Appendix 6

Fuller details of the analyses relating lung cancer risk to education

APPENDIX 6
Education and lung cancer - Meta-Analysis of Dose Response Exposure, 07-AUG-06
Scored by Years of Education (or equivalent)

BASIC DATA USED IN META-ANALYSES - EDUCATION

Study title	RR	RRL	RRU	CA1	CA0	CO1	CO0	Years
Boffetta	1.3300	0.8600	2.0500	80.0000	39.0000	226.0000	146.0000	-2.0000
Boffetta	2.3100	1.5700	3.4000	257.0000	39.0000	416.0000	146.0000	-4.0000
Fontham	1.0200	0.6500	1.5900	62.0000	46.0000	154.0000	116.0000	-2.0000
Fontham	0.7900	0.5300	1.1900	99.0000	46.0000	315.0000	116.0000	-3.0000
Fontham	1.3900	0.9500	2.0400	217.0000	46.0000	393.0000	116.0000	-5.0000
Fontham	2.0500	1.3900	3.0100	216.0000	46.0000	266.0000	116.0000	-7.0000
Kabat 1	0.8800	0.3200	2.4100	14.0000	16.0000	15.0000	15.0000	-3.0000
Kabat 1	0.6300	0.2700	1.5100	25.0000	16.0000	37.0000	15.0000	-5.0000
Kabat 1	1.2300	0.5200	2.8900	38.0000	16.0000	29.0000	15.0000	-7.0000
Kabat 2	0.6600	0.2800	1.5800	12.0000	15.0000	147.0000	39.0000	-3.0000
Kabat 2	1.0900	0.5200	2.2800	29.0000	15.0000	69.0000	39.0000	-5.0000
Kabat 2	1.0600	0.4400	2.5400	13.0000	15.0000	32.0000	39.0000	-7.0000
Kalandidi	0.8000	0.4000	1.6200	55.0000	20.0000	72.0000	21.0000	-4.5000
Kalandidi	0.7000	0.3000	1.6500	18.0000	20.0000	27.0000	21.0000	-7.5000
Ko	1.8700	0.6800	5.1100	8.0000	8.0000	29.0000	14.0000	-6.0000
Ko	1.8600	0.7300	4.7500	66.0000	8.0000	62.0000	14.0000	-11.0000
Mao	1.0000	0.6600	1.5100	107.0000	33.0000	909.0000	277.0000	-4.0000
Mao	1.6700	1.0100	2.7600	37.0000	33.0000	188.0000	277.0000	-8.0000
Sobue	2.0200	1.4000	2.9000	69.0000	75.0000	229.0000	502.0000	-6.0000
Stockwell	1.4900	0.4900	2.4500	36.0000	135.0000	40.0000	223.0000	-3.0000
Stockwell	1.7000	1.0300	2.8000	38.0000	135.0000	37.0000	223.0000	-6.0000
Wichmann BIPS	0.1400	0.0500	0.3900	15.0000	3.0000	24.0000	8.0000	-3.0000
Wichmann BIPS	1.4800	0.3700	5.9500	35.0000	3.0000	63.0000	8.0000	-4.5000
Wichmann GSF	0.7100	0.3700	1.3700	25.0000	21.0000	104.0000	62.0000	-3.0000
Wichmann GSF	1.4600	0.8700	2.4700	191.0000	21.0000	385.0000	62.0000	-4.5000
Wichmann GSF	2.5300	0.7600	8.3800	6.0000	21.0000	7.0000	62.0000	-7.0000
Zaridze	2.2900	1.4900	3.5200	94.0000	44.0000	129.0000	138.0000	-2.0000
Zaridze	1.7600	1.0900	2.8500	51.0000	44.0000	91.0000	138.0000	-4.0000

NOTES: RR,RL,RU RELATIVE RISKS AND LOWER AND UPPER CONFIDENCE INTERVALS
CA1,CA0 NUMBERS (OR PSEUDO-NUMBERS) OF MORE EXPOSED AND LEAST EXPOSED CASES
CO1,CO0 NUMBERS (OR PSEUDO-NUMBERS) OF MORE EXPOSED AND LEAST EXPOSED CONTROLS
CA1,CA0,CO1,CO0 NOT SHOWN IF ORIGINAL RR PER STANDARD DEVIATION
YEARS DIFFERENCE IN YEARS OF EDUCATION FROM LEAST EXPOSED LEVEL

