Appendix Table D1 -

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma

This analysis is restricted to results for:
1) Lifetime asthma
2) Biochemical, total, household (overall), or parental exposure
3) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
4) Results for low amount of exposure
5) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) ONSET : yes, no (prevalence)
16) For overlapping studies: principal rather than subsidiary studies
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D1 - 1

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Adjusted

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
CHEN2	38	b	6	17	all	NAmer	1993	1996	CS	6	AnyHh	NoHhMemb	current	non	cigs	1	9
DOLD	18	b	9	11	all	Eu:Ger	1989	1992	CS	1	AnyHh	NoHhMemb	unspec	non	cigs	1	10
ECE	4	b	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	10
EHRLI2	6	b	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	3	7
FERGUS	16	b	0	6	all	Auslia	1977	1985	Pr	1	Mother	NotMothr	in life	non	cigs	1	10
GILLIL	71	b	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	1	1
LAM1	5	b	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1
LEE3	2	b	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
LISTER	7	b	0	4	all	Auslia	1989	1998	CS	8	Mother	NotMothr	current	non	cigs	1	14
MAIER	2	b	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	1	1
NHANE3	26	b	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	0	3
PIROGO	1	b	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
RATAGE	6	b	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	9
RONCH1	1	m	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH1	4	f	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH2	1	b	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH3	1	b	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
VENNER	4	m	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
VENNER	1	f	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29

Appendix Table D1 - 2

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Adjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
CHEN2	38	b	6	8	-	61	-	1.62	(0.68- 3.85)
DOLD	18	b	1	119	-	295	-	1.13	(0.90- 1.42)
ECE	4	b	0	217	1294	132	906	1.15	(0.91- 1.45)
EHRLI2	6	b	0	19	24	19	24	1.00	(0.43- 2.34)
*FERGUS	16	b	1	24	-	87	-	0.85	(0.54- 1.34)
GILLIL	71	b	0	30	209	226	1294	0.82	(0.55- 1.24)
LAM1	5	b	4	118	-	201	-	0.89	(0.69- 1.12)
LEE3	2	b	0	663	-	1094	-	0.81	(0.73- 0.89)
LISTER	7	b	8	-	-	-	-	1.33	(0.98- 1.81)
MAIER	2	b	0	25	102	73	674	2.26	(1.37- 3.73)
NHANE3	26	b	6	198	-	175	-	1.10	(0.70- 1.70)
PIROGO	1	b	0	6	36	4	37	1.54	(0.40- 5.92)
RATAGE	6	b	0	20	22	58	30	0.47	(0.22- 0.99)
RONCH1	1	m	0	14	177	48	790	1.30	(0.70- 2.41)
RONCH1	4	f	0	12	170	35	764	1.54	(0.78- 3.03)
Subtotal RONCH1								1.41	(0.89- 2.22)
RONCH2	1	b	0	44	266	93	726	1.29	(0.88- 1.90)
RONCH3	1	b	0	28	240	91	696	0.89	(0.57- 1.40)
VENNER	4	m	0	179	424	48	116	1.02	(0.70- 1.49)
VENNER	1	f	0	185	429	50	130	1.12	(0.78- 1.62)
Subtotal VENNER								1.07	(0.82- 1.39)
Partial Totals				1909	3393	2790	6187		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
CHEN2	38	b	6	0.48	5.11	1.43	0.2754
DOLD	18	b	1	0.12	73.89	2.10	0.2935
ECE	4	b	0	0.14	71.12	2.49	0.2356
EHRLI2	6	b	0	0.00	5.30	0.01	1.0000
*FERGUS	16	b	1	-0.16	18.60	0.25	0.4833
GILLIL	71	b	0	-0.20	23.09	0.52	0.3459
LAM1	5	b	4	-0.12	65.49	0.32	0.3457
LEE3	2	b	0	-0.21	391.25	10.56	0.0000
LISTER	7	b	8	0.29	40.82	4.49	0.0684
MAIER	2	b	0	0.82	15.39	11.46	0.0014
NHANE3	26	b	6	0.10	19.52	0.39	0.6737
PIROGO	1	b	0	0.43	2.12	0.49	0.5284
RATAGE	6	b	0	-0.75	6.85	3.43	0.0483
RONCH1	1	m	0	0.26	10.08	0.97	0.4023
RONCH1	4	f	0	0.43	8.40	1.92	0.2103
Subtotal RONCH1				0.79	18.48	2.89	
RONCH2	1	b	0	0.26	25.90	2.36	0.1933
RONCH3	1	b	0	-0.11	19.12	0.09	0.6183
VENNER	4	m	0	0.02	26.74	0.12	0.9175
VENNER	1	f	0	0.11	28.23	0.73	0.5433
Subtotal VENNER				0.23	54.96	0.85	

RR data

	N	19
	NS	17
	Wt	857.00
Het	Chi	44.14
Het	df	18
Het	P	***
Fixed	RR	0.95
	RRl	0.89
	RRu	1.02
	P	N.S.
Random	RR	1.07
	RRl	0.93
	RRu	1.22
	P	N.S.
Asymm	P	*

Appendix Table D1 - 3

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Adjusted

RR data

	N	19
	NS	17
	Wt	857.00
Het	Chi	44.14
Het	df	18
Het	P	***
Fixed	RR	0.95
	RRl	0.89
	RRu	1.02
	P	N.S.
Random	RR	1.07
	RRl	0.93
	RRu	1.22
	P	N.S.
Asymm	P	*

Sex

		both	male	female	Total
	N	15	2	2	19
	NS	15	2	2	19
	Wt	783.56	36.82	36.62	857.00
Het	Chi	40.17	0.43	0.65	44.14
Het	df	14	1	1	18
Het	P	***	N.S.	N.S.	***
Fixed	RR	0.94	1.09	1.21	0.95
	RRl	0.87	0.79	0.87	0.89
	RRu	1.01	1.51	1.67	1.02
	P	(-)	N.S.	N.S.	N.S.
Random	RR	1.05	1.09	1.21	1.07
	RRl	0.90	0.79	0.87	0.93
	RRu	1.22	1.51	1.67	1.22
	P	N.S.	N.S.	N.S.	N.S.
Between	Chi				2.89
Between	df				2
Between	P				N.S.

Measure of exposure

		cigs	persn	other	Total
	N	13	3	3	19
	NS	11	3	3	17
	Wt	726.10	90.70	40.21	857.00
Het	Chi	30.83	0.78	5.26	44.14
Het	df	12	2	2	18
Het	P	**	N.S.	(*)	***
Fixed	RR	0.94	0.88	1.43	0.95
	RRl	0.88	0.72	1.05	0.89
	RRu	1.01	1.09	1.95	1.02
	P	N.S.	N.S.	+	N.S.
Random	RR	1.06	0.88	1.41	1.07
	RRl	0.91	0.72	0.82	0.93
	RRu	1.23	1.09	2.40	1.22
	P	N.S.	N.S.	N.S.	N.S.
Between	Chi				7.27
Between	df				2
Between	P				*

Appendix Table D1 - 4

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Unadjusted

REF	NRR	X	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
CHEN2	12	x	b	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	9
DOLD	14	x	b	9	11	all	Eu:Ger	1989	1992	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
ECE	4		b	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	10
EHRLI2	6		b	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	3	7
FERGUS	14	x	b	0	6	all	Auslia	1977	1985	Pr	0	Mother	NotMothr	in life	non	cigs	1	10
GILLIL	71		b	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	1	1
LAM1	1	x	b	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
LEE3	2		b	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
LISTER	5	x	b	0	4	all	Auslia	1989	1998	CS	0	Mother	NotMothr	current	non	cigs	1	14
MAIER	2		b	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	1	1
NHANE3	35	x	b	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	0	3
PIROGO	1		b	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
RATAGE	6		b	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	9
RONCH1	1		m	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH1	4		f	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH2	1		b	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH3	1		b	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
VENNER	4		m	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
VENNER	1		f	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29

