

Table 3. Summary of studies estimating association of postnatal PbB with performance scale IQ

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Study Population* (ref., type, n)	PbB Age	Outcome Age	Mean PbB (ug/dL)	Estimated Delta IQ for PbB 5 -> 15**		Covariates in Model								
				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status	Other
Port Pirie (35, L ,367)	15 months	11-13 years	20.9 (GM)	-5.7 (ln)^	-0.7 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Port Pirie (4, L ,494)	Lifetime avg. 2 years	7 years	16.6-20.5 (means of 2nd & 3rd quartiles) (GM)	not stated	-2.6 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu., Pat. Edu.	Parental smoking	Birth Weight	Family Structure, Maternal Age	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex
Port Pirie (4, L ,494)	Lifetime avg. 15 months	7 years	14.3-18.0 (means of 2nd & 3rd quartiles) (GM)	not stated	-2.5 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu., Pat. Edu.	Parental smoking	Birth Weight	Family Structure, Maternal Age	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex
Cincinnati (13, L ,253)	Mean 15-24 months	6.5 years	17.1	-2^	-1		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex
Cleveland (16, L ,149)	2 years	4 years 10 months	16.70	r=-.34	not stated	Mat. Edu.	Cigarettes per day	Birth Weight, Gestation	Authoritarian Family Ideology	total (mean of 1, 2, 3, and 4 yrs 10 mos)	Child	Maternal		Child Stress, Maternal Medication/Drug Use, Maternal Alcohol Consumption, Birth Order, Child's Sex, History Alcohol Abuse
Costa Rica (41, L ,184)	12-23 months	5 years	11.0	r=+.05	not stated									
Cincinnati (13, L ,253)	Mean 3-12 months	6.5 years	10.6	-3.9^	-1.6		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex

* L=Longitudinal cohort, X=Cross-sectional.

** (ln)/(log10) = Original coefficient reported in log scale.

^ statistically significant (p < 0.05)

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Study Population* (ref., type, n)	PbB Age	Outcome Age	Mean PbB (ug/dL)	Estimated Delta IQ for PbB 5 -> 15**		Covariates in Model								
				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status	Other
Cleveland (16, L, 122)	6 months	4 years 10 months	9.99	r=-.06	not stated	Mat. Edu.	Cigarettes per day	Birth Weight, Gestation	Authoritarian Family Ideology	total (mean of 1, 2, 3, and 4 yrs 10 mos)	Child	Maternal	Child Stress, Maternal Medication/Drug Use, Maternal Alcohol Consumption, Birth Order, Child's Sex, History Alcohol Abuse	
Boston (7, L, 116)	18 months	10 years	7.8	not stated	0	Hollingshead Four-Factor Index of Social Class			Family Stress, Marital Status, Res Changes, Maternal Age	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal	Child Stress, Birth Order, Child's Sex	
Boston (7, L, 116)	12 months	10 years	7.7	not stated	1.4	Hollingshead Four-Factor Index of Social Class			Family Balance, Family Stress, Marital Status	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal	Child Stress, Parents' Sense Competence, Birth Order, Child's Sex	
Boston (7, L, 116)	6 months	10 years	6.7	not stated	0.3	Hollingshead Four-Factor Index of Social Class			Marital Status	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal	Child Stress, Birth Order, Child's Sex	
Boston (7, L, 116)	24 months	10 years	6.5	not stated	-3.9	Hollingshead Four-Factor Index of Social Class			Family Stress, Marital Status, Res Changes, Maternal Age	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal	Child Stress, Birth Order, Child's Sex	
Cincinnati (13, L, 253)	10 Days	6.5 years	5	-4	-2.2		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal	Child's Sex	
Boston (34, L, 148)	24 months	10 years	< 8	not stated	-3.9	Hollingshead Four-Factor Index of Social Class			Marital Status, Res Changes, Maternal Age	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal	Child Stress, Birth Order, Child's Sex	

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Study Population* (ref., type, n)	PbB Age	Outcome Age	Mean PbB (ug/dL)	Estimated Delta IQ for PbB 5 -> 15**		Covariates in Model							
				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status
	(>2 - <4 years) (>= 4 years)												
Port Pirie (4, L ,494)	Lifetime avg. 3 years	7 years	17.4-21.7 (means of 2nd & 3rd quartiles) (GM)	not stated	-3.1 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu., Pat. Edu.	Parental smoking	Birth Weight	Family Structure, Maternal Age	unspecified		Maternal	Breast Feeding, Feeding Method, Birth Order, Child's Sex
Port Pirie (35, L ,372)	3 years	11-13 years	19.3 (GM)	-10.3 (ln)^	-4.6 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal	Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Cleveland (16, L ,155)	3 years	4 years 10 months	16.70	r=-.28	not stated	Mat. Edu.	Cigarettes per day	Birth Weight, Gestation	Authoritarian Family Ideology	total (mean of 1, 2, 3, and 4 yrs 10 mos)	Child	Maternal	Child Stress, Maternal Medication/Drug Use, Maternal Alcohol Consumption, Birth Order, Child's Sex, History Alcohol Abuse
Cincinnati (13, L ,253)	Mean 27-36 months	6.5 years	16.3	-3.4^	-2.2^		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal	Child's Sex
Cleveland (16, L ,212)	Mean 0.5 - 3 years	4 years 10 months	9.99 @ 6 months & 16.70 @ both 2 yrs & 3 yrs	r=-.25	not stated	Mat. Edu.	Cigarettes per day	Birth Weight, Gestation	Authoritarian Family Ideology	total (mean of 1, 2, 3, and 4 yrs 10 mos)	Child	Maternal	Child Stress, Maternal Medication/Drug Use, Maternal Alcohol Consumption, Birth Order, Child's Sex, History Alcohol Abuse
Port Pirie (35, L ,326)	Lifetime avg. 3 years	11-13 years	not stated	-8.6 (ln)^	-3.5 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal	Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence

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Study Population* (ref., type, n)	PbB Age (>= 4 years)	Outcome Age (>= 4 years)	Mean PbB (ug/dL)	Estimated Delta IQ for PbB 5 -> 15**		Covariates in Model								
				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status	Other
Lavrion, Greece (20, X ,509)	primary school children - not specified years	primary school children - not specified years	23.7	not stated	-2.3 [^]	Mat. Edu., Pat. Edu., Pat. Occ.		Birth Weight	Family Structure, Marital Status, Life Events			Both		Birth Order, Child's Age, Child's Medical History, History Alcohol Abuse, Father's age, Bilingualism, Length of child's hospital stay after birth
Port Pirie (4, L ,494)	Lifetime avg. 4 years	7 years	17.6-21.5 (means of 2nd & 3rd quartiles) (GM)	not stated	-3.6 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu., Pat. Edu.	Parental smoking	Birth Weight	Family Structure, Maternal Age	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex
Port Pirie (4, L ,494)	Lifetime avg. 7 years	7 years	15.7-19.7 (means of 2nd & 3rd quartiles) (GM)	not stated	-2.5 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu., Pat. Edu.	Parental smoking	Birth Weight	Family Structure, Maternal Age	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex
Mexico City II (26, X ,139)	7-9 years	7-9 years	19.4	r=-.24 (ln)	r=-.28 (ln)	Income, Mat. Edu., Pat. Edu.								Child's Sex, Type of housing, Nutritional status (wgt for ht & ht for age)
Port Pirie (35, L ,368)	5 years	11-13 years	14.3 (GM)	-7.9 (ln) [^]	-4.1 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Port Pirie (35, L ,326)	Lifetime avg. 11-13 years	11-13 years	14.1 (GM)	-11.9 (ln) [^]	-5.2 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence

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				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status	Other
Cincinnati (13, L ,253)	Mean 39-48 months	6.5 years	14.0	-4.3 [^]	-2.7 [^]		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex
Cincinnati (13, L ,253)	Mean 51-60 months	6.5 years	11.8	-5.5 [^]	-3.8 [^]		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex
Port Pirie (35, L ,360)	7 years	11-13 years	11.6 (GM)	-9.4 (ln) [^]	-4.2 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Dunedin, New Zealand (33, L ,579)	11 years	11 years	11.1	r=-0.03 (ln)	not stated									
Sassuolo, Italy (8, X ,211)	7-8 years	7-8 years	10.99 (GM)	r = -0.100 (log10)	not stated									
San Luis Potosi, Mexico (10, X ,39) [reference group]	6-9 years	6-9 years	9.73 (GM)	r=+.04 (ln)	r=-.10 (ln)	Bronffman Index of Socioeconomic Status, Mat. Edu., Pat. Edu.								Child's Sex, Child's Age
San Luis Potosi, Mexico (10, X ,41) [exposed group]	6-9 years	6-9 years	8.98 (GM)	r=-.08 (ln)	r=+.005 (ln)	Bronffman Index of Socioeconomic Status, Mat. Edu., Pat. Edu.								Child's Sex, Child's Age
Port Pirie (35, L ,326)	11-13 years	11-13 years	7.9 (GM)	-6.8 (ln) [^]	-2.2 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Boston (7, L ,116)	57 months	10 years	6.3	not stated	-4.4	Hollingshead Four-Factor Index of Social Class		Birth Weight	Family Stress, Marital Status, Maternal Age	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal		Child Stress, Birth Order, Child's Sex

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				Crude	Adj	SES	Smoking	Fetal Growth	Family Environment	HOME	Race	Parental IQ	Iron Status	Other
Boston (7, L ,116)	10 years	10 years	2.9	not stated	-1.7	Hollingshead Four-Factor Index of Social Class		Birth Weight	Family Stress, Marital Status, Day Care, Maternal Age	scales V & VI @ 120 mo, total @ 57 mo	Child	Maternal		Child Stress, Birth Order, Child's Sex
Kosovo (38, L ,261)	Mean AUC7 years	7 years	age7=21.2; cumulative age7=1.21	not stated	-4.5 (log10)^	Mat. Edu.		Birth Weight	Family Structure, Maternal Age	unspecified	Child	Maternal		Child's Sex
Port Pirie (35, L ,326)	Lifetime avg. 7 years	11-13 years	not stated	-9.6 (ln)^	-4.7 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Port Pirie (35, L ,326)	Lifetime avg. 5 years	11-13 years	not stated	-9.4 (ln)^	-4.8 (ln)	Daniel's Scale of Prestige of Occupations in Australia, Mat. Edu.	Parental smoking habits	Birth Weight	Family Structure, Family Functioning, Marital Status, Maternal Age, Life Events	unspecified		Maternal		Breast Feeding, Feeding Method, Birth Order, Child's Sex, Child's Age, School Grade, School Absence
Cincinnati (13, L ,253)	Mean 66-72 months	6.5 years	not stated	-7.5^	-5.2^		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex
Cincinnati (13, L ,253)	Lifetime avg. 72 months	6.5 years	not stated	-4.3^	-2.6^		Cigarette consumption during pregnancy	Birth Weight, Birth Length		unspecified		Maternal		Child's Sex

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