

SUPPLEMENTAL MATERIAL

Table S1. Sex-specific mean differences (standard deviation) in body size measures between the baseline assessment and first repeat assessment.

| | Women | Men |
|--|--------------|-------------|
| N | 10,374 | 9,903 |
| Body mass index, kg/m² | 0.06 (1.94) | 0.09 (1.52) |
| Waist circumference, cm | 2.03 (7.08) | 1.53 (6.60) |
| Hip circumference, cm | 0.58 (5.80) | 0.57 (4.74) |
| Standing height, cm | 0.62 (1.10) | 0.56 (1.11) |
| Weight, kg | 0.39 (5.10) | 0.25 (4.63) |
| Waist-to-hip ratio | 0.02 (0.06) | 0.01 (0.05) |
| Waist-to-height ratio | 0.02 (0.04) | 0.01 (0.04) |

Table S2. Sex-specific association of body mass index, waist circumference, waist-to-hip ratio, and waist-to-height ratio with incident MI.

| | Body mass index | | | | | | | |
|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------|
| | <20 | 20-25 | 25-30 | 30-35 | >35 | Per sex-specific SD | Per sex-combined SD | P-value |
| Women | 0.98 (0.63; 1.32) | 1.00 (0.89; 1.11) | 1.28 (1.19; 1.37) | 1.59 (1.47; 1.71) | 1.96 (1.81; 2.12) | 1.24 (1.18; 1.31) | 1.22 (1.17; 1.28) | 0.15 |
| Men | 2.72 (2.36; 3.08) | 2.68 (2.60; 2.77) | 3.49 (3.44; 3.54) | 4.68 (4.61; 4.75) | 5.49 (5.37; 5.62) | 1.24 (1.20; 1.28) | 1.28 (1.23; 1.32) | |
| Waist circumference | | | | | | | | |
| | <78 | 78-86 | 86-93 | 93-101 | >101 | | | |
| Women | 0.91 (0.79; 1.02) | 1.00 (0.88; 1.12) | 1.22 (1.09; 1.35) | 1.57 (1.44; 1.70) | 2.18 (2.05; 2.30) | 1.32 (1.25; 1.39) | 1.35 (1.28; 1.42) | 0.048 |
| Men | 2.03 (1.77; 2.28) | 2.59 (2.48; 2.71) | 2.95 (2.87; 3.03) | 3.36 (3.30; 3.43) | 4.35 (4.29; 4.40) | 1.23 (1.19; 1.27) | 1.28 (1.23; 1.33) | |
| Waist-to-hip ratio | | | | | | | | |
| | <0.79 | 0.79-0.84 | 0.84-0.90 | 0.90-0.95 | >0.95 | | | |
| Women | 0.72 (0.59; 0.84) | 1.00 (0.90; 1.10) | 1.27 (1.16; 1.38) | 1.75 (1.62; 1.89) | 2.24 (2.06; 2.42) | 1.36 (1.30; 1.44) | 1.49 (1.39; 1.59) | 0.001 |
| Men | 2.31 (1.84; 2.79) | 1.91 (1.72; 2.11) | 2.54 (2.45; 2.63) | 2.88 (2.82; 2.95) | 3.78 (3.73; 3.83) | 1.25 (1.21; 1.29) | 1.36 (1.30; 1.43) | |
| Waist-to-height ratio | | | | | | | | |
| | <0.47 | 0.47-0.51 | 0.51-0.55 | 0.55-0.59 | >0.59 | | | |
| Women | 0.90 (0.79; 1.02) | 1.00 (0.88; 1.12) | 1.22 (1.09; 1.35) | 1.57 (1.44; 1.71) | 2.18 (2.06; 2.31) | 1.36 (1.29; 1.43) | 1.34 (1.27; 1.40) | 0.38 |
| Men | 2.09 (1.92; 2.25) | 2.49 (2.39; 2.59) | 3.12 (3.04; 3.20) | 3.55 (3.49; 3.62) | 4.67 (4.61; 4.73) | 1.28 (1.24; 1.33) | 1.33 (1.28; 1.38) | |

