Supplemental Table 3: Adjusted difference in the children’s relative risks for wheeze every six months from birth to age five years, then at ages six and eight years, per log2-transformed increase in cord serum leptin or adiponectin concentrations: additionally adjusted for maternal asthma, maternal allergies, paternal asthma, paternal allergies, pet ownership, child serum cotinine levels and .1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Overall | | Girls | | Boys | | Sex \* Adipokine |
|  | N | RR and 95% CI | N | RR and 95% CI | N | RR and 95% CI | p-value |
| **Leptin and Any Wheeze** |  |  |  |  |  |  |  |
| Adjusted1 | 281 | 0.79 (0.71, 0.87) | 153 | 0.74 (0.66, 0.84) | 128 | 0.87 (0.69, 1.11) | 0.007 |
| Adjusted + maternal asthma | 281 | 0.77 (0.64, 0.91) | 153 | 0.71 (0.57, 0.87) | 128 | 0.85 (0.62, 1.16) | 0.013 |
| Adjusted + maternal allergies | 281 | 0.78 (0.66, 0.92) | 153 | 0.74 (0.59, 0.92) | 128 | 0.84 (0.62, 1.13) | 0.019 |
| Adjusted + paternal asthma | 281 | 0.76 (0.64, 0.91) | 153 | 0.71 (0.57, 0.89) | 128 | 0.79 (0.57, 1.08) | 0.011 |
| Adjusted + paternal allergies | 281 | 0.77 (0.64, 0.91) | 153 | 0.71 (0.57, 0.89) | 128 | 0.82 (0.61, 1.10) | 0.018 |
| Adjusted + pets | 281 | 0.79 (0.64, 0.98) | 153 | 0.71 (0.55, 0.93) | 128 | 0.89 (0.63, 1.27) | 0.018 |
| Adjusted + child cotinine (average of 1 to 4 years) | 281 | 0.76 (0.64, 0.91) | 153 | 0.70 (0.55, 0.89) | 128 | 0.85 (0.60, 1.20) | 0.012 |
| Adjusted + urban/suburban/rural | 281 | 0.76 (0.65, 0.92) | 153 | 0.71 (0.57, 0.89) | \* | | 0.017 |
|  |  |  |  |  |  |  |  |
| **Adiponectin and Any Wheeze** |  |  |  |  |  |  |  |
| Adjusted1 | 281 | 0.84 (0.73, 0.96) | 153 | 0.81 (0.72, 0.91) | 128 | 0.86 (0.64, 1.15) | 0.812 |
| Adjusted + maternal asthma | 281 | 0.81 (0.68, 0.98) | 153 | 0.79 (0.66, 0.93) | 128 | 0.78 (0.54, 1.14) | 0.930 |
| Adjusted + maternal allergies | 281 | 0.83 (0.68, 1.00) | 153 | 0.80 (0.66, 0.98) | 128 | 0.78 (0.55, 1.15) | 0.971 |
| Adjusted + paternal asthma | 281 | 0.78 (0.65, 0.93) | 153 | 0.75 (0.62, 0.90) | 128 | 0.76 (0.51, 1.15) | 0.993 |
| Adjusted + paternal allergies | 281 | 0.78 (0.66, 0.93) | 153 | 0.75 (0.62, 0.91) | 128 | 0.72 (0.49, 1.05) | 0.990 |
| Adjusted + pets | 281 | 0.77 (0.63, 0.93) | 153 | 0.70 (0.57, 0.86) | 128 | 0.84 (0.52, 1.34) | 0.538 |
| Adjusted + child cotinine (average of 1 to 4 years) | 281 | 0.83 (0.69, 1.00) | 153 | 0.78 (0.64, 0.95) | 128 | 0.85 (0.59, 1.20) | 0.712 |
| Adjusted + urban/suburban/rural | 281 | 0.80 (0.67, 0.96) | 153 | 0.76 (0.63, 0.91) | 128 | 0.77 (0.53, 1.13) | 0.880 |

1Adjusted model: We adjusted for neonatal birthweight percentile (<10%, 10-90%, > 90%), gestational age (term or pre-term), maternal education (high school graduate or less, tech school or some college, college graduate or above), pre-pregnancy BMI (<25, 25-30, ≥30 kg/m2), parity (0, 1, ≥2), child’s sex (Male, Female), mother’s race (non-Hispanic White, non-Hispanic Black, other), and birth serum cotinine concentrations (<0.015, 0.015-0.3, >0.3 ηg/mL). We considered p-values for interaction terms < 0.20 as an indication that the association varied by sex.

\* Unable to perform analysis as N for boys born in rural community was too small (N = 3).