## Table S1 – Maternal Cortisol

| Maternal Cortisol | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Unadjusted | | | | | Adjusted | | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value |
| Pregnancy cortisol | IPF(2a)-III | 488 | 2.52 | 3.26 | -0.58 | -0.58 | 0 (-0.08, 0.07) | 0.93 | 0.97 | -0.49 | -0.51 | -0.01 (-0.1, 0.07) | 0.78 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 488 | 2.52 | 3.26 | 1.60 | 1.60 | 0 (-0.04, 0.04) | 0.97 | 0.97 | 1.64 | 1.65 | 0 (-0.04, 0.05) | 0.91 | 0.94 |
|  | iPF(2α)-VI | 488 | 2.52 | 3.26 | 2.34 | 2.36 | 0.02 (-0.04, 0.08) | 0.51 | 0.97 | 2.48 | 2.52 | 0.03 (-0.03, 0.1) | 0.31 | 0.67 |
|  | 8,12-iso-iPF(2a)-VII | 488 | 2.52 | 3.26 | 2.29 | 2.28 | -0.01 (-0.09, 0.06) | 0.76 | 0.97 | 2.33 | 2.30 | -0.03 (-0.19, 0.12) | 0.71 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 488 | 2.52 | 3.26 | 2.65 | 2.66 | 0 (-0.1, 0.11) | 0.97 | 0.97 | 2.83 | 2.84 | 0 (-0.11, 0.12) | 0.94 | 0.94 |
|  | Mean change in cortisol | 486 | 2.48 | 3.25 | -0.01 | -0.01 | 0 (0, 0.01) | 0.02 | 0.19 | -0.01 | -0.01 | 0 (0, 0.01) | 0.04 | 0.18 |
|  | Pre-stressor salivary cortisol | 534 | 2.53 | 3.27 | -2.17 | -2.21 | -0.03 (-0.24, 0.18) | 0.79 | 0.97 | -2.07 | -2.10 | -0.03 (-0.17, 0.11) | 0.68 | 0.94 |
|  | Post-stressor salivary cortisol | 491 | 2.49 | 3.24 | -1.12 | -1.47 | -0.35 (-0.62, -0.07) | 0.01 | 0.19 | -1.06 | -1.32 | -0.26 (-0.47, -0.05) | 0.02 | 0.11 |
|  | Mean change in sAA | 500 | 2.52 | 3.27 | -2.42 | -2.19 | 0.23 (-0.42, 0.87) | 0.50 | 0.97 | -2.93 | -2.28 | 0.66 (-0.51, 1.82) | 0.27 | 0.67 |
|  | Pre-stressor sAA | 532 | 2.53 | 3.27 | 4.03 | 4.05 | 0.03 (-0.08, 0.13) | 0.64 | 0.97 | 4.03 | 4.05 | 0.03 (-0.09, 0.14) | 0.65 | 0.94 |
|  | Post-stressor sAA | 507 | 2.53 | 3.26 | 4.44 | 4.42 | -0.02 (-0.18, 0.14) | 0.83 | 0.97 | 4.42 | 4.40 | -0.01 (-0.19, 0.16) | 0.88 | 0.94 |
|  | Mean Arterial Pressure | 535 | 2.53 | 3.27 | 64.63 | 64.21 | -0.42 (-1.26, 0.42) | 0.33 | 0.97 | 65.20 | 64.53 | -0.66 (-1.61, 0.28) | 0.17 | 0.64 |
|  | Mean resting heart rate | 537 | 2.53 | 3.27 | 109.98 | 108.04 | -1.94 (-4.15, 0.26) | 0.08 | 0.42 | 112.52 | 109.37 | -3.15 (-5.66, -0.63) | 0.01 | 0.11 |
|  | Overall mean methylation of GCR | 532 | 2.53 | 3.27 | 0.31 | 0.29 | -0.02 (-0.06, 0.02) | 0.28 | 0.97 | 0.44 | 0.41 | -0.03 (-0.07, 0.02) | 0.24 | 0.67 |
|  | Methylation of CpG#12 | 279 | 2.61 | 3.27 | -4.31 | -4.33 | -0.02 (-0.09, 0.05) | 0.55 | 0.97 | -4.38 | -4.40 | -0.02 (-0.1, 0.05) | 0.56 | 0.94 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S2 – Maternal Inflammation

| Maternal Inflammation Biomarkers | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Unadjusted | | | | | Adjusted | | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value |
| CRP | IPF(2a)-III | 493 | 0 | 1.42 | -0.51 | -0.66 | -0.15 (-0.33, 0.04) | 0.11 | 0.5 | -0.49 | -0.5 | -0.01 (-0.11, 0.09) | 0.8 | 0.87 |
|  | 2,3-dinor-iPF(2α)-III | 493 | 0 | 1.42 | 1.61 | 1.57 | -0.04 (-0.1, 0.02) | 0.2 | 0.54 | 1.65 | 1.64 | -0.01 (-0.07, 0.04) | 0.59 | 0.8 |
