## Table 1. Descriptive statistics of sample population

|  |  |  | n (%) or median (IQR) |
| --- | --- | --- | --- |
| Child |  | Female | 761 (49%) |
|  | Urinary F2-isoprostanes (ng/mg creatinine; Year 1) | iPF(2a)-III | -0.42 (-0.72, -0.09) |
|  |  | 2,3-dinor-iPF(2a)-III | 1.76 (1.55, 1.97) |
|  |  | iPF(2a-VI | 2.57 (2.31, 2.87) |
|  |  | 8,12-iso-iPF(2a)-VI | 2.58 (2.17, 2.91) |
|  | Salivary cortisol reactivity (ug/dl; Year 2) | Change between pre- and post-stressor cortisol | 0 (0, 0.01) |
|  |  | Cortisol residualized gain score | -0.09 (-0.21, 0.14) |
|  | sAA reactivity (U/ml; Year 2) | Change between pre- and post-stressor sAA | 1.41 (-0.08, 4.41) |
|  |  | sAA residualized gain score | -25.83 (-51.4, 28.68) |
|  | SAM biomarkers (Year 2) | Mean arterial pressure (mmHg) | 64.44 (60.78, 68.78) |
|  |  | Resting heart rate (bpm) | 109 (99.33, 118.67) |
|  | Glucocorticoid receptor percent methylation | NR3C1 exon 1F promoter | -5.66 (-6.06, -5.32) |
|  |  | NGFI-A transcription factor binding site | -4.48 (-4.65, -4.14) |
|  | Child development (Year 1) | WHO Gross Motor Milestone sum score | 2 (1, 4) |
|  |  | CDI expressive language z-score | 0.02 (-0.54, 0.74) |
|  |  | CDI language understanding z-score | 0.09 (-0.56, 0.78) |
|  | Child development (Year 2) | EASQ communication z-score | 0.37 (-0.39, 0.75) |
|  |  | EASQ motor development z-score | -0.15 (-0.59, 0.87) |
|  |  | EASQ personal-social development z-score | 0.14 (-0.49, 1) |
|  |  | EASQ combined z-score | 0.3 (-0.37, 0.86) |
|  |  | CDI expressive language z-score | 0.27 (-0.57, 0.8) |
|  |  | CDI language understanding z-score | 0.12 (-0.48, 0.74) |
|  | Anthropometry (14 months, Year 1) | Length-for-age Z score | -1.42 (-2.07, -0.76) |
|  |  | Weight-for-age Z score | -1.31 (-2.01, -0.64) |
|  |  | Weight-for-length Z score | -0.9 (-1.56, -0.23) |
|  |  | Head circumference-for-age Z score | -1.79 (-2.35, -1.13) |
|  | Anthropometry (28 months, Year 2) | Length-for-age Z score | -1.56 (-2.28, -0.95) |
|  |  | Weight-for-age Z score | -1.58 (-2.2, -0.94) |
|  |  | Weight-for-length Z score | -1.03 (-1.62, -0.38) |
|  |  | Head circumference-for-age Z score | -1.81 (-2.38, -1.21) |
|  | Diarrhea (14 months, Year 1) | Caregiver-reported 7-day recall | 195 (13%) |
|  | Diarrhea (28 months, Year 2) | Caregiver-reported 7-day recall | 110 (7%) |
| Mother |  | Age (years) | 24 (20, 27) |
|  | Anthropometry at enrollment | Height (cm) | 150.2 (146.8, 154.05) |
|  | Education | Schooling completed (years) | 7 (4, 9) |
|  | Depression at Year 1 | CES-D score | 10 (6, 16) |
|  | Depression at Year 2 | CES-D score | 10 (5, 17) |
|  | Perceived stress at Year 2 | Perceived Stress Scale score | 14 (10, 17.25) |
|  | Intimate partner violence | Any lifetime exposure | 810 (57%) |

