

## Supplemental Material

**Title:** Lowering urinary phthalate metabolite concentrations among children by reducing contaminated dust in housing units: A randomized controlled trial and observational study

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Table S1. Description of dust accumulation and cleaning classifications used to assess in The HOME Study (Cincinnati, OH).

<b>APPEARS CLEAN</b>	<b>SOME CLEANING / SLIGHT DUST</b>	<b>NO EVIDENCE OF CLEANING / HEAVY DUST</b>
<p>No visible dust on most surfaces.            Evidence of recent vacuuming of carpet.            No matted or soiled carpeting.            No debris / food particles on surfaces            Few visible cobwebs.            Clean floor.            Clean window sills.            Clean window wells.</p>	<p>Slight dust buildup in corners.            Slight dust buildup on furniture.            Slightly matted and/or soiled carpeting            Some debris / food particles on surfaces            Some visible cobwebs.            Slightly soiled floor.            Slightly clean window sills.            Slightly clean window wells.</p>	<p>Heavy dust buildup in corners.            Heavy dust buildup on furniture.            Matted and/or soiled carpeting.            Visible cobwebs.            Heavily soiled floor.            Heavily soiled window sills.            Tremendous debris in window wells.</p>

Table S2. Number of urine samples collected during annual visits at ages 1, 2, and 3 years for control and intervention groups (The HOME Study; Cincinnati, OH).

Visit age	Total		Control Group		Intervention Group	
	n (%)	Age - years Mean (range)	n (%)	Age - years Mean (range)	n (%)	Age - years Mean (range)
1	250 (37)	1.09 (0.94 - 1.61)	128 (37)	1.09 (0.94 - 1.51)	122 (36)	1.09 (0.97 - 1.61)
2	214 (31)	2.09 (1.95 - 2.38)	106 (31)	2.08 (1.95 - 2.27)	108 (32)	2.09 (1.97 - 2.38)
3	216 (32)	3.10 (2.88 - 3.63)	109 (32)	3.09 (2.88 - 3.50)	107 (32)	3.11 (2.93 - 3.63)

Table S3. Number of urine samples collected by season from children in the control and intervention group.

<b>Season</b>	<b>Total</b>	<b>Control</b>	<b>Intervention</b>
	n (%)	n (%)	n (%)
Spring (March-May)	199 (29)	98 (29)	101 (30)
Summer (June-August)	165 (24)	92 (27)	73 (22)
Fall (September-November)	133 (20)	71 (21)	62 (18)
Winter (December-February)	183 (27)	82 (24)	101 (30)

Table S4. Geometric mean and range of children’s urinary phthalate metabolite concentrations (ng/mL) by yearly visits (The HOME Study; Cincinnati, OH).

	<b>Age 1 Year</b>		<b>Age 2 Years</b>		<b>Age 3 Years</b>	
	GM (95% CI)	min, max	GM (95% CI)	min, max	GM (95% CI)	min, max
ΣDEHP	70 (62, 80)	3.3, 4320	79 (69, 91)	4.1, 6540	89 (79, 101)	5.1, 207
MBzP	11 (9.8, 13)	0.2, 857	12 (9.9, 13)	0.2, 1440	14 (11, 16)	0.2, 828
MCOP	10 (9.1, 12)	1.0, 330	11 (9.3, 12)	0.5, 375	12 (11, 14)	0.5, 207
MCNP	4.9 (4.4, 5.4)	0.4, 177	4.5 (4.0, 5.0)	0.4, 174	3.9 (3.5, 4.4)	0.4, 66
MEP	42 (37, 49)	2.0, 7062	35 (29, 41)	1.8, 4732	32 (28, 36)	1.3, 2066

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S5. Median (25th, 75th percentile) of maternal urinary phthalate metabolite concentrations <sup>a</sup> by intervention group (The HOME Study; Cincinnati, OH).

