# **Appendix 1: Supplementary Tables for “Interactions between chemicals and non-chemical stressors: The modifying effect of life events on the association between triclocarban, phenols and parabens with gestational length in a Puerto Rican cohort” by Aker el., 2019**

Supplementary Table 1: Adjusteda change in gestational age in relation to average exposure biomarker concentration across three time points during pregnancy. Beta coefficients were transformed to change in gestational days for an IQR increase in exposure biomarker concentration.

|  |  |  |  |
| --- | --- | --- | --- |
|   | **N** | **Change in days/IQR (95% CI)** | **p** |
| **BPA** | 748 | 0.98 (-0.41, 2.37) | 0.17 |
| **BPS** | 540 | -0.52 (-2.14, 1.09) | 0.53 |
| **Benzophenone-3** | 749 | 1.90 (0.54, 3.26) | 0.006\*\* |
| **Triclocarban** | 544 | -1.96 (-4.11, 0.19) | 0.08\* |
| **Methyl-paraben** | 751 | 1.63 (0.37, 2.89) | 0.01\*\* |
| **Propyl-paraben** | 752 | 2.06 (0.63, 3.48) | 0.005\*\* |
| a Models adjusted for specific gravity, maternal age, insurance type, alcohol use, and exposure to second-hand smoking. \* 0.05 < p value < 0.10; \*\* p value < 0.05 |

Supplementary Table 2: SG-corrected urinary bisphenol, paraben and triclocarban biomarker concentrations (µg/mL) from all three study visits stratified by Total LES Scores

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Negative Total LES Score** | **Neutral Total LES Score** | **Positive Total LES Score** | **p** |
|  | **Median [IQR]** | **Median [IQR]** | **Median [IQR]** |  |
| **BP-3** | 40.92 [14.64, 148.37] | 30.05 [11.97, 159.75] | 30.81 [12.25, 125.58] | 0.25 |
| **BPA** | 2.39 [1.42, 4.05] | 2.23 [1.49, 3.52] | 2.02 [1.31, 3.65] | 0.33 |
| **BPS** | 0.55 [0.30, 1.10] | 0.45 [0.27, 0.99] | 0.54 [0.25, 0.94] | 0.43 |
| **TCC** | 5.75 [0.60, 41.01] | 3.27 [0.60, 31.31] | 3.38 [0.63, 27.33] | 0.62 |
| **MPB** | 119.18 [38.93, 261.22] | 108.46 [35.33, 257.22] | 119.26 [43.58, 287.11] | 0.63 |
| **PPB** | 30.64 [5.95, 76.28] | 24.15 [5.13, 81.62] | 27.38 [7.89, 81.07] | 0.74 |
| BP-3: Benzophenone; TCC: Triclocarban; MPB: Methylparaben; PPB: PropylparabenNumber of samples differed by exposure biomarker. BP-3: 749; BPA: 748; BPS: 540; TCC: 544; MPB: 751; PPB: 752. P values were based on the Kruskal test. |

Supplementary Table 3: Specific gravity corrected ICC values across the three study visits for PROTECT phenol, paraben and triclocarban concentrations

|  |  |  |
| --- | --- | --- |
|  | SG-corrected ICC | 95% CI |
| BPA | 0.26 | (0.20, 0.32) |
| BPS | 0.17 | (0.10, 0.24) |
| Benzophenone-3 | 0.65 | (0.61, 0.69) |
| Triclocarban | 0.74 | (0.70, 0.77) |
| Methyl-paraben | 0.51 | (0.46, 0.56) |
| Propyl-paraben | 0.48 | (0.44, 0.53) |

|  |
| --- |
|  |

Supplementary Table 4: Adjusted change in gestational length in relation to categorical psychosocial variables against gestational length. Beta coefficients are untransformed.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **N\*** | **β (95% CI)** | **p** |
| **LES** | 835 | -0.09 (-0.41, 0.23) | 0.58 |
| **Negative LES** | 835 | -0.028 (-0.34, 0.29) | 0.86 |
| **Positive LES** | 835 | -0.098 (-0.48, 0.28) | 0.62 |
| **CES-D** | 835 | 0.19 (-0.25, 0.63) | 0.39 |
| **SS** | 753 | -0.103 (-0.83, 0.62) | 0.78 |
| **PSS** | 758 | 0.043 (-0.24, 0.33) | 0.77 |
| Models were adjusted for maternal age, insurance type, smoking status and alcohol consumption. |
|  |



