Supplementary Material:

Alison B. Singer, Mary S. Wolff, Manori J. Silva, Antonia M. Calafat, Stephanie M. Engel:

Prenatal phthalate exposures and child temperament at 12 and 24 months

Supplemental Table 1: Spearman correlations for scores on temperament scales.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **IBQ** |  |  |  |  |  |  | **TBAQ** |  |  |
|  | Activity | Distress to limitations | Distress and latency to novelty | Duration of Orienting | Smiling | Soothability |  | Activity | Anger | Social Fear | Interest | Pleasure |
| **IBQ** |  |  |  |  |  |  |  |  |  |  |  |  |
| Activity | 1 |  |  |  |  |  |  |  |  |  |  |  |
|   | N=201 |  |  |  |  |  |  |  |  |  |  |  |
| Distress to limitations | 0.34N=200 | 1N=203 |  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |  |  |  |
| Distress and | 0.13 | 0.24 | 1 |  |  |  |  |  |  |  |  |  |
| latency to novelty | N=201 | N=200 | N=201 |  |  |  |  |  |  |  |  |  |
| Duration of | 0.01 | -0.14 | 0.15 | 1 |  |  |  |  |  |  |  |  |
| Orienting | N=199 | N=201 | N=199 | N=202 |  |  |  |  |  |  |  |  |
| Smiling | 0 | -0.28 | -0.24 | 0.30 | 1 |  |  |  |  |  |  |  |
|   | N=201 | N=200 | N=201 | N=199 | N=201 |  |  |  |  |  |  |  |
| Soothability | 0.13 | 0.13 | 0.09 | 0.17 | 0.23 | 1 |  |  |  |  |  |  |
|   | N=201 | N=200 | N=201 | N=199 | N=201 | N=201 |  |  |  |  |  |  |
| **TBAQ** |  |  |  |  |  |  |  |  |  |  |  |  |
| Activity | 0.32 | 0.18 | 0.12 | 0.05 | 0.04 | 0.11 |  | 1 |  |  |  |  |
|   | N=168 | N=169 | N=168 | N=168 | N=168 | N=168 |  | N=278 |  |  |  |  |
| Anger | 0.17 | 0.22 | 0.09 | -0.05 | -0.09 | 0.04 |  | 0.51 | 1 |  |  |  |
|   | N=163 | N=164 | N=163 | N=163 | N=163 | N=163 |  | N=267 | N=268 |  |  |  |
| Social Fear | 0.07 | 0.23 | 0.41 | 0 | -0.1 | 0.07 |  | 0.02 | 0.14 | 1 |  |  |
|   | N=159 | N=160 | N=159 | N=159 | N=159 | N=159 |  | N=256 | N=251 | N=257 |  |  |
| Interest | -0.06 | 0.03 | -0.05 | 0.1 | 0.25 | 0.11 |  | -0.15 | -0.14 | -0.03 | 1 |  |
|   | N=161 | N=162 | N=161 | N=161 | N=161 | N=161 |  | N=260 | N=254 | N=246 | N=261 |  |
| Pleasure | 0.01 | -0.13 | -0.19 | 0.03 | 0.31 | 0.08 |  | 0.12 | 0.04 | -0.27 | 0.29 | 1 |
|   | N=164 | N=165 | N=164 | N=164 | N=164 | N=164 |  | N=268 | N=261 | N=253 | N=259 | N=269 |

Supplemental Table 2. Estimates of percent change in 12-month infant temperament scales (and 95% confidence interval) for a 10% increase in phthalate concentration.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Distress to limitations** | **Distress and latency to novelty** | **Duration of Orienting** | **Smiling** | **Soothability** |
|  | **(N=178)** | **(N=180)** | **(N=178)** | **(N=179)** | **(N=178)** | **(N=178)** |
|  |  |  |  |  |  |  |
| MnBP | -0.2 (-0.5, 0.0) | 0.0 (-0.2, 0.3) | 0.1 (-0.2, 0.4) | 0.2 (-0.1, 0.4) | -0.1 (-0.2, 0.1) | 0.0 (-0.3, 0.3) |
| MiBP | -0.2 (-0.4, 0.0) | -0.1 (-0.4, 0.2) | 0.0 (-0.3, 0.4) | 0.2 (-0.1, 0.5) | -0.1 (-0.2, 0.1) | -0.1 (-0.3, 0.2) |
| MEP | -0.1 (-0.3, 0.0) | 0.0 (-0.1, 0.2) | -0.1 (-0.3, 0.1) | 0.0 (-0.2, 0.2) | 0.0 (-0.1, 0.1) | -0.1 (-0.3, 0.0) |
| MCPP | -0.2 (-0.4, 0.1) | 0.1 (-0.2, 0.4) | 0.1 (-0.3, 0.4) | 0.2 (-0.1, 0.5) | -0.1 (-0.3, 0.0) | -0.1 (-0.4, 0.1) |
| MBzP | -0.2 (-0.4, 0.0) | 0.1 (-0.1, 0.3) | 0.1 (-0.2, 0.3) | 0.3 (0.0, 0.5) | -0.1 (-0.2, 0.0) | 0.0 (-0.3, 0.2) |
