## Table S1

| 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 (nmol/L) | Telomeres Year 1 | 466 | 32.56 | 54.97 | -0.02 | -0.03 | -0.01 (-0.14, 0.13) | 0.91 | 0.99 | -0.05 | -0.09 | -0.05 (-0.17, 0.08) | 0.48 | 0.65 |
|  | Telomeres Year 2 | 515 | 32.56 | 55.49 | -0.35 | -0.33 | 0.02 (-0.11, 0.15) | 0.77 | 0.98 | -0.15 | -0.3 | -0.15 (-0.3, 0.01) | 0.07 | 0.5 |
|  | Telomere Change Year 1 and Year 2 | 403 | 32.59 | 55.47 | -0.34 | -0.36 | -0.02 (-0.15, 0.1) | 0.74 | 0.98 | 0.54 | 0.05 | -0.49 (-0.96, -0.02) | 0.04 | 0.47 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Log ferritin | Telomeres Year 1 | 466 | 2.56 | 3.91 | -0.04 | -0.02 | 0.02 (-0.13, 0.17) | 0.8 | 0.98 | -0.08 | -0.07 | 0.01 (-0.15, 0.16) | 0.93 | 0.93 |
|  | Telomeres Year 2 | 515 | 2.54 | 3.82 | -0.48 | -0.32 | 0.16 (-0.08, 0.4) | 0.2 | 0.82 | -0.31 | -0.16 | 0.14 (-0.04, 0.33) | 0.12 | 0.5 |
|  | Telomere Change Year 1 and Year 2 | 403 | 2.53 | 3.86 | -0.51 | -0.42 | 0.08 (-0.21, 0.37) | 0.59 | 0.98 | 0.32 | 0.48 | 0.16 (-0.07, 0.39) | 0.17 | 0.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Log sTfR | Telomeres Year 1 | 466 | 1.29 | 1.68 | -0.03 | -0.03 | 0 (0, 0) | 1 | 1 | -0.18 | -0.07 | 0.11 (-0.2, 0.42) | 0.48 | 0.65 |
|  | Telomeres Year 2 | 515 | 1.3 | 1.7 | -0.32 | -0.38 | -0.05 (-0.15, 0.04) | 0.28 | 0.82 | -0.19 | -0.17 | 0.03 (-0.3, 0.35) | 0.87 | 0.91 |
|  | Telomere Change Year 1 and Year 2 | 403 | 1.3 | 1.69 | -0.41 | -0.31 | 0.1 (-0.23, 0.43) | 0.56 | 0.98 | 0.19 | 0.24 | 0.05 (-0.13, 0.22) | 0.62 | 0.78 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Log RBP | Telomeres Year 1 | 466 | 0.13 | 0.52 | -0.06 | 0.03 | 0.09 (-0.05, 0.23) | 0.2 | 0.82 | -0.13 | 0.02 | 0.14 (-0.05, 0.34) | 0.16 | 0.5 |
|  | Telomeres Year 2 | 515 | 0.13 | 0.51 | -0.38 | -0.25 | 0.12 (-0.13, 0.38) | 0.34 | 0.82 | -0.34 | -0.17 | 0.17 (-0.06, 0.4) | 0.14 | 0.5 |
