Appendix 8

Fuller details of the analyses relating ETS exposure at home to fruit and vegetable consumption

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

BASIC DATA USED IN META-ANALYSES - VEGETABLES

Study Title	Continent	DELTA	St.Err. DELTA	WGT	WGTNS	WGTETS
Cardenas	US	-0.0852	0.0048	176320.0	71634.0	104686.0
Forastiere 2000	Europe	-0.2022	0.0470	1933.0	725.0	1208.0
Hamling (HALS2)	Europe	0.0447	0.0668	1265.0	974.0	291.0
Hamling (HSE93)	Europe	-0.0851	0.0431	3664.0	3007.0	657.0
Hamling (HULS)	Europe	-0.0718	0.0695	948.0	643.0	305.0
Hamling (HALS)	Europe	0.0527	0.0455	2351.0	1673.0	678.0
Hirayama 2	Asia	-0.0240	0.0534	1970.0	456.0	1512.0
Hirayama	Asia	0.0245	0.0077	91450.0	21895.0	69645.0
Koo (Hong Kong)	Asia	0.3532	0.1068	530.0	419.0	111.0
Koo (Japan)	Asia	-0.0863	0.0181	13047.0	8146.0	4901.0
Koo (Sweden)	Europe	-0.9022	0.2647	87.0	69.0	18.0
Koo (USA)	US	0.2859	0.1690	144.0	60.0	84.0
Matanoski	US	-0.0449	0.0360	3338.0	1214.0	2124.0
NHANES III	US	-0.2238	0.0449	3171.0	2555.0	616.0
NHIS 2000	US	-0.1170	0.0458	5096.0	4564.0	532.0
Reynolds 2004	US	-0.0582	0.0130	28801.0	8387.7	20412.9

NOTES: DELTA SD DIFFERENCE IN FRUIT, VEG OR TEA CONSUMPTION ASSOCIATED WITH ETS EXPOSURE AT HOME
SE DELTA STANDARD ERROR OF DELTA
WGT TOTAL NUMBER OF FEMALES
WGTNS NUMBER OF FEMALES WITH NO ETS EXPOSURE
WGTETS NUMBER OF FEMALES WITH ETS EXPOSURE

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

BASIC DATA USED IN META-ANALYSES - FRUIT

Study Title	Continent	DELTA	St.Err. DELTA	WGT	WGTNS	WGTETS
Forastiere 2000	Europe	0.1043	0.0469	1931.0	722.0	1229.0
Hamling (HALS2)	Europe	-0.1256	0.0668	1265.0	974.0	291.0
Hamling (HSE93)	Europe	-0.0887	0.0431	3664.0	3007.0	657.0
Hamling (HULS)	Europe	-0.0446	0.0695	948.0	643.0	305.0
Hamling (HALS)	Europe	-0.0561	0.0455	2351.0	1673.0	678.0
Koo (Hong Kong)	Asia	-0.3009	0.1068	530.0	419.0	111.0
Koo (Japan)	Asia	-0.0818	0.0181	13047.0	8146.0	4901.0
Koo (Sweden)	Europe	-0.6795	0.2647	87.0	69.0	18.0
NHANES III	US	-0.0760	0.0449	3171.0	2555.0	616.0
NHIS 2000	US	-0.0846	0.0458	5100.0	4567.0	533.0
Reynolds 2004	US	-0.0871	0.0121	32513.0	9665.4	22847.8

NOTES: DELTA SD DIFFERENCE IN FRUIT, VEG OR TEA CONSUMPTION ASSOCIATED WITH ETS EXPOSURE AT HOME
SE DELTA STANDARD ERROR OF DELTA
WGT TOTAL NUMBER OF FEMALES
WGTNS NUMBER OF FEMALES WITH NO ETS EXPOSURE
WGTETS NUMBER OF FEMALES WITH ETS EXPOSURE