| ∑DEHP | -0.1 (-0.3, 0.1) | 0.0 (-0.2, 0.2) | 0.0 (-0.3, 0.3) | 0.2 (-0.1, 0.5) | -0.1 (-0.2, 0.1) | 0.0 (-0.2, 0.2) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, child’s sex, maternal age at delivery, the total 12-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 3. Estimates of standard deviation change in the natural log of each 12-month temperament scale (and 95% confidence interval) for every one natural log µg/L increase in the phthalate metabolite concentration.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Distress to limitations** | **Distress and latency to novelty** | **Duration of Orienting** | **Smiling** | **Soothability** |
|  | **(N=178)** | **(N=180)** | **(N=178)** | **(N=179)** | **(N=178)** | **(N=178)** |
|  |  |  |  |  |  |  |
| MnBP | -0.1 (-0.3, 0.0) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.1) |
| MiBP | -0.1 (-0.3, 0.0) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | 0.0 (-0.2, 0.1) | 0.0 (-0.2, 0.1) |
| MEP | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.0) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.0) |
| MCPP | -0.1 (-0.2, 0.1) | 0.0 (-0.1, 0.2) | 0.0 (-0.1, 0.2) | 0.1 (-0.1, 0.2) | -0.1 (-0.3, 0.0) | -0.1 (-0.2, 0.1) |
| MBzP | -0.1 (-0.3, 0.0) | 0.1 (-0.1, 0.2) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) |
| ∑DEHP | -0.1 (-0.2, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, child’s sex, maternal age at delivery, the total 12-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 4. Estimates of percent change in 24-month infant temperament scales (and 95% confidence interval) for a 10% increase in phthalate concentration.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Anger** | **Social Fear** | **Interest** | **Pleasure** |
|  | **(N=255)** | **(N=245)** | **(N=234)** | **(N=239)** | **(N=247)** |
|  |  |  |  |  |  |
| MnBP | 0.0 (-0.2, 0.2) | 0.1 (-0.2, 0.3) | 0.1 (-0.2, 0.4) | -0.1 (-0.3, 0.1) | -0.1 (-0.2, 0.0) |
| MiBP | 0.1 (-0.1, 0.3) | 0.0 (-0.2, 0.3) | 0.0 (-0.3, 0.4) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.1) |
| MEP | 0.1 (0.0, 0.3) | 0.1 (-0.1, 0.3) | 0.1 (-0.1, 0.3) | -0.1 (-0.2, 0.1) | 0.0 (-0.1, 0.1) |
| MCPP | 0.0 (-0.3, 0.2) | 0.0 (-0.2, 0.3) | 0.3 (-0.1, 0.6) | -0.1 (-0.3, 0.1) | -0.2 (-0.4, -0.1) |
| MBzP | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.2) | 0.3 (0.0, 0.5) | 0.1 (-0.1, 0.2) | -0.1 (-0.2, 0.0) |
| ∑DEHP | 0.1 (-0.1, 0.2) | 0.2 (0.0, 0.4) | 0.1 (-0.1, 0.4) | 0.0 (-0.2, 0.1) | -0.1 (-0.2, 0.0) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, child’s sex, maternal age at delivery, the total 24-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 5. Estimates of standard deviation change in the natural log of each 24-month temperament scale (and 95% confidence interval) for every one natural log µg/L increase in the phthalate metabolite concentration.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Anger** | **Social Fear** | **Interest** | **Pleasure** |
|  | **(N=255)** | **(N=245)** | **(N=234)** | **(N=239)** | **(N=247)** |
|  |  |  |  |  |  |
| MnBP | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.2) | -0.1 (-0.2, 0.1) | -0.1 (-0.2, 0.0) |
| MiBP | 0.0 (-0.1, 0.2) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) |
| MEP | 0.1 (0.0, 0.2) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.0) | 0.0 (-0.1, 0.1) |
| MCPP | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.3) | -0.1 (-0.2, 0.1) | -0.2 (-0.3, -0.1) |
