**Supplementary table S1: Multivariate regression coefficients for weight gain in early life for serum lipids at age 18 (adjusted for adult height and sex)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **High-density lipoprotein (mmol/L)** | | |  | **Low-density lipoprotein (mmol/L)** | | |  | **Total cholesterol (mmol/L)** | | |  | **Triglycerides (mmol/L)** | | | |
| **β (95% CI)** | | ***P* value** |  | **β (95% CI)** | | ***P* value** |  | **β (95% CI)** | | ***P* value** |  | **β (95% CI)** | | ***P* value** | |
| Birth weight (z-score) | -0.008 | (-0.028 - 0.011) | 0.427 |  | 0.020 | (-0.029 - 0.069) | 0.421 |  | 0.021 | (-0.039 - 0.081) | 0.489 |  | 0.031 | (-0.178 - 0.240) | 0.772 |
| CWG 0 - 24 months | -0.004 | (-0.024 - 0.015) | 0.67 |  | 0.011 | (-0.038 - 0.060) | 0.66 |  | 0.033 | (-0.029 - 0.093) | 0.291 |  | 0.123 | (-0.086 - 0.333) | 0.249 | |
| CWG 24 - 48 months | -0.004 | (-0.022 - 0.015) | 0.696 |  | -0.015 | (-0.060 - 0.031) | 0.527 |  | -0.008 | (-0.064 - 0.048) | 0.782 |  | 0.130 | (-0.065 - 0.325) | 0.191 | |
| Adult height (cm) | -0.001 | (-0.004 - 0.002) | 0.486 |  | -0.002 | (-0.009 - 0.005) | 0.494 |  | -0.003 | (-0.011 - 0.006) | 0.525 |  | -0.002 | (-0.032 - 0.028) | 0.900 | |
| Sex | 0.033 | (-0.016 - 0.082) | 0.192 |  | 0.194 | (0.071 - 0.317) | 0.002 |  | 0.279 | (0.129 - 0.430) | 0.000 |  | -0.241 | (-0.764 - 0.282) | 0.367 | |
| Adjusted r2 | 0.002 | | |  | 0.019 | | |  | 0.026 | | |  | 0.001 | | | |

Significant difference based at level P<0.05

Abbreviations: β, beta coefficient; r2, square of the Pearson correlation coefficient; CI, confidence interval; CWG, conditional weight gain

**Supplementary table S2: Multivariate regression coefficients for weight gain in early life for serum lipids at age 18 (adjusted for adult height, sex and fat mass)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **High-density lipoprotein (mmol/L)** | |  | | **Low-density lipoprotein (mmol/L)** | |  | **Total cholesterol (mmol/L)** | |  | **Triglycerides (mmol/L)** | |
| **β (95% CI)** | ***P* value** | |  | **β (95% CI)** | ***P* value** |  | **β (95% CI)** | ***P* value** |  | **β (95% CI)** | ***P* value** |
| Birth weight (z-score) | -0.002 (-0.022 - 0.018) | 0.842 | |  | 0.014 (-0.036 - 0.064) | 0.55 |  | 0.019 (-0.043 - 0.008) | 0.544 |  | 0.044 (-0.174 - 0.263) | 0.689 |
| CWG 0 - 24 months | -0.001 (-0.022 - 0.020) | 0.94 | |  | -0.008 (-0.060 - 0.045) | -0.28 |  | 0.009 (-0.055 - 0.074) | 0.781 |  | 0.147 (-0.082 - 0.375) | 0.208 |
| CWG 24 - 48 months | 0.002 (-0.017 - 0.022) | 0.801 | |  | -0.025 (-0.073 - 0.023) | -1.02 |  | -0.016 (-0.075 - 0.042) | 0.584 |  | 0.152 (-0.056 - 0.360) | 0.152 |
| Adult height (cm) | -0.001 (-0.0035 - 0.002) | 0.684 | |  | -0.003 (-0.010 - 0.004) | -0.86 |  | -0.004 (-0.012 - 0.005) | 0.405 |  | -0.001 (-0.033 - 0.03) | 0.931 |
| Sex | 0.070 (0.008 - 0.132) | 0.028 | |  | 0.115 (-0.040 - 0.271) | 1.46 |  | 0.198 (0.008 - 0.388) | 0.041 |  | -0.130 (-0.803 - 0.542) | 0.704 |
| Fat mass (kg) | -0.003 (-0.006 - -0.000) | 0.047 | |  | 0.006 (-0.002 - 0.014) | 1.55 |  | 0.005 (-0.004 - 0.015) | 0.26 |  | -0.010 (-0.044 - 0.024) | 0.556 |
| r2 | 0.004 | | |  | 0.020 | |  | 0.024 | |  | 0.002 | |

Significant difference based at level P<0.05

Abbreviations: β, beta coefficient; r2, square of the Pearson correlation coefficient; CI, confidence interval; CWG, conditional weight gain