Appendix Table D1 - 5

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Unadjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
CHEN2	12	b	0	8	89	61	548	0.81	(0.37- 1.74)
DOLD	14	b	0	119	1248	295	3613	1.17	(0.93- 1.46)
ECE	4	b	0	217	1294	132	906	1.15	(0.91- 1.45)
EHRLI2	6	b	0	19	24	19	24	1.00	(0.43- 2.34)
*FERGUS	14	b	0	24	188	87	639	0.94	(0.62- 1.43)
GILLIL	71	b	0	30	209	226	1294	0.82	(0.55- 1.24)
LAM1	1	b	0	118	1461	201	2162	0.87	(0.69- 1.10)
LEE3	2	b	0	663	-	1094	-	0.81	(0.73- 0.89)
LISTER	5	b	0	-	-	-	-	1.26	(0.95- 1.68)
MAIER	2	b	0	25	102	73	674	2.26	(1.37- 3.73)
NHANE3	35	b	0	198	1729	175	1457	0.95	(0.77- 1.18)
PIROGO	1	b	0	6	36	4	37	1.54	(0.40- 5.92)
RATAGE	6	b	0	20	22	58	30	0.47	(0.22- 0.99)
RONCH1	1	m	0	14	177	48	790	1.30	(0.70- 2.41)
RONCH1	4	f	0	12	170	35	764	1.54	(0.78- 3.03)
Subtotal RONCH1								1.41	(0.89- 2.22)
RONCH2	1	b	0	44	266	93	726	1.29	(0.88- 1.90)
RONCH3	1	b	0	28	240	91	696	0.89	(0.57- 1.40)
VENNER	4	m	0	179	424	48	116	1.02	(0.70- 1.49)
VENNER	1	f	0	185	429	50	130	1.12	(0.78- 1.62)
Subtotal VENNER								1.07	(0.82- 1.39)
Partial Totals				1909	8108	2790	14606		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
CHEN2	12	b	0	-0.21	6.47	0.17	0.5864
DOLD	14	b	0	0.16	77.69	3.29	0.1715
ECE	4	b	0	0.14	71.12	2.60	0.2356
EHRLI2	6	b	0	0.00	5.30	0.01	1.0000
*FERGUS	14	b	0	-0.06	21.61	0.00	0.7647
GILLIL	71	b	0	-0.20	23.09	0.49	0.3459
LAM1	1	b	0	-0.14	68.51	0.56	0.2442
LEE3	2	b	0	-0.21	391.25	10.02	0.0000
LISTER	5	b	0	0.23	47.28	3.75	0.1120
MAIER	2	b	0	0.82	15.39	11.58	0.0014
NHANE3	35	b	0	-0.05	83.13	0.00	0.6637
PIROGO	1	b	0	0.43	2.12	0.50	0.5284
RATAGE	6	b	0	-0.75	6.85	3.39	0.0483
RONCH1	1	m	0	0.26	10.08	1.00	0.4023
RONCH1	4	f	0	0.43	8.40	1.96	0.2103
Subtotal RONCH1				0.80	18.48	2.96	
RONCH2	1	b	0	0.26	25.90	2.43	0.1933
RONCH3	1	b	0	-0.11	19.12	0.08	0.6183
VENNER	4	m	0	0.02	26.74	0.13	0.9175
VENNER	1	f	0	0.11	28.23	0.77	0.5433
Subtotal VENNER				0.24	54.96	0.90	

RR data

	N	19
	NS	17
	Wt	938.26
Het	Chi	42.73
Het	df	18
Het	P	***
Fixed	RR	0.95
	RRl	0.89
	RRu	1.01
	P	N.S.
Random	RR	1.04
	RRl	0.92
	RRu	1.18
	P	N.S.
Asymm	P	*

Appendix Table D1 - 6

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Unadjusted

RR data

	N	19
	NS	17
	Wt	938.26
Het	Chi	42.73
Het	df	18
Het	P	***
Fixed	RR	0.95
	RRl	0.89
	RRu	1.01
	P	N.S.
Random	RR	1.04
	RRl	0.92
	RRu	1.18
	P	N.S.
Asymm	P	*

Sex

		both	male	female	Total
	N	15	2	2	19
	NS	15	2	2	19
	Wt	864.82	36.82	36.62	938.26
Het	Chi	38.66	0.43	0.65	42.73
Het	df	14	1	1	18
Het	P	***	N.S.	N.S.	***
Fixed	RR	0.94	1.09	1.21	0.95
	RRl	0.88	0.79	0.87	0.89
	RRu	1.00	1.51	1.67	1.01
	P	(-)	N.S.	N.S.	N.S.
Random	RR	1.02	1.09	1.21	1.04
	RRl	0.88	0.79	0.87	0.92
	RRu	1.17	1.51	1.67	1.18
	P	N.S.	N.S.	N.S.	N.S.
Between	Chi				2.99
Between	df				2
Between	P				N.S.

Measure of exposure

		cigs	persn	other	Total
	N	13	3	3	19
	NS	11	3	3	17
	Wt	740.73	93.72	103.82	938.26
Het	Chi	29.57	0.77	9.74	42.73
Het	df	12	2	2	18
Het	P	**	N.S.	**	***
Fixed	RR	0.94	0.87	1.09	0.95
	RRl	0.88	0.71	0.90	0.89
	RRu	1.01	1.06	1.32	1.01
	P	N.S.	N.S.	N.S.	N.S.
Random	RR	1.04	0.87	1.30	1.04
	RRl	0.90	0.71	0.70	0.92
	RRu	1.21	1.06	2.40	1.18
	P	N.S.	N.S.	N.S.	N.S.
Between	Chi				2.66
Between	df				2
Between	P				N.S.

Appendix Table D1 - 7

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	ADDOYO	AGABI1	AGABI2	ARSHAD	AZIZI	BALL	BERGMA	CALL	CELEDO	CHHABR	CHINN	CLARK	CSONKA	CUNNI1	DAIGLE	DEKKER
	DEKOK	DIJKST	DOTTER	DUHME1	DUHME2	DUHME3	DUHME4	EHRLI1	FAGBUL	FORSB1	FORSB2	FORSB3	FUJI	GUPTA	HABY	HALONE
	HJERN1	HJERN2	HOST	HUGHES	INFANT	JAAKKO	JANG	JONES	KABESC	KALYO2	KARUNA	KNIGHT	LAU	LEE1	LEE2	LEEN
	LILLJE	LINDFO	LOPEZC	MAVALE	MELIA	MELSOM	MILLER	MOHAME	MOUSSA	MUMCUO	NITTA	OHARA	OLIVET	PALMIE	PETERS	PIC
	RIBEIR	RONMA1	SARRAZ	SCHMIT	SHIVA	SHOHAT	SOMERV	SOTOQU	SPENGL	STERN1	STODDA	STRACH	STURM	TARIQ	TOMINA	WANG
	WEITZ2	WILLE1	WILLE2	YANG	ZHENG											
3	CUNNI2	JAAKK2	KAPLAN	KELLY	NYSTAD	WEITZ1	XU	YUAN								
4	AGUDOT	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNES2	ANNESI	ARIF	BARRET	BECKET	BENCIV	BENER	BRABIN	BURCHF
	BURR	BUTZ	CHEN1	DEBENE	DELL	DODGE	FARBE1	FARBE2	FARBE3	FAROOQ	FIELDE	FLYNN1	FLYNN2	FORAST	FREEM1	FREEM2
	GOLD	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GURKAN	HAJNAL	HU1	HU2	JENKIN	KALYO1	KASPER
	KAY	KEARNE	KENDIR	KERSHA	KIVITY	KUEHR	KUHR	LEEDER	LEROUX	LEVES1	LEVES2	LEVES3	LIS	MARTIN	MCCON1	MCCON2
	MCKEEV	MONTEF	MONTEI	MOYES1	MOYES2	MURRAY	NICOLA	NILSSO	OCONNE	ODDY	POKHAR	PONSON	QIAN	RASANE	RENNIE	RONMA2
	RONMA3	ROSASV	RUDNIK	SANZOR	SCHENK	SELCUK	SENNHA	SHAMS2	SHAMSS	SHERMA	SIGURS	SOYSET	SPIEKE	SQUILL	STANHO	STAZI
	STERN2	TAYLOR	TIMONE	TSIMOY	ULRIK	VARELA	VAVILI	VERHOE	VOLKME	VONMAF	WARKE	WICKMA	WIJGA	WITHER	WOLFO3	ZEIGER
	ZEJDA	ZHANG														
5	LAM2	WOLFO1	WOLFO2													