	<b>Control</b> Median (25 <sup>th</sup> , 75 <sup>th</sup> )	<b>Intervention</b> Median (25 <sup>th</sup> , 75 <sup>th</sup> )	<b>p-value</b> <sup>b</sup>
ΣDEHP	77 (35, 171)	104 (47, 228)	0.033
MBP	24 (11, 46)	26 (13, 54)	0.19
MiBP	5.3 (2.0, 8.9)	5.0 (1.9, 9.3)	0.99
MCPPP	2.1 (1.1, 4.3)	2.3 (1.3, 3.9)	0.64
MBzP	7.3 (3.6, 17.0)	10.0 (4.1, 20.3)	0.13
MEP	137 (51, 292)	149 (66, 381)	0.21

<sup>a</sup> Concentrations are average of urinary phthalate metabolites measured at 16- and 26-weeks gestation.

<sup>b</sup> Wilcoxon rank sum test p-value

Abbreviations: summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); mono-n-butyl phthalate (MBP); mono-isobutyl phthalate (MiBP); mono(3-carboxypropyl) phthalate (MCPP); monobenzyl phthalate (MBzP); and monoethyl phthalate (MEP).



Table S6. Adjusted geometric mean and percent differences in childhood urinary phthalate metabolite concentrations (ng/mL) for the intervention group compared to the control group: Stratified by baseline dust accumulation (The HOME Study; Cincinnati, OH).<sup>a</sup>

	Full Sample			Appears Clean			Does not Appear Clean			Interaction p-value <sup>c</sup>
	n <sup>b</sup>	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)	
<b>ΣDEHP</b>										0.03
Control	343	84	Ref	222	83	Ref	121	86	Ref	
Intervention	337	74	-12 (-23, 1)	217	65	-21 (-33, -7)	120	92	8 (-13, 34)	
<b>MBzP</b>										0.06
Control	343	12	Ref	222	12	Ref	121	14	Ref	
Intervention	337	12	-7 (-22, 12)	217	9	-18 (-34, 2)	120	16	17 (-15, 61)	
<b>MCOP</b>										0.94
Control	343	12	Ref	222	11	Ref	121	13	Ref	
Intervention	337	10	-11 (-21, 2)	217	10	-11 (-24, 4)	120	11	-11 (-29, 12)	
<b>MCNP</b>										0.37
Control	343	4.7	Ref	222	4.5	Ref	121	5.2	Ref	
Intervention	337	4.2	-12 (-22, 0)	217	3.8	-15 (-28, -1)	120	4.9	-5 (-23, 17)	
<b>MEP</b>										0.67
Control	343	36	Ref	222	31	Ref	121	46	Ref	
Intervention	337	37	5 (-15, 30)	217	31	2 (-22, 33)	120	52	13 (-20, 60)	

<sup>a</sup> Models adjusted for child age (years) and log<sub>10</sub>-transformed urinary creatinine concentrations.

<sup>b</sup> The n column is the number of observations for 288 participants (145 control and 143 intervention group).

<sup>c</sup> Interaction p-value for intervention x dust accumulation/cleaning product interaction term.

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S7. Baseline characteristics for participants in the control and intervention group: Stratified by participant moving in the first 3 years (The HOME Study; Cincinnati, OH).

