) |
| Weight-for-height percentile |  |  |  |  |  |  |  |  |  |
| <50 | 196 | 16 |  1.00 |  |  | 167 | 18 |  1.00 |  |
| 50-74 | 106 | 11 |  1.32 | (0.59 - 2.97) |  | 122 | 17 |  1.37 | (0.67 - 2.79) |
| 75-94 | 90 | 27 |  4.82 | (2.43 - 9.57) |  | 85 | 22 |  3.04 | (1.52 - 6.09) |
| ≥95 | 26 | 18 | 26.08 | (9.71 - 70.00) |  | 25 | 9 |  4.89 | (1.87 - 12.78) |
| BMI-for-age percentile |  |  |  |  |  |  |  |  |  |
| <50 | 178 | 14 |  1.00 |  |  | 182 | 22 |  1.00 |  |
| 50-74 | 111 | 12 |  1.40 | (0.62 - 3.15) |  | 114 | 14 |  1.03 | (0.50 - 2.11) |
| 75-94 | 101 | 27 |  4.21 | (2.08 - 8.52) |  | 81 | 21 |  2.63 | (1.34 - 5.14) |
| ≥95 | 28 | 19 | 24.71 | (9.37 - 65.18) |  | 22 | 9 |  5.22 | (1.99 - 13.72) |
| WC-for-age percentile |  |  |  |  |  |  |  |  |  |
| <50 | 201 | 17 |  1.00 |  |  | 132 | 11 |  1.00 |  |
| 50-74 | 129 | 17 |  1.65 | (0.81 - 3.37) |  | 126 | 17 |  1.69 | (0.76 - 3.78) |
| 75-94 | 73 | 28 |  6.67 | (3.34 - 13.28) |  | 111 | 25 |  3.15 | (1.47 - 6.74) |
| ≥95 | 15 | 10 | 22.62 | (6.84 - 74.77) |  | 30 | 13 |  8.62 | (3.32 - 22.39) |
| WHR percentile |  |  |  |  |  |  |  |  |  |
| <50 | 208 | 20 |  1.00 |  |  | 199 | 18 |  1.00 |  |
| 50-74 | 105 | 11 |  1.11 | (0.51 - 2.41) |  | 100 | 19 |  2.39 | (1.19 - 4.80) |
| 75-94 | 84 | 27 |  4.49 | (2.34 - 8.61) |  | 79 | 18 |  2.89 | (1.41 - 5.93) |
| ≥95 | 21 | 14 | 16.79 | (5.97 - 47.21) |  | 21 | 11 | 11.13 | (4.15 - 29.88) |
| WHtR percentile |  |  |  |  |  |  |  |  |  |
| <50 | 209 | 17 |  1.00 |  |  | 199 | 21 |  1.00 |  |
| 50-74 | 104 | 12 |  1.56 | (0.71 - 3.42) |  | 101 | 13 |  1.25 | (0.60 - 2.61) |
| 75-94 | 85 | 30 |  6.31 | (3.22 - 12.34) |  | 80 | 23 |  3.59 | (1.84 - 7.01) |
| ≥95 | 20 | 13 | 20.85 | (7.27 - 59.80) |  | 19 |  9 |  7.93 | (2.87 - 21.94) |
| SFT-for-age percentile |  |  |  |  |  |  |  |  |  |
| <50 | 190 | 15 |  1.00 |  |  | 164 | 24 |  1.00 |  |
| 50-74 | 122 | 17 |  2.10 | (1.00 - 4.43) |  | 116 | 18 |  1.11 | (0.57 - 2.16) |
| 75-94 | 87 | 28 |  5.65 | (2.80 - 11.38) |  | 84 | 13 |  1.10 | (0.53 - 2.29) |
| ≥95 | 18 | 11 | 22.48 | (7.33 - 68.90) |  | 35 | 11 |  2.89 | (1.24 - 6.72) |
| Percent body fat percentile\* |  |  |  |  |  |  |  |  |  |
| <50 | 136 | 16 |  1.00 |  |  | 130 | 21 |  1.00 |  |
| 50-74 | 69 | 11 |  1.43 | (0.62 - 3.27) |  | 67 | 18 |  1.85 | (0.90 - 3.78) |
| 75-94 | 57 | 16 |  2.93 | (1.35 - 6.39) |  | 53 | 14 |  1.80 | (0.83 - 3.90) |
| ≥95 | 15 | 13 | 47.58 | (9.81 - 230.8) |  | 14 | 5 |  2.93 | (0.89 - 9.66) |
| One SD increase in |  |  |  |  |  |  |  |  |  |
| Body weight | 418 | 72 |  2.35 | (1.80 - 3.07) |  | 399 | 66 |  1.60 | (1.24 - 2.06) |
| BMI | 418 | 72 |  2.74 | (2.07 - 3.62) |  | 399 | 66 |  1.69 | (1.31 - 2.18) |
| WC | 418 | 72 |  2.56 | (1.96 - 3.35) |  | 399 | 66 |  1.93 | (1.48 - 2.51) |
| WHR | 418 | 72 |  2.36 | (1.80 - 3.11) |  | 399 | 66 |  1.97 | (1.49 - 2.59) |
| WHtR | 418 | 72 |  2.73 | (2.07 - 3.61) |  | 399 | 66 |  1.96 | (1.50 - 2.55) |
| SFT | 417 | 71 |  2.54 | (1.92 - 3.36) |  | 399 | 66 |  1.33 | (1.03 - 1.71) |
| Percent body fat | 277 | 56 |  2.68 | (1.92 - 3.74) |  | 264 | 58 |  0.96 | (0.72 - 1.30) |

Abbreviations: BMI, body mass index; WC, waist circumference; WHR, waist-to-hip ratio; WHtR, waist-to-height ratio; SFT, skin-fold thickness; HOMA-IR, Homeostasis model assessment insulin resistance. \*Percent body fat was measured for 541 adolescents (277 males and 264 females).