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

BASIC DATA USED IN META-ANALYSES - TEA

Study Title	Continent	DELTA	St.Err. DELTA	WGT	WGTNS	WGTETS
Hamling (HALS)	Europe	-0.0341	0.0455	2349.0	1671.0	678.0
Hamling (HALS2)	Europe	-0.1263	0.0668	1265.0	974.0	291.0
Hamling (HSE93)	Europe	-0.1069	0.0431	3664.0	3007.0	657.0
Hamling (HULS)	Europe	-0.0753	0.0695	948.0	643.0	305.0
NHANES III	US	-0.0194	0.0449	3171.0	2555.0	616.0

NOTES: DELTA SD DIFFERENCE IN FRUIT, VEG OR TEA CONSUMPTION ASSOCIATED WITH ETS EXPOSURE AT HOME
SE DELTA STANDARD ERROR OF DELTA
WGT TOTAL NUMBER OF FEMALES
WGTNS NUMBER OF FEMALES WITH NO ETS EXPOSURE
WGTETS NUMBER OF FEMALES WITH ETS EXPOSURE

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

REGRESSION ESTIMATES, WEIGHTS AND OTHER RELEVANT DETAILS

Study Title	Country	DELTA	St.Err. DELTA	Z	WGT	RWGT	Expos	SMOKE
Cardenas	US	-0.0852	0.0048	-17.5708	176320.0	42531.0624	Vegetables	1
Forastiere 2000	Italy	0.1043	0.0469	2.2243	1931.0	454.8119	Fruit	1
Forastiere 2000	Italy	-0.2022	0.0470	-4.3040	1933.0	453.0781	Fresh veg	1
Hamling (HALS)	UK	-0.0341	0.0455	-0.7489	2349.0	482.3065	Tea	1
Hamling (HALS2)	UK	-0.1263	0.0668	-1.8905	1265.0	224.0585	Tea	1
Hamling (HALS2)	UK	0.0447	0.0668	0.6691	1265.0	224.0585	Vegetables	1
Hamling (HALS2)	UK	-0.1256	0.0668	-1.8801	1265.0	224.0585	Fruit	1
Hamling (HSE93)	UK	-0.0851	0.0431	-1.9761	3664.0	539.1919	Vegetables	1
Hamling (HSE93)	UK	-0.0887	0.0431	-2.0597	3664.0	539.1919	Fruit	1
Hamling (HULS)	Hungary	-0.0718	0.0695	-1.0327	948.0	206.8724	Vegetables	1
Hamling (HULS)	Hungary	-0.0446	0.0695	-0.6415	948.0	206.8724	Fruit	1
Hamling (HALS)	UK	0.0527	0.0455	1.1576	2351.0	482.4730	Vegetables	1
Hamling (HALS)	UK	-0.0561	0.0455	-1.2323	2351.0	482.4730	Fruit	1
Hirayama 2	Japan	-0.0240	0.0534	-0.4492	1970.0	350.3415	Vegetables	1
Hirayama	Japan	0.0245	0.0077	3.1621	91450.0	16658.0432	Vegetables	1
Hamling (HSE93)	UK	-0.1069	0.0431	-2.4823	3664.0	539.1919	Tea	1
Hamling (HULS)	Hungary	-0.0753	0.0695	-1.0830	948.0	206.8724	Tea	1
Koo (Hong Kong)	Hong Kong	0.3532	0.1068	3.3087	530.0	87.7528	Vegetables	1
Koo (Hong Kong)	Hong Kong	-0.3009	0.1068	-2.8187	530.0	87.7528	Fruit	1
Koo (Japan)	Japan	-0.0863	0.0181	-4.7739	13047.0	3059.9790	Vegetables	1
Koo (Japan)	Japan	-0.0818	0.0181	-4.5249	13047.0	3059.9790	Fruit	1
Koo (Sweden)	Sweden	-0.9022	0.2647	-3.4088	87.0	14.2759	Vegetables	1
Koo (Sweden)	Sweden	-0.6795	0.2647	-2.5674	87.0	14.2759	Fruit	1
Koo (USA)	US	0.2859	0.1690	1.6914	144.0	35.0000	Vegetables	1
Matanoski	US	-0.0449	0.0360	-1.2479	3338.0	772.4793	Vegetables	1
NHANES III	US	-0.2238	0.0449	-4.9859	3171.0	496.3355	Vegetables	1
NHANES III	US	-0.0760	0.0449	-1.6932	3171.0	496.3355	Fruit	1
NHANES III	US	-0.0194	0.0449	-0.4322	3171.0	496.3355	Tea	1
NHIS 2000	US	-0.1170	0.0458	-2.5539	5096.0	476.4615	Vegetables	1
NHIS 2000	US	-0.0846	0.0458	-1.8483	5100.0	477.2963	Fruit	1
Reynolds 2004	US	-0.0582	0.0130	-4.4874	28801.0	5944.9206	Vegetables	1
Reynolds 2004	US	-0.0871	0.0121	-7.1783	32513.0	6792.1068	Fruit	1