## Table 2. Salivary stress biomarkers and child development at Year 2

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value |
| Cortisol Reactivity (ug/dl/min) | EASQ Communication Score | 545 | 0 | 0.01 | 0.23 | 0.25 | 0.02 (-0.07, 0.11) | 0.67 |
|  | EASQ Gross Motor Score | 538 | 0 | 0.01 | -0.09 | -0.11 | -0.01 (-0.13, 0.1) | 0.81 |
|  | EASQ Personal Social Score | 544 | 0 | 0.01 | 0.57 | 0.43 | -0.14 (-0.4, 0.12) | 0.3 |
|  | Combined EASQ | 543 | 0 | 0.01 | 0.13 | 0.13 | -0.01 (-0.1, 0.09) | 0.9 |
|  | CDI expressive language Z-score | 552 | 0 | 0.01 | -0.01 | -0.24 | -0.23 (-0.45, 0) | 0.05 |
|  | CDI comprehension Z-score | 547 | 0 | 0.01 | -0.01 | -0.16 | -0.15 (-0.29, -0.01) | 0.04 |
|  |  |  |  |  |  |  |  |  |
| Pre-stressor Cortisol (ug/dl) | EASQ Communication Score | 588 | -2.51 | -1.66 | 0.32 | 0.24 | -0.07 (-0.32, 0.17) | 0.57 |
|  | EASQ Gross Motor Score | 582 | -2.51 | -1.66 | 0.24 | 0.17 | -0.07 (-0.21, 0.07) | 0.31 |
|  | EASQ Personal Social Score | 588 | -2.51 | -1.66 | 0.57 | 0.47 | -0.1 (-0.33, 0.12) | 0.38 |
|  | Combined EASQ | 587 | -2.51 | -1.66 | 0.27 | 0.09 | -0.17 (-0.38, 0.03) | 0.1 |
|  | CDI expressive language Z-score | 595 | -2.51 | -1.66 | -0.06 | -0.11 | -0.04 (-0.13, 0.05) | 0.35 |
|  | CDI comprehension Z-score | 591 | -2.51 | -1.66 | 0.02 | -0.03 | -0.05 (-0.14, 0.04) | 0.28 |
|  |  |  |  |  |  |  |  |  |
| Post-stressor Cortisol (ug/dl) | EASQ Communication Score | 550 | -2.08 | -0.61 | 0.34 | 0.19 | -0.16 (-0.32, 0.01) | 0.06 |
|  | EASQ Gross Motor Score | 543 | -2.06 | -0.61 | 0.12 | 0.07 | -0.05 (-0.17, 0.07) | 0.42 |
|  | EASQ Personal Social Score | 549 | -2.08 | -0.61 | 0.46 | 0.43 | -0.04 (-0.16, 0.09) | 0.59 |
|  | Combined EASQ | 548 | -2.07 | -0.61 | 0.29 | 0.07 | -0.22 (-0.41, -0.04) | 0.02 |
|  | CDI expressive language Z-score | 557 | -2.06 | -0.61 | -0.09 | -0.16 | -0.07 (-0.18, 0.04) | 0.24 |
|  | CDI comprehension Z-score | 552 | -2.07 | -0.61 | 0.01 | -0.12 | -0.12 (-0.24, -0.01) | 0.04 |
|  |  |  |  |  |  |  |  |  |
| sAA Reactivity (U/ml/min) | EASQ Communication Score | 561 | -0.08 | 4.61 | 0.11 | 0.13 | 0.02 (-0.04, 0.07) | 0.57 |
|  | EASQ Gross Motor Score | 555 | -0.08 | 4.54 | -0.08 | -0.05 | 0.04 (-0.03, 0.1) | 0.26 |
|  | EASQ Personal Social Score | 560 | -0.08 | 4.61 | 0.32 | 0.37 | 0.06 (-0.18, 0.3) | 0.65 |
|  | Combined EASQ | 559 | -0.08 | 4.6 | 0.03 | 0.18 | 0.15 (-0.06, 0.36) | 0.16 |
|  | CDI expressive language Z-score | 568 | -0.08 | 4.52 | -0.2 | -0.18 | 0.02 (-0.03, 0.08) | 0.45 |
|  | CDI comprehension Z-score | 564 | -0.08 | 4.49 | -0.05 | -0.02 | 0.03 (-0.03, 0.09) | 0.29 |
|  |  |  |  |  |  |  |  |  |
| Pre-stressor sAA (U/ml) | EASQ Communication Score | 584 | 3.5 | 4.64 | 0.25 | 0.17 | -0.09 (-0.18, 0.01) | 0.07 |
|  | EASQ Gross Motor Score | 578 | 3.5 | 4.65 | 0.04 | -0.14 | -0.18 (-0.35, 0) | 0.04 |
|  | EASQ Personal Social Score | 584 | 3.5 | 4.65 | 0.45 | 0.43 | -0.02 (-0.23, 0.19) | 0.84 |
|  | Combined EASQ | 583 | 3.5 | 4.65 | 0.23 | 0.04 | -0.19 (-0.4, 0.02) | 0.07 |
|  | CDI expressive language Z-score | 591 | 3.51 | 4.64 | -0.1 | -0.16 | -0.07 (-0.22, 0.08) | 0.39 |
|  | CDI comprehension Z-score | 587 | 3.5 | 4.65 | 0.05 | 0.01 | -0.04 (-0.15, 0.06) | 0.42 |
|  |  |  |  |  |  |  |  |  |
| Post-stressor sAA (U/ml) | EASQ Communication Score | 571 | 3.94 | 5.17 | 0.22 | 0.22 | 0 (-0.1, 0.09) | 0.98 |
|  | EASQ Gross Motor Score | 565 | 3.94 | 5.16 | 0.21 | 0.19 | -0.02 (-0.12, 0.09) | 0.78 |
|  | EASQ Personal Social Score | 570 | 3.94 | 5.17 | 0.45 | 0.47 | 0.02 (-0.08, 0.13) | 0.66 |
|  | Combined EASQ | 569 | 3.94 | 5.17 | 0.18 | 0.19 | 0.01 (-0.09, 0.11) | 0.9 |
|  | CDI expressive language Z-score | 578 | 3.94 | 5.16 | -0.19 | -0.16 | 0.03 (-0.06, 0.13) | 0.53 |
|  | CDI comprehension Z-score | 574 | 3.94 | 5.16 | -0.08 | -0.04 | 0.04 (-0.05, 0.14) | 0.37 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | | | |
| \* P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | | | |

## Table 3. Glucocorticoid receptor methylation and child development at Year 2

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value |
| Mean Overall Percentage Glucocorticoid Receptor Methylation | EASQ Communication Score | 557 | -6.05 | -5.31 | 0.25 | 0.22 | -0.02 (-0.1, 0.06) | 0.58 |
|  | EASQ Gross Motor Score | 551 | -6.05 | -5.3 | -0.06 | -0.05 | 0.01 (-0.08, 0.1) | 0.82 |
|  | EASQ Personal Social Score | 557 | -6.05 | -5.31 | 0.44 | 0.36 | -0.08 (-0.17, 0.01) | 0.07 |
|  | Combined EASQ | 556 | -6.05 | -5.3 | 0.12 | 0.13 | 0.01 (-0.21, 0.23) | 0.95 |
|  | CDI expressive language Z-score | 563 | -6.05 | -5.3 | 0.18 | 0.09 | -0.09 (-0.17, -0.01) | 0.03 |
|  | CDI comprehension Z-score | 559 | -6.05 | -5.3 | 0.1 | 0.01 | -0.09 (-0.19, 0.01) | 0.07 |
|  |  |  |  |  |  |  |  |  |
| Percentage methylation at NGFI-A transcription factor binding site (CpG site #12) | EASQ Communication Score | 339 | -4.65 | -4.16 | 0.04 | 0.02 | -0.02 (-0.13, 0.09) | 0.71 |
|  | EASQ Gross Motor Score | 333 | -4.65 | -4.16 | 0.02 | 0.2 | 0.18 (0, 0.37) | 0.05 |
|  | EASQ Personal Social Score | 339 | -4.65 | -4.16 | 0.35 | 0.36 | 0.01 (-0.11, 0.13) | 0.9 |
|  | Combined EASQ | 338 | -4.65 | -4.16 | 0 | 0.03 | 0.03 (-0.08, 0.14) | 0.62 |
|  | CDI expressive language Z-score | 342 | -4.66 | -4.16 | 0.32 | 0.29 | -0.03 (-0.14, 0.08) | 0.63 |
|  | CDI comprehension Z-score | 339 | -4.66 | -4.16 | -0.13 | -0.2 | -0.07 (-0.18, 0.05) | 0.26 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | | | |
| \* P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | | | |

## Table 4. Urinary isoprostanes and child development at Year 1

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value |
| IPF(2a)-III (ng/mg creatinine) | Sum of 2nd, 4th, 5th, and 6th WHO motor milestones | 571 | -0.73 | -0.09 | 1.84 | 1.79 | -0.05 (-0.37, 0.27) | 0.77 |
|  | CDI expressive language Z-score | 672 | -0.72 | -0.09 | 0.26 | 0.31 | 0.05 (-0.1, 0.2) | 0.52 |
|  | CDI comprehension Z-score | 576 | -0.73 | -0.09 | 0.37 | 0.43 | 0.06 (-0.04, 0.16) | 0.24 |
|  |  |  |  |  |  |  |  |  |
| 2,3-dinor-iPF(2a)-III (ng/mg creatinine) | Sum of 2nd, 4th, 5th, and 6th WHO motor milestones | 571 | 1.54 | 1.97 | 1.81 | 2.09 | 0.27 (0.04, 0.51) | 0.02 |
|  | CDI expressive language Z-score | 672 | 1.55 | 1.97 | 0.25 | 0.27 | 0.01 (-0.09, 0.11) | 0.8 |
|  | CDI comprehension Z-score | 576 | 1.55 | 1.97 | 0.35 | 0.36 | 0.01 (-0.11, 0.12) | 0.89 |
|  |  |  |  |  |  |  |  |  |
| iPF(2a)-VI (ng/mg creatinine) | Sum of 2nd, 4th, 5th, and 6th WHO motor milestones | 571 | 2.3 | 2.87 | 1.92 | 1.92 | 0 (-0.15, 0.15) | 0.98 |
|  | CDI expressive language Z-score | 672 | 2.31 | 2.87 | 0.2 | 0.22 | 0.02 (-0.2, 0.24) | 0.86 |
|  | CDI comprehension Z-score | 576 | 2.3 | 2.87 | 0.38 | 0.43 | 0.05 (-0.08, 0.18) | 0.43 |
|  |  |  |  |  |  |  |  |  |
| 8,12-iso-iPF(2a)-VI (ng/mg creatinine) | Sum of 2nd, 4th, 5th, and 6th WHO motor milestones | 571 | 2.17 | 2.91 | 1.9 | 1.91 | 0.01 (-0.17, 0.19) | 0.94 |
|  | CDI expressive language Z-score | 672 | 2.17 | 2.92 | 0.19 | 0.36 | 0.17 (-0.03, 0.38) | 0.09 |
|  | CDI comprehension Z-score | 576 | 2.18 | 2.91 | 0.29 | 0.44 | 0.15 (0.04, 0.27) | 0.01 |
|  |  |  |  |  |  |  |  |  |
| Combined urinary oxidative stress biomarker score | Sum of 2nd, 4th, 5th, and 6th WHO motor milestones | 571 | 2.48 | 3.54 | 1.88 | 1.96 | 0.09 (-0.11, 0.29) | 0.41 |
|  | CDI expressive language Z-score | 672 | 2.5 | 3.55 | 0.1 | 0.31 | 0.21 (-0.03, 0.44) | 0.08 |
|  | CDI comprehension Z-score | 576 | 2.48 | 3.54 | 0.22 | 0.4 | 0.18 (-0.08, 0.44) | 0.18 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | | | |
| \* P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | | | |

## Table 5. Urinary isoprostanes at Year 1 and child development at Year 2

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value |
| IPF(2a)-III (ng/mg creatinine) | EASQ Communication Score | 551 | -0.74 | -0.09 | 0.19 | 0.21 | 0.01 (-0.07, 0.1) | 0.79 |
|  | EASQ Gross Motor Score | 546 | -0.73 | -0.09 | 0.32 | 0.24 | -0.08 (-0.18, 0.01) | 0.08 |
|  | EASQ Personal Social Score | 551 | -0.73 | -0.09 | 0.42 | 0.41 | 0 (-0.12, 0.11) | 0.97 |
|  | Combined EASQ Score | 550 | -0.73 | -0.09 | 0.23 | 0.21 | -0.01 (-0.1, 0.08) | 0.8 |
|  | CDI expressive language Z-score | 558 | -0.74 | -0.09 | 0 | 0.05 | 0.04 (-0.04, 0.13) | 0.34 |
|  | CDI comprehension Z-score | 554 | -0.73 | -0.09 | 0.07 | 0.13 | 0.06 (-0.03, 0.15) | 0.21 |
|  |  |  |  |  |  |  |  |  |
| 2,3-dinor-iPF(2a)-III (ng/mg creatinine) | EASQ Communication Score | 551 | 1.54 | 1.97 | 0.21 | 0.17 | -0.04 (-0.15, 0.07) | 0.49 |
|  | EASQ Gross Motor Score | 546 | 1.54 | 1.97 | 0.37 | 0.29 | -0.08 (-0.34, 0.18) | 0.55 |
|  | EASQ Personal Social Score | 551 | 1.54 | 1.97 | 0.42 | 0.35 | -0.07 (-0.22, 0.08) | 0.38 |
|  | Combined EASQ Score | 550 | 1.54 | 1.97 | 0.21 | 0.12 | -0.09 (-0.22, 0.05) | 0.21 |
|  | CDI expressive language Z-score | 558 | 1.54 | 1.97 | 0.01 | -0.03 | -0.04 (-0.18, 0.1) | 0.6 |
|  | CDI comprehension Z-score | 554 | 1.54 | 1.97 | 0.08 | 0.05 | -0.03 (-0.15, 0.09) | 0.64 |
|  |  |  |  |  |  |  |  |  |
| iPF(2a)-VI (ng/mg creatinine) | EASQ Communication Score | 551 | 2.3 | 2.87 | 0.18 | 0.1 | -0.08 (-0.21, 0.04) | 0.19 |
|  | EASQ Gross Motor Score | 546 | 2.31 | 2.87 | 0.33 | 0.27 | -0.07 (-0.17, 0.04) | 0.22 |
|  | EASQ Personal Social Score | 551 | 2.31 | 2.87 | 0.42 | 0.28 | -0.14 (-0.25, -0.03) | 0.01 |
|  | Combined EASQ Score | 550 | 2.3 | 2.87 | 0.22 | 0.12 | -0.1 (-0.23, 0.04) | 0.15 |
|  | CDI expressive language Z-score | 558 | 2.3 | 2.87 | 0.01 | -0.07 | -0.08 (-0.17, 0.02) | 0.12 |
|  | CDI comprehension Z-score | 554 | 2.31 | 2.87 | 0.06 | 0.05 | -0.01 (-0.15, 0.13) | 0.91 |
|  |  |  |  |  |  |  |  |  |
| 8,12-iso-iPF(2a)-VI (ng/mg creatinine) | EASQ Communication Score | 551 | 2.16 | 2.91 | 0.2 | 0.26 | 0.06 (-0.07, 0.19) | 0.36 |
|  | EASQ Gross Motor Score | 546 | 2.17 | 2.91 | 0.29 | 0.31 | 0.02 (-0.09, 0.13) | 0.76 |
|  | EASQ Personal Social Score | 551 | 2.17 | 2.91 | 0.41 | 0.42 | 0 (-0.12, 0.12) | 0.97 |
|  | Combined EASQ Score | 550 | 2.17 | 2.91 | 0.21 | 0.25 | 0.04 (-0.1, 0.17) | 0.6 |
|  | CDI expressive language Z-score | 558 | 2.17 | 2.91 | 0.01 | -0.02 | -0.03 (-0.22, 0.16) | 0.76 |
|  | CDI comprehension Z-score | 554 | 2.17 | 2.91 | 0.03 | 0.09 | 0.05 (-0.13, 0.24) | 0.57 |
|  |  |  |  |  |  |  |  |  |
| Combined urinary oxidative stress biomarker score | EASQ Communication Score | 551 | 2.48 | 3.56 | 0.19 | 0.19 | -0.01 (-0.11, 0.1) | 0.9 |
|  | EASQ Gross Motor Score | 546 | 2.49 | 3.55 | 0.32 | 0.27 | -0.06 (-0.17, 0.05) | 0.31 |
|  | EASQ Personal Social Score | 551 | 2.48 | 3.56 | 0.42 | 0.38 | -0.04 (-0.16, 0.08) | 0.49 |
|  | Combined EASQ Score | 550 | 2.48 | 3.55 | 0.23 | 0.19 | -0.04 (-0.15, 0.08) | 0.54 |
|  | CDI expressive language Z-score | 558 | 2.47 | 3.55 | 0 | 0.02 | 0.02 (-0.08, 0.12) | 0.72 |
|  | CDI comprehension Z-score | 554 | 2.49 | 3.54 | 0.05 | 0.11 | 0.06 (-0.05, 0.17) | 0.28 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | | | |
| \* P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | | | |

## Table 6. Urinary isoprostanes and time to WHO motor milestone at Year 1

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | |
|  |  |  |  |  | Hazard Ratio (95% CI) | P-value |
| IPF(2a)-III (ng/mg creatinine) | Time to sitting unsupported | 577 | -0.73 | -0.09 | 0 (0, 727975445160237568) | 0.61 |
|  | Time to crawling | 682 | -0.72 | -0.09 | 1.02 (0.91, 1.14) | 0.76 |
|  | Time to standing with support | 671 | -0.72 | -0.1 | 1.01 (0.88, 1.17) | 0.86 |
|  | Time to walking with support | 670 | -0.72 | -0.1 | 1.03 (0.9, 1.17) | 0.72 |
|  | Time to standing unsupported | 672 | -0.72 | -0.09 | 0.95 (0.65, 1.39) | 0.79 |
|  | Time to walking unsupported | 679 | -0.72 | -0.09 | 1.05 (0.88, 1.25) | 0.6 |
|  |  |  |  |  |  |  |
| 2,3-dinor-iPF(2a)-III (ng/mg creatinine) | Time to sitting unsupported | 577 | 1.55 | 1.97 | 0 (0, 1.18552134902425e+59) | 0.76 |
|  | Time to crawling | 682 | 1.55 | 1.97 | 1 (0.72, 1.37) | 0.98 |
|  | Time to standing with support | 671 | 1.55 | 1.97 | 0.95 (0.81, 1.11) | 0.55 |
|  | Time to walking with support | 670 | 1.55 | 1.97 | 0.97 (0.82, 1.15) | 0.72 |
|  | Time to standing unsupported | 672 | 1.55 | 1.97 | 1.12 (0.93, 1.33) | 0.23 |
|  | Time to walking unsupported | 679 | 1.55 | 1.97 | 1 (0.81, 1.23) | 1 |
|  |  |  |  |  |  |  |
| iPF(2a)-VI (ng/mg creatinine) | Time to sitting unsupported | 577 | 2.3 | 2.87 | 624959704.4 (0, 8.78286913170087e+65) | 0.78 |
|  | Time to crawling | 682 | 2.31 | 2.87 | 1 (0.89, 1.14) | 0.97 |
|  | Time to standing with support | 671 | 2.31 | 2.87 | 0.91 (0.78, 1.06) | 0.22 |
|  | Time to walking with support | 670 | 2.31 | 2.87 | 1.12 (0.88, 1.42) | 0.35 |
|  | Time to standing unsupported | 672 | 2.31 | 2.87 | 0.8 (0.51, 1.26) | 0.35 |
|  | Time to walking unsupported | 679 | 2.31 | 2.87 | 1.02 (0.76, 1.37) | 0.88 |
|  |  |  |  |  |  |  |
| 8,12-iso-iPF(2a)-VI (ng/mg creatinine) | Time to sitting unsupported | 577 | 2.19 | 2.91 | 0.03 (0, 2645605214851898) | 0.87 |
|  | Time to crawling | 682 | 2.17 | 2.92 | 0.98 (0.86, 1.12) | 0.79 |
|  | Time to standing with support | 671 | 2.16 | 2.91 | 0.88 (0.74, 1.04) | 0.12 |
|  | Time to walking with support | 670 | 2.16 | 2.92 | 0.99 (0.8, 1.23) | 0.95 |
|  | Time to standing unsupported | 672 | 2.16 | 2.92 | 1.07 (0.79, 1.45) | 0.69 |
|  | Time to walking unsupported | 679 | 2.17 | 2.91 | 1.12 (0.81, 1.53) | 0.51 |
|  |  |  |  |  |  |  |
| Combined urinary oxidative stress biomarker score | Time to sitting unsupported | 577 | 2.5 | 3.55 | 0 (0, 520427180630980) | 0.52 |
|  | Time to crawling | 682 | 2.49 | 3.54 | 0.99 (0.87, 1.14) | 0.93 |
|  | Time to standing with support | 671 | 2.48 | 3.54 | 1.12 (0.75, 1.69) | 0.59 |
|  | Time to walking with support | 670 | 2.48 | 3.54 | 1 (0.84, 1.2) | 0.98 |
|  | Time to standing unsupported | 672 | 2.48 | 3.54 | 1.2 (0.8, 1.82) | 0.38 |
|  | Time to walking unsupported | 679 | 2.49 | 3.54 | 0.98 (0.79, 1.22) | 0.87 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | |
| \*P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | |
| Hazard ratio could not be estimated for sitting without support since nearly all children had achieved this milestone before time of measurement | | | | | | |

