

Supporting Information

PBDEs in 2-5 Year-Old Children from California and Associations with Diet and Indoor Environment

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Seven pages containing Table S1, Table S2, Table S3, Figure S1 and Figure S2

Table S1. Demographic characteristics of study participants and their mothers

| Characteristic | All (n=94) | Questionnaire Respondents (n=50) |
|---|----------------------|----------------------------------|
| <i>Children</i> | | |
| Mean Age (yrs) | 3.7 | 3.7 |
| Sex (% male) | 81 | 86 |
| Race/Ethnicity (%) | | |
| Non-Hispanic White | 40 | 44 |
| Black | 5 | 2 |
| Asian | 3 | 2 |
| Multi-racial | 8 | 6 |
| Hispanic | 44 | 46 |
| PBDE Concentrations | | |
| BDE-47 GM (95% CI) | 127.4 (105.0, 154.5) | 105.6 (80.2, 139.1) |
| Σ_{lower} PBDE GM (95% CI) | 265.1 (220.6, 318.5) | 220.0 (170.0, 284.2) |
| Σ_{higher} PBDE GM (95% CI) | 7.5 (6.6, 8.7) | 7.5 (6.1, 9.2) |
| <i>Mothers</i> | | |
| Mean Maternal Age | 33.7 | 35 |
| Maternal Education (% college degree or higher) | 38 | 48 |
| Parity (% parous) | 57 | 58 |
| Birthplace (% Foreign) | 36 | 25 |

Table S2. Children’s concentrations of lower brominated, higher brominated and total PBDEs in pmol/g lipid by maternal birthplace (U.S. born, Mexican born, Foreign countries other than Mexico)

| Mother’s Birthplace | N | Σ BDE28-153 | Σ BDE197-209 | Σ BDE28-209 |
|--|----|--------------------|---------------------|--------------------|
| United States | 69 | 392.75 | 11.36 | 405.90 |
| Mexico | 13 | 315.32 | 5.25 | 321.33 |
| Foreign Born (excluding Mexico) ^a | 12 | 351.71 | 7.45 | 360.08 |

^aCountries include: Cuba, Egypt, El Salvador, Eritrea, Japan, New Zealand, Nigeria, Panama, Philippines, Yemen, Other Not Specified (but not born in any of the following: USA, Puerto Rico, Virgin islands, Guam, China, Japan, Vietnam, Philippines, Canada, Cuba, or Mexico)

Table S3. Multivariate model of PBDEs and breastfeeding, adjusting for child's age, gender, and maternal factors. Significant beta coefficients are in bold.

| PBDE (pmol/g lipid) | | β Estimate | Standard Error | p-value |
|---------------------------|--|---------------------|-------------------|---------|
| Σ BDE28-153 | Model Adjusted R-sq= 0.26 (p-value<.001) | | | |
| | Breastfed | 0.14 | 0.22 | 0.52 |
| | Child's Age ^a | -0.76 | 0.25 | 0.004 |
| | Breastfed*Age | 0.91 | 0.28 | 0.002 |
| | Gender ^b | -0.33 | 0.21 | 0.13 |
| | Maternal Education ^c | -0.45 | 0.18 | 0.02 |
| | Maternal Age | -0.03 | 0.02 | 0.06 |
| | Parous ^d | 0.39 | 0.18 | 0.03 |
| Σ BDE197-209 | Model Adjusted R-sq= 0.04 (p-value=0.17) | | | |
| | Breastfed | 0.21 | 0.18 | 0.26 |
| | Child's Age ^a | 0.04 | 0.21 | 0.86 |
| | Breastfed*Age | 0.05 | 0.23 | 0.85 |
| | Gender ^b | 0.19 | 0.18 | 0.29 |
| | Maternal Education ^c | -0.42 | 0.15 | 0.01 |
| | Maternal Age | 0.01 | 0.01 | 0.70 |
| | Parous ^d | 0.23 | 0.15 | 0.14 |
| Σ BDE28-209 | Model Adjusted R-sq= 0.26 (p-value<.001) | | | |
| | Breastfed | 0.15 | 0.21 | 0.48 |
| | Child's Age ^a | -0.73 | 0.24 | 0.004 |
| | Breastfed*Age | 0.88 | 0.27 | 0.002 |
| | Gender ^b | -0.30 | 0.21 | 0.153 |
| | Maternal Education ^c | -0.45 | 0.18 | 0.02 |

| | | | | |
|--|---------------------|-------|------|------|
| | Maternal Age | -0.03 | 0.15 | 0.07 |
| | Parous ^d | 0.38 | 0.17 | 0.03 |

