

Supporting Information

**Exposure of nail salon workers to phthalates, di(2-ethylhexyl) terephthalate, and organophosphate esters: A pilot study**

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Figure S1. Comparison of Creatinine-Corrected Pre- and Post-Shift Concentrations\* of Phthalates, Phthalate Alternatives, and Organophosphate Esters (ng/g) Detected  $\geq 50\%$  in Individual Nail Salon Workers' Urine in the Greater Boston Area (2016-2017)

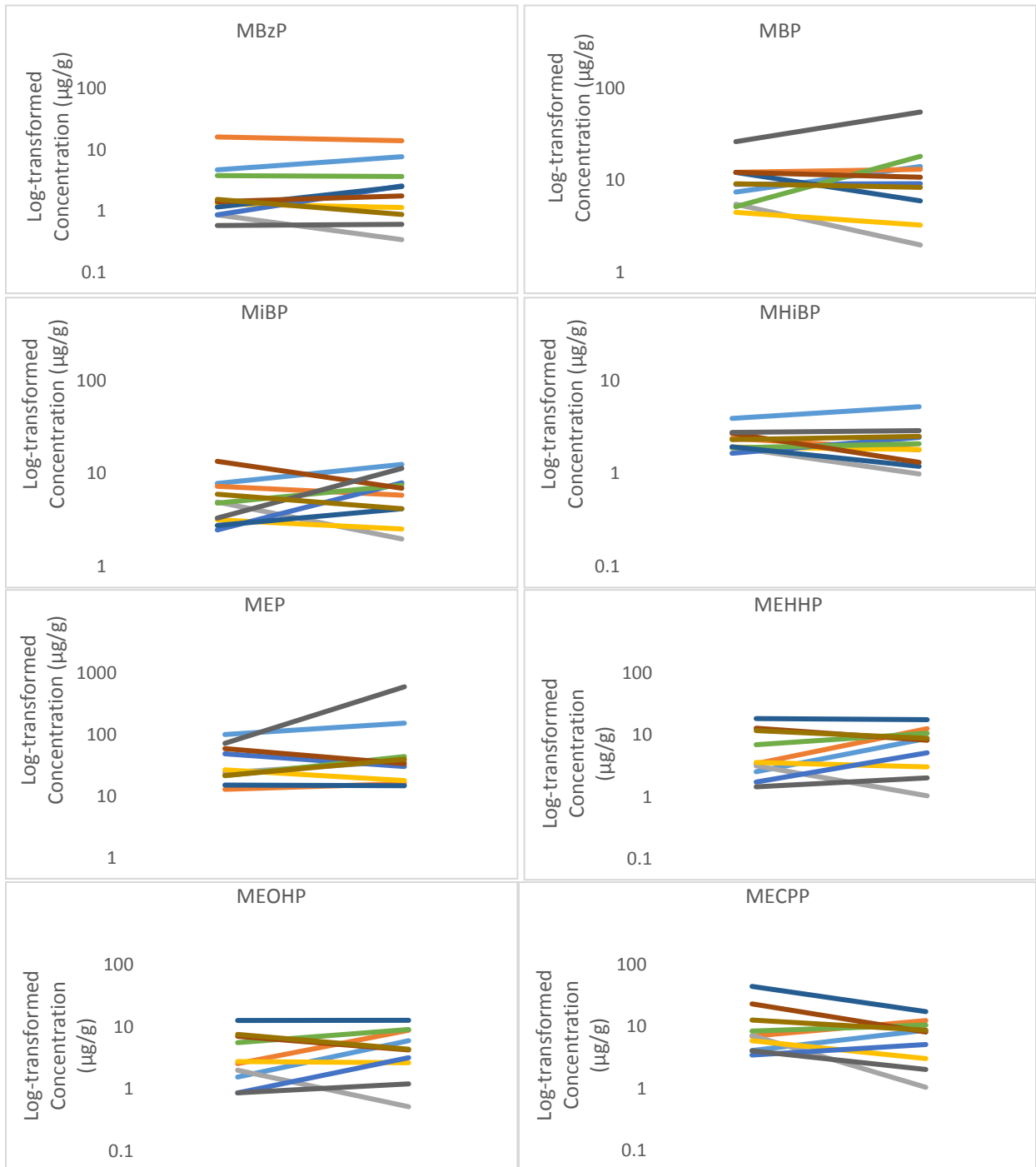


Figure S1 (Continued). Comparison of Creatinine-Corrected Pre- and Post-Shift Concentrations\* of Phthalates, Phthalate Alternatives, and Organophosphate Esters (ng/g) Detected  $\geq 50\%$  in Individual Nail Salon Workers' Urine in the Greater Boston Area (2016-2017)