Supplementary Figure 1: Heat map of Spearman correlation coefficients of specific gravity corrected average triclocarban, phenol and paraben urinary biomarkers



Supplementary Figure 2: Distribution of psychosocial scores by their respective categories.

Supplementary Table 5: Adjusteda change in gestational length in relation to mean-centered average exposure biomarker concentration across three time points during pregnancy, and the interaction between exposure biomarkers and categorical psychosocial scores.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Biomarker** | **N** | **Exp β** | **p** | **Int β** | **p** | **N** | **Exp β** | **p** | **Int β** | **p** |
|  | **CES-D** | **PSS** |
| BP-3 | 670 | 0.10 | 0.04 | -0.01 | 0.93 | 693 | 0.08 | 0.08 | 0.06 | 0.46 |
| BPA | 668 | 0.11 | 0.33 | 0.06 | 0.75 | 692 | 0.06 | 0.56 | 0.30 | 0.14 |
| BPS | 484 | -0.12 | 0.27 | 0.33 | 0.08 | 503 | 0.01 | 0.95 | -0.06 | 0.77 |
| TCC | 487 | -0.07 | 0.11 | 0.00 | 0.97 | 506 | -0.04 | 0.31 | -0.09 | 0.30 |
| MPB | 671 | 0.06 | 0.30 | 0.07 | 0.48 | 694 | 0.05 | 0.35 | 0.15 | 0.14 |
| PPB | 672 | 0.05 | 0.27 | 0.05 | 0.54 | 695 | 0.06 | 0.21 | 0.09 | 0.28 |
|  | **SS** | **LES** |
| BP-3 | 689 | 0.00 | 0.98 | 0.11 | 0.64 | 749 | 0.09 | 0.35 | 0.01 | 0.84 |
| BPA | 687 | -0.17 | 0.76 | 0.31 | 0.57 | 748 | 0.31 | 0.17 | -0.09 | 0.41 |
| BPS | 498 | -0.43 | 0.53 | 0.42 | 0.54 | 540 | -0.54 | 0.02 | 0.23 | 0.03 |
| TCC | 502 | -0.20 | 0.49 | 0.15 | 0.61 | 544 | -0.25 | 0.01 | 0.09 | 0.03 |
| MPB | 689 | -0.05 | 0.85 | 0.14 | 0.60 | 751 | 0.27 | 0.03 | -0.07 | 0.19 |
| PPB | 690 | -0.08 | 0.73 | 0.16 | 0.47 | 752 | 0.30 | 0.00 | -0.09 | 0.05 |
|  | **Negative LES** | **Positive LES** |
| BP-3 | 749 | 0.11 | 0.35 | 0.00 | 0.96 | 749 | 0.10 | 0.26 | 0.01 | 0.88 |
| BPA | 748 | 0.20 | 0.42 | -0.03 | 0.79 | 748 | 0.07 | 0.74 | 0.04 | 0.69 |
| BPS | 540 | -0.42 | 0.13 | 0.16 | 0.17 | 540 | -0.30 | 0.14 | 0.15 | 0.18 |
| TCC | 544 | -0.02 | 0.85 | -0.02 | 0.65 | 544 | -0.28 | 0.00 | 0.14 | 0.003 |
| MPB | 751 | 0.20 | 0.14 | -0.03 | 0.54 | 751 | 0.21 | 0.05 | -0.05 | 0.37 |
| PPB | 752 | 0.18 | 0.09 | -0.03 | 0.46 | 752 | 0.16 | 0.07 | -0.03 | 0.57 |
| Exp β: effect estimate of the urinary biomarker; Int β: effect estimate of the interaction term between the urinary biomarker and psychosocial variableBP-3: Benzophenone; TCC: Triclocarban; MPB: Methylparaben; PPB: PropylparabenCutoff points for psychosocial scores are as follows: 16 for CES-D; 28 for PSS; 25 for SS; -1 & 1 for LES; -5,-2 for Negative LES; 2,5 for Positive LES. Interaction β and p values assume linearity between psychosocial categories. |