## Table 7. Mean arterial pressure and heart rate and child development at Year 2

| Exposure | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value |
| Mean arterial pressure (mmHg) | EASQ Communication Score | 1196 | 60.89 | 69 | -0.18 | -0.13 | 0.04 (-0.04, 0.12) | 0.29 |
|  | EASQ Gross Motor Score | 1176 | 60.89 | 69 | 0.38 | 0.4 | 0.02 (-0.04, 0.09) | 0.49 |
|  | EASQ Personal Social Score | 1194 | 60.89 | 69 | 0.04 | -0.04 | -0.08 (-0.26, 0.09) | 0.35 |
|  | Combined EASQ | 1191 | 60.89 | 69 | 0.07 | 0.09 | 0.02 (-0.14, 0.17) | 0.85 |
|  | CDI expressive language Z-score | 1209 | 60.89 | 69 | -0.02 | 0.07 | 0.09 (-0.08, 0.25) | 0.31 |
|  | CDI comprehension Z-score | 1195 | 60.94 | 69 | 0.02 | 0.01 | -0.01 (-0.16, 0.15) | 0.92 |
|  |  |  |  |  |  |  |  |  |
| Mean Resting Heart Rate (bpm) | EASQ Communication Score | 1198 | 99.33 | 118.33 | -0.15 | -0.15 | -0.01 (-0.07, 0.06) | 0.89 |
|  | EASQ Gross Motor Score | 1178 | 99.33 | 118.33 | 0.39 | 0.37 | -0.02 (-0.08, 0.05) | 0.58 |
|  | EASQ Personal Social Score | 1196 | 99.33 | 118.33 | 0.03 | -0.07 | -0.1 (-0.25, 0.06) | 0.23 |
|  | Combined EASQ | 1193 | 99.33 | 118.33 | -0.09 | -0.11 | -0.02 (-0.1, 0.06) | 0.68 |
|  | CDI expressive language Z-score | 1211 | 99.33 | 118.5 | 0.01 | -0.03 | -0.04 (-0.11, 0.02) | 0.18 |
|  | CDI comprehension Z-score | 1196 | 99.33 | 118.33 | -0.01 | -0.04 | -0.03 (-0.09, 0.03) | 0.27 |
| Analyses adjusted for child age and child sex, and screened the following covariates for potential inclusion (see Appendix 3 for details) -- child birth order, maternal age, maternal height, maternal education, household food insecurity, number of children in the household, number of individuals living in the compound, distance to primary drinking water source, household assets, prior anthropometry, month of assessment, treatment arm, pre-stressor sample collection time, maternal Center for Epidemiologic Studies Depression Scale score, maternal Perceived Stress Scale score, and maternal lifetime cumulative exposure to intimate partner violence. | | | | | | | | |
| \* P-value < 0.2 after adjusting for multiple comparisons using the Benjamini-Hochberg procedure | | | | | | | | |