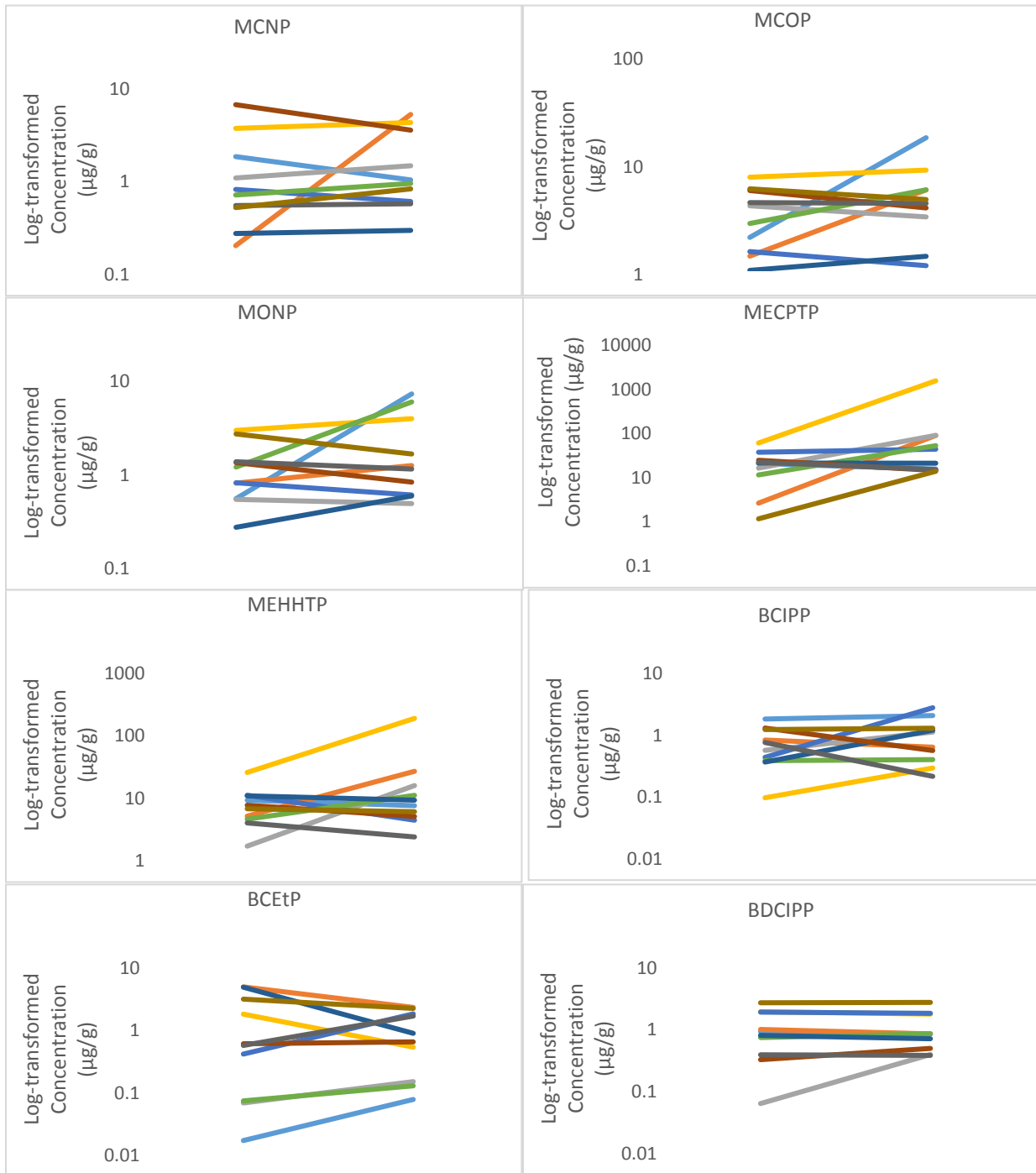
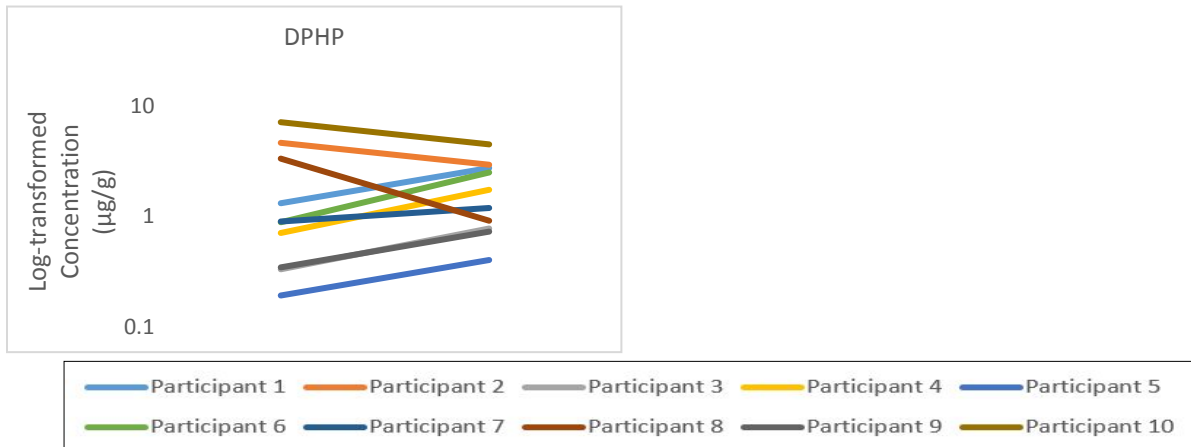


