

Supplemental Table 1. Selected Characteristics of the Study Cohort by Absolute Alcohol (AA) Drinking Month 1 – n (%)

Characteristic	N ^a	Levels of alcohol exposure						p-value
		0	<0.10	0.10<.25	0.25<0.50	0.50<1.00	≥1.00	
oz AA/day ^b (drinks/week)		0	(<1.5)	(1.5<3.5)	(3.5<7.0)	(7.0<14.0)	(≥14.00)	
	4,496	3183 (71.2)	733 (16.4)	245 (5.5)	155 (3.5)	96 (2.2)	59 (1.3)	
Passive smoke exposure since pregnant								
No	3155	2198 (69.7)	584 (18.5)	177 (5.6)	111 (3.5)	64 (2.0)	21 (0.7)	<i>P</i> <0.0001
Yes	1315	985 (74.9)	149 (11.3)	68 (5.2)	44 (3.4)	32 (2.4)	37 (2.8)	
Use of marijuana month before pregnancy								
No	4184	3005 (71.8)	695 (16.6)	219 (5.2)	140 (3.4)	85 (2.0)	40 (1.0)	<i>P</i> <0.0001
Yes	280	174 (62.1)	36 (12.9)	26 (9.3)	15 (5.4)	11 (3.9)	18 (6.4)	
Use of cocaine month before pregnancy								
No	4443	3172 (71.4)	729 (16.4)	242 (5.5)	154 (3.5)	94 (2.1)	52 (1.2)	<i>P</i> <0.0001
Yes	24	10 (41.7)	2 (8.3)	3 (12.5)	1(4.2)	2 (8.3)	6 (25.0)	
Exercise year before pregnancy								
No	1363	1064 (78.1)	178 (13.1)	54 (4.0)	24 (1.8)	22 (1.6)	21 (1.5)	<i>P</i> <0.0001
Yes	3104	2117 (68.2)	554 (17.9)	191 (6.2)	131 (4.2)	74 (2.4)	37 (1.2)	
Multivitamin use ^c								
No	3228	2388 (74.0)	491 (15.2)	153 (4.7)	92 (2.9)	64 (2.0)	40 (1.2)	<i>P</i> <0.0001
Yes	1222	776 (63.5)	241 (19.7)	92 (7.5)	63 (5.2)	32 (2.6)	18 (1.5)	
Prenatal vitamin use ^c								
No	374	292 (78.1)	60 (16.0)	8 (2.1)	6 (1.6)	6 (1.6)	2 (0.5)	<i>P</i> =0.0036
Yes	4096	2891 (70.6)	673 (16.4)	237 (5.8)	149 (3.6)	90 (2.2)	56 (1.4)	
Respiratory problem								

	No	3436	2412 (70.2)	582 (16.9)	198 (3.7)	128 (3.7)	71 (2.1)	45 (1.3)	<i>P</i> =0.0054
	Yes	842	635 (75.4)	121 (14.4)	36 (4.3)	22 (2.6)	19 (2.3)	9 (1.1)	
Fetal anomalies									
	No	3422	2415 (70.6)	574 (16.8)	191 (5.6)	129 (3.8)	73 (2.1)	40 (1.2)	<i>P</i> <0.1034
	Yes	836	619 (74.0)	121 (14.5)	44 (5.3)	20 (2.4)	17 (2.0)	15 (1.8)	
Infant Gender									
	Male	2256	1586 (70.3)	386 (17.1)	135 (6.0)	69 (3.1)	53 (2.4)	27 (1.2)	<i>P</i> <0.1729
	Female	2174	1566 (72.0)	340 (15.6)	109 (5.0)	86 (4.0)	42 (1.9)	31 (1.4)	
Incompetent cervix									
	No	4231	3008 (71.1)	697 (16.5)	233 (5.5)	149 (3.5)	89 (2.1)	55 (1.3)	<i>P</i> =0.8793
	Yes	38	30 (79.0)	5 (13.2)	1 (2.6)	1 (2.6)	1 (2.6)	0 (0.0)	
Placental problems									
	No	4103	2923 (71.2)	674 (16.4)	222 (5.4)	144 (3.5)	85 (2.1)	55 (1.3)	<i>P</i> =0.4453
	Yes	166	114 (68.7)	28 (16.9)	13 (7.8)	6 (3.6)	5 (3.0)	0 (0.0)	
Father's ethnicity									
	Caucasian	2978	1939 (65.1)	591 (19.9)	204 (6.9)	132 (4.4)	73 (2.5)	39 (1.3)	<i>P</i> <0.0001
	Black, African American	475	380 (80.0)	48 (10.1)	20 (4.2)	9 (1.9)	8 (1.7)	10 (2.1)	
	Hispanic	801	687 (85.8)	65 (8.1)	17 (2.1)	12 (1.5)	13 (1.6)	9 (0.9)	
	Asian	63	55 (87.3)	8 (12.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	
	Other	132	107 (81.1)	15 (11.4)	4 (3.0)	2 (1.5)	2 (1.5)	2 (1.5)	
STD									
	No	3899	2753 (70.6)	654 (16.8)	215 (5.5)	140 (3.6)	85 (2.2)	52 (1.3)	<i>P</i> =0.1188
	Yes	382	295 (77.2)	48 (12.6)	21 (5.5)	10 (2.6)	5 (1.3)	3 (0.8)	
Induction/Augmentation									
	No	2041	1460 (71.5)	333 (16.3)	108 (5.3)	78 (3.8)	41 (2.0)	21 (1.0)	<i>P</i> =0.5520