FEMALES
NEVER SMOKERS OR NEVER PLUS OCCASIONAL SMOKERS

APPENDIX 6

Education and lung cancer - Meta-Analysis of Dose Response Exposure, 07-AUG-06

Scored by Years of Education (or equivalent)

REGRESSION ESTIMATES, WEIGHTS AND OTHER RELEVANT DETAILS

Study title	Country	Beta	St.Err. Beta	Z	Weight	RSEX	SMOKE
Boffetta	Western Europe	-0.2257	0.0450	-5.0111	492.8352	f	1
Fontham	US	-0.1390	0.0231	-6.0108	1870.6488	f	1
Kabat 1	US	-0.0227	0.0600	-0.3781	277.5818	f	1
Kabat 2	US	-0.0274	0.0588	-0.4661	288.9878	f	1
Kalandidi	Greece	0.0478	0.0574	0.8327	303.2483	f	1
Ko	Taiwan	-0.0484	0.0421	-1.1503	564.1308	f	1
Mao	Canada	-0.0653	0.0320	-2.0365	973.6386	f	1
Sobue	Japan	-0.1172	0.0310	-3.7846	1043.0639	f	1
Stockwell	US	-0.0902	0.0422	-2.1399	562.4202	f	1
Wichmann BIPS	Germany	0.0212	0.1569	0.1352	40.6113	f	w
Wichmann GSF	Germany	-0.1280	0.0547	-2.3385	333.6087	f	w
Zaridze	Russia	-0.1425	0.0613	-2.3243	266.1449	f	1

NOTES: BETA SLOPE OF LOG RR ON YEARS OF EDUCATION
SE BETA STANDARD ERROR OF BETA
Z RATIO OF BETA TO ITS STANDARD ERROR (APPROXIMATE NORMAL STATISTIC)
WEIGHT INVERSE OF THE VARIANCE OF BETA
SMOKE 1 = NEVER SMOKERS, W = NEVER PLUS OCCASIONAL SMOKERS
RSEX SEX FOR RR

FEMALES
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APPENDIX 6
Education and lung cancer - Meta-Analysis of Dose Response Exposure, 07-AUG-06
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FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR EDUCATION

WEIGHTED on Beta Weight

	Deviance	(DF)				
Dose Response (Beta)						
Model 1	24.7912	(11)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.1018	0.0119	0.0000	0.9032	0.8823	0.9246

RANDOM EFFECTS MODEL
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	11.9997	(11)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0917	0.0196	0.0007	0.9124	0.8781	0.9481

USA AND CANADA
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	7.2317	(4)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0978	0.0159	0.0035	0.9069	0.8791	0.9355

RANDOM EFFECTS MODEL
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	3.4075	(4)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0844	0.0236	0.0232	0.9191	0.8776	0.9626

EUROPE
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	15.0030	(4)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.1229	0.0264	0.0096	0.8844	0.8398	0.9313

RANDOM EFFECTS MODEL
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	3.5111	(4)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.1030	0.0549	0.1340	0.9021	0.8100	1.0047

ASIA
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	1.7306	(1)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0931	0.0249	0.1667	0.9111	0.8677	0.9568

RANDOM EFFECTS MODEL
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	1.0000	(1)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0887	0.0339	0.2321	0.9151	0.8563	0.9779

NEVER SMOKERS ONLY

FEMALES
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APPENDIX 6
Education and lung cancer - Meta-Analysis of Dose Response Exposure, 07-AUG-06
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FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR EDUCATION

Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	23.9452	(9)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.1013	0.0123	0.0000	0.9037	0.8822	0.9257

RANDOM EFFECTS MODEL
Dose Response (Beta)
WEIGHTED on Beta Weight

	Deviance	(DF)				
Model 1	10.4299	(9)				
	Estimate	S.E.	P	RR	95%CIl	95%CIu
Constant	-0.0899	0.0214	0.0023	0.9140	0.8764	0.9532

FEMALES
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