Supplementary Table 6: Adjusteda change in gestational length in relation to average exposure biomarker concentration across three time points during pregnancy, stratified by LES variables. Beta coefficients were transformed to the change in the number of gestational days per IQR change in exposure biomarker concentration.

|  |  |
| --- | --- |
|  | **LES** |
|  | **Score: < -1** | **Score: [-1, 1]** | **Score: > 1** |
|  | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** |
| **2,4-DCP** | 277 | 0.45 (-1.23, 2.13) | 0.60 | 219 | 0.19 (-1.96, 2.34) | 0.86 | 252 | -0.97 (-3.31, 1.36) | 0.41 |
|  |   |   | *0.99* |   |   | - |   |   | *0.23* |
| **2,5-DCP** | 276 | -0.68 (-2.61, 1.25) | 0.49 | 220 | 0.02 (-2.31, 2.34) | 0.99 | 253 | -0.74 (-2.88, 1.39) | 0.50 |
|  |   |   | *0.52* |   |   | - |   |   | *0.40* |
| **BP-3** | 279 | 0.85 (-1.29, 2.99) | 0.44 | 219 | 2.50 (-0.24, 5.24) | 0.08 | 251 | 1.92 (-0.36, 4.20) | 0.10 |
|  |   |   | *0.39* |   |   | - |   |   | *0.51* |
| **BPA** | 279 | 1.09 (-1.11, 3.29) | 0.33 | 220 | 2.08 (-0.41, 4.57) | 0.10 | 249 | -0.30 (-2.55, 1.96) | 0.80 |
|  |   |   | *0.25* |   |   | - |   |   | *0.05\** |
| **BPS** | 194 | -3.15 (-6.06, -0.24) | 0.04 | 161 | -0.54 (-3.82, 2.74) | 0.75 | 185 | 1.62 (-0.96, 4.20) | 0.22 |
|  |   |   | *0.06\** |   |   | - |   |   | *0.86* |
| **BPF** | 178 | -0.58 (-1.19, 0.03) | 0.06 | 144 | 0.19 (-0.48, 0.85) | 0.58 | 178 | 0.36 (-0.20, 0.92) | 0.21 |
|  |   |   | *0.17* |   |   | - |   |   | *0.56* |
| **TCS** | 277 | 1.47 (-1.47, 4.40) | 0.33 | 221 | -0.46 (-3.88, 2.95) | 0.79 | 251 | -1.32 (-4.23, 1.58) | 0.37 |
|  |   |   | *0.33* |   |   | - |   |   | *0.66* |
| **TCC** | 194 | -4.68 (-8.47, -0.89) | 0.02 | 161 | -1.81 (-5.99, 2.37) | 0.40 | 189 | 0.78 (-2.40, 43.96) | 0.63 |
|  |   |   | *0.18* |   |   | - |   |   | *0.48* |
| **EPB** | 198 | -0.55 (-1.12, 0.02) | 0.06 | 161 | 0.19 (-0.46, 0.84) | 0.56 | 191 | 0.21 (-0.33, 0.76) | 0.44 |
|  |   |   | *0.25* |   |   | - |   |   | *0.44* |
| **MPB** | 280 | 2.21 (0.02, 4.40) | 0.05 | 220 | 2.09 (-0.35, 4.53) | 0.09 | 251 | 0.61 (-1.31, 2.53) | 0.53 |
|  |   |   | *0.99* |   |   | - |   |   | *0.19* |
| **BPB** | 277 | 0.88 (-1.86, 3.62) | 0.53 | 219 | 1.61 (-2.19, 5.41) | 0.41 | 250 | -0.60 (-3.85, 2.65) | 0.72 |
|  |   |   | *0.70* |   |   | - |   |   | *0.31* |
| **PPB** | 280 | 2.92 (0.58, 5.26) | 0.01 | 219 | 2.40 (-0.43, 5.23) | 0.01 | 253 | 0.51 (-1.63, 2.65) | 0.64 |
|  |  |  | *0.73* |  |  | - |  |  | *0.10\** |
|  | **LES Positive** |