|  | iPF(2α)-VI | 493 | 0 | 1.42 | 2.38 | 2.34 | -0.04 (-0.09, 0.02) | 0.18 | 0.5 | 2.52 | 2.48 | -0.03 (-0.09, 0.02) | 0.19 | 0.59 |
|  | 8,12-iso-iPF(2a)-VII | 493 | 0 | 1.42 | 2.29 | 2.26 | -0.03 (-0.09, 0.04) | 0.39 | 0.67 | 2.36 | 2.33 | -0.03 (-0.1, 0.03) | 0.33 | 0.64 |
|  | Combined urinary oxidative stress biomarkers | 493 | 0 | 1.42 | 2.82 | 2.48 | -0.34 (-0.59, -0.08) | 0.01 | 0.22 | 2.89 | 2.83 | -0.06 (-0.15, 0.03) | 0.2 | 0.59 |
|  | Mean change in cortisol | 491 | -0.15 | 1.4 | -0.01 | -0.01 | 0 (0, 0) | 0.7 | 0.84 | -0.01 | -0.01 | 0 (0, 0) | 0.75 | 0.87 |
|  | Pre-stressor salivary cortisol | 539 | -0.07 | 1.41 | -2.03 | -2.07 | -0.04 (-0.19, 0.12) | 0.63 | 0.79 | -2.01 | -2.05 | -0.04 (-0.19, 0.11) | 0.58 | 0.8 |
|  | Post-stressor salivary cortisol | 496 | -0.14 | 1.41 | -1.29 | -1.35 | -0.06 (-0.18, 0.06) | 0.33 | 0.67 | -1.23 | -1.28 | -0.04 (-0.16, 0.08) | 0.49 | 0.72 |
|  | Mean change in sAA | 505 | 0 | 1.41 | -2.45 | -2.19 | 0.26 (-0.32, 0.84) | 0.39 | 0.67 | -3.3 | -3.3 | 0 (0, 0) | 0.02 | 0.31 |
|  | Pre-stressor sAA | 537 | -0.05 | 1.41 | 3.97 | 4.07 | 0.1 (0, 0.19) | 0.04 | 0.31 | 3.97 | 4.07 | 0.1 (0, 0.2) | 0.04 | 0.31 |
|  | Post-stressor sAA | 512 | -0.01 | 1.42 | 4.38 | 4.46 | 0.08 (-0.03, 0.18) | 0.16 | 0.5 | 4.37 | 4.44 | 0.07 (-0.04, 0.18) | 0.2 | 0.59 |
|  | Mean Arterial Pressure | 540 | -0.08 | 1.41 | 64.2 | 64.51 | 0.31 (-0.4, 1.03) | 0.4 | 0.67 | 63.76 | 65.29 | 1.53 (0.06, 3) | 0.04 | 0.31 |
|  | Mean resting heart rate | 542 | -0.08 | 1.42 | 109.47 | 109.07 | -0.4 (-2.62, 1.83) | 0.74 | 0.85 | 111.63 | 111.39 | -0.22 (-2.54, 2.09) | 0.86 | 0.89 |
|  | Overall mean methylation of GCR | 537 | -0.05 | 1.42 | 0.31 | 0.29 | -0.02 (-0.06, 0.01) | 0.17 | 0.5 | 0.45 | 0.42 | -0.03 (-0.06, 0.01) | 0.14 | 0.59 |
|  | Methylation of CpG#12 | 282 | -0.04 | 1.32 | -4.38 | -4.33 | 0.05 (-0.05, 0.15) | 0.34 | 0.67 | -4.4 | -4.24 | 0.16 (-0.01, 0.33) | 0.07 | 0.38 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AGP | IPF(2a)-III | 493 | -1.14 | -0.54 | -0.56 | -0.6 | -0.03 (-0.09, 0.03) | 0.3 | 0.65 | -0.48 | -0.51 | -0.02 (-0.08, 0.03) | 0.42 | 0.71 |
|  | 2,3-dinor-iPF(2α)-III | 493 | -1.14 | -0.54 | 1.57 | 1.6 | 0.03 (-0.03, 0.09) | 0.36 | 0.67 | 1.62 | 1.66 | 0.04 (-0.02, 0.1) | 0.22 | 0.59 |
|  | iPF(2α)-VI | 493 | -1.14 | -0.54 | 2.37 | 2.35 | -0.02 (-0.09, 0.04) | 0.42 | 0.67 | 2.5 | 2.47 | -0.03 (-0.09, 0.03) | 0.32 | 0.64 |
|  | 8,12-iso-iPF(2a)-VII | 493 | -1.14 | -0.54 | 2.28 | 2.26 | -0.02 (-0.13, 0.09) | 0.73 | 0.85 | 2.38 | 2.33 | -0.04 (-0.15, 0.07) | 0.44 | 0.72 |
|  | Combined urinary oxidative stress biomarkers | 493 | -1.14 | -0.54 | 2.67 | 2.64 | -0.04 (-0.14, 0.07) | 0.53 | 0.71 | 2.87 | 2.82 | -0.04 (-0.15, 0.07) | 0.47 | 0.72 |
|  | Mean change in cortisol | 491 | -1.14 | -0.58 | -0.01 | -0.01 | 0 (0, 0) | 0.99 | 1 | -0.01 | -0.01 | 0 (0, 0) | 0.83 | 0.89 |
