

Table S1. Proportions of fetuses in this Chinese population that would be classified with extreme fetal growth by the WHO standard, INTERGROWTH -21st standard, and Chinese standard.

| Factor | WHO standard | | | INTERGROWTH-21st standard | | | Chinese standard | | |
|---|-------------------|--------------|-------|---------------------------|--------------|-------|-------------------|--------------|-------|
| | Non-GDM, n (%) | GDM, n (%) | p* | Non-GDM, n (%) | GDM, n (%) | p* | Non-GDM, n (%) | GDM, n (%) | p* |
| AC | | | 0.17 | | | 0.16 | | | 0.17 |
| <10 th percentile | 2,006 (5.6) | 436 (5.2) | | 1,921 (5.4) | 408 (4.9) | | 2,740 (7.6) | 594 (7.1) | |
| 10 th -90 th percentile | 29,263 (81.6) | 6,773 (81.4) | | 28,177 (78.6) | 6,538 (78.5) | | 30,437 (84.9) | 7,078 (85.0) | |
| >90 th percentile | 4,586 (12.8) | 1,115 (13.4) | | 5,757 (16.1) | 1,378 (16.6) | | 2,678 (7.5) | 652 (7.8) | |
| HC | | | 0.041 | | | 0.021 | | | 0.087 |
| <10 th percentile | 3,363 (9.4) | 856 (10.3) | | 5,503 (15.3) | 1,376 (16.5) | | 3,758 (10.5) | 934 (11.2) | |
| 10 th -90 th percentile | 28,700 (80.0) | 6,599 (79.3) | | 27,977 (78.0) | 6,422 (77.2) | | 29,487 (82.2) | 6,815 (81.9) | |
| >90 th percentile | 3,792 (10.6) | 869 (10.4) | | 2,375 (6.6) | 526 (6.3) | | 2,610 (7.3) | 575 (6.9) | |
| FL | | | 0.004 | | | 0.022 | | | 0.33 |
| <10 th percentile | 3,227 (9.0) | 842 (10.1) | | 3,776 (10.5) | 963 (11.6) | | 1,113 (3.1) | 277 (3.3) | |
| 10 th -90 th percentile | 30,402 (84.8) | 6,948 (83.5) | | 28,641 (79.9) | 6,579 (79.0) | | 32,728 (91.3) | 7,556 (90.8) | |
| >90 th percentile | 2,226 (6.2) | 534 (6.4) | | 3,438 (9.6) | 782 (9.4) | | 2,014 (5.6) | 491 (5.9) | |
| EFW | | | 0.039 | | | 0.46 | | | 0.22 |
| <10 th percentile | 2411 (6.7) | 599 (7.2) | | 11,765 (32.8) | 2,731 (32.8) | | 998 (2.8) | 254 (3.1) | |
| 10 th -90 th percentile | 27369 (76.3) | 6245 (75.0) | | 22,374 (62.4) | 5,168 (62.1) | | 25,567 (71.3) | 5,870 (70.5) | |
| >90 th percentile | 6075 (16.9) | 1480 (17.8) | | 1,716 (4.8) | 425 (5.1) | | 9,290 (25.9) | 2,200 (26.4) | |

* Presented as frequency, n (%), and compared using χ^2 tests.

Table S2 Association between fetal biometry at 22-24 gestational week and subsequent GDM based on INTERGROWTH-21st standard.