NOTES: DELTA SD DIFFERENCE IN FRUIT, VEG OR TEA CONSUMPTION ASSOCIATED WITH ETS EXPOSURE AT HOME
SE DELTA STANDARD ERROR OF DELTA
Z RATIO OF DELTA TO ITS STANDARD ERROR (APPROXIMATE NORMAL STATISTIC)
WGT TOTAL NUMBER OF FEMALES FOR FIXED EFFECT MODELS
RWGT INVERSE OF THE VARIANCE OF DELTA FOR RANDOM EFFECTS MODELS
SMOKE 1 = NEVER SMOKERS, 2 = NEVER OR LONG-TERM EX-SMOKERS

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR VEGETABLES

ALL STUDIES

Difference in SDs (DELTA)

	Deviance	(DF)	
Model 1	1.0824	(15)	
	Estimate	S.E.	P
Constant	-0.0712	0.0672	0.3056

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	1114.7005	(15)	
	Estimate	S.E.	P
Constant	-0.0525	0.0149	0.0031

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	36.6213	(15)	
	Estimate	S.E.	P
Constant	-0.0559	0.0211	0.0185

NORTH AMERICA

	Deviance	(DF)	
Model 1	0.1483	(5)	
	Estimate	S.E.	P
Constant	-0.0405	0.0703	0.5893

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	111.7051	(5)	
	Estimate	S.E.	P
Constant	-0.0835	0.0101	0.0004

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	12.3193	(5)	
	Estimate	S.E.	P
Constant	-0.0866	0.0191	0.0062

EUROPE

	Deviance	(DF)	
Model 1	0.6462	(5)	
	Estimate	S.E.	P
Constant	-0.1940	0.1468	0.2435

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR VEGETABLES

EUROPE

Difference in SDs (DELTA)
WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	146.6808	(5)	
	Estimate	S.E.	P
Constant	-0.0653	0.0535	0.2770

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	10.5062	(5)	
	Estimate	S.E.	P
Constant	-0.0892	0.0596	0.1943

NORTH AMERICA AND EUROPE

	Deviance	(DF)	
Model 1	0.8652	(11)	
	Estimate	S.E.	P
Constant	-0.1173	0.0810	0.1754

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	261.6496	(11)	
	Estimate	S.E.	P
Constant	-0.0827	0.0102	0.0000

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	29.1865	(11)	
	Estimate	S.E.	P
Constant	-0.0813	0.0195	0.0015

ASIA

	Deviance	(DF)	
Model 1	0.1155	(3)	
	Estimate	S.E.	P
Constant	0.0669	0.0981	0.5445

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	204.6070	(3)	
	Estimate	S.E.	P
Constant	0.0117	0.0252	0.6740

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR VEGETABLES

ASIA
RANDOM EFFECTS MODEL

Difference in SDs (DELTA)
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	7.9570	(3)	
	Estimate	S.E.	P
Constant	0.0185	0.0471	0.7207

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR FRUIT

ALL STUDIES

Difference in SDs (DELTA)

	Deviance	(DF)	
Model 1	0.4089	(10)	
	Estimate	S.E.	P
Constant	-0.1382	0.0610	0.0468

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	129.9031	(10)	
	Estimate	S.E.	P
Constant	-0.0812	0.0142	0.0002

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	17.4645	(10)	
	Estimate	S.E.	P
Constant	-0.0733	0.0197	0.0040