Appendix Table D1 - 8

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
LAM2	3	b	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1	0.91	?
WOLFO1	3	b	8	8	all	Eu:Ger	1977	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	1	10	0.94	?
WOLFO2	3	b	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	1	10	0.99	?

Appendix Table D2 -

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma

This analysis is restricted to results for:
1) Lifetime asthma
2) Biochemical, total, household (overall), or parental exposure
3) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
4) Results for high amount of exposure
5) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) ONSET : yes, no (prevalence)
16) For overlapping studies: principal rather than subsidiary studies
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D2 - 1

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Adjusted

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
CHEN2	39	b	6	17	all	NAmer	1993	1996	CS	6	AnyHh	NoHhMemb	current	non	cigs	10	999
DOLD	20	b	9	11	all	Eu:Ger	1989	1992	CS	1	AnyHh	NoHhMemb	unspec	non	cigs	21	999
ECE	5	b	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	11	999
EHRLI2	9	b	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	36	999
FERGUS	17	b	0	6	all	Auslia	1977	1985	Pr	1	Mother	NotMothr	in life	non	cigs	11	999
GILLIL	72	b	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	2	999
LAM1	7	b	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999
LEE3	4	b	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
LISTER	8	b	0	4	all	Auslia	1989	1998	CS	8	Mother	NotMothr	current	non	cigs	15	999
MAIER	3	b	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	2	999
NHANE3	27	b	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	3	113
PIROGO	2	b	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
RATAGE	7	b	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	10	999
RONCH1	2	m	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH1	5	f	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH2	2	b	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH3	2	b	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
VENNER	5	m	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
VENNER	2	f	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999

Appendix Table D2 - 2

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Adjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
CHEN2	39	b	6	24	-	61	-	1.72	(0.93- 3.17)
DOLD	20	b	1	23	-	295	-	1.00	(0.64- 1.57)
ECE	5	b	0	81	410	132	906	1.36	(1.00- 1.83)
EHRLI2	9	b	0	35	23	19	24	1.92	(0.86- 4.28)
*FERGUS	17	b	1	22	-	87	-	0.73	(0.45- 1.17)
GILLIL	72	b	0	17	98	226	1294	0.99	(0.58- 1.69)
LAM1	7	b	4	13	-	201	-	1.49	(0.81- 2.71)
LEE3	4	b	0	117	-	1094	-	0.83	(0.68- 1.00)
LISTER	8	b	8	-	-	-	-	1.76	(1.30- 2.37)
MAIER	3	b	0	8	43	73	674	1.72	(0.78- 3.79)
NHANE3	27	b	6	226	-	175	-	1.30	(0.80- 2.20)
PIROGO	2	b	0	7	46	4	37	1.41	(0.38- 5.18)
RATAGE	7	b	0	42	8	58	30	2.72	(1.13- 6.52)
RONCH1	2	m	0	9	58	48	790	2.55	(1.19- 5.46)
RONCH1	5	f	0	5	56	35	764	1.95	(0.73- 5.17)
Subtotal RONCH1								2.31	(1.27- 4.20)
RONCH2	2	b	0	16	85	93	726	1.47	(0.83- 2.61)
RONCH3	2	b	0	12	72	91	696	1.27	(0.67- 2.44)
VENNER	5	m	0	38	53	48	116	1.73	(1.01- 2.96)
VENNER	2	f	0	29	37	50	130	2.04	(1.13- 3.66)
Subtotal VENNER								1.87	(1.26- 2.77)
Partial Totals				724	989	2790	6187		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
CHEN2	39	b	6	0.54	10.22	1.19	0.0830
DOLD	20	b	1	0.00	19.08	0.77	1.0000
ECE	5	b	0	0.30	42.62	0.46	0.0468
EHRLI2	9	b	0	0.65	6.01	1.23	0.1091
*FERGUS	17	b	1	-0.31	16.83	4.47	0.1967
GILLIL	72	b	0	-0.01	13.47	0.58	0.9801
LAM1	7	b	4	0.40	10.54	0.41	0.1955
LEE3	4	b	0	-0.19	103.31	15.48	0.0582
LISTER	8	b	8	0.57	42.61	5.66	0.0002
MAIER	3	b	0	0.54	6.12	0.71	0.1808
NHANE3	27	b	6	0.26	15.02	0.06	0.3093
PIROGO	2	b	0	0.34	2.26	0.05	0.6069
RATAGE	7	b	0	1.00	5.02	3.20	0.0253
RONCH1	2	m	0	0.94	6.65	3.61	0.0156
RONCH1	5	f	0	0.67	4.04	0.88	0.1800
Subtotal RONCH1				1.20	10.68	4.49	
RONCH2	2	b	0	0.38	11.57	0.39	0.1904
RONCH3	2	b	0	0.24	9.12	0.02	0.4635
VENNER	5	m	0	0.55	13.40	1.63	0.0442
VENNER	2	f	0	0.71	11.21	2.93	0.0171
Subtotal VENNER				0.86	24.61	4.56	

RR data

	N	19
	NS	17
	Wt	349.09
Het	Chi	43.72
Het	df	18
Het	P	***
Fixed	RR	1.22
	RRl	1.10
	RRu	1.36
	P	+++
Random	RR	1.39
	RRl	1.16
	RRu	1.68
	P	+++
Asymm	P	**

Appendix Table D2 - 3

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Adjusted

RR data

	N	19
	NS	17
	Wt	349.09
Het	Chi	43.72
Het	df	18
Het	P	***
Fixed	RR	1.22
	RRl	1.10
	RRu	1.36
	P	+++
Random	RR	1.39
	RRl	1.16
	RRu	1.68
	P	+++
Asymm	P	**

Sex

		both	male	female	Total
	N	15	2	2	19
	NS	15	2	2	19
	Wt	313.79	20.04	15.25	349.09
Het	Chi	33.73	0.67	0.01	43.72
Het	df	14	1	1	18
Het	P	**	N.S.	N.S.	***
Fixed	RR	1.16	1.97	2.01	1.22
	RRl	1.04	1.27	1.22	1.10
	RRu	1.29	3.05	3.33	1.36
	P	++	++	++	+++
Random	RR	1.28	1.97	2.01	1.39
	RRl	1.05	1.27	1.22	1.16
	RRu	1.56	3.05	3.33	1.68
	P	+	++	++	+++
Between	Chi				9.32
Between	df				2
Between	P				**

Measure of exposure

		cigs	persn	other	Total
	N	13	3	3	19
	NS	11	3	3	17
	Wt	295.67	26.27	27.15	349.09
Het	Chi	40.59	1.03	0.79	43.72
Het	df	12	2	2	18
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.20	1.20	1.51	1.22
	RRl	1.07	0.82	1.04	1.10
	RRu	1.35	1.77	2.20	1.36
	P	++	N.S.	+	+++
Random	RR	1.41	1.20	1.51	1.39
	RRl	1.11	0.82	1.04	1.16
	RRu	1.79	1.77	2.20	1.68
	P	++	N.S.	+	+++
Between	Chi				1.31
Between	df				2
Between	P				N.S.