|  | **Low** **Score: [0, 2]** | **Medium****Score: (2, 5]** | **High****Score: (5, 27]** |
|  | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** |
| **2,4-DCP** | 407 | 0.27 (-1.21, 1.75) | 0.72 | 157 | 0.16 (-2.02, 2.35) | 0.88 | 184 | -0.63 (-3.15, 1.90) | 0.63 |
|  |   |   | *-* |   |  | *0.80* |   |   | *0.52* |
| **2,5-DCP** | 407 | -0.63 (-2.38, 1.12) | 0.48 | 158 | 0.12 (-2.06, 2.29) | 0.92 | 184 | -0.75 (-3.13, 1.63) | 0.54 |
|  |   |   | *-* |   |   | *0.62* |   |   | *0.95* |
| **BP-3** | 409 | 1.67 (-0.17, 3.52) | 0.08 | 156 | 2.07 (-0.59, 4.74) | 0.13 | 184 | 2.48 (-0.34, 5.29 | 0.09 |
|  |   |   | *-* |   |   | *0.46* |   |   | *0.68* |
| **BPA** | 408 | 0.46 (-1.56, 2.48) | 0.66 | 159 | 1.58 (-0.78, 3.94) | 0.19 | 181 | 1.11 (-1.44, 3.66) | 0.39 |
|  |   |   | *-* |   |   | *0.49* |   |   | *0.77* |
| **BPS** | 313 | -1.65 (-4.05, 0.74) | 0.18 | 105 | -0.09 (-3.28, 3.10) | 0.95 | 122 | 1.12 (-1.92, 4.12) | 0.47 |
|  |   |   | *-* |   |   | *0.19* |   |   | *0.25* |
| **BPF** | 288 | -0.23 (-0.76, 0.29) | 0.38 | 97 | 0.58 (-0.06, 1.22) | 0.08 | 115 | 0.34 (-0.30, 0.98) | 0.30 |
|  |   |   | *-* |   |   | *0.23* |   |   | *0.19* |
| **TCS** | 409 | 0.67 (-1.93, 3.26) | 0.61 | 156 | -0.86 (-4.29, 2.58) | 0.63 | 184 | -0.79 (-3.95, 2.37) | 0.63 |
|  |   |   | *-* |   |   | *0.42* |   |   | *0.46* |
| **TCC** | 314 | -4.58 (-7.70, -1.46) | 0.004 | 106 | 1.77 (-2.12, 5.67) | 0.38 | 124 | 2.03 (-1.91, 5.97) | 0.31 |
|  |   |   | *-* |   |   | *0.01\*\** |   |   | *0.01\*\** |
| **EPB** | 319 | -0.19 (-0.67, 0.28) | 0.43 | 107 | 0.35 (-0.31, 1.01) | 0.30 | 124 | -0.14 (-0.76, 0.48) | 0.66 |
|  |   |   | *-* |   |   | *0.26* |   |   | *0.64* |
| **MPB** | 409 | 2.39 (0.50, 4.28) | 0.01 | 157 | -0.29 (-2.79, 2.22) | 0.82 | 185 | 1.68 (-0.36, 3.72) | 0.11 |
|  |   |   | *-* |   |   | *0.05\** |   |   | *0.56* |
| **BPB** | 406 | 1.42 (-1.19, 4.03) | 0.29 | 156 | -0.41 (-3.76, 2.93) | 0.81 | 184 | -0.53 (-4.10, 3.05) | 0.77 |
|  |   |   | *-* |   |   | *0.22* |   |   | *0.38* |
| **PPB** | 409 | 2.54 (0.58, 4.49) | 0.01 | 158 | -1.35 (-4.68, 1.98) | 0.43 | 185 | 2.51 (0.33, 4.96) | 0.03 |
|  |  |  | *-* |  |  | *0.02\*\** |  |  | *0.85* |
|  | **LES Negative** |
|  | **Low****Score: [0, -2)** | **Medium****Score: [-2, -5)** | **High****Score: [-5, -30]** |
|  | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** | **N** | **GA Change (95% CI)** | **p** |
| **2,4-DCP** | 359 | -0.46 (-2.58, 1.67) | 0.67 | 186 | -0.20 (-2.91, 2.51) | 0.88 | 203 | 1.07 (-0.44, 2.58) | 0.17 |