| MBzP | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.0) |
| ∑DEHP | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | 0.1 (-0.1, 0.2) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.0) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, child’s sex, maternal age at delivery, the total 24-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 6. Estimates of percent change in 12-month infant temperament scales (and 95% confidence interval) for a 10% increase in phthalate concentration estimated from models with sex-by-phthalate interaction terms.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Distress to limitations** | **Distress and latency to novelty** | **Duration of Orienting** | **Smiling** | **Soothability** |
|   |  |  |  |  |  |  |
| **Boys** | (N = 95) | (N = 95) | (N = 95) | (N = 96) | (N = 95) | (N = 95) |
| MnBP | -0.2 (-0.4, 0.1) | 0.1 (-0.2, 0.4) | -0.1 (-0.5, 0.3) | 0 (-0.3, 0.3) | -0.1 (-0.3, 0.1) | -0.1 (-0.4, 0.2) |
| MiBP | -0.2 (-0.5, 0.1) | -0.1 (-0.4, 0.3) | 0.0 (-0.4, 0.4) | 0.1 (-0.3, 0.5) | -0.1 (-0.3, 0.1) | -0.1 (-0.5, 0.2) |
| MEP | -0.1 (-0.3, 0.1) | 0.0 (-0.2, 0.2) | -0.2 (-0.5, 0.1) | 0 (-0.2, 0.2) | 0.0 (-0.1, 0.1) | -0.2 (-0.4, 0.1) |
| MCPP | -0.2 (-0.5, 0.1) | 0.0 (-0.3, 0.3) | -0.2 (-0.6, 0.2) | 0 (-0.4, 0.4) | -0.1 (-0.3, 0.1) | -0.2 (-0.6, 0.1) |
| MBzP | -0.3 (-0.5, 0.0) | 0.1 (-0.2, 0.4) | -0.2 (-0.5, 0.2) | 0.2 (-0.1, 0.5) | -0.1 (-0.3, 0.1) | -0.1 (-0.4, 0.2) |
| ∑DEHP | -0.1 (-0.3, 0.2) | 0.0 (-0.2, 0.3) | -0.1 (-0.5, 0.2) | 0.1 (-0.3, 0.4) | -0.1 (-0.3, 0.0) | -0.1 (-0.3, 0.2) |
|  |  |  |  |  |  |  |
| **Girls** | (N = 83) | (N = 85) | (N = 83) | (N = 83) | (N = 83) | (N = 83) |
| MnBP | -0.3 (-0.7, 0.0) | -0.1 (-0.5, 0.4) | 0.4 (-0.1, 0.9) | 0.5 (0.0, 0.9) | 0.0 (-0.2, 0.3) | 0.2 (-0.2, 0.7) |
| MiBP | -0.2 (-0.5, 0.1) | -0.1 (-0.5, 0.2) | 0.2 (-0.3, 0.6) | 0.4 (0.0, 0.8) | 0.0 (-0.2, 0.2) | 0.0 (-0.4, 0.4) |
| MEP | -0.1 (-0.4, 0.2) | 0.2 (-0.1, 0.5) | 0.1 (-0.3, 0.5) | -0.1 (-0.4, 0.3) | 0.1 (-0.1, 0.3) | -0.1 (-0.4, 0.2) |
| MCPP | -0.1 (-0.5, 0.2) | 0.2 (-0.2, 0.6) | 0.6 (0.0, 1.1) | 0.5 (0.0, 0.9) | -0.2 (-0.5, 0.1) | 0.0 (-0.5, 0.4) |
| MBzP | -0.2 (-0.5, 0.1) | 0.1 (-0.2, 0.4) | 0.4 (0.0, 0.8) | 0.3 (0.0, 0.7) | -0.1 (-0.3, 0.1) | 0.0 (-0.3, 0.4) |
| ∑DEHP | -0.2 (-0.5, 0.2) | -0.1 (-0.4, 0.3) | 0.1 (-0.3, 0.6) | 0.4 (0.0, 0.8) | 0.0 (-0.2, 0.2) | 0.1 (-0.2, 0.5) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, maternal age at delivery, the total 12-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 7. Sex-specific estimates of standard deviation change in the natural log of each 12-month temperament scale (and 95% confidence interval) for every one natural log µg/L increase in the phthalate metabolite concentration estimated from models with sex-by-phthalate interaction terms.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Distress to limitations** | **Distress and latency to novelty** | **Duration of Orienting** | **Smiling** | **Soothability** |
|   |  |  |  |  |  |  |
| **Boys** | (N = 95) | (N = 95) | (N = 95) | (N = 96) | (N = 95) | (N = 95) |
| MnBP | -0.1 (-0.3, 0.0) | 0.0 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.1) | -0.1 (-0.2, 0.1) |
| MiBP | -0.1 (-0.3, 0.0) | 0.0 (-0.2, 0.1) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.2) | -0.1 (-0.2, 0.1) | -0.1 (-0.2, 0.1) |
