



**Figure S1.** Covariate-adjusted differences in mean birth length (cm) associated with hair product use (A) and use frequency (B) within the month prior to each pregnancy study visit (n= 164\*). \*Due to missing frequency data at individual time points the sample sizes range from n=149 to n=164. “Ever” use categories represent report of daily use or less than daily use at one or more pregnancy visits compared to “never” users.

**Table S1.** Participant characteristics of included (n=164) and excluded (n=11) study participants

Characteristic/outcome	Included (n=164)		Excluded (n=11)	
	n	mean $\pm$ SD or %	n	mean $\pm$ SD or %
<b><i>Parental characteristics</i></b>				
Age at consent (years)	164	32.5 $\pm$ 4.4	11	31.7 $\pm$ 4.1
BMI at visit 1 (kg/m <sup>2</sup> )	164	25.6 $\pm$ 5.3	10	26.5 $\pm$ 5.4
Bachelor's degree or higher	130	79%	5	83%
Missing	-	-	5	-
Race and ethnicity				
Non-Hispanic White	101	62%	3	37.5%
Non-Hispanic Black	18	11%	1	12.5%
Hispanic	13	8%	1	12.5%
"Other" race	32	19%	3	37.5%
Missing	-	-	3	-
Parity				
0	84	51%	6	86%
1	51	31%	1	14%
2+	29	18%	0	0%
Missing	-	-	4	-

**Table S2.** Sensitivity analysis of covariate-adjusted<sup>a</sup> differences in mean birth outcomes in product users compared to non-users in the 48 hours prior to each pregnancy study visit (n=146)<sup>b</sup> – excluding non-Hispanic Black participants<sup>c</sup>

Product	Visit <sup>d</sup>	Gestational Age (days)	Birth Length (cm)	BW-for-GA Z-score
		Beta (95% CI)	Beta (95% CI)	Beta (95% CI)
Deodorant	1	-1.0 (-8.0, 6.0)	0.2 (-1.9, 2.2)	0.38 (-0.13, 0.90)
	2	1.4 (-5.44, 8.2)	0.4 (-1.6, 2.4)	0.38 (-0.13, 0.89)
	3	-0.4 (-5.0, 4.3)	0.3 (-1.7, 2.2)	0.17 (-0.29, 0.62)
	4	0.1 (-4.7, 4.9)	0.1 (-2.1, 2.2)	0.22 (-0.27, 0.71)
	Ever	---	---	---
Hair gel/spray	1	-3.4 (-8.4, 1.6)	0.3 (-1.2, 1.8)	-0.03 (-0.41, 0.35)
	2	-2.6 (-7.8, 2.6)	-0.2 (-1.8, 1.3)	-0.18 (-0.57, 0.21)
	3	1.8 (-2.1, 5.6)	0.7 (-1.0, 2.4)	0.10 (-0.28, 0.48)
	4	2.9 (-0.6, 6.5)	0.2 (-1.4, 1.8)	-0.30 (-0.66, 0.07)
	Ever	0.4 (-3.9, 4.8)	0.4 (-0.9, 1.7)	-0.13 (-0.47, 0.20)
Conditioner	1	-0.4 (-7.1, 6.3)	-0.8 (-2.2, 0.6)	-0.26 (-0.75, 0.23)
	2	0.05 (-5.4, 5.5)	1.6 (0.1, 3.2)	0.05 (-0.36, 0.46)
	3	-0.08 (-3.8, 3.6)	-1.2 (-2.7, 0.3)	-0.29 (-0.65, 0.07)
	4	1.6 (-2.1, 5.4)	-1.0 (-2.6, 0.7)	-0.22 (-0.61, 0.16)
	Ever	---	---	---
Shampoo	1	-0.4 (-9.5, 8.6)	0.01 (-1.9, 1.9)	0.21 (-0.46, 0.87)
	2	-0.7 (-7.6, 6.1)	2.9 (1.0, 4.9)	0.52 (0.01, 1.03)
	3	1.1 (-3.2, 5.5)	-1.0 (-2.8, 0.8)	-0.005 (-0.43, 0.42)
	4	0.8 (-4.1, 5.6)	0.6 (-1.5, 2.7)	0.15 (-0.35, 0.65)
	Ever	---	---	---
Bar soap	1	3.4 (-1.2, 8.0)	-0.9 (-2.3, 0.5)	-0.24 (-0.59, 0.11)
	2	4.2 (-0.3, 8.8)	-0.6 (-2.0, 0.8)	-0.10 (-0.45, 0.25)
	3	2.8 (-0.2, 5.9)	-0.7 (-2.0, 0.6)	-0.23 (-0.53, 0.07)
	4	1.8 (-1.4, 5.0)	-0.6 (-2.0, 0.8)	-0.05 (-0.38, 0.27)
	Ever	4.5 (-0.1, 9.1)	-0.2 (-1.6, 1.2)	-0.15 (-0.51, 0.21)
Liquid soap/ body wash	1	-2.5 (-10.7, 5.7)	-1.2 (-3.6, 1.2)	-0.23 (-0.84, 0.38)
	2	-4.2 (-11.4, 3.1)	-1.3 (-3.5, 0.8)	-0.24 (-0.79, 0.31)
	3	-4.0 (-8.7, 0.8)	1.2 (-0.9, 3.2)	0.01 (-0.46, 0.48)
	4	-0.3 (-5.2, 4.6)	3.4 (1.4, 5.5)	0.13 (-0.38, 0.63)
	Ever	---	---	---
Lotion	1	-0.9 (-6.9, 5.1)	1.2 (-0.5, 3.0)	0.51 (0.08, 0.94)
	2	2.4 (-3.9, 8.7)	0.2 (-1.7, 2.0)	0.06 (-0.41, 0.53)
	3	2.4 (-1.7, 6.5)	0.6 (-1.2, 2.3)	0.23 (-0.18, 0.63)
	4	2.2 (-2.3, 6.7)	0.4 (-1.6, 2.4)	0.13 (-0.34, 0.60)
	Ever	---	---	---
Shave cream	1	-3.4 (-8.8, 1.9)	-1.9 (-3.5, -0.4)	-0.07 (-0.47, 0.33)
	2	-2.4 (-8.0, 3.2)	-1.5 (-3.2, 0.1)	0.03 (-0.39, 0.46)
	3	-1.4 (-5.4, 2.6)	-0.7 (-2.4, 0.9)	-0.07 (-0.47, 0.32)
	4	-0.6 (-4.7, 3.5)	-1.8 (-3.4, 0.0)	0.12 (-0.29, 0.54)
	Ever	-3.2 (-7.8, 1.4)	-1.5 (-2.9, -0.2)	-0.14 (-0.50, 0.21)
Perfume	1	0.3 (-4.7, 5.3)	0.5 (-1.0, 2.0)	0.07 (-0.30, 0.44)
	2	0.5 (-4.6, 5.5)	0.05 (-1.4, 1.5)	-0.12 (-0.50, 0.27)
	3	-2.3 (-5.8, 1.3)	0.01 (-1.5, 1.5)	-0.22 (-0.57, 0.14)
	4	-0.9 (-4.5, 2.8)	1.0 (-0.6, 2.6)	0.12 (-0.25, 0.49)
	Ever	-0.2 (-4.9, 4.5)	0.8 (-0.6, 2.2)	0.06 (-0.30, 0.43)
Nail polish	1	-0.2 (-5.4, 5.1)	1.1 (-0.4, 2.7)	0.28 (-0.11, 0.66)
	2	2.2 (-3.5, 7.8)	0.5 (-1.1, 2.2)	0.10 (-0.33, 0.52)
	3	-0.6 (-4.9, 3.6)	0.6 (-1.2, 2.4)	-0.19 (-0.61, 0.23)
	4	-0.1 (-3.7, 3.6)	0.3 (-1.3, 1.9)	0.15 (-0.22, 0.52)
	Ever	2.0 (-2.5, 6.4)	1.3 (-0.01, 2.6)	0.21 (-0.13, 0.55)