Appendix Table D2 - 4

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Unadjusted

REF	NRR	X	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
CHEN2	13	x	b	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	10	999
DOLD	16	x	b	9	11	all	Eu:Ger	1989	1992	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
ECE	5		b	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	11	999
EHRLI2	9		b	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	36	999
FERGUS	15	x	b	0	6	all	Auslia	1977	1985	Pr	0	Mother	NotMothr	in life	non	cigs	11	999
GILLIL	72		b	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	2	999
LAM1	3	x	b	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	3	999
LEE3	4		b	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
LISTER	6	x	b	0	4	all	Auslia	1989	1998	CS	0	Mother	NotMothr	current	non	cigs	15	999
MAIER	3		b	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	2	999
NHANE3	36	x	b	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	3	113
PIROGO	2		b	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
RATAGE	7		b	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	10	999
RONCH1	2		m	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH1	5		f	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH2	2		b	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH3	2		b	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
VENNER	5		m	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
VENNER	2		f	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999

Appendix Table D2 - 5

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Unadjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Control	Non-exposed Case	Control	RR	95.00%CI
CHEN2	13	b	0	24	162	61	548	1.33	(0.80- 2.20)
DOLD	16	b	0	23	257	295	3613	1.10	(0.70- 1.71)
ECE	5	b	0	81	410	132	906	1.36	(1.00- 1.83)
EHRLI2	9	b	0	35	23	19	24	1.92	(0.86- 4.28)
*FERGUS	15	b	0	22	205	87	639	0.79	(0.51- 1.22)
GILLIL	72	b	0	17	98	226	1294	0.99	(0.58- 1.69)
LAM1	3	b	0	13	101	201	2162	1.38	(0.76- 2.51)
LEE3	4	b	0	117	-	1094	-	0.83	(0.68- 1.00)
LISTER	6	b	0	-	-	-	-	1.75	(1.33- 2.29)
MAIER	3	b	0	8	43	73	674	1.72	(0.78- 3.79)
NHANE3	36	b	0	226	1615	175	1457	1.17	(0.94- 1.44)
PIROGO	2	b	0	7	46	4	37	1.41	(0.38- 5.18)
RATAGE	7	b	0	42	8	58	30	2.72	(1.13- 6.52)
RONCH1	2	m	0	9	58	48	790	2.55	(1.19- 5.46)
RONCH1	5	f	0	5	56	35	764	1.95	(0.73- 5.17)
Subtotal RONCH1								2.31	(1.27- 4.20)
RONCH2	2	b	0	16	85	93	726	1.47	(0.83- 2.61)
RONCH3	2	b	0	12	72	91	696	1.27	(0.67- 2.44)
VENNER	5	m	0	38	53	48	116	1.73	(1.01- 2.96)
VENNER	2	f	0	29	37	50	130	2.04	(1.13- 3.66)
Subtotal VENNER								1.87	(1.26- 2.77)
Partial Totals				724	3329	2790	14606		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
CHEN2	13	b	0	0.29	15.14	0.13	0.2660
DOLD	16	b	0	0.09	19.59	0.20	0.6847
ECE	5	b	0	0.30	42.62	0.53	0.0468
EHRLI2	9	b	0	0.65	6.01	1.27	0.1091
*FERGUS	15	b	0	-0.24	19.80	3.68	0.2896
GILLIL	72	b	0	-0.01	13.47	0.54	0.9801
LAM1	3	b	0	0.33	10.84	0.19	0.2842
LEE3	4	b	0	-0.19	103.31	14.90	0.0582
LISTER	6	b	0	0.56	52.04	6.98	0.0001
MAIER	3	b	0	0.54	6.12	0.74	0.1808
NHANE3	36	b	0	0.15	87.38	0.14	0.1532
PIROGO	2	b	0	0.34	2.26	0.05	0.6069
RATAGE	7	b	0	1.00	5.02	3.25	0.0253
RONCH1	2	m	0	0.94	6.65	3.68	0.0156
RONCH1	5	f	0	0.67	4.04	0.91	0.1800
Subtotal RONCH1				1.22	10.68	4.59	
RONCH2	2	b	0	0.38	11.57	0.42	0.1904
RONCH3	2	b	0	0.24	9.12	0.02	0.4635
VENNER	5	m	0	0.55	13.40	1.70	0.0442
VENNER	2	f	0	0.71	11.21	3.01	0.0171
Subtotal VENNER				0.87	24.61	4.71	

RR data

	N	19
	NS	17
	Wt	439.59
Het	Chi	42.36
Het	df	18
Het	P	***
Fixed	RR	1.21
	RRl	1.11
	RRu	1.33
	P	+++
Random	RR	1.35
	RRl	1.14
	RRu	1.60
	P	+++
Asymm	P	*

Appendix Table D2 - 6

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Unadjusted

RR data

	N	19
	NS	17
	Wt	439.59
Het	Chi	42.36
Het	df	18
Het	P	***
Fixed	RR	1.21
	RRl	1.11
	RRu	1.33
	P	+++
Random	RR	1.35
	RRl	1.14
	RRu	1.60
	P	+++
Asymm	P	*

Sex

		both	male	female	Total
	N	15	2	2	19
	NS	15	2	2	19
	Wt	404.30	20.04	15.25	439.59
Het	Chi	32.30	0.67	0.01	42.36
Het	df	14	1	1	18
Het	P	**	N.S.	N.S.	***
Fixed	RR	1.16	1.97	2.01	1.21
	RRl	1.05	1.27	1.22	1.11
	RRu	1.28	3.05	3.33	1.33
	P	++	++	++	+++
Random	RR	1.25	1.97	2.01	1.35
	RRl	1.05	1.27	1.22	1.14
	RRu	1.48	3.05	3.33	1.60
	P	+	++	++	+++
Between	Chi				9.38
Between	df				2
Between	P				**

Measure of exposure

		cigs	persn	other	Total
	N	13	3	3	19
	NS	11	3	3	17
	Wt	313.50	26.58	99.51	439.59
Het	Chi	39.42	0.75	2.14	42.36
Het	df	12	2	2	18
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.21	1.17	1.23	1.21
	RRl	1.08	0.80	1.01	1.11
	RRu	1.35	1.71	1.50	1.33
	P	+++	N.S.	+	+++
Random	RR	1.40	1.17	1.26	1.35
	RRl	1.11	0.80	0.99	1.14
	RRu	1.76	1.71	1.59	1.60
	P	++	N.S.	(+)	+++
Between	Chi				0.05
Between	df				2
Between	P				N.S.

