

Supplementary Material

Table S1 Compare samples included/excluded in analyses for MDI at age 1.

Characteristic	Excluded, N = 38	Included, N = 482	p-value
Child sex			0.2
Female	17 (45%)	267 (55%)	
Male	21 (55%)	215 (45%)	
Maternal ethnicity			0.036
African American	8 (21%)	189 (39%)	
Dominican	30 (79%)	293 (61%)	
ETS (Smoker in the home)	10 (26%)	165 (34%)	0.4
Maternal education			0.2
High school and higher	27 (71%)	283 (59%)	
Lower than high school	11 (29%)	199 (41%)	
TONI	22 (9)	20 (9)	0.2
Maternal demoralization	1.12 (0.67)	1.13 (0.63)	>0.9
PM _{2.5} at first trimester ($\mu\text{g}/\text{m}^3$)	18.1 (3.6)	17.4 (3.4)	0.2
PM _{2.5} at second trimester ($\mu\text{g}/\text{m}^3$)	16.9 (3.2)	16.8 (3.5)	>0.9
PM _{2.5} at third trimester ($\mu\text{g}/\text{m}^3$)	17.14 (2.50)	16.82 (2.83)	0.5
PM _{2.5} at entire pregnancy ($\mu\text{g}/\text{m}^3$)	17.34 (2.08)	17.08 (2.17)	0.5
NO ₂ at first trimester (<i>ppb</i>)	31 (6)	32 (7)	0.4
NO ₂ at second trimester (<i>ppb</i>)	30 (6)	32 (6)	0.14
NO ₂ at third trimester (<i>ppb</i>)	29.7 (5.9)	31.2 (5.8)	0.2
NO ₂ at entire pregnancy (<i>ppb</i>)	30.3 (5.8)	31.7 (5.8)	0.2

n (%); Mean (SD)

Fisher's exact test; Welch Two Sample t-test

Table S2 Compare samples included/excluded in analyses for MDI at age 2.

Variables	Excluded, N = 54	Included, N = 466	p-value
Child sex			0.020
Female	21 (39%)	263 (56%)	
Male	33 (61%)	203 (44%)	
Maternal ethnicity			0.8
African American	19 (35%)	178 (38%)	
Dominican	35 (65%)	288 (62%)	
ETS (Smoker in the home)	15 (28%)	160 (34%)	0.4
Maternal education			0.3
High school and higher	36 (67%)	274 (59%)	
Lower than high school	18 (33%)	192 (41%)	
TONI	22 (8)	20 (9)	0.068
Maternal demoralization	1.13 (0.63)	1.12 (0.63)	>0.9
PM _{2.5} at first trimester ($\mu\text{g}/\text{m}^3$)	17.3 (3.8)	17.5 (3.4)	0.7
PM _{2.5} at second trimester ($\mu\text{g}/\text{m}^3$)	16.7 (3.2)	16.9 (3.5)	0.8
PM _{2.5} at third trimester ($\mu\text{g}/\text{m}^3$)	17.30 (2.61)	16.79 (2.83)	0.2
PM _{2.5} at entire pregnancy ($\mu\text{g}/\text{m}^3$)	17.08 (2.19)	17.10 (2.16)	>0.9
NO ₂ at first trimester (<i>ppb</i>)	32 (6)	32 (7)	0.4
NO ₂ at second trimester (<i>ppb</i>)	31 (5)	32 (6)	0.6
NO ₂ at third trimester (<i>ppb</i>)	30.3 (5.1)	31.2 (5.9)	0.2
NO ₂ at entire pregnancy (<i>ppb</i>)	31.0 (5.1)	31.6 (5.9)	0.4

n (%); Mean (SD)

Fisher's exact test; Welch Two Sample t-test

Table S3 Compare samples included/excluded in analyses for MDI at age 3.

Variables	Excluded, N = 63	Included, N = 457	p-value
Child sex			0.3
Female	30 (48%)	254 (56%)	
Male	33 (52%)	203 (44%)	

Maternal ethnicity			0.9
African American	23 (37%)	174 (38%)	
Dominican	40 (63%)	283 (62%)	
ETS (Smoker in the home)	20 (32%)	155 (34%)	0.8
Maternal education			0.2
High school and higher	33 (52%)	277 (61%)	
Lower than high school	30 (48%)	180 (39%)	
TONI	23 (8)	20 (9)	0.043
Maternal demoralization	1.02 (0.63)	1.14 (0.63)	0.2
PM _{2.5} at first trimester ($\mu\text{g}/\text{m}^3$)	16.1 (2.9)	17.7 (3.5)	<0.001
PM _{2.5} at second trimester ($\mu\text{g}/\text{m}^3$)	16.5 (3.2)	16.9 (3.5)	0.4
PM _{2.5} at third trimester ($\mu\text{g}/\text{m}^3$)	16.06 (2.82)	16.95 (2.79)	0.021
PM _{2.5} at entire pregnancy ($\mu\text{g}/\text{m}^3$)	16.27 (1.71)	17.22 (2.19)	<0.001
NO ₂ at first trimester (<i>ppb</i>)	30 (5)	32 (7)	0.007
NO ₂ at second trimester (<i>ppb</i>)	30 (5)	32 (6)	0.006
NO ₂ at third trimester (<i>ppb</i>)	29.5 (4.1)	31.3 (6.0)	0.002
NO ₂ at entire pregnancy (<i>ppb</i>)	29.9 (4.2)	31.8 (6.0)	0.002

n (%); Mean (SD)