	Participants who moved			Participants who did not move		
	Total	Control	Intervention	Total	Control	Intervention
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
<b>Total</b>	127 (100)	62 (49)	65 (51)	161 (100)	83 (52)	78 (48)
<b>Child Sex</b>						
Male	56 (44)	24 (39)	32 (49)	79 (49)	39 (47)	40 (51)
Female	71 (56)	38 (61)	33 (51)	82 (51)	44 (53)	38 (49)
<b>Child Race/Ethnicity</b>						
Non-Hispanic White	64 (52)	35 (58)	29 (45)	137 (85)	72 (87)	65 (83)
Non-Hispanic Black	49 (40)	21 (35)	28 (44)	16 (10)	8 (10)	8 (10)
Hispanic	4 (3)	1 (2)	3 (5)	3 (2)	2 (2)	1 (1)
Other	7 (6)	3 (5)	4 (6)	5 (3)	1 (1)	4 (5)
<b>Marital Status</b>						
Married, or living with someone	89 (70)	46 (74)	43 (66)	152 (94)	79 (95)	73 (94)
Not married, or living alone	38 (30)	16 (26)	22 (34)	9 (6)	4 (5)	5 (6)
<b>Household Income</b>						
<20	40 (32)	18 (29)	22 (34)	6 (4)	4 (5)	2 (3)
20 - <40	27 (21)	13 (21)	14 (22)	12 (7)	7 (8)	5 (6)
40-70	30 (24)	17 (27)	13 (20)	45 (28)	23 (28)	22 (28)
>\$70	30 (24)	14 (23)	16 (25)	98 (61)	49 (59)	49 (63)
<b>Maternal Education</b>						
Bachelor's Degree or Higher	55 (43)	27 (44)	28 (43)	116 (72)	58 (70)	58 (74)
Tech/Some College	37 (29)	21 (34)	16 (25)	35 (22)	19 (23)	16 (21)
High School or Less	35 (28)	14 (23)	21 (32)	10 (6)	6 (7)	4 (5)
<b>Dust Accumulation</b>						
Appears clean	65 (51)	31 (50)	34 (52)	118 (73)	61 (73)	57 (73)
Some or No cleaning	62 (49)	31 (50)	31 (48)	43 (27)	22 (27)	21 (27)
<b>Home Ownership</b>						
Own	68 (54)	36 (59)	32 (49)	146 (91)	75 (90)	71 (91)
Rent	43 (34)	19 (31)	24 (37)	12 (7)	6 (7)	6 (8)
Public	13 (10)	5 (8)	8 (12)	3 (2)	2 (2)	1 (1)
Other	2 (2)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)

Table S8. Adjusted geometric mean and percent differences in childhood urinary phthalate metabolite concentrations (ng/mL) for the intervention group compared to the control group using a per protocol analysis with participants who moved before 36-month visit excluded (The HOME Study; Cincinnati, OH).<sup>a</sup>

	Full Sample			Appears Clean			Does not appear Clean			Interaction
	n <sup>b</sup>	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)	p-value <sup>c</sup>
<b>ΣDEHP</b>										0.07
Control	195	76	Ref	143	75	Ref	52	79	Ref	
Intervention	179	63	-17 (-32, 0)	136	56	-26 (-41, -7)	43	88	12 (-22, 60)	
<b>MBzP</b>										0.52
Control	195	11	Ref	143	10	Ref	52	15	Ref	
Intervention	179	9	-16 (-34, 6)	136	9	-12 (-34, 17)	43	11	-26 (-51, 12)	
<b>MCOP</b>										0.96
Control	195	10	Ref	143	10	Ref	52	12	Ref	
Intervention	179	10	-6 (-21, 12)	136	9	-6 (-24, 16)	43	11	-5 (-32, 32)	
<b>MCNP</b>										0.71
Control	195	4.3	Ref	143	4.0	Ref	52	5.0	Ref	
Intervention	179	3.9	-9 (-23, 7)	136	3.6	-11 (-26, 8)	43	4.7	-5 (-31, 31)	
<b>MEP</b>										0.74
Control	195	31	Ref	143	27	Ref	52	45	Ref	
Intervention	179	28	-9 (-30, 20)	136	26	-6 (-32, 29)	43	38	-15 (-49, 42)	

<sup>a</sup> Models adjusted for child age (years) and log<sub>10</sub>-transformed urinary creatinine concentrations.

<sup>b</sup> The n column is the number of observations for 161 participants (83 control and 78 intervention group).

<sup>c</sup> Interaction p-value for intervention x dust accumulation/cleaning product interaction term.

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S9. Participant characteristics according to dust accumulation (The HOME Study; Cincinnati, OH).

