

**Table S6.** Maternal pre-pregnancy body mass index and gestational weight gain categories and the risks of pregnancy complications<sup>a</sup>

|                                     | Pregnancy complications<br>Odds Ratio (95% Confidence Interval) |   |  |  |   |   |   |
|-------------------------------------|---|---|--|--|---|---|---|
|                                     | Any pregnancy complication                                      | Gestational hypertension                                    | Pre-eclampsia  | Gestational diabetes                                       | Preterm birth   | Small size for gestational age                              | Large size for gestational age                              |
| <b>Underweight</b>                  |   |   |  |  |   |   |   |
| Low weight gain (≤-1.1 SD)          | 1.08 (0.94, 1.25)<br>n <sub>cases</sub> /total=310/960          | 0.57 (0.40, 0.81)*<br>n <sub>cases</sub> /total=33/1002     | 0.47 (0.27, 0.82)*<br>n <sub>cases</sub> /total=13/982     | 1.24 (0.69, 2.22)<br>n <sub>cases</sub> /total=12/1077     | 1.88 (1.52, 2.34)**<br>n <sub>cases</sub> /total=92/1304    | 3.13 (2.76, 3.54)**<br>n <sub>cases</sub> /total=360/1332   | 0.22 (0.15, 0.35)**<br>n <sub>cases</sub> /total=21/993     |
| Medium weight gain (-1.0 to 0.9 SD) | 1.04 (0.97, 1.12)<br>n <sub>cases</sub> /total=1139/4022        | 0.64 (0.51, 0.80)**<br>n <sub>cases</sub> /total=81/3999    | 0.68 (0.53, 0.87)*<br>n <sub>cases</sub> /total=68/3986    | 0.52 (0.32, 0.85)*<br>n <sub>cases</sub> /total=17/4302    | 1.26 (1.10, 1.45)*<br>n <sub>cases</sub> /total=231/4890    | 1.84 (1.70, 1.98)**<br>n <sub>cases</sub> /total=889/4916   | 0.43 (0.37, 0.51)**<br>n <sub>cases</sub> /total=164/4191   |
| High weight gain (≥1.0 SD)          | 1.17 (1.02, 1.35)*<br>n <sub>cases</sub> /total=330/1021        | 1.03 (0.73, 1.44)<br>n <sub>cases</sub> /total=37/974       | 1.16 (0.79, 1.71)<br>n <sub>cases</sub> /total=27/964      | 0.53 (0.22, 1.29)<br>n <sub>cases</sub> /total=5/1152      | 1.35 (1.07, 1.72)*<br>n <sub>cases</sub> /total=72/1396     | 1.01 (0.85, 1.21)<br>n <sub>cases</sub> /total=145/1324     | 0.81 (0.65, 1.00)<br>n <sub>cases</sub> /total=88/1267      |
| <b>Normal weight</b>                |   |   |  |  |   |   |   |
| Low weight gain (≤-1.1 SD)          | 1.04 (1.01, 1.08)*<br>n <sub>cases</sub> /total=5702/19877      | 1.01 (0.92, 1.10)<br>n <sub>cases</sub> /total=853/19649    | 1.08 (0.97, 1.19)<br>n <sub>cases</sub> /total=539/19335   | 0.86 (0.71, 1.05)<br>n <sub>cases</sub> /total=136/20792   | 1.17 (1.09, 1.26)**<br>n <sub>cases</sub> /total=946/21290  | 1.76 (1.68, 1.83)**<br>n <sub>cases</sub> /total=3647/20991 | 0.54 (0.50, 0.58)**<br>n <sub>cases</sub> /total=885/18229  |
| Medium weight gain (-1.0 to 0.9 SD) | Reference<br>n <sub>cases</sub> /total=17957/68457              | Reference<br>n <sub>cases</sub> /total=1918/66938           | Reference<br>n <sub>cases</sub> /total=1606/66626          | Reference<br>n <sub>cases</sub> /total=497/70805           | Reference<br>n <sub>cases</sub> /total=3196/84958           | Reference<br>n <sub>cases</sub> /total=8584/79555           | Reference<br>n <sub>cases</sub> /total=6592/77563           |
| High weight gain (≥1.0 SD)          | 1.12 (1.08, 1.16)**<br>n <sub>cases</sub> /total=5910/20051     | 1.35 (1.24, 1.47)**<br>n <sub>cases</sub> /total=817/19247  | 1.20 (1.08, 1.32)**<br>n <sub>cases</sub> /total=530/18960 | 1.41 (1.20, 1.66)**<br>n <sub>cases</sub> /total=218/20991 | 1.41 (1.32, 1.50)**<br>n <sub>cases</sub> /total=1321/25135 | 0.66 (0.63, 0.70)**<br>n <sub>cases</sub> /total=1607/21532 | 2.02 (1.93, 2.11)**<br>n <sub>cases</sub> /total=3674/23599 |
| <b>Overweight</b>                   |   |   |  |  |   |   |   |