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\*Concentrations <LOD replaced

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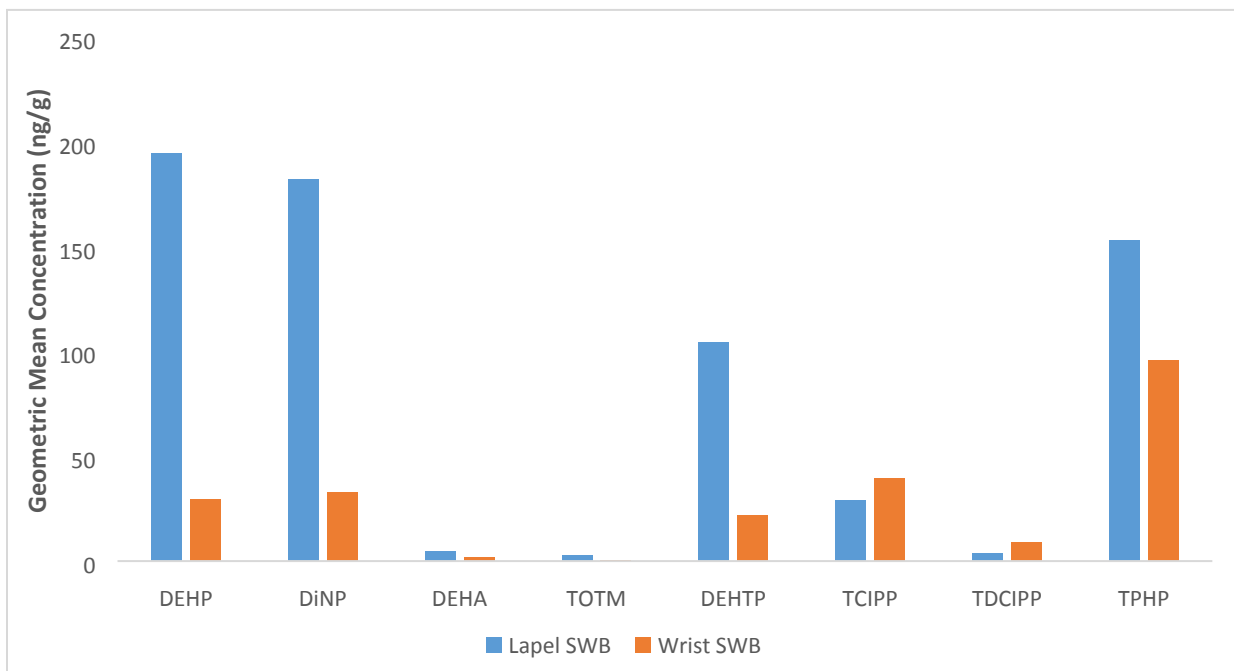


Table S1. Correlations between SVOCs in Silicone Wrist Bands (SWBs) measured in ng/g and SVOC concentrations measured in SWBs corrected for work shift length (ng/g)<sup>-hr</sup> from Nail Salon Workers in the Greater Boston Area (2016-2017)

SWB Parent Compound	Spearman correlation coefficients	
	Lapel SWB	Wrist SWB
<b>Phthalates</b>		
DEHP	1.0	1.0
DiNP	1.0	1.0
<b>Phthalate Alternatives</b>		
DEHA	1.0	1.0
TOTM	0.98	1.0
DEHTP	0.98	1.0
<b>Organophosphate Esters</b>		
TCIPP	1.0	1.0
TDCIPP	1.0	1.0
TPHP	0.98	1.0