	Total		No Cleaning		Some Cleaning		Appears Clean	
	n	(%)	n	(%)	n	(%)	n	(%)
<b>Total*</b>	280	(100)	12	(4)	110	(39)	158	(56)
<b>Child Gender</b>								
Male	133	(48)	4	(33)	55	(50)	74	(47)
Female	147	(53)	8	(67)	55	(50)	84	(53)
<b>Child Race/Ethnicity</b>								
Non-Hispanic white	196	(70)	0	(0)	71	(65)	125	(79)
Non-Hispanic black	65	(23)	12	(100)	32	(29)	21	(13)
Hispanic	7	(3)	0	(0)	1	(1)	6	(4)
Other	11	(4)	0	(0)	5	(5)	6	(4)
<b>Marital Status</b>								
Married, or living with someone	236	(84)	2	(17)	93	(85)	141	(89)
Not married, or living alone	44	(16)	10	(83)	17	(15)	17	(11)
<b>Household Income</b>								
<\$20,000	40	(14)	9	(75)	22	(20)	9	(6)
\$20,000 - <\$40,000	29	(10)	2	(17)	15	(14)	12	(8)
\$40,000-\$70,000	68	(24)	1	(8)	30	(27)	37	(23)
>\$70,000	143	(51)	0	(0)	43	(39)	100	(63)
<b>Maternal Education</b>								
Bachelor's degree or higher	167	(60)	1	(8)	48	(44)	118	(75)
Tech/some college	71	(25)	5	(42)	39	(35)	27	(17)
High school or less	42	(15)	6	(50)	23	(21)	13	(8)
<b>Flooring</b>								
High carpet	26	(9)	0	(0)	11	(10)	15	(10)
Mid carpet	112	(40)	3	(25)	46	(42)	63	(40)
Low carpet	108	(39)	5	(42)	39	(35)	64	(41)
Wood/tile/ceramic	30	(11)	3	(25)	12	(11)	15	(10)
Vinyl	3	(1)	1	(8)	2	(2)	0	(0)
<b>Child puts toys in mouth: <sup>a</sup></b>								
None	7	(3)	0	(0)	0	(0)	7	(4)
Monthly	11	(4)	3	(25)	2	(2)	6	(4)
Weekly	14	(5)	1	(8)	4	(4)	9	(6)
Daily	245	(88)	8	(67)	102	(94)	135	(86)
<b>Child sucks on thumb or fingers: <sup>a</sup></b>								
No	162	(58)	6	(50)	62	(57)	94	(60)
Yes	115	(42)	6	(50)	46	(43)	63	(40)
<b>Child uses pacifier: <sup>a</sup></b>								
No	180	(65)	11	(92)	70	(65)	99	(63)
Yes	97	(35)	1	(8)	38	(35)	58	(37)
<b>Pre-packaged fruit consumption: <sup>b</sup></b>								
At least once a day	133	(51)	3	(27)	53	(51)	77	(52)
1-6 times a week	70	(27)	1	(9)	35	(34)	34	(23)
Less than 3 times a month	59	(23)	7	(64)	16	(15)	36	(24)
<b>Pre-packaged vegetables: <sup>b</sup></b>								
At least once a day	134	(51)	3	(27)	55	(53)	76	(52)
1-6 times a week	69	(26)	2	(18)	33	(32)	34	(23)
Less than 3 times a month	59	(23)	6	(55)	16	(15)	37	(25)
<b>Breastfeeding Duration <sup>b</sup></b>								
Never	36	(14)	4	(36)	13	(13)	19	(13)
>0-6 months	106	(40)	5	(45)	43	(41)	58	(39)
>6 months	120	(46)	2	(18)	48	(46)	70	(48)
<b>Intervention group</b>								
Control	139	(50)	6	(50)	57	(52)	76	(48)
Intervention	141	(50)	6	(50)	53	(48)	82	(52)

Includes first observation only; <sup>a</sup> missing = 3; <sup>b</sup> missing = 18  
Total observations = 650

Table S10. Adjusted geometric mean and percent differences in childhood urinary phthalate metabolite concentrations (ng/mL) according to dust accumulation (The HOME Study; Cincinnati, OH).<sup>a</sup>

	n <sup>b</sup>	GM	% Difference (95%CI)
<b>∑DEHP</b>			
Does not appear clean	268	93	Ref
Appears clean	382	82	-12 (-24, 1)
<b>MBzP</b>			
Does not appear clean	268	18	Ref
Appears clean	382	15	-17 (-30, -2)
<b>MCOP</b>			
Does not appear clean	268	12	Ref
Appears clean	382	11	-12 (-23, 1)
<b>MCNP</b>			
Does not appear clean	268	5.1	Ref
Appears clean	382	4.2	-16 (-25, -5)
<b>MEP</b>			
Does not appear clean	268	58	Ref
Appears clean	382	58	0 (-16, 19)

<sup>a</sup> Model adjusted for child age (continuous), sex (male vs. female), race/ethnicity (Non-Hispanic white vs. Non-Hispanic Black vs. Hispanic or other race/ethnicity), log<sub>10</sub>-transformed urinary creatinine concentration (continuous), flooring type (carpet vs. non-carpet), maternal education (Bachelor's degree or higher vs. Tech/some college vs. High school or less), intervention group (lead hazard intervention vs. control group), household income (<\$20,000 vs. \$20,000 to <\$40,000 vs. \$40,000 to \$70,000 vs. >\$70,000), and season (spring vs. summer vs. fall vs. winter).