|  |   |   | *-* |   |   | *0.52* |   |   | *0.21* |
| **2,5-DCP** | 360 | -1.10 (-3.08, 0.89) | 0.28 | 186 | -0.42 (-3.14, 2.30) | 0.76 | 203 | 0.57 (-1.20, 2.34) | 0.53 |
|  |   |   | *-* |   |   | *0.70* |   |   | *0.21* |
| **BP-3** | 360 | 1.92 (-0.01, 3.85) | 0.05 | 184 | 0.72 (-2.39, 3.84) | 0.65 | 205 | 2.20 (-0.06, 4.45) | 0.06 |
|  |   |   | *-* |   |   | *0.94* |   |   | *1.00* |
| **BPA** | 359 | 0.50 (-1.53, 2.53) | 0.63 | 184 | 2.74 (-0.06, 5.53) | 0.06 | 205 | 0.24 (-1.97, 2.44) | 0.83 |
|  |   |   | *-* |   |   | *0.86* |   |   | *0.85* |
| **BPS** | 274 | 0.65 (-1.81, 3.11) | 0.61 | 136 | -2.29 (-5.80, 1.23) | 0.21 | 130 | -1.61 (-4.45, 1.23) | 0.27 |
|  |   |   | *-* |   |   | *0.08\** |   |   | *0.23* |
| **BPF** | 258 | 0.34 (-0.15, 0.84) | 0.18 | 124 | -0.61 (-1.42, 0.20) | 0.14 | 118 | -0.04 (-0.61, 0.54) | 0.90 |
|  |   |   | *-* |   |   | *0.09\** |   |   | *0.47* |
| **TCS** | 361 | 0.37 (-2.19, 2.94) | 0.78 | 184 | -1.35 (-5.18, 2.48) | 0.49 | 204 | 1.67 (-1.27, 4.60) | 0.27 |
|  |   |   | *-* |   |   | *0.40* |   |   | *0.65* |
| **TCC** | 276 | -2.21 (-4.88, 0.47) | 0.11 | 139 | -1.41 (-6.50, 3.68) | 0.59 | 129 | 0.27 (-3.59, 4.13) | 0.89 |
|  |   |   | *-* |   |   | *0.60* |   |   | *0.53* |
| **EPB** | 279 | 0.18 (-0.31, 0.66) | 0.47 | 140 | -1.02 (-1.76, -0.28) | 0.008 | 131 | 0.22 (-0.32, 0.77) | 0.42 |
|  |   |   | *-* |   |   | *0.01\*\** |   |   | *0.85* |
| **MPB** | 361 | 0.70 (-1.06, 2.46) | 0.44 | 184 | 3.27 (0.60, 5.94) | 0.02 | 206 | 1.18 (-0.90, 3.27) | 0.27 |
|  |   |   | *-* |   |   | *0.20* |   |   | *0.70* |
| **BPB** | 357 | 0.42 (-2.77, 3.62) | 0.80 | 184 | 2.14 (-1.86, 6.14) | 0.30 | 205 | -0.43 (-3.02, 2.15) | 0.74 |
|  |   |   | *-* |   |   | *0.39* |   |   | *0.68* |
| **PPB** | 362 | 0.77 (-1.13, 2.67) | 0.43 | 184 | 4.34 (1.04, 7.63) | 0.01 | 206 | 1.49 (-0.65, 3.62) | 0.17 |
|  |  |  | *-* |   |  | *0.07\** |  |  | *0.63* |
| 2,4-DCP: 2,4-dichlorophenol; 2,5-DCP: 2,5-dichlorophenol; BP-3: Benzophenone; TCS: Triclosan; TCC: Triclocarban; EPB: Ethyl-paraben; MPB: Methylparaben; BPB: Butylparaben; PPB: Propylparabena Models adjusted for specific gravity, maternal age, insurance type, alcohol use, and exposure to second-hand smoking.Italicized p values are interaction p values for categorical LES variables. \* Refers to an interaction p value between 0.05 and 0.10. \*\* Refers to an interaction p value <0.05.Significant (<0.05) regression p values are shaded dark grey. Suggestive (0.05<p<0.10) regression p values are shaded in light grey. |