|  | Pre-stressor salivary cortisol | 539 | -1.14 | -0.58 | -2.13 | -2.09 | 0.04 (-0.03, 0.11) | 0.26 | 0.64 | -2.08 | -2.05 | 0.03 (-0.04, 0.1) | 0.47 | 0.72 |
|  | Post-stressor salivary cortisol | 496 | -1.14 | -0.58 | -1.33 | -1.42 | -0.09 (-0.34, 0.15) | 0.47 | 0.68 | -1.23 | -1.34 | -0.1 (-0.33, 0.13) | 0.39 | 0.71 |
|  | Mean change in sAA | 505 | -1.11 | -0.58 | -2.32 | -2.32 | 0 (0, 0) | 1 | 1 | -2.98 | -2.48 | 0.5 (-0.35, 1.35) | 0.25 | 0.59 |
|  | Pre-stressor sAA | 537 | -1.11 | -0.58 | 4 | 4.06 | 0.06 (-0.01, 0.14) | 0.11 | 0.5 | 3.98 | 4.02 | 0.04 (-0.15, 0.22) | 0.71 | 0.87 |
|  | Post-stressor sAA | 512 | -1.11 | -0.58 | 4.38 | 4.45 | 0.07 (-0.02, 0.16) | 0.15 | 0.5 | 4.37 | 4.42 | 0.05 (-0.04, 0.15) | 0.26 | 0.59 |
|  | Mean Arterial Pressure | 540 | -1.12 | -0.58 | 64.24 | 64.48 | 0.25 (-0.38, 0.88) | 0.45 | 0.67 | 64.09 | 64.47 | 0.38 (-0.25, 1) | 0.24 | 0.59 |
|  | Mean resting heart rate | 542 | -1.13 | -0.58 | 110.41 | 107.59 | -2.78 (-6.25, 0.69) | 0.12 | 0.5 | 111.27 | 109.2 | -2.03 (-5.55, 1.5) | 0.26 | 0.59 |
|  | Overall mean methylation of GCR | 537 | -1.11 | -0.58 | 0.32 | 0.29 | -0.03 (-0.06, 0) | 0.03 | 0.26 | 0.45 | 0.42 | -0.03 (-0.06, 0) | 0.04 | 0.31 |
|  | Methylation of CpG#12 | 282 | -1.11 | -0.6 | -4.33 | -4.35 | -0.02 (-0.08, 0.03) | 0.41 | 0.67 | -4.41 | -4.4 | 0.01 (-0.05, 0.07) | 0.74 | 0.87 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IFNG | IPF(2a)-III | 405 | 5.19 | 9.9 | -0.57 | -0.48 | 0.08 (-0.06, 0.23) | 0.26 | 0.64 | -0.53 | -0.42 | 0.11 (-0.04, 0.25) | 0.15 | 0.59 |
|  | 2,3-dinor-iPF(2α)-III | 405 | 5.19 | 9.9 | 1.59 | 1.59 | 0.01 (-0.06, 0.07) | 0.86 | 0.9 | 1.63 | 1.66 | 0.03 (-0.04, 0.09) | 0.41 | 0.71 |
|  | iPF(2α)-VI | 405 | 5.19 | 9.9 | 2.36 | 2.34 | -0.02 (-0.15, 0.11) | 0.76 | 0.85 | 2.44 | 2.41 | -0.03 (-0.16, 0.11) | 0.71 | 0.87 |
|  | 8,12-iso-iPF(2a)-VII | 405 | 5.19 | 9.9 | 2.3 | 2.27 | -0.02 (-0.12, 0.08) | 0.64 | 0.79 | 2.2 | 2.19 | -0.01 (-0.11, 0.08) | 0.78 | 0.87 |
|  | Combined urinary oxidative stress biomarkers | 405 | 5.19 | 9.9 | 2.68 | 2.66 | -0.02 (-0.18, 0.13) | 0.77 | 0.85 | 2.72 | 2.71 | -0.01 (-0.17, 0.15) | 0.9 | 0.92 |
|  | Mean change in cortisol | 467 | 5.22 | 10.04 | -0.01 | -0.01 | 0 (0, 0) | 0.96 | 0.99 | -0.01 | -0.01 | 0 (0, 0) | 0.76 | 0.87 |
|  | Pre-stressor salivary cortisol | 507 | 5.2 | 10.16 | -2.08 | -2.13 | -0.05 (-0.12, 0.02) | 0.16 | 0.5 | -2 | -2.14 | -0.14 (-0.33, 0.06) | 0.16 | 0.59 |
|  | Post-stressor salivary cortisol | 472 | 5.23 | 9.93 | -1.28 | -1.33 | -0.04 (-0.15, 0.06) | 0.44 | 0.67 | -1.26 | -1.26 | 0 (-0.11, 0.11) | 0.98 | 0.98 |
|  | Mean change in sAA | 474 | 5.28 | 10.18 | -1.71 | -2.8 | -1.09 (-1.84, -0.34) | 0 | 0.22 | -1.59 | -2.71 | -1.13 (-1.88, -0.37) | 0 | 0.21 |
|  | Pre-stressor sAA | 506 | 5.2 | 10.1 | 4.06 | 4.02 | -0.04 (-0.12, 0.04) | 0.35 | 0.67 | 4.1 | 4.04 | -0.06 (-0.14, 0.03) | 0.18 | 0.59 |
|  | Post-stressor sAA | 480 | 5.29 | 10.21 | 4.39 | 4.42 | 0.03 (-0.06, 0.13) | 0.48 | 0.69 | 4.46 | 4.44 | -0.02 (-0.24, 0.2) | 0.86 | 0.89 |