| MEP | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | -0.1 (-0.2, 0.0) |
| MCPP | -0.1 (-0.3, 0.1) | 0.0 (-0.2, 0.2) | -0.1 (-0.2, 0.1) | 0.0 (-0.2, 0.2) | -0.1 (-0.3, 0.1) | -0.1 (-0.3, 0.1) |
| MBzP | -0.2 (-0.3, 0.0) | 0.1 (-0.1, 0.2) | -0.1 (-0.2, 0.1) | 0.1 (-0.1, 0.2) | -0.1 (-0.2, 0.1) | 0.0 (-0.2, 0.1) |
| ∑DEHP | -0.1 (-0.2, 0.1) | 0.0 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.2) | -0.1 (-0.3, 0.0) | 0.0 (-0.2, 0.1) |
|  |  |  |  |  |  |  |
| **Girls** | (N = 83) | (N = 85) | (N = 83) | (N = 83) | (N = 83) | (N = 83) |
| MnBP | -0.2 (-0.4, 0.0) | 0.0 (-0.2, 0.2) | 0.2 (0.0, 0.4) | 0.2 (0.0, 0.4) | 0.0 (-0.2, 0.2) | 0.1 (-0.1, 0.3) |
| MiBP | -0.1 (-0.3, 0.1) | -0.1 (-0.2, 0.1) | 0.1 (-0.1, 0.2) | 0.2 (0.0, 0.4) | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.2) |
| MEP | -0.1 (-0.2, 0.1) | 0.1 (-0.1, 0.2) | 0.0 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | 0.1 (-0.1, 0.2) | 0.0 (-0.2, 0.1) |
| MCPP | -0.1 (-0.3, 0.1) | 0.1 (-0.1, 0.3) | 0.2 (0.0, 0.4) | 0.2 (0.0, 0.4) | -0.2 (-0.4, 0.1) | 0.0 (-0.2, 0.2) |
| MBzP | -0.1 (-0.3, 0.1) | 0.1 (-0.1, 0.2) | 0.1 (0.0, 0.3) | 0.1 (0.0, 0.3) | -0.1 (-0.2, 0.1) | 0.0 (-0.2, 0.2) |
| ∑DEHP | -0.1 (-0.3, 0.1) | 0.0 (-0.2, 0.1) | 0.1 (-0.1, 0.2) | 0.2 (0.0, 0.4) | 0.0 (-0.2, 0.2) | 0.1 (-0.1, 0.2) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, maternal age at delivery, the total 12-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 8. Estimates of percent change in 24-month infant temperament scales (and 95% confidence interval) for a 10% increase in phthalate concentration estimated from models with sex-by-phthalate interaction terms.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Anger** | **Social Fear** | **Interest** | **Pleasure** |
|  |  |  |  |  |  |
| **Boys** | (N = 139) | (N = 133) | (N = 125) | (N = 132) | (N = 136) |
| MnBP | 0.0 (-0.2, 0.2) | 0.0 (-0.3, 0.3) | 0.0 (-0.3, 0.4) | -0.1 (-0.3, 0.1) | -0.1 (-0.3, 0.0) |
| MiBP | 0.1 (-0.2, 0.3) | -0.1 (-0.4, 0.2) | 0.1 (-0.3, 0.5) | -0.1 (-0.3, 0.2) | -0.1 (-0.2, 0.1) |
| MEP | 0.2 (0.0, 0.4) | 0.0 (-0.2, 0.2) | 0.1 (-0.2, 0.4) | -0.1 (-0.3, 0.1) | 0.0 (-0.1, 0.1) |
| MCPP | 0.0 (-0.3, 0.2) | 0.0 (-0.4, 0.3) | 0.2 (-0.2, 0.6) | -0.1 (-0.4, 0.1) | -0.2 (-0.4, -0.1) |
| MBzP | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.3) | 0.3 (-0.1, 0.6) | 0.1 (-0.1, 0.3) | -0.2 (-0.3, 0.0) |
| ∑DEHP | 0.1 (-0.1, 0.3) | 0.1 (-0.1, 0.4) | 0.1 (-0.2, 0.5) | -0.1 (-0.3, 0.1) | -0.1 (-0.2, 0.0) |
|  |  |  |  |  |  |
| **Girls** | (N = 116) | (N = 112) | (N = 109) | (N = 107) | (N = 111) |
| MnBP | 0.0 (-0.3, 0.4) | 0.2 (-0.2, 0.6) | 0.2 (-0.3, 0.7) | 0.1 (-0.3, 0.4) | 0.0 (-0.2, 0.2) |
| MiBP | 0.1 (-0.2, 0.4) | 0.3 (-0.1, 0.7) | 0.0 (-0.4, 0.5) | 0.0 (-0.3, 0.3) | 0.1 (-0.1, 0.3) |
| MEP | 0.0 (-0.2, 0.3) | 0.2 (-0.1, 0.5) | 0.1 (-0.3, 0.5) | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.1) |
| MCPP | 0.0 (-0.4, 0.3) | 0.2 (-0.2, 0.7) | 0.4 (-0.2, 0.9) | 0.0 (-0.4, 0.3) | -0.2 (-0.4, 0.0) |
| MBzP | 0.0 (-0.3, 0.2) | 0.0 (-0.3, 0.3) | 0.3 (-0.1, 0.7) | 0.1 (-0.1, 0.3) | -0.1 (-0.2, 0.1) |
| ∑DEHP | 0.0 (-0.3, 0.3) | 0.3 (-0.1, 0.6) | 0.1 (-0.3, 0.6) | 0.1 (-0.2, 0.4) | 0.0 (-0.2, 0.1) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, maternal age at delivery, the total 24-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.