	Yes	2211	1563 (70.7)	364 (16.5)	129 (5.8)	72 (3.3)	49 (2.2)	34 (1.5)	
Maternal asthma	No	3444	2412 (70.0)	593 (17.2)	200 (5.8)	126 (3.7)	74 (2.2)	39 (1.1)	<i>P</i> =0.0035
	Yes	839	637 (75.9)	110 (13.1)	36 (4.3)	24 (2.9)	16 (1.9)	16 (1.9)	

^aNumbers may not sum to total N due to missing values

^bAA= absolute alcohol ounces; 0.5 oz AA is approximately equal to 1 standard drink

^cMultivitamin and prenatal vitamin use from month prior to conception until baseline interview

Supplemental Table 2. Maternal Characteristics and Low Birth Weight, Preterm Delivery, and IUGR

	N ^a	LBW (%)	p value	N	PTD (%)	p value	N	IUGR (%) ^b	p-value
Passive smoke exposure since pregnant									
No	3171	125 (3.9)	P=0.0004	3175	201 (6.3)	P=0.0199	3161	241 (7.6)	P=0.2222
Yes	1316	85 (6.4)		1319	109 (8.3)		1309	114 (8.7)	
Use of marijuana month before pregnancy									
No	4201	185 (4.4)	P=0.0014	4207	279 (6.6)	P=0.0046	4186	320 (7.6)	P=0.0032
Yes	280	24 (8.6)		280	31 (11.1)		278	35 (12.6)	
Use of cocaine month before pregnancy									
No	4460	206 (4.6)	P=0.0678	4466	307 (6.9)	P=0.2783	4443	353 (8.0)	P=0.9441
Yes	24	3 (12.5)		24	3 (12.5)		24	2 (8.3)	
Exercise yr before pregnancy									
No	1357	91 (6.7)	P<0.0001	1364	106 (7.8)	P=0.1294	1354	115 (8.5)	P=0.3734
Yes	3127	118 (3.8)		3127	204 (6.5)		3113	240 (7.7)	
Multivitamin use ^c									
No	3235	155 (4.8)	P=0.4911	3242	237 (7.3)	P=0.0852	3220	262 (8.1)	P=0.4732
Yes	1231	53 (4.3)		1231	72 (5.9)		1137	92 (7.5)	
Prenatal vitamin use ^c									
No	374	21 (5.6)	P=0.3590	375	30 (8.0)	P=0.3791	372	27 (7.3)	P=0.6105
Yes	4113	188 (4.6)		4119	280 (6.8)		4098	328 (8.0)	
Respiratory problems									
No	3455	154 (4.5)	P=0.2334	3455	226 (6.5)	P=0.4263	3440	271 (7.9)	P=0.8845
Yes	849	46 (5.4)		849	62 (7.3)		847	68 (8.0)	