|  | Mean Arterial Pressure | 509 | 5.2 | 10.12 | 64.5 | 64.27 | -0.23 (-0.87, 0.41) | 0.49 | 0.69 | 64.44 | 64.19 | -0.25 (-0.9, 0.39) | 0.45 | 0.72 |
|  | Mean resting heart rate | 510 | 5.2 | 10.13 | 110.9 | 106.82 | -4.08 (-7.51, -0.66) | 0.02 | 0.26 | 111.7 | 109.85 | -1.85 (-3.4, -0.29) | 0.02 | 0.31 |
|  | Overall mean methylation of GCR | 507 | 5.26 | 10.16 | 0.32 | 0.29 | -0.03 (-0.06, 0.01) | 0.13 | 0.5 | 0.43 | 0.41 | -0.02 (-0.06, 0.01) | 0.24 | 0.59 |
|  | Methylation of CpG#12 | 264 | 5.18 | 10.47 | -4.23 | -4.43 | -0.2 (-0.36, -0.05) | 0.01 | 0.22 | -4.32 | -4.49 | -0.16 (-0.31, -0.02) | 0.03 | 0.31 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation sum score | IPF(2a)-III | 405 | -0.64 | 0.63 | -0.65 | -0.52 | 0.13 (-0.02, 0.29) | 0.09 | 0.5 | -0.53 | -0.51 | 0.02 (-0.06, 0.09) | 0.65 | 0.87 |
|  | 2,3-dinor-iPF(2α)-III | 405 | -0.64 | 0.63 | 1.52 | 1.59 | 0.06 (-0.04, 0.17) | 0.22 | 0.59 | 1.55 | 1.65 | 0.09 (0, 0.19) | 0.05 | 0.33 |
|  | iPF(2α)-VI | 405 | -0.64 | 0.63 | 2.26 | 2.33 | 0.08 (-0.07, 0.22) | 0.3 | 0.65 | 2.37 | 2.45 | 0.08 (-0.06, 0.22) | 0.25 | 0.59 |
|  | 8,12-iso-iPF(2a)-VII | 405 | -0.64 | 0.63 | 2.27 | 2.31 | 0.04 (-0.03, 0.11) | 0.3 | 0.65 | 2.21 | 2.25 | 0.04 (-0.03, 0.11) | 0.32 | 0.64 |
|  | Combined urinary oxidative stress biomarkers | 405 | -0.64 | 0.63 | 2.53 | 2.7 | 0.17 (-0.06, 0.39) | 0.14 | 0.5 | 2.79 | 2.83 | 0.05 (-0.05, 0.15) | 0.34 | 0.64 |
|  | Mean change in cortisol | 467 | -0.63 | 0.64 | -0.01 | -0.01 | 0 (0, 0) | 0.85 | 0.9 | -0.01 | -0.01 | 0 (0, 0) | 0.77 | 0.87 |
|  | Pre-stressor salivary cortisol | 507 | -0.64 | 0.65 | -2.13 | -2.16 | -0.03 (-0.21, 0.15) | 0.78 | 0.85 | -2.08 | -2.11 | -0.03 (-0.21, 0.15) | 0.77 | 0.87 |
|  | Post-stressor salivary cortisol | 472 | -0.63 | 0.64 | -1.29 | -1.32 | -0.03 (-0.15, 0.08) | 0.57 | 0.74 | -1.27 | -1.24 | 0.02 (-0.1, 0.14) | 0.75 | 0.87 |
|  | Mean change in sAA | 474 | -0.64 | 0.66 | -2.52 | -2.99 | -0.47 (-1.87, 0.93) | 0.52 | 0.71 | -2.38 | -2.89 | -0.51 (-1.89, 0.88) | 0.48 | 0.72 |
|  | Pre-stressor sAA | 506 | -0.64 | 0.65 | 4.03 | 4.01 | -0.02 (-0.12, 0.07) | 0.62 | 0.79 | 4.05 | 4.02 | -0.03 (-0.12, 0.07) | 0.59 | 0.8 |
|  | Post-stressor sAA | 480 | -0.64 | 0.65 | 4.58 | 4.33 | -0.25 (-0.52, 0.02) | 0.07 | 0.47 | 4.59 | 4.34 | -0.25 (-0.52, 0.02) | 0.07 | 0.38 |
|  | Mean Arterial Pressure | 509 | -0.64 | 0.65 | 64.43 | 64.16 | -0.28 (-0.97, 0.42) | 0.45 | 0.67 | 64.46 | 64.06 | -0.4 (-1.12, 0.31) | 0.27 | 0.59 |
|  | Mean resting heart rate | 510 | -0.64 | 0.65 | 110.26 | 107.41 | -2.85 (-5.28, -0.42) | 0.02 | 0.26 | 112.52 | 110.02 | -2.5 (-4.76, -0.23) | 0.03 | 0.31 |
|  | Overall mean methylation of GCR | 507 | -0.63 | 0.65 | 0.3 | 0.26 | -0.04 (-0.09, 0.01) | 0.15 | 0.5 | 0.44 | 0.4 | -0.04 (-0.1, 0.02) | 0.21 | 0.59 |
|  | Methylation of CpG#12 | 264 | -0.64 | 0.79 | -4.22 | -4.37 | -0.15 (-0.28, -0.01) | 0.03 | 0.27 | -4.34 | -4.44 | -0.1 (-0.23, 0.03) | 0.12 | 0.59 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S3 – Maternal Nutrition