Appendix Table D2 - 7

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose

Lifetime Asthma

Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	ADDOYO	AGABI1	AGABI2	ARSHAD	AZIZI	BALL	BERGMA	CALL	CELEDO	CHHABR	CHINN	CLARK	CSONKA	CUNNI1	DAIGLE	DEKKER
	DEKOK	DIJKST	DOTTER	DUHME1	DUHME2	DUHME3	DUHME4	EHRLI1	FAGBUL	FORSB1	FORSB2	FORSB3	FUJI	GUPTA	HABY	HALONE
	HJERN1	HJERN2	HOST	HUGHES	INFANT	JAAKKO	JANG	JONES	KABESC	KALYO2	KARUNA	KNIGHT	LAU	LEE1	LEE2	LEEN
	LILLJE	LINDFO	LOPEZC	MAVALE	MELIA	MELSOM	MILLER	MOHAME	MOUSSA	MUMCUO	NITTA	OHARA	OLIVET	PALMIE	PETERS	PIC
	RIBEIR	RONMA1	SARRAZ	SCHMIT	SHIVA	SHOHAT	SOMERV	SOTOQU	SPENGL	STERN1	STODDA	STRACH	STURM	TARIQ	TOMINA	WANG
	WEITZ2	WILLE1	WILLE2	YANG	ZHENG											
3	CUNNI2	JAAKK2	KAPLAN	KELLY	NYSTAD	WEITZ1	XU	YUAN								
4	AGUDOT	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNES2	ANNESI	ARIF	BARRET	BECKET	BENCIV	BENER	BRABIN	BURCHF
	BURR	BUTZ	CHEN1	DEBENE	DELL	DODGE	FARBE1	FARBE2	FARBE3	FAROOQ	FIELDE	FLYNN1	FLYNN2	FORAST	FREEM1	FREEM2
	GOLD	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GURKAN	HAJNAL	HU1	HU2	JENKIN	KALYO1	KASPER
	KAY	KEARNE	KENDIR	KERSHA	KIVITY	KUEHR	KUHR	LEEDER	LEROUX	LEVES1	LEVES2	LEVES3	LIS	MARTIN	MCCON1	MCCON2
	MCKEEV	MONTEF	MONTEI	MOYES1	MOYES2	MURRAY	NICOLA	NILSSO	OCONNE	ODDY	POKHAR	PONSON	QIAN	RASANE	RENNIE	RONMA2
	RONMA3	ROSASV	RUDNIK	SANZOR	SCHENK	SELCUK	SENNHA	SHAMS2	SHAMSS	SHERMA	SIGURS	SOYSET	SPIEKE	SQUILL	STANHO	STAZI
	STERN2	TAYLOR	TIMONE	TSIMOY	ULRIK	VARELA	VAVILI	VERHOE	VOLKME	VONMAF	WARKE	WICKMA	WIJGA	WITHER	WOLFO3	ZEIGER
	ZEJDA	ZHANG														
5	LAM2	WOLFO1	WOLFO2													

Appendix Table D2 - 8

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
LAM2	5	b	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999	0.71	?
WOLFO1	5	b	8	8	all	Eu:Ger	1977	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	21	999	0.40	?
WOLFO2	5	b	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	21	999	0.63	?

Appendix Table D3 -

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma

This analysis is restricted to results for:
1) Current asthma
2) Biochemical, total, household (overall), or parental exposure
3) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
4) Results for low amount of exposure
5) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) For overlapping studies: principal rather than subsidiary studies, and for prospective studies, most recent follow-up
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D3 - 1

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Adjusted

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	29	b	6	7	all	Eu:Ita	1994	1999	CC	11	Mother	NotMothr	current	non	cigs	1	10
AGABI2	29	b	13	14	all	Eu:Ita	1994	1999	CC	12	Mother	NotMothr	current	non	cigs	1	10
CHEN2	51	b	6	17	all	NAmer	1993	1996	CS	1	AnyHh	NoHhMemb	current	non	cigs	1	9
DEKKER	4	b	5	8	all	NAmer	1988	1991	CC	9	AnyHh	NoHhMemb	unspec	non	persn	1	1
DUHME1	1	b	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
DUHME3	1	b	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
GILLIL	40	b	7	19	all	NAmer	1993	2001	CS	8	AnyHh	NoHhMemb	current	non	persn	1	1
GOLD	8	b	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	1	19
HJERN1	14	b	3	15	all	Eu:Sca	1996	2001	CS	9	Mother	NotMothr	current	non	cigs	1	14
HJERN2	14	b	3	15	all	Eu:Sca	1996	2001	CS	9	Father	NotFathr	current	non	cigs	1	14
INFANT	8	b	3	4	all	NAmer	1988	1993	CC	19	Mother	NotMothr	in life	non	cigs	1	20
LAM1	13	b	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1
MELSOM	1	b	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
MUMCUO	4	b	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	30
NHANE3	59	b	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	0	3
PALMIE	1	b	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	1	19
PETERS	4	b	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	1	1
STRACH	7	b	13	18	all	Eu:UK	1993	1995	CC	4	Mother	NotMothr	current	non	cigs	1	10
STURM	6	b	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	0	0
WILLE1	12	b	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	20	29
ZHENG	20	b	6	10	all	As:FE	1999	2002	CC	6	AnyHh	NoHhMemb	in life	non	persn	1	1

Appendix Table D3 - 2

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Adjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	29	b	11	200	-	573	-	1.22	(1.03- 1.45)
AGABI2	29	b	12	233	-	816	-	1.14	(0.97- 1.33)
CHEN2	51	b	1	7	-	50	-	1.14	(0.47- 2.76)
DEKKER	4	b	9	196	-	249	-	1.40	(1.13- 1.73)
DUHME1	1	b	2	-	-	-	-	1.12	(0.84- 1.49)
DUHME3	1	b	2	-	-	-	-	0.96	(0.67- 1.37)
GILLIL	40	b	8	-	-	-	-	0.90	(0.60- 1.30)
GOLD	8	b	11	-	-	-	-	1.20	(0.93- 1.55)
HJERN1	14	b	9	20	-	88	-	0.92	(0.56- 1.50)
HJERN2	14	b	9	5	-	34	-	1.00	(0.43- 2.35)
INFANT	8	b	19	138	-	273	-	1.16	(0.77- 1.76)
LAM1	13	b	4	13	-	35	-	0.48	(0.25- 0.93)
MELSOM	1	b	0	35	51	44	49	0.76	(0.42- 1.38)
MUMCUO	4	b	0	74	46	119	38	0.51	(0.31- 0.86)
NHANE3	59	b	6	139	-	126	-	1.10	(0.60- 1.90)
PALMIE	1	b	0	90	133	67	96	0.97	(0.64- 1.46)
PETERS	4	b	6	-	-	-	-	0.76	(0.55- 1.07)
STRACH	7	b	4	82	-	364	-	1.13	(0.73- 1.74)
STURM	6	b	7	-	-	-	-	1.33	(1.22- 1.44)
WILLE1	12	b	0	11	6	30	67	4.09	(1.39- 12.10)
ZHENG	20	b	6	126	-	118	-	1.30	(1.00- 1.80)
Partial Totals				1369	236	2986	250		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	29	b	11	0.20	131.37	0.03	0.0227
AGABI2	29	b	12	0.13	154.23	0.41	0.1037
CHEN2	51	b	1	0.13	4.90	0.01	0.7717
DEKKER	4	b	9	0.34	84.71	2.00	0.0020
DUHME1	1	b	2	0.11	46.78	0.23	0.4383
DUHME3	1	b	2	-0.04	30.03	1.50	0.8230
GILLIL	40	b	8	-0.11	25.70	2.14	0.5932
GOLD	8	b	11	0.18	58.89	0.00	0.1618
HJERN1	14	b	9	-0.08	15.83	1.12	0.7401
HJERN2	14	b	9	0.00	5.33	0.18	1.0000
INFANT	8	b	19	0.15	22.48	0.03	0.4816
LAM1	13	b	4	-0.73	8.90	7.48	0.0285
MELSOM	1	b	0	-0.27	10.95	2.23	0.3736
MUMCUO	4	b	0	-0.67	14.29	10.30	0.0118
NHANE3	59	b	6	0.10	11.56	0.09	0.7458
PALMIE	1	b	0	-0.03	22.74	1.04	0.8829
PETERS	4	b	6	-0.27	34.69	7.26	0.1060
STRACH	7	b	4	0.12	20.37	0.07	0.5812
STURM	6	b	7	0.29	559.02	5.85	0.0000
WILLE1	12	b	0	1.41	3.27	4.92	0.0108
ZHENG	20	b	6	0.26	44.48	0.28	0.0802