Supplementary Table 7: Adjusteda change in gestational length in relation to average exposure biomarker concentration across three time points during pregnancy, stratified by LES variables and infant sex. Beta coefficients were transformed to the change in the number of gestational days per IQR change in exposure biomarker concentration.

|  |  |
| --- | --- |
|  | **Total LES** |
|  | **Females** | **Males** |
|  | **Negative** | **Neutral** | **Positive** | **Negative** | **Neutral** | **Positive** |
| **Urinary Biomarker** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** |
| BPA | 2.93 (-0.6, 6.46) | 0.11 | 0.71 (-2.42, 3.85) | 0.66 | 1.48 (-2.75, 5.7) | 0.50 | 1.7 (-1.78, 5.19) | 0.34 | 2.97 (-1.02, 6.97) | 0.15 | -0.51 (-3.5, 2.45) | 0.74 |
| BPS | -0.79 (-6.14, 4.55) | 0.77 | -1.47 (-6.2, 3.28) | 0.55 | 1.38 (-2.98, 5.74) | 0.54 | -5.06 (-9.4, -0.72) | 0.03 | -0.77 (-5.66, 4.1) | 0.76 | 1.15 (-2.06, 4.36) | 0.48 |
| TCS | 0.74 (-3.88, 5.35) | 0.76 | -2.36 (-6.4, 1.69) | 0.26 | -4.50 (-9.04, 0.04) | 0.06 | 2.40 (-1.54, 6.34) | 0.24 | 3.36 (-2.49, 9.2) | 0.26 | 2.00 (-1.83, 5.82) | 0.31 |
| TCC | -6.41 (-13, 0.19) | 0.06 | 1.29 (-4.3, 6.88) | 0.65 | 3.59 (-1.84, 9.02) | 0.20 | -4.08 (-9.02, 0.85) | 0.11 | -6.95 (-13.2, -0.7) | 0.03 | 1.43 (-2.69, 5.56) | 0.50 |
| MPB | 2.83 (0.17, 5.48) | 0.04 | 1.22 (-1.69, 4.12) | 0.42 | 1.19 (-2.33, 4.7) | 0.51 | -0.93 (-4.47, 2.62) | 0.61 | 3.31 (-0.75, 7.37) | 0.11 | 0.56 (-1.67, 2.79) | 0.62 |
| PPB | 4.66 (1.53, 7.8) | 0.00 | 0.23 (-2.74, 3.21) | 0.88 | 1.56 (-2.08, 5.21) | 0.40 | 0.75 (-2.75, 4.25) | 0.68 | 4.05 (-0.67, 8.78) | 0.10 | 0.37 (-2.32, 3.05) | 0.79 |
|  | **Negative LES** |
|  | **Females** | **Males** |
|  | **Low** | **Medium** | **High** | **Low** | **Medium** | **High** |
| **Urinary Biomarker** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** |
| BPA | 0.97 (-1.74, 3.69) | 0.48 | 3.15 (-2.99, 9.29) | 0.32 | 2.52 (-0.53, 5.57) | 0.11 | -0.18 (-3.37, 3.02) | 0.91 | 3.43 (0.29, 6.57) | 0.04 | 0.25 (-2.92, 3.43) | 0.88 |
| BPS | 0.83 (-2.54, 4.19) | 0.63 | 0.94 (-5.17, 7.06) | 0.76 | 1.25 (-4.71, 7.22) | 0.68 | -0.53 (-4.51, 3.45) | 0.79 | -3.44 (-7.35, 0.5) | 0.09 | -1.26 (-4.8, 2.27) | 0.49 |