| Maternal Nutrition Biomarkers | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Unadjusted | | | | | Adjusted | | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value |
| Vitamin D | IPF(2a)-III | 493 | 32.58 | 54.97 | -0.57 | -0.56 | 0.02 (-0.09, 0.12) | 0.76 | 1 | -0.49 | -0.46 | 0.03 (-0.08, 0.14) | 0.62 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 493 | 32.58 | 54.97 | 1.59 | 1.61 | 0.03 (-0.01, 0.06) | 0.2 | 1 | 1.63 | 1.66 | 0.02 (-0.01, 0.06) | 0.23 | 0.94 |
|  | iPF(2α)-VI | 493 | 32.58 | 54.97 | 2.35 | 2.36 | 0.01 (-0.05, 0.06) | 0.78 | 1 | 2.48 | 2.49 | 0.01 (-0.04, 0.06) | 0.74 | 0.94 |
|  | 8,12-iso-iPF(2a)-VII | 493 | 32.58 | 54.97 | 2.28 | 2.26 | -0.02 (-0.09, 0.05) | 0.59 | 1 | 2.33 | 2.31 | -0.02 (-0.09, 0.06) | 0.64 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 493 | 32.58 | 54.97 | 2.66 | 2.68 | 0.02 (-0.1, 0.14) | 0.76 | 1 | 2.86 | 2.88 | 0.02 (-0.13, 0.17) | 0.78 | 0.94 |
|  | Mean change in cortisol | 491 | 32.53 | 55.39 | -0.01 | -0.01 | 0 (0, 0) | 0.56 | 1 | -0.01 | -0.01 | 0 (0, 0) | 0.89 | 0.98 |
|  | Pre-stressor salivary cortisol | 539 | 32.59 | 55.36 | -2.1 | -2.11 | -0.01 (-0.09, 0.07) | 0.84 | 1 | -2.05 | -2.07 | -0.02 (-0.1, 0.06) | 0.64 | 0.94 |
|  | Post-stressor salivary cortisol | 496 | 32.34 | 55.34 | -1.12 | -1.26 | -0.14 (-0.43, 0.15) | 0.35 | 1 | -1.16 | -1.19 | -0.03 (-0.3, 0.25) | 0.85 | 0.98 |
|  | Mean change in sAA | 505 | 32.17 | 54.97 | -2.32 | -2.32 | 0 (0, 0) | 1 | 1 | -3.05 | -3.04 | 0.01 (-0.02, 0.04) | 0.5 | 0.94 |
|  | Pre-stressor sAA | 537 | 32.43 | 55.3 | 4.02 | 4.08 | 0.06 (-0.04, 0.16) | 0.22 | 1 | 4.01 | 4.05 | 0.05 (-0.05, 0.15) | 0.36 | 0.94 |
|  | Post-stressor sAA | 512 | 32.22 | 55.31 | 4.42 | 4.43 | 0.01 (-0.11, 0.13) | 0.89 | 1 | 4.4 | 4.42 | 0.03 (-0.09, 0.14) | 0.64 | 0.94 |
|  | Mean Arterial Pressure | 540 | 32.41 | 55.34 | 64.86 | 63.6 | -1.26 (-1.98, -0.54) | 0 | 0.04 | 64.96 | 63.71 | -1.26 (-1.98, -0.53) | 0 | 0.04 |
|  | Mean resting heart rate | 542 | 32.45 | 55.34 | 108.98 | 108.9 | -0.08 (-1.91, 1.76) | 0.94 | 1 | 110.88 | 110.73 | -0.15 (-1.98, 1.67) | 0.88 | 0.98 |
|  | Overall mean methylation of GCR | 537 | 32.53 | 55.35 | 0.3 | 0.29 | -0.01 (-0.04, 0.03) | 0.7 | 1 | 0.43 | 0.43 | 0 (-0.03, 0.03) | 1 | 1 |
|  | Methylation of CpG#12 | 282 | 34.13 | 56.17 | -4.36 | -4.29 | 0.07 (-0.03, 0.17) | 0.19 | 1 | -4.37 | -4.28 | 0.08 (-0.02, 0.18) | 0.1 | 0.87 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ferritin | IPF(2a)-III | 493 | 2.52 | 3.89 | -0.61 | -0.6 | 0.01 (-0.1, 0.12) | 0.87 | 1 | -0.52 | -0.51 | 0.02 (-0.1, 0.13) | 0.79 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 493 | 2.52 | 3.89 | 1.6 | 1.6 | 0 (-0.05, 0.05) | 0.99 | 1 | 1.65 | 1.64 | -0.01 (-0.06, 0.04) | 0.73 | 0.94 |
|  | iPF(2α)-VI | 493 | 2.52 | 3.89 | 2.36 | 2.34 | -0.03 (-0.11, 0.06) | 0.55 | 1 | 2.5 | 2.48 | -0.03 (-0.11, 0.05) | 0.51 | 0.94 |