RR data

	N	21
	NS	21
	Wt	1310.53
Het	Chi	47.18
Het	df	20
Het	P	***
Fixed	RR	1.20
	RRl	1.14
	RRu	1.27
	P	+++
Random	RR	1.08
	RRl	0.97
	RRu	1.21
	P	N.S.
Asymm	P	**

Appendix Table D3 - 3

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Adjusted

RR data

	N	21
	NS	21
	Wt	1310.53
Het	Chi	47.18
Het	df	20
Het	P	***
Fixed	RR	1.20
	RRl	1.14
	RRu	1.27
	P	+++
Random	RR	1.08
	RRl	0.97
	RRu	1.21
	P	N.S.
Asymm	P	**

		Sex		
		both	male	female	Total
	N	21			21
	NS	21			21
	Wt	1310.53			1310.53
Het	Chi	47.18			47.18
Het	df	20			20
Het	P	***			***
Fixed	RR	1.20			1.20
	RRl	1.14			1.14
	RRu	1.27			1.27
	P	+++			+++
Random	RR	1.08			1.08
	RRl	0.97			0.97
	RRu	1.21			1.21
	P	N.S.			N.S.
Between	Chi				
Between	df				
Between	P				N.S.

		Measure of exposure			
		cigs	persn	other	Total
	N	10	6	5	21
	NS	10	6	5	21
	Wt	450.43	209.44	650.67	1310.53
Het	Chi	11.15	19.51	8.71	47.18
Het	df	9	5	4	20
Het	P	N.S.	**	(*)	***
Fixed	RR	1.12	1.09	1.30	1.20
	RRl	1.02	0.95	1.20	1.14
	RRu	1.23	1.25	1.40	1.27
	P	+	N.S.	+++	+++
Random	RR	1.10	0.94	1.22	1.08
	RRl	0.98	0.70	0.98	0.97
	RRu	1.24	1.27	1.52	1.21
	P	N.S.	N.S.	(+)	N.S.
Between	Chi				7.80
Between	df				2
Between	P				*

Appendix Table D3 - 4

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Unadjusted

REF	NRR	X	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	21	x	b	6	7	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	1	10
AGABI2	21	x	b	13	14	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	1	10
CHEN2	25	x	b	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	9
DEKKER	1	x	b	5	8	all	NAmer	1988	1991	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
DUHME1	1		b	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
DUHME3	1		b	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
GILLIL	40		b	7	19	all	NAmer	1993	2001	CS	8	AnyHh	NoHhMemb	current	non	persn	1	1
GOLD	8		b	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	1	19
HJERN1	6	x	b	3	15	all	Eu:Sca	1996	2001	CS	0	Mother	NotMothr	current	non	cigs	1	14
HJERN2	6	x	b	3	15	all	Eu:Sca	1996	2001	CS	0	Father	NotFathr	current	non	cigs	1	14
INFANT	1	x	b	3	4	all	NAmer	1988	1993	CC	0	Mother	NotMothr	in life	non	cigs	1	20
LAM1	9	x	b	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
MELSOM	1		b	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
MUMCUO	4		b	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	30
NHANE3	47	x	b	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	0	3
PALMIE	1		b	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	1	19
PETERS	4		b	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	1	1
STRACH	1	x	b	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	current	non	cigs	1	10
STURM	6		b	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	0	0
WILLE1	12		b	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	20	29
ZHENG	8	x	b	6	10	all	As:FE	1999	2002	CC	0	AnyHh	NoHhMemb	in life	non	persn	1	1

Appendix Table D3 - 5

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Unadjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	21	b	0	200	2829	573	9614	1.19	(1.00- 1.40)
AGABI2	21	b	0	233	2585	816	10166	1.12	(0.96- 1.31)
CHEN2	25	b	0	7	90	50	559	0.87	(0.38- 1.98)
DEKKER	1	b	0	196	2550	249	4585	1.42	(1.17- 1.72)
DUHME1	1	b	2	-	-	-	-	1.12	(0.84- 1.49)
DUHME3	1	b	2	-	-	-	-	0.96	(0.67- 1.37)
GILLIL	40	b	8	-	-	-	-	0.90	(0.60- 1.30)
GOLD	8	b	11	-	-	-	-	1.20	(0.93- 1.55)
HJERN1	6	b	0	20	363	88	1804	1.13	(0.69- 1.86)
HJERN2	6	b	0	5	108	66	1552	1.09	(0.43- 2.76)
INFANT	1	b	0	138	135	273	289	1.08	(0.81- 1.45)
LAM1	9	b	0	13	1566	35	2328	0.55	(0.29- 1.05)
MELSOM	1	b	0	35	51	44	49	0.76	(0.42- 1.38)
MUMCUO	4	b	0	74	46	119	38	0.51	(0.31- 0.86)
NHANE3	47	b	0	139	1788	126	1506	0.93	(0.72- 1.19)
PALMIE	1	b	0	90	133	67	96	0.97	(0.64- 1.46)
PETERS	4	b	6	-	-	-	-	0.76	(0.55- 1.07)
STRACH	1	b	0	82	64	364	382	1.34	(0.94- 1.92)
STURM	6	b	7	-	-	-	-	1.33	(1.22- 1.44)
WILLE1	12	b	0	11	6	30	67	4.09	(1.39- 12.10)
ZHENG	8	b	0	126	248	118	305	1.31	(0.97- 1.78)
Partial Totals				1369	12562	3018	33340		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	21	b	0	0.17	138.84	0.00	0.0443
AGABI2	21	b	0	0.12	166.60	0.55	0.1345
CHEN2	25	b	0	-0.14	5.69	0.56	0.7388
DEKKER	1	b	0	0.35	102.79	3.11	0.0004
DUHME1	1	b	2	0.11	46.78	0.17	0.4383
DUHME3	1	b	2	-0.04	30.03	1.38	0.8230
GILLIL	40	b	8	-0.11	25.70	2.00	0.5932
GOLD	8	b	11	0.18	58.89	0.00	0.1618
HJERN1	6	b	0	0.12	15.46	0.04	0.6321
HJERN2	6	b	0	0.08	4.44	0.03	0.8579
INFANT	1	b	0	0.08	45.92	0.41	0.5927
LAM1	9	b	0	-0.59	9.38	5.52	0.0689
MELSOM	1	b	0	-0.27	10.95	2.14	0.3736
MUMCUO	4	b	0	-0.67	14.29	10.07	0.0118
NHANE3	47	b	0	-0.07	61.15	3.72	0.5657
PALMIE	1	b	0	-0.03	22.74	0.95	0.8829
PETERS	4	b	6	-0.27	34.69	6.95	0.1060
STRACH	1	b	0	0.30	30.13	0.45	0.1041
STURM	6	b	7	0.29	559.02	7.00	0.0000
WILLE1	12	b	0	1.41	3.27	5.00	0.0108
ZHENG	8	b	0	0.27	42.15	0.41	0.0769