|  | Telomere Change Year 1 and Year 2 | 403 | 0.14 | 0.52 | -0.32 | -0.36 | -0.04 (-0.16, 0.08) | 0.54 | 0.98 | 0.35 | 0.27 | -0.08 (-0.24, 0.08) | 0.35 | 0.57 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low Vitamin A | Telomeres Year 1 | 466 | 0 | 1 | -0.03 | -0.03 | 0 (-0.24, 0.23) | 0.98 | 1 | -0.08 | -0.06 | 0.02 (-0.22, 0.26) | 0.87 | 0.91 |
|  | Telomeres Year 2 | 515 | 0 | 1 | -0.35 | -0.36 | -0.01 (-0.22, 0.2) | 0.91 | 0.99 | -0.21 | -0.18 | 0.03 (-0.25, 0.3) | 0.87 | 0.91 |
|  | Telomere Change Year 1 and Year 2 | 403 | 0 | 1 | -0.36 | -0.3 | 0.06 (-0.18, 0.3) | 0.63 | 0.98 | 0.28 | 0.46 | 0.18 (-0.15, 0.51) | 0.3 | 0.57 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vit A Deficiency | Telomeres Year 1 | 466 | 0 | 1 | -0.02 | -0.3 | -0.28 (-0.98, 0.43) | 0.45 | 0.98 | -0.07 | -0.5 | -0.42 (-1.17, 0.33) | 0.27 | 0.57 |
|  | Telomeres Year 2 | 515 | 0 | 1 | -0.34 | -1.11 | -0.77 (-1.33, -0.22) | 0.01 | 0.15 | -0.26 | -1.01 | -0.75 (-1.42, -0.09) | 0.03 | 0.47 |
|  | Telomere Change Year 1 and Year 2 | 403 | 0 | 1 | -0.35 | -1.25 | -0.9 (-1.6, -0.19) | 0.01 | 0.15 | 0.23 | -0.31 | -0.54 (-1.35, 0.27) | 0.19 | 0.51 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron Deficiency | Telomeres Year 1 | 466 | 0 | 1 | 0 | -0.12 | -0.11 (-0.33, 0.1) | 0.31 | 0.82 | -0.05 | -0.15 | -0.1 (-0.32, 0.11) | 0.35 | 0.57 |
|  | Telomeres Year 2 | 515 | 0 | 1 | -0.33 | -0.46 | -0.13 (-0.32, 0.06) | 0.18 | 0.82 | -0.17 | -0.38 | -0.21 (-0.46, 0.03) | 0.09 | 0.5 |
|  | Telomere Change Year 1 and Year 2 | 403 | 0 | 1 | -0.36 | -0.33 | 0.03 (-0.19, 0.25) | 0.82 | 0.98 | 0.38 | 0.24 | -0.14 (-0.45, 0.17) | 0.38 | 0.57 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vitamin D Deficiency | Telomeres Year 1 | 466 | 0 | 1 | -0.01 | -0.13 | -0.13 (-0.36, 0.11) | 0.29 | 0.82 | -0.07 | -0.09 | -0.02 (-0.26, 0.21) | 0.87 | 0.91 |
|  | Telomeres Year 2 | 515 | 0 | 1 | -0.33 | -0.43 | -0.1 (-0.31, 0.11) | 0.34 | 0.82 | -0.24 | -0.1 | 0.14 (-0.14, 0.42) | 0.34 | 0.57 |
|  | Telomere Change Year 1 and Year 2 | 403 | 0 | 1 | -0.36 | -0.32 | 0.04 (-0.2, 0.28) | 0.74 | 0.98 | 0.15 | 0.35 | 0.2 (-0.15, 0.55) | 0.27 | 0.57 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S2