Fisher's exact test; Welch Two Sample t-test

Table S4 Associations between exposures and MDI at age 3 with/without Inverse Probability Weighting (IPW)

Exposure	Analysis	Estimate	P value
PM _{2.5} at entire pregnancy	No IPW	-0.3(-0.601,0.001)	0.051
	IPW	-0.303(-0.604,-0.002)	0.048
PM _{2.5} at first trimester	No IPW	-0.208(-0.494,0.078)	0.153
	IPW	-0.204(-0.49,0.081)	0.161
PM _{2.5} at second trimester	No IPW	0.093(-0.28,0.465)	0.626

PM _{2.5} at third trimester	IPW	0.091(-0.281,0.463)	0.631
	No IPW	-0.444(-0.923,0.036)	0.069
	IPW	-0.443(-0.921,0.036)	0.070
NO ₂ at entire pregnancy	No IPW	-0.189(-0.339,-0.04)	0.013
	IPW	-0.189(-0.338,-0.04)	0.013
NO ₂ at first trimester	No IPW	-0.125(-0.289,0.04)	0.136
	IPW	-0.124(-0.288,0.041)	0.139
NO ₂ at second trimester	No IPW	-0.095(-0.268,0.079)	0.284
	IPW	-0.096(-0.269,0.078)	0.280
NO ₂ at third trimester	No IPW	-0.168(-0.343,0.008)	0.062
	IPW	-0.167(-0.343,0.009)	0.062

Table S5 Association between exposures and MDI at age 3 with/without home adjusted.

Exposure	Analysis	Estimate	Unadjusted P	Change rate
NO ₂ at entire pregnancy	Adjusting home	-0.1675	0.0619	0.1784
	Not adjusting home	-0.2039	0.0294	0.1784
NO ₂ at first trimester	Adjusting home	-0.1895	0.0131	0.15
	Not adjusting home	-0.2229	0.0051	0.15
NO ₂ at second trimester	Adjusting home	-0.1249	0.1364	0.2119
	Not adjusting home	-0.1584	0.0701	0.2119
NO ₂ at third trimester	Adjusting home	-0.0948	0.2838	0.2041
	Not adjusting home	-0.1191	0.1974	0.2041
PM _{2.5} at entire pregnancy	Adjusting home	-0.4436	0.0695	0.2176
	Not adjusting home	-0.567	0.0259	0.2176
PM _{2.5} at first trimester	Adjusting home	-0.3001	0.0506	0.2347
	Not adjusting home	-0.3921	0.014	0.2347
PM _{2.5} at second trimester	Adjusting home	-0.2085	0.1527	0.2013
	Not adjusting home	-0.261	0.0863	0.2013
PM _{2.5} at third trimester	Adjusting home	0.0925	0.6257	-0.0295
	Not adjusting home	0.0899	0.6505	-0.0295

Table S6 Association between exposures and PDI at age 3 with/without home adjusted.

Exposure	Analysis	Estimate	Unadjusted P	Change rate
NO ₂ at entire pregnancy	Adjusting home	0.0742	0.4211	-0.6054
	Not adjusting home	0.0462	0.6217	-0.6054
NO ₂ at first trimester	Adjusting home	0.1453	0.1494	-0.2232
	Not adjusting home	0.1188	0.2463	-0.2232
NO ₂ at second trimester	Adjusting home	0.0793	0.4560	-0.3167
	Not adjusting home	0.0603	0.5779	-0.3167
NO ₂ at third trimester	Adjusting home	0.1180	0.2748	-0.3332
	Not adjusting home	0.0885	0.4202	-0.3332

PM _{2.5} at entire pregnancy	Adjusting home	0.0359	0.8479	1.7008
	Not adjusting home	-0.0512	0.7867	1.7008
PM _{2.5} at first trimester	Adjusting home	0.1719	0.3279	-0.3384
	Not adjusting home	0.1284	0.4721	-0.3384
PM _{2.5} at second trimester	Adjusting home	0.3461	0.1293	-0.0018
	Not adjusting home	0.3455	0.1370	-0.0018
PM _{2.5} at third trimester	Adjusting home	0.4051	0.1699	-0.3843
	Not adjusting home	0.2927	0.3283	-0.3843