<sup>a</sup>Adjusted for parental participant age at consent (years), BMI at visit 1 (kg/m<sup>2</sup>), bachelor's degree or higher (yes vs. no), and parity (0, 1, 2+)

<sup>b</sup>Due to missing data at some time points the sample size ranges from n=134 to n=146

<sup>c</sup>n=18 non-Hispanic Black participants

<sup>d</sup>The "Ever" timepoint represents combined use data from all 4 pregnancy study visits

**Table S3.** Sensitivity analysis of covariate-adjusted<sup>a</sup> differences in mean birth outcomes in hair product users compared to non-users in the month prior to each pregnancy visit (n=146)<sup>b</sup> – excluding non-Hispanic Black participants<sup>c</sup>

Product	Visit <sup>d</sup>	Birth length (cm)	BW-for-GA Z-score
		Beta (95% CI)	Beta (95% CI)
Hair oil	1	-0.4 (-2.2, 1.4)	-0.46 (-0.90, -0.02)
	2	0.3 (-1.4, 2.1)	0.07 (-0.38, 0.52)
	3	0.6 (-1.2, 2.5)	-0.11 (-0.53, 0.30)
	4	0.2 (-1.8, 2.2)	-0.28 (-0.74, 0.17)
	Ever	0.6 (-0.8, 1.9)	-0.02 (-0.38, 0.34)
Hair lotion	1	-0.7 (-2.6, 1.3)	-0.42 (-0.90, 0.07)
	2	-0.6 (-2.5, 1.2)	-0.10 (-0.58, 0.38)
	3	0.9 (-1.3, 3.1)	-0.03 (-0.53, 0.47)
	4	-0.7 (-3.0, 1.7)	-0.22 (-0.75, 0.31)
	Ever	-0.4 (-1.8, 1.1)	-0.18 (-0.57, 0.20)
Leave-in	1	-0.5 (-2.2, 1.2)	-0.18 (-0.60, 0.23)
	2	0.9 (-0.9, 2.6)	0.03 (-0.42, 0.48)
	3	0.3 (-1.6, 2.1)	-0.32 (-0.75, 0.10)
	4	-0.2 (-2.1, 1.7)	-0.35 (-0.78, 0.08)
	Ever	0.3 (-1.1, 1.6)	0.02 (-0.33, 0.36)

<sup>a</sup>Adjusted for parental participant age at consent (years), BMI at visit 1 (kg/m<sup>2</sup>), bachelor's degree or higher (yes vs. no), and parity (0, 1, 2+)

<sup>b</sup>Due to missing data at some time points the sample size ranges from n=134 to n=146

<sup>c</sup>n=18 non-Hispanic Black participants

<sup>d</sup>The "Ever" timepoint represents combined use data from all 4 pregnancy study visits