| Serum Stress Biomarker | 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 |
| Ln pregnancy cortisol | Telomeres Year 1 | 462 | 2.48 | 3.26 | 0.00 | -0.20 | -0.2 (-0.52, 0.13) | 0.24 | 0.36 | -0.09 | -0.30 | -0.21 (-0.52, 0.11) | 0.20 | 0.6 |
|  | Telomeres Year 2 | 510 | 2.52 | 3.26 | -0.28 | -0.39 | -0.11 (-0.25, 0.03) | 0.13 | 0.36 | -0.24 | -0.18 | 0.06 (-0.11, 0.24) | 0.49 | 0.7 |
|  | Telomere Change Year 1 and Year 2 | 399 | 2.48 | 3.26 | -0.33 | -0.39 | -0.06 (-0.23, 0.11) | 0.52 | 0.52 | 0.07 | 0.15 | 0.08 (-0.33, 0.49) | 0.70 | 0.7 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S3

| 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 |
| Log CRP | Telomeres Year 1 | 466 | -0.09 | 1.41 | -0.02 | -0.03 | -0.01 (-0.14, 0.12) | 0.88 | 0.96 | -0.06 | -0.08 | -0.02 (-0.14, 0.11) | 0.81 | 0.88 |
|  | Telomeres Year 2 | 515 | -0.09 | 1.41 | -0.37 | -0.34 | 0.04 (-0.07, 0.15) | 0.51 | 0.93 | -0.23 | -0.21 | 0.02 (-0.12, 0.16) | 0.74 | 0.88 |
|  | Telomere Change Year 1 and Year 2 | 403 | -0.09 | 1.41 | -0.4 | -0.3 | 0.11 (-0.06, 0.27) | 0.2 | 0.71 | 0.16 | 0.16 | 0.01 (0, 0.02) | 0.1 | 0.68 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Log AGP | Telomeres Year 1 | 466 | -1.11 | -0.54 | -0.03 | -0.03 | 0 (0, 0) | 1 | 1 | -0.04 | -0.12 | -0.08 (-0.18, 0.03) | 0.17 | 0.68 |
|  | Telomeres Year 2 | 515 | -1.11 | -0.58 | -0.32 | -0.37 | -0.05 (-0.13, 0.04) | 0.32 | 0.76 | -0.14 | -0.22 | -0.09 (-0.3, 0.13) | 0.45 | 0.88 |
|  | Telomere Change Year 1 and Year 2 | 403 | -1.12 | -0.58 | -0.31 | -0.38 | -0.07 (-0.17, 0.03) | 0.18 | 0.71 | 0.16 | 0.16 | 0 (-0.01, 0) | 0.28 | 0.83 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Log IFNG | Telomeres Year 1 | 392 | 1.66 | 2.31 | -0.02 | -0.04 | -0.02 (-0.21, 0.18) | 0.87 | 0.96 | -0.04 | -0.02 | 0.02 (-0.1, 0.14) | 0.74 | 0.88 |
|  | Telomeres Year 2 | 486 | 1.65 | 2.3 | -0.31 | -0.44 | -0.13 (-0.35, 0.09) | 0.24 | 0.71 | -0.24 | -0.29 | -0.05 (-0.2, 0.1) | 0.52 | 0.88 |
|  | Telomere Change Year 1 and Year 2 | 381 | 1.65 | 2.29 | -0.29 | -0.31 | -0.02 (-0.14, 0.09) | 0.74 | 0.96 | 0.39 | 0.41 | 0.01 (-0.18, 0.2) | 0.89 | 0.89 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inflammation Sum Score | Telomeres Year 1 | 392 | -0.62 | 0.65 | -0.06 | -0.01 | 0.05 (-0.13, 0.22) | 0.62 | 0.93 | -0.05 | -0.03 | 0.02 (-0.1, 0.15) | 0.75 | 0.88 |
|  | Telomeres Year 2 | 486 | -0.64 | 0.64 | -0.32 | -0.38 | -0.06 (-0.23, 0.12) | 0.54 | 0.93 | -0.19 | -0.37 | -0.18 (-0.42, 0.06) | 0.14 | 0.68 |
|  | Telomere Change Year 1 and Year 2 | 381 | -0.64 | 0.63 | -0.11 | -0.37 | -0.26 (-0.53, 0.01) | 0.06 | 0.68 | 0.65 | 0.47 | -0.18 (-0.59, 0.22) | 0.39 | 0.88 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |

## Table S4

| 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 |
| Ln estriol | Telomeres Year 1 | 462 | 0.71 | 1.70 | -0.04 | -0.01 | 0.03 (-0.08, 0.13) | 0.61 | 0.61 | -0.08 | -0.06 | 0.02 (-0.12, 0.15) | 0.83 | 0.83 |
|  | Telomeres Year 2 | 510 | 0.78 | 1.73 | -0.22 | -0.35 | -0.13 (-0.41, 0.15) | 0.37 | 0.56 | -0.09 | -0.24 | -0.14 (-0.34, 0.05) | 0.15 | 0.45 |
|  | Telomere Change Year 1 and Year 2 | 399 | 0.78 | 1.70 | -0.35 | -0.40 | -0.05 (-0.15, 0.05) | 0.32 | 0.56 | 0.37 | 0.27 | -0.1 (-0.28, 0.09) | 0.31 | 0.47 |
| N, 25th Percentile, and 75th Percentile are from the unadjusted analyses | | | | | | | | | | | | | | |