Supplemental Table 9. Sex-specific estimates of standard deviation change in the natural log of each 24-month temperament scale (and 95% confidence interval) for every one natural log µg/L increase in the phthalate metabolite concentration estimated from models with sex-by-phthalate interaction terms.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Metabolite** | **Activity** | **Anger** | **Social Fear** | **Interest** | **Pleasure** |
|  |  |  |  |  |  |
| **Boys** | (N = 139) | (N = 133) | (N = 125) | (N = 132) | (N = 136) |
| MnBP | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.2) | -0.1 (-0.2, 0.0) | -0.1 (-0.2, 0.0) |
| MiBP | 0.1 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | 0.0 (-0.1, 0.2) | 0.0 (-0.2, 0.1) | -0.1 (-0.2, 0.1) |
| MEP | 0.1 (0.0, 0.2) | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.2) | -0.1 (-0.2, 0.0) | 0.0 (-0.1, 0.1) |
| MCPP | 0.0 (-0.2, 0.1) | 0.0 (-0.2, 0.1) | 0.1 (-0.1, 0.3) | -0.1 (-0.2, 0.1) | -0.2 (-0.4, -0.1) |
| MBzP | 0.0 (-0.1, 0.1) | 0.0 (-0.1, 0.1) | 0.1 (0.0, 0.2) | 0.0 (-0.1, 0.2) | -0.1 (-0.3, 0.0) |
| ∑DEHP | 0.1 (-0.1, 0.2) | 0.1 (-0.1, 0.2) | 0.1 (-0.1, 0.2) | -0.1 (-0.2, 0.1) | -0.1 (-0.2, 0.0) |
|  |  |  |  |  |  |
| **Girls** | (N = 116) | (N = 112) | (N = 109) | (N = 107) | (N = 111) |
| MnBP | 0.0 (-0.2, 0.2) | 0.1 (-0.1, 0.3) | 0.1 (-0.1, 0.3) | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.2) |
| MiBP | 0.0 (-0.1, 0.2) | 0.1 (0.0, 0.3) | 0.0 (-0.2, 0.2) | 0.0 (-0.2, 0.2) | 0.1 (-0.1, 0.2) |
| MEP | 0.0 (-0.1, 0.2) | 0.1 (-0.1, 0.2) | 0.0 (-0.1, 0.2) | 0.0 (-0.1, 0.1) | 0.0 (-0.2, 0.1) |
| MCPP | 0.0 (-0.2, 0.2) | 0.1 (-0.1, 0.3) | 0.1 (-0.1, 0.4) | 0.0 (-0.2, 0.2) | -0.2 (-0.4, 0.0) |
| MBzP | 0.0 (-0.1, 0.1) | 0.0 (-0.2, 0.1) | 0.1 (0.0, 0.3) | 0.1 (-0.1, 0.2) | -0.1 (-0.2, 0.1) |
| ∑DEHP | 0.0 (-0.2, 0.2) | 0.1 (0.0, 0.3) | 0.1 (-0.1, 0.2) | 0.1 (-0.1, 0.2) | 0.0 (-0.2, 0.1) |

Models adjusted for maternal alcohol use during pregnancy, marital status during pregnancy, maternal race, breastfeeding, maternal education, maternal age at delivery, the total 24-month HOME score, and smoking during pregnancy, and natural log urine creatinine concentration.