RR data

	N	21
	NS	21
	Wt	1428.93
Het	Chi	50.48
Het	df	20
Het	P	***
Fixed	RR	1.19
	RRl	1.13
	RRu	1.25
	P	+++
Random	RR	1.08
	RRl	0.98
	RRu	1.20
	P	N.S.
Asymm	P	*

Appendix Table D3 - 6

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Unadjusted

RR data

	N	21				
	NS	21				
	Wt	1428.93				
Het	Chi	50.48				
Het	df	20				
Het	P	***				
Fixed	RR	1.19				
	RRl	1.13				
	RRu	1.25				
	P	+++				
Random	RR	1.08				
	RRl	0.98				
	RRu	1.20				
	P	N.S.				
Asymm	P	*				

		Sex		
		both	male	female	Total
	N	21			21
	NS	21			21
	Wt	1428.93			1428.93
Het	Chi	50.48			50.48
Het	df	20			20
Het	P	***			***
Fixed	RR	1.19			1.19
	RRl	1.13			1.13
	RRu	1.25			1.25
	P	+++			+++
Random	RR	1.08			1.08
	RRl	0.98			0.98
	RRu	1.20			1.20
	P	N.S.			N.S.
Between	Chi				
Between	df				
Between	P				N.S.

		Measure of exposure			
		cigs	persn	other	Total
	N	10	6	5	21
	NS	10	6	5	21
	Wt	503.00	225.68	700.25	1428.93
Het	Chi	11.32	19.43	14.71	50.48
Het	df	9	5	4	20
Het	P	N.S.	**	**	***
Fixed	RR	1.12	1.12	1.26	1.19
	RRl	1.03	0.99	1.17	1.13
	RRu	1.22	1.28	1.36	1.25
	P	+	(+)	+++	+++
Random	RR	1.11	0.96	1.16	1.08
	RRl	0.99	0.72	0.92	0.98
	RRu	1.24	1.29	1.47	1.20
	P	(+)	N.S.	N.S.	N.S.
Between	Chi				5.01
Between	df				2
Between	P				(*)

Appendix Table D3 - 7

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNESI	ARIF	BARRET	BECKET	BENCIV	BENER	BRABIN	BURCHF	BURR	BUTZ
	CHEN1	CUNNI2	DEBENE	DELL	DODGE	DOLD	ECE	EHRLI2	FARBE1	FARBE2	FARBE3	FAROOQ	FERGUS	FLYNN1	FLYNN2	FORAST
	FREEM1	FREEM2	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GURKAN	HAJNAL	JAAKK2	JENKIN	KAPLAN	KASPER
	KAY	KEARNE	KELLY	KENDIR	KERSHA	KIVITY	KUEHR	KUHR	LEE3	LEEDER	LEROUX	LEVES1	LEVES2	LEVES3	LIS	LISTER
	MAIER	MARTIN	MCCON1	MCKEEV	MONTEF	MONTEI	MOYES1	MOYES2	MURRAY	NILSSO	NYSTAD	OCONNE	ODDY	PIROGO	POKHAR	PONSON
	QIAN	RASANE	RATAGE	RENNIE	RONCH1	RONCH2	RONCH3	RONMA2	RONMA3	ROSASV	RUDNIK	SANZOR	SCHENK	SENNHA	SHAMS2	SHAMSS
	SHERMA	SIGURS	SOYSET	SPIEKE	SQUILL	STAZI	TAYLOR	TIMONE	TSIMOY	ULRIK	VARELA	VAVILI	VENNER	VERHOE	VOLKME	VONMAF
	WARKE	WICKMA	WITHER	XU	YUAN	ZEIGER	ZEJDA	ZHANG								
3	CELEDO	LOPEZC	OLIVET	WEITZ1	WEITZ2											
4	ADDOYO	AGUDOT	ANNES2	ARSHAD	AZIZI	BALL	BERGMA	CALL	CHHABR	CHINN	CLARK	CSONKA	DAIGLE	DEKOK	DIJKST	DOTTER
	DUHME2	DUHME4	EHRLI1	FAGBUL	FIELDE	FORSB1	FORSB2	FORSB3	FUJI	GUPTA	HABY	HALONE	HOST	HU1	HU2	HUGHES
	JAAKKO	JANG	JONES	KABESC	KALYO1	KALYO2	KARUNA	KNIGHT	LAU	LEE1	LEE2	LEEN	LILLJE	LINDFO	MAVALE	MCCON2
	MELIA	MILLER	MOHAME	MOUSSA	NICOLA	NITTA	OHARA	PIC	RIBEIR	RONMA1	SARRAZ	SCHMIT	SELCUK	SHIVA	SHOHAT	SOMERV
	SOTOQU	SPENGL	STANHO	STERN1	STERN2	STODDA	TARIQ	TOMINA	WANG	WIJGA	WILLE2	WOLFO1	WOLFO3	YANG		
5	CUNNI1	LAM2	WOLFO2													

Appendix Table D3 - 8

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Current Asthma
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL
HJERN1	HJERN1	1	HJERN1/HJERN2
HJERN2	HJERN2	1	HJERN1/HJERN2
DUHME1	BEHREN	2	DUHME1/BEHREN

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
CUNNI1	7	b	8	11	all	NAmer	1988	1996	CS	9	AnyHh	NoHhMemb	current	non	cigs	1	9	1.12	?
LAM2	6	b	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1	0.72	?
STRACH	13	b	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	<1m	non	cigs	1	10	*	n
WOLFO2	6	b	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	1	10	0.77	?

Appendix Table D4 -

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma

This analysis is restricted to results for:
1) Current asthma
2) Biochemical, total, household (overall), or parental exposure
3) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
4) Results for high amount of exposure
5) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) For overlapping studies: principal rather than subsidiary studies, and for prospective studies, most recent follow-up
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D4 - 1

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Adjusted

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	30	b	6	7	all	Eu:Ita	1994	1999	CC	11	Mother	NotMothr	current	non	cigs	11	999
AGABI2	30	b	13	14	all	Eu:Ita	1994	1999	CC	12	Mother	NotMothr	current	non	cigs	11	999
CHEN2	52	b	6	17	all	NAmer	1993	1996	CS	1	AnyHh	NoHhMemb	current	non	cigs	10	999
DEKKER	5	b	5	8	all	NAmer	1988	1991	CC	9	AnyHh	NoHhMemb	unspec	non	persn	2	999
DUHME1	2	b	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
DUHME3	2	b	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
GILLIL	41	b	7	19	all	NAmer	1993	2001	CS	8	AnyHh	NoHhMemb	current	non	persn	2	999
GOLD	10	b	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	30	999
HJERN1	15	b	3	15	all	Eu:Sca	1996	2001	CS	9	Mother	NotMothr	current	non	cigs	15	999
HJERN2	15	b	3	15	all	Eu:Sca	1996	2001	CS	9	Father	NotFathr	current	non	cigs	15	999
INFANT	9	b	3	4	all	NAmer	1988	1993	CC	19	Mother	NotMothr	in life	non	cigs	21	999
LAM1	15	b	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999
MELSOM	2	b	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
MUMCUO	5	b	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	31	999
NHANE3	60	b	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	3	113
PALMIE	2	b	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	20	999
PETERS	5	b	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	2	999
STRACH	8	b	13	18	all	Eu:UK	1993	1995	CC	4	Mother	NotMothr	current	non	cigs	11	999
STURM	9	b	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	30	30
WILLE1	13	b	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	30	999
ZHENG	22	b	6	10	all	As:FE	1999	2002	CC	6	AnyHh	NoHhMemb	in life	non	persn	4	999