Analyses are adjusted for age, Townsend deprivation index, and smoking status and excluded the first 2 years of follow-up

Table S3. Sex-specific hazard ratios, with 95% confidence intervals, for MI associated with a 1-SD increase in adiposity measures, by age, socioeconomic status, and body mass index.

| | Women | Men | P-value for interaction by sex |
|------------------------------------|-------------------|-------------------|--------------------------------|
| Body mass index | | | |
| Age, years | | | |
| <60 | 1.28 (1.19; 1.37) | 1.30 (1.23; 1.37) | 0.70 |
| ≥60 | 1.20 (1.13; 1.27) | 1.26 (1.20; 1.32) | 0.22 |
| Socioeconomic status | | | |
| Lower SES | 1.20 (1.12; 1.28) | 1.30 (1.23; 1.37) | 0.04 |
| Higher SES | 1.26 (1.18; 1.34) | 1.27 (1.21; 1.33) | 0.76 |
| Waist circumference | | | |
| Age, years | | | |
| <60 | 1.48 (1.35; 1.61) | 1.33 (1.25; 1.41) | 0.04 |
| ≥60 | 1.30 (1.22; 1.40) | 1.28 (1.21; 1.35) | 0.51 |
| Socioeconomic status | | | |
| Lower SES | 1.32 (1.22; 1.44) | 1.34 (1.27; 1.43) | 0.95 |
| Higher SES | 1.37 (1.28; 1.48) | 1.25 (1.18; 1.31) | 0.02 |
| Body mass index, kg/m ² | | | |
| <25 | 1.37 (1.11; 1.68) | 1.18 (1.00; 1.41) | 0.19 |
| ≥25 | 1.36 (1.27; 1.47) | 1.24 (1.18; 1.31) | 0.02 |
| Waist-to-hip ratio | | | |
| Age, years | | | |
| <60 | 1.74 (1.56; 1.94) | 1.45 (1.36; 1.54) | 0.002 |
| ≥60 | 1.44 (1.33; 1.56) | 1.37 (1.29; 1.46) | 0.17 |
| Socioeconomic status | | | |
| Lower SES | 1.50 (1.36; 1.66) | 1.45 (1.34; 1.56) | 0.17 |
| Higher SES | 1.49 (1.36; 1.62) | 1.32 (1.24; 1.40) | 0.005 |
| Body mass index, kg/m ² | | | |
| <25 | 1.42 (1.23; 1.65) | 1.31 (1.16; 1.47) | 0.11 |
| ≥25 | 1.46 (1.35; 1.59) | 1.31 (1.23; 1.39) | 0.002 |
| Waist-to-height ratio | | | |
| Age, years | | | |
| <60 | 1.46 (1.36; 1.58) | 1.40 (1.32; 1.48) | 0.33 |
| ≥60 | 1.30 (1.23; 1.38) | 1.33 (1.27; 1.40) | 0.81 |
| Socioeconomic status | | | |
| Lower SES | 1.33 (1.24; 1.42) | 1.39 (1.31; 1.47) | 0.56 |
| Higher SES | 1.35 (1.27; 1.44) | 1.30 (1.24; 1.37) | 0.21 |
| Body mass index, kg/m ² | | | |
| <25 | 1.43 (1.19; 1.72) | 1.59 (1.33; 1.89) | 0.93 |
| ≥25 | 1.37 (1.29; 1.46) | 1.30 (1.24; 1.36) | 0.06 |

Analyses are adjusted for age, Townsend deprivation index, and smoking status and excluded the first 2 years of follow-up. SES, socioeconomic status. The UK median Townsend deprivation index of -0.56 was used to categorise individuals as 'Lower (> -0.56)' or 'Higher (≤ -0.56)' SES.