| Low weight gain (≤-1.1 SD)          | 1.22 (1.15, 1.30)**<br>n <sub>cases</sub> /total=1541/5219      | 1.41 (1.20, 1.65)**<br>n <sub>cases</sub> /total=185/5024   | 1.84 (1.59, 2.13)**<br>n <sub>cases</sub> /total=217/5056  | 1.87 (1.43, 2.45)**<br>n <sub>cases</sub> /total=62/5333   | 1.13 (1.00, 1.28)<br>n <sub>cases</sub> /total=278/6510     | 1.18 (1.09, 1.27)**<br>n <sub>cases</sub> /total=759/6117   | 0.99 (0.90, 1.09)<br>n <sub>cases</sub> /total=496/5854     |
| Medium weight gain (-1.0 to 0.9 SD) | 1.38 (1.33, 1.42)**<br>n <sub>cases</sub> /total=7096/21817     | 2.01 (1.86, 2.17)**<br>n <sub>cases</sub> /total=1118/20804 | 2.00 (1.85, 2.17)**<br>n <sub>cases</sub> /total=986/20672 | 2.48 (2.16, 2.85)**<br>n <sub>cases</sub> /total=368/22326 | 1.07 (1.00, 1.15)<br>n <sub>cases</sub> /total=1025/25596   | 0.78 (0.74, 0.82)**<br>n <sub>cases</sub> /total=1930/22445 | 1.80 (1.72, 1.88)**<br>n <sub>cases</sub> /total=3390/23905 |
| High weight gain (≥1.0 SD)          | 1.67 (1.57, 1.77)**<br>n <sub>cases</sub> /total=2089/5613      | 2.57 (2.27, 2.89)**<br>n <sub>cases</sub> /total=361/5237   | 2.44 (2.14, 2.78)**<br>n <sub>cases</sub> /total=282/5158  | 3.76 (3.11, 4.53)**<br>n <sub>cases</sub> /total=153/5767  | 1.57 (1.41, 1.75)**<br>n <sub>cases</sub> /total=395/6911   | 0.59 (0.53, 0.66)**<br>n <sub>cases</sub> /total=368/5460   | 3.08 (2.89, 3.28)**<br>n <sub>cases</sub> /total=1423/6515  |
| <b>Obesity</b>                      |   |   |  |  |   |   |   |
| Low weight gain (≤-1.1 SD)          | 1.70 (1.56, 1.85)**<br>n <sub>cases</sub> /total=916/2534       | 2.91 (2.44, 3.47)**<br>n <sub>cases</sub> /total=148/2344   | 3.45 (2.94, 4.05)**<br>n <sub>cases</sub> /total=182/2378  | 4.41 (3.40, 5.73)**<br>n <sub>cases</sub> /total=68/2577   | 1.36 (1.14, 1.61)**<br>n <sub>cases</sub> /total=148/2957   | 0.98 (0.86, 1.11)<br>n <sub>cases</sub> /total=279/2639     | 1.55 (1.38, 1.74)**<br>n <sub>cases</sub> /total=337/2697   |
| Medium weight gain (-1.0 to 0.9 SD) | 2.06 (1.97, 2.16)**<br>n <sub>cases</sub> /total=3818/9080      | 3.58 (3.27, 3.93)**<br>n <sub>cases</sub> /total=724/8208   | 3.75 (3.42, 4.12)**<br>n <sub>cases</sub> /total=695/8179  | 5.31 (4.60, 6.13)**<br>n <sub>cases</sub> /total=344/9220  | 1.34 (1.22, 1.48)**<br>n <sub>cases</sub> /total=534/10807  | 0.82 (0.76, 0.89)**<br>n <sub>cases</sub> /total=810/8924   | 2.59 (2.45, 2.73)**<br>n <sub>cases</sub> /total=1928/10042 |
| High weight gain (≥1.0 SD)          | 2.58 (2.37, 2.80)**<br>n <sub>cases</sub> /total=1098/2323      | 4.24 (3.62, 4.97)**<br>n <sub>cases</sub> /total=202/2074   | 4.43 (3.79, 5.18)**<br>n <sub>cases</sub> /total=194/2066  | 8.26 (6.74, 10.12)**<br>n <sub>cases</sub> /total=134/2374 | 2.29 (1.99, 2.64)**<br>n <sub>cases</sub> /total=230/2820   | 0.70 (0.60, 0.83)**<br>n <sub>cases</sub> /total=165/2085   | 4.20 (3.84, 4.59)**<br>n <sub>cases</sub> /total=732/2652   |

<sup>a</sup>n<sub>cases</sub>/total represent the number of cases for each pregnancy complication in each group/the population in each group. Values are odds ratios (95% confidence intervals) from multilevel binary logistic regression models that reflect the risk of pregnancy complications per combined pre-pregnancy body mass index and gestational weight gain categories compared with the reference group (normal weight and medium weight gain). For any pregnancy complication, gestational hypertension, pre-eclampsia and gestational diabetes, weight gain z-scores until 20 weeks of gestation were used and for preterm birth, and small and large size for gestational age at birth, total gestational weight gain z-scores were used. Mothers diagnosed with pre-eclampsia were excluded from the models for gestational hypertension. The reference group for the analyses on pre-eclampsia comprises the mothers without both pre-eclampsia and gestational hypertension. The reference group for the analyses on small and large size for gestational age at birth is appropriate size for gestational age at birth. Models are unadjusted. \*P-value<0.05; \*\*P-value<0.001. Significant interaction terms were present (p-values<0.05) for preterm birth, and small and large size for gestational age at birth.