| Main exposure | GDM, n (%) | Crude OR (95% CI) | Adjusted OR† (95% CI) | Adjusted OR‡ (95% CI) |
|--|--------------|-------------------|-----------------------|-----------------------|
| AC | | | | |
| <10 th percentile (n=2,329) | 408 (17.5) | 0.92(0.82,1.02) | 0.98(0.87,1.09) | 0.97(0.87,1.09) |
| 10 th -90 th percentile (n=34,715) | 6,538 (18.8) | | 1.0(reference) | |
| >90 th percentile (n=7,135) | 1,378 (19.3) | 1.03(0.97,1.10) | 0.97(0.91,1.04) | 0.97(0.92,1.04) |
| HC | | | | |
| <10 th percentile (n=6,879) | 1,376 (20.0) | 1.09(1.02,1.16) * | 1.15(1.08,1.23) * | 1.12(1.05,1.20) * |
| 10 th -90 th percentile (n=34,399) | 6,422 (18.7) | | 1.0(reference) | |
| >90 th percentile (n=2,901) | 526 (18.1) | 0.97(0.88,1.07) | 0.92(0.84,1.02) | 0.93(0.84,1.03) |
| FL | | | | |
| <10 th percentile (n=4,739) | 963 (20.3) | 1.11(1.03,1.20) * | 1.17(1.08,1.26) * | 1.14(1.05,1.23) * |
| 10 th -90 th percentile (n=35,220) | 6,579 (18.7) | | 1.0(reference) | |
| >90 th percentile (n=4,220) | 782 (18.3) | 0.99(0.91,1.08) | 0.95(0.88,1.04) | 0.95(0.87,1.03) |
| EFW | | | | |
| <10 th percentile (n=14,496) | 2,731 (18.8) | 1.00(0.95,1.06) | 1.06(1.01,1.12) * | 1.05(1.00,1.11) |
| 10 th -90 th percentile (n=27,542) | 5,168 (18.8) | | 1.0(reference) | |
| >90 th percentile (n=2,141) | 425 (19.9) | 1.08(0.96,1.20) | 1.02(0.91,1.14) | 1.00(0.89,1.12) |

*P<0.05 †Adjusted for maternal age, parity and fetal sex. ‡Adjusted for maternal age, parity, fetal sex, pre-pregnancy height and pre-pregnancy BMI. OR=odds ratio; AC=abdominal circumference; HC=head circumference; FL=femur length; EFW=estimated fetal weight.

Table S3 Association between fetal biometry at 22-24 gestational weeks and subsequent GDM based on Chinese standard

| Main exposure | GDM, n (%) | Crude OR (95% CI) | Adjusted OR† (95% CI) | Adjusted OR‡ (95% CI) |
|--|--------------|-------------------|-----------------------|-----------------------|
| AC | | | | |
| <10 th percentile (n=3,334) | 594 (17.8) | 0.93(0.85,1.02) | 0.99(0.91,1.09) | 1.00(0.90,1.09) |
| 10 th -90 th percentile (n=37,515) | 7,078 (18.9) | | 1.0(reference) | |
| >90 th percentile (n=3,330) | 653 (19.6) | 1.05(0.96,1.14) | 0.98(0.90,1.08) | 0.97(0.88,1.06) |
| HC | | | | |
| <10 th percentile (n=4,692) | 934 (19.9) | 1.07(0.99,1.16) | 1.14(1.05,1.23) * | 1.12(1.04,1.21) * |
| 10 th -90 th percentile (n=36,302) | 6,811 (18.8) | | 1.0(reference) | |
| >90 th percentile (n=3,185) | 575 (18.1) | 0.91(0.83,1.01) | 0.91(0.83,1.01) | 0.92(0.83,1.01) |
| FL | | | | |
| <10 th percentile (n=1,390) | 277 (19.9) | 1.07(0.94,1.22) | 1.15(1.01,1.32) * | 1.12(0.98,1.29) |
| 10 th -90 th percentile (n=40,284) | 7,556 (18.8) | | 1.0(reference) | |
| >90 th percentile (n=2,505) | 491 (19.6) | 1.01(0.92,1.13) | 1.01(0.92,1.13) | 1.00(0.90,1.11) |
| EFW | | | | |
| <10 th percentile (n=1,252) | 254 (20.3) | 1.11(0.96,1.27) | 1.18(1.03,1.36) * | 1.14(0.99,1.31) |
| 10 th -90 th percentile (n=31,437) | 5,870 (18.7) | | 1.0(reference) | |
| >90 th percentile (n=11,490) | 2,200 (19.1) | 1.03(0.98,1.09) | 0.97(0.92,1.03) | 0.98(0.92,1.03) |

*P<0.05 †Adjusted for maternal age, parity and fetal sex. ‡Adjusted for maternal age, parity, fetal sex, pre-pregnancy height and pre-pregnancy BMI. OR=odds ratio;

AC=abdominal circumference; HC=head circumference; FL=femur length; EFW=estimated fetal weight.