## 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) | Cortisol reactivity | 0 (0, 0.01) |
|  |  | Cortisol residualized gain score | -0.09 (-0.21, 0.14) |
|  | Salivary alpha-amylase reactivity (U/ml; Year 2) | Salivary alpha-amylase reactivity | 1.41 (-0.08, 4.41) |
|  |  | Salivary alpha-amylase residualized gain score | -25.83 (-51.4, 28.68) |
|  | Sympathetic-adreno-medullar 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 3. Hypothalamic-pituitary-adrenal axis 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 score | 543 | 0 | 0.01 | 0.13 | 0.13 | -0.01 (-0.1, 0.09) | 0.9 |
|  | CDI expressive language score | 552 | 0 | 0.01 | -0.01 | -0.24 | -0.23 (-0.45, 0) | 0.05 |
|  | CDI comprehension 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 score | 587 | -2.51 | -1.66 | 0.27 | 0.09 | -0.17 (-0.38, 0.03) | 0.1 |
|  | CDI expressive language score | 595 | -2.51 | -1.66 | -0.06 | -0.11 | -0.04 (-0.13, 0.05) | 0.35 |
|  | CDI comprehension 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 score | 548 | -2.07 | -0.61 | 0.29 | 0.07 | -0.22 (-0.41, -0.04) | 0.02 |
|  | CDI expressive language score | 557 | -2.06 | -0.61 | -0.09 | -0.16 | -0.07 (-0.18, 0.04) | 0.24 |
|  | CDI comprehension score | 552 | -2.07 | -0.61 | 0.01 | -0.12 | -0.12 (-0.24, -0.01) | 0.04 |
|  |  |  |  |  |  |  |  |  |
| 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 score | 556 | -6.05 | -5.3 | 0.12 | 0.13 | 0.01 (-0.21, 0.23) | 0.95 |
|  | CDI expressive language score | 563 | -6.05 | -5.3 | 0.18 | 0.09 | -0.09 (-0.17, -0.01) | 0.03 |
|  | CDI comprehension 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 score | 338 | -4.65 | -4.16 | 0 | 0.03 | 0.03 (-0.08, 0.14) | 0.62 |
|  | CDI expressive language score | 342 | -4.66 | -4.16 | 0.32 | 0.29 | -0.03 (-0.14, 0.08) | 0.63 |
|  | CDI comprehension 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. Sympathetic adrenomedullary axis 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 |
| Salivary alpha-amylase 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 score | 559 | -0.08 | 4.6 | 0.03 | 0.18 | 0.15 (-0.06, 0.36) | 0.16 |
|  | CDI expressive language score | 568 | -0.08 | 4.52 | -0.2 | -0.18 | 0.02 (-0.03, 0.08) | 0.45 |
|  | CDI comprehension score | 564 | -0.08 | 4.49 | -0.05 | -0.02 | 0.03 (-0.03, 0.09) | 0.29 |
|  |  |  |  |  |  |  |  |  |
| Pre-stressor salivary alpha-amylase (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 score | 583 | 3.5 | 4.65 | 0.23 | 0.04 | -0.19 (-0.4, 0.02) | 0.07 |
|  | CDI expressive language score | 591 | 3.51 | 4.64 | -0.1 | -0.16 | -0.07 (-0.22, 0.08) | 0.39 |
|  | CDI comprehension score | 587 | 3.5 | 4.65 | 0.05 | 0.01 | -0.04 (-0.15, 0.06) | 0.42 |
|  |  |  |  |  |  |  |  |  |
| Post-stressor salivary alpha-amylase (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 score | 569 | 3.94 | 5.17 | 0.18 | 0.19 | 0.01 (-0.09, 0.11) | 0.9 |
|  | CDI expressive language score | 578 | 3.94 | 5.16 | -0.19 | -0.16 | 0.03 (-0.06, 0.13) | 0.53 |
|  | CDI comprehension score | 574 | 3.94 | 5.16 | -0.08 | -0.04 | 0.04 (-0.05, 0.14) | 0.37 |
|  |  |  |  |  |  |  |  |  |
| 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 score | 1191 | 60.89 | 69 | 0.07 | 0.09 | 0.02 (-0.14, 0.17) | 0.85 |
|  | CDI expressive language score | 1209 | 60.89 | 69 | -0.02 | 0.07 | 0.09 (-0.08, 0.25) | 0.31 |
|  | CDI comprehension 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 score | 1193 | 99.33 | 118.33 | -0.09 | -0.11 | -0.02 (-0.1, 0.06) | 0.68 |
|  | CDI expressive language score | 1211 | 99.33 | 118.5 | 0.01 | -0.03 | -0.04 (-0.11, 0.02) | 0.18 |
|  | CDI comprehension 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 | | | | | | | | |

## Table 5. 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 status 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 6. 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 score | 558 | -0.74 | -0.09 | 0 | 0.05 | 0.04 (-0.04, 0.13) | 0.34 |
|  | CDI comprehension 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 score | 558 | 1.54 | 1.97 | 0.01 | -0.03 | -0.04 (-0.18, 0.1) | 0.6 |
|  | CDI comprehension 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 score | 558 | 2.3 | 2.87 | 0.01 | -0.07 | -0.08 (-0.17, 0.02) | 0.12 |
|  | CDI comprehension 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 score | 558 | 2.17 | 2.91 | 0.01 | -0.02 | -0.03 (-0.22, 0.16) | 0.76 |
|  | CDI comprehension score | 554 | 2.17 | 2.91 | 0.03 | 0.09 | 0.05 (-0.13, 0.24) | 0.57 |
|  |  |  |  |  |  |  |  |  |
| Combined urinary oxidative status 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 score | 558 | 2.47 | 3.55 | 0 | 0.02 | 0.02 (-0.08, 0.12) | 0.72 |
|  | CDI comprehension 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 7. 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 status 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 | | | | | | |