^a Child's age is centered at mean

^b Indicator variable (male=1)

^c Indicator variable (college degree=1)

^d Indicator variable (parous=1)

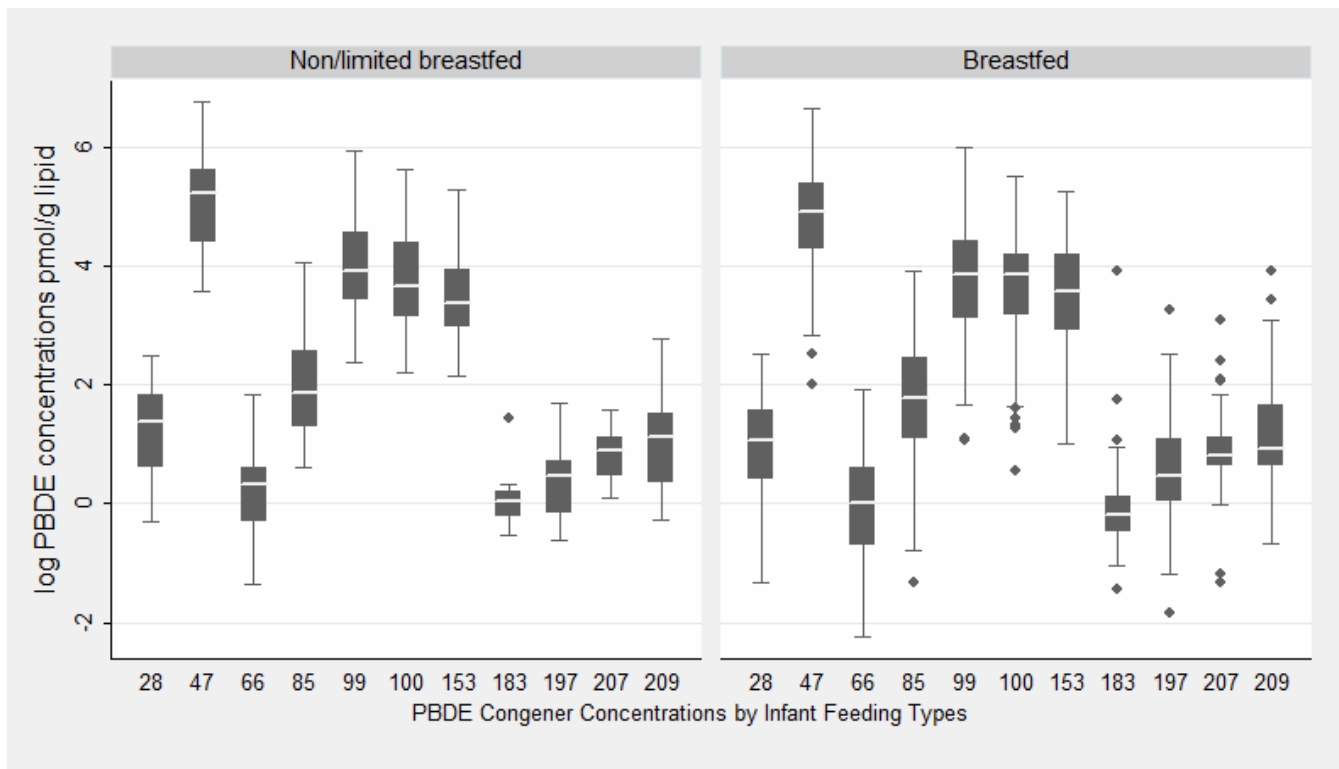


Figure S1. Distributions of lipid-adjusted log transformed concentrations of PBDEs in children 2-5 years of age by type of infant feeding ($n=93$)

