**Supplemental Table 1** Adjusted associations of prenatal lead exposure (≥ 5µg/dL vs. <5µg/dL) with T2DM and cardiometabolic risk

factors in children at age 10-18 years with additional adjustment for puberty or concurrent blood lead concentrations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 1a | | Model 2b | |
|  | β (95% CI) | p | β (95% CI) | p |
| Fasting glucose z-score |  |  |  |  |
| Boys | -0.07 (-0.39, 0.25) | 0.65 | -0.05 (-0.36, 0.25) | 0.72 |
| Girls | -0.04 (-0.35, 0.27) | 0.81 | -0.01 (-0.30, 0.28) | 0.97 |
| HOMA-IR z-score |  |  |  |  |
| Boys | -0.05 (-0.31, 0.21) | 0.74 | -0.05 (-0.30, 0.20) | 0.69 |
| Girls | 0.03 (-0.22, 0.29) | 0.81 | 0.08 (-0.16, 0.32) | 0.51 |
| Triglycerides z-score |  |  |  |  |
| Boys | 0.25 (-0.07, 0.58) | 0.13 | 0.30 (-0.00, 0.60) | 0.05 |
| Girls | 0.06 (-0.23, 0.35) | 0.66 | -0.01 (-0.29, 0.26) | 0.92 |
| Total cholesterol z-score |  |  |  |  |
| Boys | -0.43 (-0.75, -0.11) | 0.01 | -0.40 (-0.70, -0.10) | 0.01 |
| Girls | -0.03 (-0.32, 0.26) | 0.83 | -0.11 (-0.39, 0.17) | 0.43 |
| HDL-C z-score |  |  |  |  |
| Boys | -0.28 (-0.57, 0.01) | 0.06 | -0.33 (-0.61, -0.05) | 0.02 |
| Girls | -0.05 (-0.39, 0.29) | 0.77 | -0.03 (-0.32, 0.32) | 0.99 |
| LDL-C z-score |  |  |  |  |
| Boys | -0.55 (-0.87, -0.23) | 0.001 | -0.51 (-0.81, -0.21) | 0.001 |
| Girls | -0.07 (-0.37, 0.22) | 0.64 | -0.15 (-0.43, 0.13) | 0.29 |

T2DM, type 2 diabetes; HOMA-IR, homeostatic model assessment of insulin resistance; HDL, high-density lipoprotein cholesterol;

LDL-C, low-density lipoprotein cholesterol; CI, confidence interval.

aAdjusted for child age, BMI z-score and number of siblings at birth, maternal age, marital status, education, smoking history and pubertal stage.

bAdjusted for child age, BMI z-score and number of siblings at birth, maternal age, marital status, education, smoking history and concurrent blood lead concentration.

Sample size: for model 1, total N=179 for boys, total N=181 for girls; for model 2, total N=172 for boys, total N=176 for girls.

**Supplemental Table 2** Adjusted sex-specific associations between prenatal lead exposure and T2DM and cardiometabolic risk factors

in children at age 10-18 years with additional adjustment for diet and alcohol consumption during pregnancy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 1a | | Model 2b | |
|  | β (95% CI) | p | β (95% CI) | p |
| Fasting glucose z-score |  |  |  |  |
| Boys | -0.16 (-0.51, 0.19) | 0.38 | -0.11 (-0.48, 0.26) | 0.55 |
| Girls | -0.21 (-0.56, 0.14) | 0.23 | -0.16 (-0.52, 0.19) | 0.36 |
| HOMA-IR z-score |  |  |  |  |
| Boys | -0.14 (-0.45, 0.17) | 0.36 | -0.05 (-0.38, 0.27) | 0.74 |
| Girls | -0.12 (-0.39, 0.16) | 0.40 | -0.12 (-0.41, 0.16) | 0.40 |
| Triglycerides z-score |  |  |  |  |
| Boys | 0.16 (-0.19, 0.51) | 0.38 | 0.21 (-0.16, 0.58) | 0.27 |
| Girls | -0.03 (-0.37, 0.31) | 0.86 | -0.05 (-0.40, 0.30) | 0.79 |
| Total cholesterol z-score |  |  |  |  |
| Boys | -0.59 (-0.97, -0.21) | 0.003 | -0.58 (-0.97, -0.18) | 0.004 |
| Girls | -0.22 (-0.55, 0.11) | 0.18 | -0.26 (-0.59, 0.08) | 0.13 |
| HDL-C z-score |  |  |  |  |
| Boys | -0.34 (-0.71, 0.04) | 0.08 | -0.39 (-0.78, -0.00) | 0.048 |
| Girls | -0.03 (-0.44, 0.38) | 0.87 | -0.03 (-0.45, 0.39) | 0.90 |
| LDL-C z-score |  |  |  |  |
| Boys | -0.70 (-1.09, -0.30) | 0.0006 | -0.68 (-1.09, -0.27) | 0.001 |
| Girls | -0.25 (-0.58, 0.08) | 0.14 | -0.28 (-0.62, 0.05) | 0.10 |

T2DM, type 2 diabetes; HOMA-IR, homeostatic model assessment of insulin resistance; HDL, high-density lipoprotein cholesterol;

LDL-C, low-density lipoprotein cholesterol; CI, confidence interval.

aAdjusted for child age, BMI z-score and number of siblings at birth, maternal age, marital status, education, smoking history and dietary inflammatory index scores.

bAdjusted for child age, BMI z-score and number of siblings at birth, maternal age, marital status, education, smoking history and alcohol consumption.

Sample size: for model 1, total N=126 for boys, total N=131 for girls; for model 2, total N=123 for boys, total N=127 for girls.