|  | 8,12-iso-iPF(2a)-VII | 493 | 2.52 | 3.89 | 2.28 | 2.25 | -0.03 (-0.13, 0.07) | 0.52 | 1 | 2.39 | 2.36 | -0.03 (-0.13, 0.07) | 0.53 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 493 | 2.52 | 3.89 | 2.64 | 2.62 | -0.01 (-0.17, 0.14) | 0.87 | 1 | 2.85 | 2.85 | 0 (-0.16, 0.15) | 0.96 | 1 |
|  | Mean change in cortisol | 491 | 2.51 | 3.84 | -0.01 | -0.01 | 0 (0, 0) | 0.08 | 0.81 | -0.01 | -0.01 | 0 (0, 0) | 0.06 | 0.87 |
|  | Pre-stressor salivary cortisol | 539 | 2.53 | 3.82 | -2.12 | -2.09 | 0.04 (-0.05, 0.13) | 0.44 | 1 | -2.07 | -2.05 | 0.02 (-0.07, 0.12) | 0.64 | 0.94 |
|  | Post-stressor salivary cortisol | 496 | 2.51 | 3.83 | -1.36 | -1.29 | 0.08 (-0.06, 0.21) | 0.28 | 1 | -1.31 | -1.19 | 0.13 (-0.01, 0.27) | 0.07 | 0.87 |
|  | Mean change in sAA | 505 | 2.53 | 3.82 | -1.5 | -2.95 | -1.46 (-2.57, -0.34) | 0.01 | 0.31 | -1.91 | -3.14 | -1.23 (-2.33, -0.13) | 0.03 | 0.87 |
|  | Pre-stressor sAA | 537 | 2.52 | 3.81 | 4.03 | 4.04 | 0.01 (-0.1, 0.12) | 0.87 | 1 | 4.03 | 4.03 | 0 (-0.11, 0.12) | 0.98 | 1 |
|  | Post-stressor sAA | 512 | 2.53 | 3.82 | 4.39 | 4.44 | 0.05 (-0.09, 0.18) | 0.52 | 1 | 4.4 | 4.41 | 0.01 (-0.12, 0.14) | 0.87 | 0.98 |
|  | Mean Arterial Pressure | 540 | 2.52 | 3.81 | 64.12 | 64.59 | 0.47 (-0.37, 1.3) | 0.28 | 1 | 64.15 | 64.66 | 0.52 (-0.34, 1.38) | 0.24 | 0.94 |
|  | Mean resting heart rate | 542 | 2.52 | 3.81 | 109.07 | 108.81 | -0.26 (-2.37, 1.86) | 0.82 | 1 | 110.43 | 111.19 | 0.75 (-1.45, 2.95) | 0.51 | 0.94 |
|  | Overall mean methylation of GCR | 537 | 2.53 | 3.81 | 0.29 | 0.3 | 0.01 (-0.03, 0.05) | 0.78 | 1 | 0.42 | 0.43 | 0.02 (-0.02, 0.06) | 0.42 | 0.94 |
|  | Methylation of CpG#12 | 282 | 2.51 | 3.89 | -4.32 | -4.34 | -0.02 (-0.12, 0.08) | 0.69 | 1 | -4.35 | -4.31 | 0.04 (-0.05, 0.13) | 0.39 | 0.94 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sTfR | IPF(2a)-III | 493 | 1.29 | 1.7 | -0.59 | -0.58 | 0.02 (-0.05, 0.08) | 0.63 | 1 | -0.5 | -0.49 | 0.01 (-0.06, 0.08) | 0.76 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 493 | 1.29 | 1.7 | 1.61 | 1.59 | -0.01 (-0.05, 0.02) | 0.54 | 1 | 1.66 | 1.64 | -0.02 (-0.06, 0.02) | 0.4 | 0.94 |
|  | iPF(2α)-VI | 493 | 1.29 | 1.7 | 2.36 | 2.35 | -0.01 (-0.06, 0.05) | 0.8 | 1 | 2.49 | 2.49 | 0 (-0.06, 0.05) | 0.94 | 1 |
|  | 8,12-iso-iPF(2a)-VII | 493 | 1.29 | 1.7 | 2.28 | 2.27 | -0.01 (-0.07, 0.05) | 0.82 | 1 | 2.32 | 2.3 | -0.02 (-0.09, 0.05) | 0.67 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 493 | 1.29 | 1.7 | 2.66 | 2.65 | -0.01 (-0.11, 0.08) | 0.81 | 1 | 2.86 | 2.84 | -0.02 (-0.12, 0.08) | 0.73 | 0.94 |
|  | Mean change in cortisol | 491 | 1.29 | 1.69 | -0.01 | -0.01 | 0 (0, 0) | 0.17 | 1 | -0.01 | -0.01 | 0 (0, 0) | 0.17 | 0.94 |
|  | Pre-stressor salivary cortisol | 539 | 1.3 | 1.7 | -2.19 | -2.11 | 0.09 (-0.08, 0.26) | 0.3 | 1 | -2.12 | -2.04 | 0.08 (-0.08, 0.25) | 0.32 | 0.94 |
|  | Post-stressor salivary cortisol | 496 | 1.29 | 1.7 | -1.32 | -1.32 | 0 (0, 0) | 1 | 1 | -1.22 | -1.3 | -0.08 (-0.18, 0.02) | 0.13 | 0.94 |