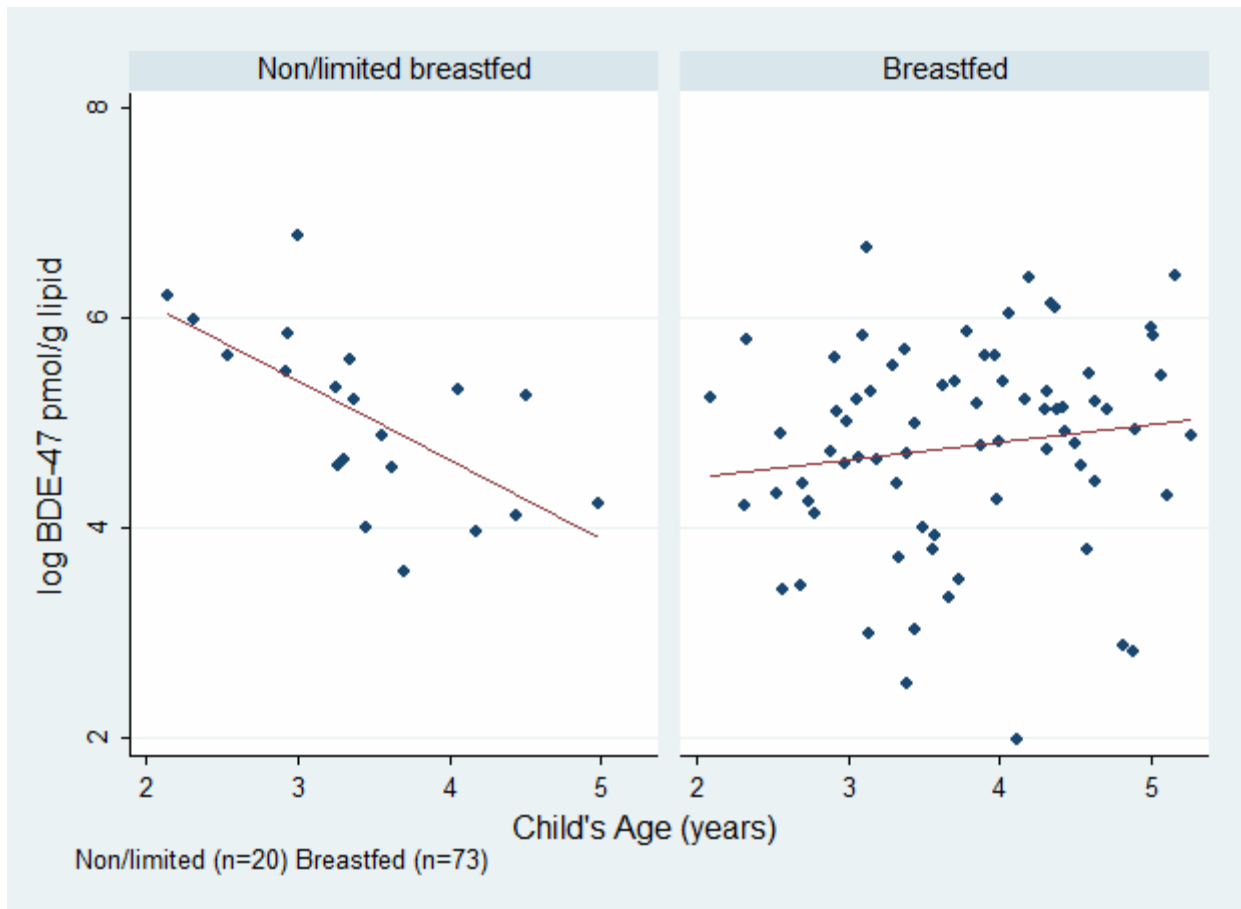


Figure S2. The interaction of age and infant feeding practices on PBDE concentrations in children at 2-5 years of age.