Fetal anomalies										
	No	3442	144 (4.2)	P=0.0024	3442	218 (6.3)	P=0.0694	3433	277 (8.1)	P=0.4638
	Yes	842	56 (6.7)		842	68 (8.1)		835	61 (7.3)	
Infant Gender										
	Male	2268	92 (4.1)	P=0.0489	2268	170 (7.5)	P=0.0912	2258	166 (7.4)	P=0.1189
	Female	2188	116 (5.3)		2188	136 (6.2)		2181	188 (8.6)	
Incompetent cervix										
	No	4244	191 (4.5)	P<0.0001	4257	275 (6.5)	P<0.0001	4244	335 (7.9)	P=0.6646
	Yes	38	9 (23.7)		38	12 (31.6)		34	2 (5.9)	
Placental problems										
	No	4128	179 (4.3)	P<0.0001	4128	259 (6.3)	P<0.0001	4113	324 (7.9)	P=0.9816
	Yes	166	21 (12.7)		166	28 (16.9)		164	13 (7.9)	
Father's ethnicity										
	Caucasian	2997	90 (3.0)	P<0.0001	3000	171 (5.7)	P<0.0001	2988	217 (7.3)	P=0.0151
	Black, African-American	476	39 (8.2)		476	38 (8.0)		472	44 (9.3)	
	Hispanic	799	63 (7.9)		802	78 (9.7)		798	70 (8.8)	
	Asian	63	2 (3.2)		63	1 (1.6)		63	11 (17.5)	
	Other	131	13 (9.9)		132	19 (14.4)		131	13 (9.9)	
STD										
	No	3922	176 (4.5)	P=0.0448	3922	251 (6.4)	P=0.0053	3906	309 (7.9)	P=0.8033
	Yes	385	26 (6.8)		385	39 (10.1)		384	29 (7.6)	
Induction / augmentation										
	No	2053	113 (5.5)	P=0.0207	2053	170 (8.3)	P<0.0001	2044	157 (7.7)	P=0.4874
	Yes	2224	89 (4.0)		2224	116 (5.2)		2216	183 (8.3)	
Maternal asthma										

No	3467	151 (4.4)	P=0.0361	3467	213 (6.1)	P=0.0018	3453	265 (7.7)	P=0.3222
Yes	842	51 (6.1)		842	77 (9.1)		839	73 (8.7)	

^aNumbers may not sum to total N due to missing values

^bIUGR based on 1999 US singletons adjusted for gender and ethnicity

^cMultivitamin and prenatal vitamin use from month prior to conception until baseline interview

Supplemental Table 3: Unadjusted and adjusted estimates for birth length and head circumference evaluated as a continuous outcome

	Birth Length ^a				Head Circumference ^b			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	β	p-value	β	p-value	β	p-value	β	p-value
<u>Month 1 drinking</u>								
None	Ref		Ref		Ref		Ref	
< 0.10 oz AA/day	0.0012	0.302	-0.0008	0.49	0.0010	0.127	-0.0002	0.83
0.10<0.25 oz AA/day	0.0052	0.006	0.0034	0.07	0.0016	0.012	0.0034	0.03
\geq 0.25 oz AA/day	0.0009	0.602	-0.0002	0.89	0.0014	0.321	0.0007	0.61
<u>First Trimester drinking</u>								
Abstinent	Ref		Ref		Ref		Ref	
1st month only	0.0018	0.102	-0.0002	0.89	0.0009	0.026	0.0008	0.36
Drinking first three mos	0.0035	0.008	0.0031	0.02	0.0011	0.018	0.0019	0.08
<u>Drinking up to baseline interview</u>								
Abstinent	Ref		Ref		Ref		Ref	
Drinking	0.0025	0.005	0.0011	0.21	0.0023	0.003	0.0012	0.11

^a analyzed as birth length in inches transformed using log-base 10

^b analyzed as head circumference in centimeters transformed using log-base 10

Multivariable analysis included parity, maternal age, education, ethnicity, smoking, BMI, marital status, caffeine use 1st trimester, exercise, bleeding, hypertension, preterm labor, incompetent cervix, fetal anomalies, maternal asthma, placental problems, maternal diabetes