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ERRATUM

Erratum to: Long-term exposure to air pollution and the incidence of asthma: meta-analysis of cohort studies

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We wish to correct the estimates for NO_2 and asthma incidence reported in the above paper. The original analysis was based on 13 studies, 2 of which reported only NO_x. We believed we had scaled these two NO_x estimates to NO_2 equivalents so that they could be included in the meta-analysis but have since discovered that this scaling was not implemented. The corrected estimates for the main meta-analysis and sensitivity analyses are given in a revised version of Table 2 presented below. Correcting for this error now gives a random effects estimate for NO_2 (10 μg/m^3) and asthma incidence for the 13 studies of 1.15 (95 % CI 1.06 to 1.26) which compares with the estimate of 1.07 (95 % CI 1.02 to 1.13) previously reported. As in the original analysis there was some evidence of publication bias and correcting for this using the Trim and Fill technique reduced the revised estimate from 1.15 to 1.11. The conclusion drawn from the original analysis was that long term exposure to NO_2 is significantly associated with the incidence of asthma. This revised analysis strengthens this conclusion.

The online version of the original article can be found at http://dx.doi.org/10.1007/s11869-011-0144-5.

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Table 2 Revised results. Cohort studies of air pollution and asthma incidence. Meta-analyses of associations between NO_2 per 10 μg/m^3 and the incidence or lifetime prevalence of asthma or wheeze symptom

Analysis	No. of estimates	Parameter[a] (No. of estimates)	Age group (No. of estimates)	Outcome (No. of estimates)	Heterogeneity P value and I^2	Fixed Effect (95 % CI)	Random Effect (95 % CI)
Main analysis	13	LTP(4) I (9)	children (10)	A(12) W(1)	0.003	1.09	1.15
			adults (3)		60.1 %	(1.05; 1.14)	(1.06; 1.26)
Odds ratios only	10	LTP(4) I(6)	children (7)	A(9) W(1)	0.003	1.06	1.14
			adults (3)		63.7 %	(1.01; 1.12)	(1.02; 1.27)
LTP over age 7 excluded	12	LTP(3) I(9)	children (9)	A (11) W(1)	0.761	1.17	1.17
			adults (3)		0.0 %	(1.11; 1.23)	(1.11; 1.23)
Children only	10	LTP(4) I(6)	children (10)	A(9) W(1)	0.004	1.08	1.12
			adults (0)		62.6 %	(1.03; 1.13)	(1.03; 1.22)
Children younger than 2 yrs excluded	9	LTP(3) I(6)	children (10)	A(8) W(1)	0.002	1.08	1.12
			adults (1)		66.4 %	(1.03; 1.13)	(1.03; 1.23)
Adults only	3	LTP(0) I(3)	children (0)	A(3) W(0)	0.795	1.42	1.42
			adults (3)		0.00 %	(1.14; 1.78)	(1.14; 1.78)
Asthma only	12	LTP(3) I(9)	children (9)	A(12) W(0)	0.002	1.09	1.17
			adults (3)		63.3 %	(1.05; 1.14)	(1.06; 1.29)
LTP only	4	LTP(4) I(0)	children (4)	A(3) W(1)	0.008	1.02	1.03
			adults (0)		74.8 %	(0.97; 1.08)	(0.90; 1.18)
Incidence only	9	LTP(0) I(9)	children (6)	A(7) W(0)	0.896	1.22	1.22
			adults (3)		0.0 %	(1.14; 1.31)	(1.14; 1.31)
NO_2 only	11	LTP(3) I(8)	children (8)	A(9) W(0)	0.002	1.08	1.17
			adults (3)		64.8 %	(1.03; 1.14)	(1.05; 1.31)
Birth cohorts only	7	LTP(4) I (3)	children (7)	A(6) W(1)	0.023	1.04	1.07
			adults (0)		59.3 %	(0.99; 1.09)	(0.96; 1.19)
Child/adult cohorts only	6	LTP(0) I (6)	children (3)	A(6) W(0)	0.680	1.23	1.23
			adults (3)		0.0 %	(1.14; 1.34)	(1.14; 1.34)
Emission -dispersion models only	5	LTP(2) I (3)	children (3)	A(4) W(1)	<0.001	1.03	1.14
			adults (2)		80.2 %	(0.98; 1.10)	(0.97; 1.33)
Land use regression models only	5	LTP(2) I (3)	children (5)	A(5) W(0)	0.947	1.14	1.14
			adults (0)		0.0 %	(1.06; 1.23)	(1.06; 1.23)
Within community only	12	LTP(4) I(8)	children (9)	A(11) W(1)	0.003	1.09	1.14
			adults (3)		60.6 %	(1.04; 1.13)	(1.04; 1.25)
Most significant estimate per study	13	LTP(5) I (8)	children (11)	A(11) W(2)	<0.001	1.11	1.18
			adults (2)		70.3 %	(1.06; 1.15)	(1.07; 1.30)
Most significant estimate per study—positive direction only	12	LTP(4) I (8)	children (10)	A(10) W(2)	0.220	1.19	1.20
			adults (2)		22.8 %	(1.13; 1.25)	(1.13; 1.28)

[a] One parameter per study chosen according to algorithm described in text. I = incidence; LTP = lifetime prevalence; A = asthma; W = wheeze