|  | Mean change in sAA | 505 | 1.3 | 1.72 | -2.61 | -2.06 | 0.55 (0, 1.1) | 0.05 | 0.76 | -3.38 | -3.38 | 0 (-0.01, 0) | 0.75 | 0.94 |
|  | Pre-stressor sAA | 537 | 1.3 | 1.71 | 4.02 | 4.05 | 0.03 (-0.06, 0.11) | 0.59 | 1 | 4.05 | 4.07 | 0.03 (-0.06, 0.12) | 0.56 | 0.94 |
|  | Post-stressor sAA | 512 | 1.3 | 1.71 | 4.43 | 4.43 | -0.01 (-0.11, 0.09) | 0.91 | 1 | 4.4 | 4.42 | 0.02 (-0.08, 0.12) | 0.71 | 0.94 |
|  | Mean Arterial Pressure | 540 | 1.3 | 1.71 | 64.45 | 64.34 | -0.11 (-0.76, 0.55) | 0.77 | 1 | 64.52 | 64.39 | -0.13 (-0.79, 0.54) | 0.72 | 0.94 |
|  | Mean resting heart rate | 542 | 1.3 | 1.71 | 108.93 | 108.93 | 0 (0, 0) | 1 | 1 | 111.53 | 109.34 | -2.18 (-4.78, 0.43) | 0.1 | 0.87 |
|  | Overall mean methylation of GCR | 537 | 1.3 | 1.71 | 0.29 | 0.3 | 0.02 (-0.02, 0.05) | 0.33 | 1 | 0.42 | 0.44 | 0.01 (-0.02, 0.04) | 0.44 | 0.94 |
|  | Methylation of CpG#12 | 282 | 1.3 | 1.71 | -4.32 | -4.36 | -0.04 (-0.1, 0.02) | 0.14 | 1 | -4.31 | -4.36 | -0.05 (-0.11, 0) | 0.07 | 0.87 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RBP | IPF(2a)-III | 493 | 0.13 | 0.52 | -0.65 | -0.58 | 0.07 (-0.08, 0.22) | 0.36 | 1 | -0.55 | -0.49 | 0.06 (-0.1, 0.21) | 0.49 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 493 | 0.13 | 0.52 | 1.55 | 1.63 | 0.08 (-0.01, 0.17) | 0.08 | 0.81 | 1.6 | 1.63 | 0.03 (-0.05, 0.11) | 0.5 | 0.94 |
|  | iPF(2α)-VI | 493 | 0.13 | 0.52 | 2.37 | 2.35 | -0.02 (-0.07, 0.03) | 0.45 | 1 | 2.47 | 2.5 | 0.03 (-0.1, 0.16) | 0.69 | 0.94 |
|  | 8,12-iso-iPF(2a)-VII | 493 | 0.13 | 0.52 | 2.14 | 2.31 | 0.17 (0, 0.33) | 0.05 | 0.76 | 2.34 | 2.32 | -0.02 (-0.08, 0.04) | 0.46 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 493 | 0.13 | 0.52 | 2.51 | 2.69 | 0.18 (-0.05, 0.41) | 0.12 | 1 | 2.77 | 2.87 | 0.11 (-0.11, 0.33) | 0.34 | 0.94 |
|  | Mean change in cortisol | 491 | 0.12 | 0.51 | -0.01 | -0.01 | 0 (0, 0) | 0.49 | 1 | -0.01 | -0.01 | 0 (0, 0) | 0.45 | 0.94 |
|  | Pre-stressor salivary cortisol | 539 | 0.12 | 0.52 | -2.11 | -2.09 | 0.01 (-0.05, 0.08) | 0.69 | 1 | -2.07 | -2.05 | 0.02 (-0.05, 0.09) | 0.61 | 0.94 |
|  | Post-stressor salivary cortisol | 496 | 0.12 | 0.51 | -1.32 | -1.32 | 0 (0, 0) | 1 | 1 | -1.27 | -1.25 | 0.01 (-0.08, 0.11) | 0.8 | 0.94 |
|  | Mean change in sAA | 505 | 0.12 | 0.51 | -2.32 | -2.32 | 0 (0, 0) | 1 | 1 | -3.37 | -3.38 | -0.01 (-0.03, 0.01) | 0.4 | 0.94 |
|  | Pre-stressor sAA | 537 | 0.12 | 0.52 | 4.01 | 4.06 | 0.04 (-0.04, 0.13) | 0.32 | 1 | 4 | 4.05 | 0.05 (-0.03, 0.14) | 0.23 | 0.94 |
|  | Post-stressor sAA | 512 | 0.12 | 0.51 | 4.41 | 4.44 | 0.03 (-0.07, 0.13) | 0.53 | 1 | 4.39 | 4.42 | 0.03 (-0.07, 0.13) | 0.6 | 0.94 |
|  | Mean Arterial Pressure | 540 | 0.12 | 0.51 | 64.6 | 64.21 | -0.39 (-1.01, 0.24) | 0.23 | 1 | 64.61 | 64.2 | -0.41 (-1.04, 0.22) | 0.21 | 0.94 |
|  | Mean resting heart rate | 542 | 0.12 | 0.52 | 110.82 | 110.23 | -0.47 (-4.67, 3.73) | 0.84 | 1 | 112.27 | 111.44 | -0.73 (-4.88, 3.42) | 0.74 | 0.94 |
