**Supplementary Table 3.** Change in placental epigenetic age acceleration with each unit increase in a maternal cardiometabolic factor

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Maternal and offspring cardiometabolic factors** | **Female  offspring** | | **Male  offspring** | | **Combined** | |
| Mean PAA change  (95% CI) in weeks1 | P-value | Mean PAA change  (95% CI) in weeks1 | P-value | Mean PAA change  (95% CI) in weeks1 | P-value |
| 2Trimester specific SBP, mmHG | | | | | | |
| 1st Trimester | 0.10 (-0.28, 0.48) | 0.61 | **-0.31 (-0.59, -0.04)** | **0.03** | -0.11 (-0.34, 0.11) | 0.32 |
| 2nd Trimester | 0.08 (-0.29, 0.45) | 0.66 | -0.21 (-0.60, 0.18) | 0.29 | 0.01 (-0.25, 0.27) | 0.97 |
| 3rd Trimester | -0.04 (-0.43, 0.35) | 0.83 | -0.30 (-0.66, 0.06) | 0.06 | -0.13 (-0.39, 0.13) | 0.33 |
| 2Trimester specific DBP, mmHG | | | | | | |
| 1st Trimester | 0.21 (-0.29, 0.71) | 0.40 | **-0.43 (-0.82, -0.04)** | **0.03** | -0.09 (-0.39, 0.22) | 0.57 |
| 2nd Trimester | -0.03 (-0.64, 0.57) | 0.92 | -0.20 (-0.75, 0.35) | 0.47 | -0.03 (-0.42, 0.37) | 0.89 |
| 3rd Trimester | 0.01 (-0.57, 0.59) | 0.97 | **-0.57 (-1.09, -0.05)** | **0.03** | -0.21 (-0.59, 0.17) | 0.27 |
| Pre-pregnancy BMI, kg/m2 | | | | | | |
| Obese (≥30.0) | 0.22 (-0.90, 1.33) | 0.70 | **-1.24 (-2.24, -0.25)** | **0.01** | -0.60 (-1.31, 0.12) | 0.10 |
| Overweight  (25.0-30.0) | -0.10 (-0.81, 0.61) | 0.78 | -0.40 (-1.07, 0.26) | 0.23 | -0.28 (-0.75, 0.19) | 0.25 |
| Normal (<25) | Ref | - | Ref | - | Ref | - |
| GWG (kg/week) |  |  |  |  |  |  |
| 1st Trimester | -1.51 (-3.54, 0.52) | 0.14 | -1.40 (-2.82, 0.02) | 0.05 | **-1.46 (-2.61, -0.31)** | **0.01** |
| 2nd Trimester | -1.57 (-3.65, 0.52) | 0.14 | -1.19 (-2.91, 0.52) | 0.17 | **-1.70 (-3.00, -0.40)** | **0.01** |
| 3rd Trimester | -1.53 (-3.64, 0.59) | 0.16 | -0.90 (-2.81, 1.01) | 0.35 | **-1.71 (-3.11, -0.32)** | **0.02** |
| Maternal age, yr | 0.05 (-0.02, 0.12) | 0.16 | 0.03 (-0.03, 0.09) | 0.27 | 0.04 (-0.01, 0.09) | 0.09 |
| Maternal age group |  |  |  |  |  |  |
| ≥30 years | 0.54 (-0.52, 1.61) | 0.31 | 0.46 (-0.54, 1.46) | 0.37 | 0.39 (-0.32, 1.01) | 0.28 |
| 30-35 years | -0.40 (-1.17, 0.36) | 0.30 | 0.36 (-0.27, 0.99) | 0.26 | -0.01 (-0.49, 0.48) | 0.98 |
| <30 years | Ref | - | Ref | - | Ref | - |
| Fetal sex |  |  |  |  |  |  |
| Male | NA |  | NA |  | 0.20 (-0.21, 0.60) | 0.34 |
| Female | NA |  | NA |  | Ref | - |

1Models included parity, health insurance, mode of onset of labor, marital status, educational status, preeclampsia status, and offspring sex as adjustment variables.

2 per 10mmHG increase in DBP and SBP

Statistically significant estimates (P<0.05) are highlighted in bold

Abbreviation:GWG, gestational weight gain; SBP, Systolic blood pressure; DBP, Diastolic blood pressure; PAA, placental epigenetic age acceleration