Table S2. Descriptive Statistics for SVOCs Examined in Silicone Wrist Bands (SWBs) Worn During a Work Shift Adjusted for Work-Shift Duration by Nail Salon Workers in the Greater Boston Area (2016-2017)

Compound	Lapel SWB Concentrations (ng/g) <sup>hr</sup> (n=9)					Wrist SWB Concentrations (ng/g) <sup>hr</sup> (n=9)					[Lapel/Wrist] Difference	Wrist/Lapel Correlation <sup>#</sup>
	% >MDL	GM	GSD	Median	Range	% >MDL	GM	GSD	Median	Range		
<b>Phthalates</b>												
BBzP	44.4	N/A	N/A	<MDL	<MDL – 5.1	22.2	N/A	N/A	<MDL	<MDL – 2.0	N/A	N/A
DBP	0.0	N/A	N/A	N/A	N/A	11.1	N/A	N/A	<MDL	<MDL – 179	N/A	N/A
DiBP	33.3	N/A	N/A	<MDL	<MDL – 6.2	33.3	N/A	N/A	<MDL	<MDL – 13.0	N/A	N/A
DEP	22.2	N/A	N/A	<MDL	<MDL – 52.4	22.2	N/A	N/A	<MDL	<MDL – 87.9	N/A	N/A
DMP	33.3	N/A	N/A	<MDL	<MDL – 0.43	33.3	N/A	N/A	<MDL	<MDL – 0.53	N/A	N/A
DEHP	100	21.9	4.0	25.1	4.5 - 397	55.6	3.5	19.2	4.5	<MDL – 182	6.3	0.17
DiNP	88.9	20.5	3.9	22.3	<MDL - 149	55.6	3.9	26.4	5.3	<MDL – 429	5.3	-0.21
<b>Phthalate Alternatives</b>												
DEHA	77.8	0.51	16.9	0.46	<MDL - 152	55.6	0.22	21.8	0.25	<MDL – 23.6	2.3	<b>0.81*</b>
TOTM	100	0.31	5.9	0.29	0.03 – 7.8	55.6	0.05	76.4	0.15	<MDL – 44.8	6.2	0.64
DEHTP	100	11.8	3.9	9.0	1.9 - 182	77.8	2.6	25.7	33.7	<MDL - 529	4.5	0.21
<b>Organophosphate Esters</b>												
TCIPP	77.8	3.3	3.9	4.5	<MDL – 19.5	88.9	4.7	4.5	4.4	<MDL – 33.2	0.70	0.48
TCEP	11.1	N/A	N/A	<MDL	<MDL – 6.2	0.0	N/A	N/A	<MDL	N/A	N/A	N/A
TDCIPP	77.8	0.39	4.8	0.44	<MDL – 4.6	88.9	1.1	3.7	1.8	<MDL – 3.7	0.35	0.43
TPHP	88.9	17.2	4.7	33.8	<MDL – 134	100	11.4	3.5	12.0	1.3 – 49.0	1.5	0.10

GM = Geometric Mean; GSD = Geometric Standard Deviation; MDL = Method Detection Limit; <sup>#</sup>Spearman Correlation

N/A Not calculated: proportion of results below method detection limit was too high to provide a valid result

\*Spearman correlation statistically significant (p<0.05)

Note: Not all compounds listed in Table 1 were measured in SWBs

Table S3. Correlations between SVOCs in Silicone Wrist Bands (SWBs) and Creatinine-Corrected Urinary Metabolites in Post-Shift minus Pre-shift Urine Samples Adjusted for Work-Shift Duration from Nail Salon Workers in the Greater Boston Area (2016-2017)

SWB Parent Compound	Urinary Metabolite	Spearman correlation coefficients for Difference of post-shift and pre-shift urine/	
		Lapel SWB	Wrist SWB
<b>Phthalates</b>			
DEHP	MEHP	0.18	0.15
	MEHHP	0.28	0.18
	MEOHP	0.17	0.07
	MECPP	0.63	0.22
DiNP	MCOP	0.27	0.45
	MONP	-0.08	0.30
<b>Phthalate Alternatives</b>			
DEHTP	MECPTP	0.52	0.33
	MEHHTP	0.33	0.55
<b>Organophosphate Esters</b>			
TCIPP	BCIPP	-0.17	-0.30
TDCIPP	BDCIPP	-0.10	0.40
TPHP	DPHP	0.03	0.28