|  | Overall mean methylation of GCR | 537 | 0.12 | 0.51 | 0.29 | 0.3 | 0.02 (-0.01, 0.05) | 0.26 | 1 | 0.42 | 0.43 | 0.02 (-0.01, 0.04) | 0.32 | 0.94 |
|  | Methylation of CpG#12 | 282 | 0.13 | 0.53 | -4.34 | -4.33 | 0.01 (-0.07, 0.08) | 0.86 | 1 | -4.35 | -4.34 | 0 (-0.07, 0.07) | 0.99 | 1 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S4 – Maternal Estriol

| Estriol | Outcome | N | 25th Percentile | 75th Percentile | Outcome, 75th Percentile v. 25th Percentile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Unadjusted | | | | | Adjusted | | | | |
|  |  |  |  |  | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value | Predicted Outcome at 25th Percentile | Predicted Outcome at 75th Percentile | Coefficient (95% CI) | P-value | FDR Corrected P-value |
| Estriol | IPF(2a)-III | 488 | 0.72 | 1.71 | -0.59 | -0.58 | 0.01 (-0.05, 0.07) | 0.73 | 1 | -0.51 | -0.49 | 0.01 (-0.06, 0.09) | 0.75 | 0.94 |
|  | 2,3-dinor-iPF(2α)-III | 488 | 0.72 | 1.71 | 1.63 | 1.59 | -0.03 (-0.09, 0.02) | 0.24 | 1 | 1.69 | 1.65 | -0.04 (-0.11, 0.03) | 0.27 | 0.90 |
|  | iPF(2α)-VI | 488 | 0.72 | 1.71 | 2.36 | 2.36 | 0 (-0.05, 0.04) | 0.88 | 1 | 2.48 | 2.51 | 0.02 (-0.03, 0.08) | 0.46 | 0.94 |
|  | 8,12-iso-iPF(2a)-VII | 488 | 0.72 | 1.71 | 2.28 | 2.32 | 0.04 (-0.14, 0.21) | 0.69 | 1 | 2.21 | 2.24 | 0.03 (-0.16, 0.21) | 0.81 | 0.94 |
|  | Combined urinary oxidative stress biomarkers | 488 | 0.72 | 1.71 | 2.67 | 2.65 | -0.02 (-0.1, 0.06) | 0.67 | 1 | 2.77 | 2.85 | 0.08 (-0.09, 0.26) | 0.36 | 0.90 |
|  | Mean change in cortisol | 486 | 0.73 | 1.71 | -0.01 | -0.01 | 0 (0, 0) | 0.41 | 1 | -0.01 | -0.01 | 0 (0, 0) | 0.83 | 0.94 |
|  | Pre-stressor salivary cortisol | 534 | 0.78 | 1.73 | -2.07 | -2.09 | -0.02 (-0.1, 0.06) | 0.65 | 1 | -2.08 | -2.09 | -0.01 (-0.11, 0.08) | 0.82 | 0.94 |
|  | Post-stressor salivary cortisol | 491 | 0.74 | 1.71 | -1.29 | -1.36 | -0.07 (-0.17, 0.03) | 0.16 | 1 | -1.23 | -1.27 | -0.03 (-0.15, 0.08) | 0.59 | 0.94 |
|  | Mean change in sAA | 500 | 0.78 | 1.74 | -2.31 | -2.31 | 0 (0, 0) | 1.00 | 1 | -3.02 | -3.03 | -0.01 (-0.32, 0.3) | 0.94 | 0.94 |
|  | Pre-stressor sAA | 532 | 0.78 | 1.74 | 4.04 | 4.04 | 0 (-0.25, 0.25) | 0.99 | 1 | 4.04 | 4.06 | 0.02 (-0.25, 0.28) | 0.90 | 0.94 |
|  | Post-stressor sAA | 507 | 0.78 | 1.73 | 4.44 | 4.44 | 0 (-0.09, 0.09) | 0.97 | 1 | 4.40 | 4.44 | 0.03 (-0.07, 0.14) | 0.54 | 0.94 |
|  | Mean Arterial Pressure | 535 | 0.78 | 1.74 | 64.38 | 64.25 | -0.12 (-0.71, 0.47) | 0.69 | 1 | 64.51 | 64.08 | -0.43 (-1.16, 0.29) | 0.24 | 0.90 |
|  | Mean resting heart rate | 537 | 0.78 | 1.73 | 109.32 | 108.32 | -0.99 (-2.47, 0.48) | 0.19 | 1 | 111.61 | 109.43 | -2.18 (-4, -0.37) | 0.02 | 0.27 |
|  | Overall mean methylation of GCR | 532 | 0.78 | 1.73 | 0.30 | 0.29 | -0.01 (-0.04, 0.02) | 0.54 | 1 | 0.43 | 0.41 | -0.02 (-0.06, 0.02) | 0.33 | 0.90 |
|  | Methylation of CpG#12 | 279 | 0.86 | 1.76 | -4.32 | -4.33 | -0.01 (-0.07, 0.05) | 0.76 | 1 | -4.38 | -4.43 | -0.05 (-0.12, 0.02) | 0.14 | 0.90 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |