

**Supplementary Table 4-Associations of zBMI growth rates with different metabolic phenotypes of obesity (group of MHNW as the reference) during each growth period, according to the cutoff points established by the World Obesity Federation to categorize childhood BMI status**

| <b>Growth period</b> | <b>Unadjusted Mean differences<br/>(95%CI)</b> | <b><i>P</i></b> | <b>Adjusted Mean differences<br/>(95%CI) *</b> | <b><i>P</i></b> |
|----------------------|--|-----------------|--|-----------------|
| <b>MUNW</b>          |  |                 |  |                 |
| 0–6 months           | 0.006 (–0.021, 0.034)                          | 0.654           | 0.006 (–0.021, 0.034)                          | 0.658           |
| 6–24 months          | 0.003 (–0.002, 0.008)                          | 0.275           | 0.003 (–0.002, 0.008)                          | 0.255           |
| <b>MHO</b>           |  |                 |  |                 |
| 0–6 months           | 0.066 (0.013, 0.119)                           | 0.015           | 0.065 (0.012, 0.118)                           | 0.017           |
| 6–24 months          | 0.020 (0.010, 0.030)                           | <0.001          | 0.020 (0.010, 0.030)                           | <0.001          |
| <b>MUO</b>           |  |                 |  |                 |
| 0–6 months           | 0.007 (–0.068, 0.082)                          | 0.860           | 0.006 (–0.069, 0.081)                          | 0.881           |
| 6–24 months          | 0.030 (0.016, 0.044)                           | <0.001          | 0.030 (0.016, 0.044)                           | <0.001          |

Piecewise linear mixed models were used to examine mean differences in zBMI growth rates (SD units/month) by metabolic phenotypes of obesity (group of MHNW as the reference). \*Adjusted for maternal age at delivery, maternal education, annual family income, prepregnancy BMI, gestational weight gain, gravidity, maternal history of gestational diabetes mellitus, gestational age, delivery mode, paternal education, paternal current BMI, family history of metabolic disorders, child sex (male, female), birth weight, breastfeeding duration, junk food consumption frequency, physical activity duration, sleep duration, and sleep quality.