<sup>b</sup> The n column is the number of repeated measures 280 participants (122 Does not appear clean and 158 appears clean).

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (∑DEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S11. Adjusted geometric mean and percent differences in childhood urinary phthalate metabolite concentrations (ng/mL) according to three categories of dust accumulation: Sensitivity analyses (The HOME Study; Cincinnati, OH).<sup>a</sup>

	Creatinine Adjusted			Creatinine Standardized		Trend test p-value <sup>c</sup>
	n <sup>b</sup>	GM	% Difference (95%CI)	GM	% Difference (95%CI)	
<b>ΣDEHP</b>						0.014
No cleaning/ heavy dust	27	129	Ref	439	Ref	
Some cleaning/ slight dust	241	89	-31 (-51, -3)	298	-32 (-52, -4)	
Appears Clean	382	79	-39 (-57, -12)	264	-40 (-58, -14)	
<b>MBzP</b>						0.005
No cleaning/ heavy dust	27	27	Ref	94	Ref	
Some cleaning/ slight dust	241	17	-37 (-58, -5)	57	-39 (-60, -7)	
Appears Clean	382	14	-47 (-65, -18)	48	-49 (-67, -21)	
<b>MCOP</b>						0.023
No cleaning/ heavy dust	27	15	Ref	51	Ref	
Some cleaning/ slight dust	241	12	-22 (-44, 7)	39	-23 (-45, 6)	
Appears Clean	382	10	-31 (-50, -3)	35	-32 (-51, -5)	
<b>MCNP</b>						0.005
No cleaning/ heavy dust	27	5.4	Ref	18	Ref	
Some cleaning/ slight dust	241	5.0	-6 (-29, 25)	17	-6 (-29, 25)	
Appears Clean	382	4.3	-20 (-41, 7)	14	-20 (-41, 7)	
<b>MEP</b>						0.710
No cleaning/ heavy dust	27	48	Ref	156	Ref	
Some cleaning/ slight dust	241	60	25 (-18, 91)	196	26 (-18, 92)	
Appears Clean	382	59	24 (-20, 92)	195	25 (-20, 94)	

<sup>a</sup> Model adjusted for child age (continuous), sex (male vs. female), race/ethnicity (Non-Hispanic white vs. Non-Hispanic Black vs. Hispanic or other race/ethnicity), flooring type (carpet vs. non-carpet), maternal education (Bachelor's degree or higher vs. Tech/some college vs. High school or less), intervention group (lead hazard intervention vs. control group), household income (<\$20,000 vs. \$20,000 to <\$40,000 vs. \$40,000 to \$70,000 vs. >\$70,000), and season (spring vs. summer vs. fall vs. winter). Creatinine adjusted model also adjusted for log<sub>10</sub>-transformed urinary creatinine concentration (continuous).

<sup>b</sup> The n column is the number of observations for 280 participants (12 No cleaning, 110 Some cleaning, 158 Appears clean).

<sup>c</sup> Trend test p-value for dust accumulation from creatinine-adjusted model.

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S12. Adjusted geometric mean and percent differences in childhood creatinine-standardized urinary phthalate metabolite concentrations (ng/mL) for the intervention group compared to the control group.<sup>a</sup>

	n <sup>b</sup>	GM	%Difference (95%CI)
<b>ΣDEHP</b>			
Control	343	276	Ref
Intervention	337	246	-11 (-22, 2)
<b>MBzP</b>			
Control	343	41	Ref
Intervention	337	38	-6 (-22, 14)
<b>MCOP</b>			
Control	343	38	Ref
Intervention	337	34	-10 (-21, 2)
<b>MCNP</b>			
Control	343	16	Ref
Intervention	337	14	-12 (-22, 0)
<b>MEP</b>			
Control	343	118	Ref
Intervention	337	124	5 (-15, 30)

<sup>a</sup> Model adjusted for child age (years).