NORTH AMERICA

	Deviance	(DF)	
Model 1	0.0001	(2)	
	Estimate	S.E.	P
Constant	-0.0826	0.0034	0.0017

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	0.3662	(2)	
	Estimate	S.E.	P
Constant	-0.0859	0.0021	0.0006

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	0.0584	(2)	
	Estimate	S.E.	P
Constant	-0.0862	0.0113	0.0169

EUROPE

	Deviance	(DF)	
Model 1	0.3693	(5)	
	Estimate	S.E.	P
Constant	-0.1484	0.1110	0.2388

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR FRUIT

EUROPE

Difference in SDs (DELTA)
WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	93.2811	(5)	
	Estimate	S.E.	P
Constant	-0.0503	0.0427	0.2912

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	7.6951	(5)	
	Estimate	S.E.	P
Constant	-0.0581	0.0481	0.2808

NORTH AMERICA AND EUROPE

	Deviance	(DF)	
Model 1	0.3780	(8)	
	Estimate	S.E.	P
Constant	-0.1264	0.0725	0.1192

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	104.0173	(8)	
	Estimate	S.E.	P
Constant	-0.0788	0.0160	0.0011

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	11.7455	(8)	
	Estimate	S.E.	P
Constant	-0.0634	0.0249	0.0341

ASIA

	Deviance	(DF)	
Model 1	0.0240	(1)	
	Estimate	S.E.	P
Constant	-0.1913	0.1096	0.3310

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	24.4494	(1)	
	Estimate	S.E.	P
Constant	-0.0904	0.0424	0.2795

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR FRUIT

ASIA
RANDOM EFFECTS MODEL

Difference in SDs (DELTA)
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	1.0000	(1)	
	Estimate	S.E.	P
Constant	-0.1661	0.1066	0.3633

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR TEA

ALL STUDIES

Difference in SDs (DELTA)

	Deviance	(DF)	
Model 1	0.0084	(4)	
	Estimate	S.E.	P
Constant	-0.0724	0.0205	0.0241

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	20.0740	(4)	
	Estimate	S.E.	P
Constant	-0.0671	0.0210	0.0330

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	3.3026	(4)	
	Estimate	S.E.	P
Constant	-0.0655	0.0227	0.0446

NORTH AMERICA

	Deviance	(DF)	
Model 1	0.0000	(0)	
	Estimate	S.E.	P
Constant	-0.0194		

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	-0.0000	(0)	
	Estimate	S.E.	P
Constant	-0.0194		

EUROPE

	Deviance	(DF)	
Model 1	0.0049	(3)	
	Estimate	S.E.	P
Constant	-0.0856	0.0201	0.0238

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	10.0883	(3)	
	Estimate	S.E.	P
Constant	-0.0855	0.0202	0.0242

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS

APPENDIX 8

Fruit/Vegetable/Tea consumption in SDs between lifelong nonsmokers exposed or unexposed to ETS at home
Meta-Analysis of Differences, 08-SEP-06

FIXED- AND RANDOM-EFFECTS META-ANALYSES OF DATA FOR TEA

EUROPE
RANDOM EFFECTS MODEL

Difference in SDs (DELTA)
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	1.8890	(3)	
	Estimate	S.E.	P
Constant	-0.0812	0.0262	0.0535

NORTH AMERICA AND EUROPE

	Deviance	(DF)	
Model 1	0.0084	(4)	
	Estimate	S.E.	P
Constant	-0.0724	0.0205	0.0241

WEIGHTED on DELTA Weights

	Deviance	(DF)	
Model 1	20.0740	(4)	
	Estimate	S.E.	P
Constant	-0.0671	0.0210	0.0330

RANDOM EFFECTS MODEL
WEIGHTED on Random Weights

	Deviance	(DF)	
Model 1	3.3026	(4)	
	Estimate	S.E.	P
Constant	-0.0655	0.0227	0.0446

FEMALES
NEVER SMOKERS OR NEVER AND LONG TERM EX SMOKERS
EXCLUDING THORNTON AS INCLUDED WITHIN HAMLING RESULTS