| TCC | 0.23 (-4.01, 4.47) | 0.92 | -5.90 (-15.8, 4.0) | 0.25 | 2.25 (-4.33, 8.83) | 0.51 | -4.09 (-8.65, 0.47) | 0.08 | 0.47 (-3.89, 4.83) | 0.83 | -1.96 (-6.01, 2.1) | 0.35 |
| MPB | -0.35 (-2.71, 2) | 0.77 | 2.16 (-1.21, 5.53) | 0.21 | 4.52 (1.11, 7.93) | 0.01 | 1.53 (-1.29, 4.35) | 0.29 | 1.98 (-0.79, 4.75) | 0.16 | -1.29 (-4.8, 2.22) | 0.47 |
| PPB | -0.51 (-2.9, 1.88) | 0.67 | 4.66 (0.34, 8.98) | 0.04 | 2.88 (-0.35, 6.12) | 0.08 | 1.05 (-1.69, 3.79) | 0.45 | 2.11 (-1.99, 6.22) | 0.32 | 2.21 (-1.35, 5.76) | 0.23 |
|  | **Positive LES** |
|  | **Females** | **Males** |
|  | **Low** | **Medium** | **High** | **Low** | **Medium** | **High** |
| **Urinary Biomarker** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** | **GA Change (95% CI)** | **p** |
| BPA | 0.89 (-1.85, 3.62) | 0.53 | 2.27 (-1.61, 6.15) | 0.26 | 4.39 (-0.46, 9.24) | 0.08 | 0.77 (-2.58, 4.11) | 0.65 | 1.74 (-1.84, 5.32) | 0.35 | 0.82 (-1.99, 3.63) | 0.57 |
| BPS | 0 (-3.53, 3.53) | 1.00 | 0.43 (-4.3, 5.17) | 0.86 | 1.37 (-4.58, 7.32) | 0.66 | -2.15 (-6.35, 2.04) | 0.32 | 0.83 (-4.06, 5.73) | 0.74 | 0.39 (-2.54, 3.32) | 0.80 |
| TCC | -3.28 (-8.05, 1.48) | 0.18 | -0.1 (-6.24, 6.04) | 0.98 | 7.94 (-1.86, 17.75) | 0.12 | -6.53 (-11.3, -1.8) | 0.01 | 5.65 (-0.25, 11.5) | 0.07 | 1.86 (-1.85, 5.58) | 0.33 |
| MPB | 1.77 (-0.44, 3.97) | 0.12 | -0.71 (-4.36, 2.9) | 0.70 | 4.07 (0.31, 7.83) | 0.04 | 2.08 (-1.03, 5.19) | 0.19 | 0.25 (-2.57, 3.08) | 0.86 | 0.55 (-2.42, 3.53) | 0.72 |
| PPB | 2.16 (-0.23, 4.55) | 0.08 | -0.53 (-3.55, 2.5) | 0.73 | 5.18 (1.08, 9.28) | 0.02 | 2.42 (-1.08, 5.93) | 0.18 | -0.95 (-4.14, 2.2) | 0.56 | 1.76 (-1.45, 4.97) | 0.29 |
| 2,4-DCP: 2,4-dichlorophenol; 2,5-DCP: 2,5-dichlorophenol; BP-3: Benzophenone; TCS: Triclosan; TCC: Triclocarban; EPB: Ethylparaben; MPB: Methylparaben; BPB: Butylparaben; PPB: Propylparabena Models adjusted for specific gravity, maternal age, insurance type, alcohol use, and exposure to second-hand smoking.N for BP-3, MPB and PPB: Female LES groups ranged between 92-126; Male LES groups ranged between 112-123. N for TCC and BPS: Female LES groups ranged between 61-82; Male groups ranged between 87-98. |