<sup>b</sup> The n column is the number of observations for 288 participants (145 control and 143 intervention group).

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).

Table S13. Adjusted geometric mean and percent differences in childhood urinary phthalate metabolite concentrations (ng/mL) by dust accumulation: Sensitivity analyses considering different sets of covariates.

	Model 1: Minimally-Adjusted			Model 2: Fully Adjusted			Model 3: Additional Covariates		
	n <sup>a</sup>	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)	n	GM	% Difference (95%CI)
<b>ΣDEHP</b>									
Does not appear clean	268	86	Ref	268	93	Ref	250	90	Ref
Appears clean	382	73	-15 (-25, -3)	382	82	-12 (-24, 1)	355	78	-14 (-26, 0)
<b>MBzP</b>									
Does not appear clean	268	14	Ref	268	18	Ref	250	17	Ref
Appears clean	382	10	-29 (-39, -16)	382	15	-17 (-30, -2)	355	14	-16 (-29, 0)
<b>MCOP</b>									
Does not appear clean	268	12	Ref	268	12	Ref	250	12	Ref
Appears clean	382	10	-11 (-21, 1)	382	11	-12 (-23, 1)	355	11	-10 (-22, 3)
<b>MCNP</b>									
Does not appear clean	268	4.9	Ref	268	5.1	Ref	250	4.8	Ref
Appears clean	382	4.1	-15 (-24, -5)	382	4.2	-16 (-25, -5)	355	4.1	-15 (-25 -4)
<b>MEP</b>									
Does not appear clean	268	42	Ref	268	58	Ref	250	60	Ref
Appears clean	382	33	-22 (-34, -7)	382	58	0 (-16, 19)	355	59	-2 (-18, 18)

<sup>a</sup> The n column is the number of observations for 280 participants.

Model 1: child age (continuous), sex (male vs. female), log<sub>10</sub>-transformed urinary creatinine concentrations (continuous), intervention group (lead hazard intervention vs. control group); n=280; observations = 650

Model 2: child age (continuous), sex (male vs. female), log<sub>10</sub>-transformed urinary creatinine concentrations (continuous), intervention group (lead hazard intervention vs. control group), race/ethnicity (Non-Hispanic white vs. Non-Hispanic Black vs. Hispanic or other race/ethnicity), flooring type (carpet vs. non-carpet), maternal education (Bachelor's degree or higher vs. Tech/some college vs. High school or less), household income (<\$20,000 vs. \$20,000 to <\$40,000 vs. \$40,000 to \$70,000 vs. >\$70,000), and season (spring vs. summer vs. fall vs, winter); n=280; observations = 650

Model 3: child age (continuous), sex (male vs. female), log<sub>10</sub>-transformed urinary creatinine concentrations (continuous), intervention group (lead hazard intervention vs. control group), race/ethnicity (Non-Hispanic white vs. Non-Hispanic Black vs. Hispanic or other race/ethnicity), flooring type (carpet vs. non-carpet), maternal education (Bachelor's degree or higher vs. Tech/some college vs. High school or less), household income (<\$20,000 vs. \$20,000 to <\$40,000 vs. \$40,000 to \$70,000 vs. >\$70,000), season (spring vs. summer vs. fall vs, winter), duration of breastfeeding (never vs. >0-6 months vs. >6 months), pacifier use (no vs. yes), toy mouthing behaviors (less than daily vs. daily), and prepackage food consumption (combined measure of consumption of prepackaged fruit or consumption of prepackaged vegetables: at least once a day vs. 1-6 times a week vs. less than 3 times a month); n=260; observations = 605.

Abbreviations: geometric mean (GM), 95% confidence intervals (95%CI), summary DEHP (ΣDEHP) = sum of the molar mass of mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-2-ethyl-5-oxohexyl phthalate (MEOHP), and mono-2-ethyl-5-carboxypentyl phthalate (MECPP); monobenzyl phthalate (MBzP); monocarboxyoctyl phthalate (MCOP); monocarboxynonyl phthalate (MCNP); monoethyl phthalate (MEP).