Appendix Table D4 - 2

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Adjusted

REF	NRR	SEX	ADJ	Number Exposed Case	Number Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	30	b	11	150	-	573	-	1.25	(1.03- 1.51)
AGABI2	30	b	12	214	-	816	-	1.23	(1.04- 1.45)
CHEN2	52	b	1	17	-	50	-	1.15	(0.61- 2.15)
DEKKER	5	b	9	190	-	249	-	1.59	(1.28- 1.98)
DUHME1	2	b	2	-	-	-	-	1.19	(0.88- 1.61)
DUHME3	2	b	2	-	-	-	-	0.96	(0.62- 1.47)
GILLIL	41	b	8	-	-	-	-	1.70	(1.10- 2.50)
GOLD	10	b	11	-	-	-	-	1.07	(0.79- 1.44)
HJERN1	15	b	9	11	-	88	-	0.80	(0.43- 1.48)
HJERN2	15	b	9	7	-	66	-	0.70	(0.32- 1.53)
INFANT	9	b	19	45	-	273	-	2.77	(1.35- 5.66)
LAM1	15	b	4	5	-	35	-	2.86	(1.09- 7.49)
MELSOM	2	b	0	39	24	44	49	1.81	(0.94- 3.47)
MUMCUO	5	b	0	107	16	119	38	2.14	(1.13- 4.05)
NHANE3	60	b	6	182	-	126	-	1.50	(0.80- 2.70)
PALMIE	2	b	0	145	204	67	96	1.02	(0.70- 1.49)
PETERS	5	b	6	-	-	-	-	1.22	(0.78- 1.92)
STRACH	8	b	4	40	-	364	-	1.49	(0.80- 2.77)
STURM	9	b	7	-	-	-	-	1.72	(1.60- 1.84)
WILLE1	13	b	0	8	4	30	67	4.47	(1.25- 15.99)
ZHENG	22	b	6	36	-	118	-	2.60	(1.50- 4.40)
Partial Totals				1196	248	3018	250		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	30	b	11	0.22	105.00	4.35	0.0222
AGABI2	30	b	12	0.21	139.12	6.71	0.0146
CHEN2	52	b	1	0.14	9.68	0.80	0.6636
DEKKER	5	b	9	0.46	80.74	0.11	0.0000
DUHME1	2	b	2	0.17	42.11	2.69	0.2590
DUHME3	2	b	2	-0.04	20.62	4.51	0.8529
GILLIL	41	b	8	0.53	22.80	0.25	0.0113
GOLD	10	b	11	0.07	42.63	5.49	0.6587
HJERN1	15	b	9	-0.22	10.06	4.25	0.4791
HJERN2	15	b	9	-0.36	6.28	3.85	0.3716
INFANT	9	b	19	1.02	7.48	2.62	0.0053
LAM1	15	b	4	1.05	4.14	1.61	0.0326
MELSOM	2	b	0	0.59	9.05	0.25	0.0743
MUMCUO	5	b	0	0.76	9.38	1.03	0.0201
NHANE3	60	b	6	0.41	10.38	0.00	0.1913
PALMIE	2	b	0	0.02	26.92	4.49	0.9245
PETERS	5	b	6	0.20	18.94	0.98	0.3869
STRACH	8	b	4	0.40	9.96	0.01	0.2082
STURM	9	b	7	0.54	786.64	10.53	0.0000
WILLE1	13	b	0	1.50	2.36	2.70	0.0214
ZHENG	22	b	6	0.96	13.27	3.71	0.0005

RR data

	N	21
	NS	21
	Wt	1377.57
Het	Chi	60.95
Het	df	20
Het	P	***
Fixed	RR	1.53
	RRl	1.45
	RRu	1.62
	P	+++
Random	RR	1.40
	RRl	1.22
	RRu	1.60
	P	+++
Asymm	P	N.S.

Appendix Table D4 - 3

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Adjusted

RR data

	N	21				
	NS	21				
	Wt	1377.57				
Het	Chi	60.95				
Het	df	20				
Het	P	***				
Fixed	RR	1.53				
	RRl	1.45				
	RRu	1.62				
	P	+++				
Random	RR	1.40				
	RRl	1.22				
	RRu	1.60				
	P	+++				
Asymm	P	N.S.				

		Sex		
		both	male	female	Total
	N	21			21
	NS	21			21
	Wt	1377.57			1377.57
Het	Chi	60.95			60.95
Het	df	20			20
Het	P	***			***
Fixed	RR	1.53			1.53
	RRl	1.45			1.45
	RRu	1.62			1.62
	P	+++			+++
Random	RR	1.40			1.40
	RRl	1.22			1.22
	RRu	1.60			1.60
	P	+++			+++
Between	Chi				
Between	df				
Between	P				N.S.

		Measure of exposure			
		cigs	persn	other	Total
	N	10	6	5	21
	NS	10	6	5	21
	Wt	366.51	148.94	862.12	1377.57
Het	Chi	13.81	5.92	14.24	60.95
Het	df	9	5	4	20
Het	P	N.S.	N.S.	**	***
Fixed	RR	1.21	1.66	1.67	1.53
	RRl	1.10	1.42	1.56	1.45
	RRu	1.35	1.95	1.78	1.62
	P	+++	+++	+++	+++
Random	RR	1.21	1.69	1.43	1.40
	RRl	1.04	1.39	1.05	1.22
	RRu	1.41	2.04	1.94	1.60
	P	+	+++	+	+++
Between	Chi				26.98
Between	df				2
Between	P				***

Appendix Table D4 - 4

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Unadjusted

REF	NRR	X	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	22	x	b	6	7	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	11	999
AGABI2	22	x	b	13	14	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	11	999
CHEN2	26	x	b	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	10	999
DEKKER	2	x	b	5	8	all	NAmer	1988	1991	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
DUHME1	2		b	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
DUHME3	2		b	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
GILLIL	41		b	7	19	all	NAmer	1993	2001	CS	8	AnyHh	NoHhMemb	current	non	persn	2	999
GOLD	10		b	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	30	999
HJERN1	7	x	b	3	15	all	Eu:Sca	1996	2001	CS	0	Mother	NotMothr	current	non	cigs	14	999
HJERN2	7	x	b	3	15	all	Eu:Sca	1996	2001	CS	0	Father	NotFathr	current	non	cigs	14	999
INFANT	2	x	b	3	4	all	NAmer	1988	1993	CC	0	Mother	NotMothr	in life	non	cigs	21	999
LAM1	11	x	b	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	3	999
MELSOM	2		b	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
MUMCUO	5		b	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	31	999
NHANE3	48	x	b	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	3	113
PALMIE	2		b	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	20	999
PETERS	5		b	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	2	999
STRACH	2	x	b	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	current	non	cigs	11	999
STURM	9		b	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	30	30
WILLE1	13		b	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	30	999
ZHENG	10	x	b	6	10	all	As:FE	1999	2002	CC	0	AnyHh	NoHhMemb	in life	non	persn	4	999

Appendix Table D4 - 5

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Unadjusted

REF	NRR	SEX	ADJ	Number Exposed Case	Number Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	22	b	0	150	1982	573	9614	1.27	(1.05- 1.53)
AGABI2	22	b	0	214	1984	816	10166	1.34	(1.15- 1.57)
CHEN2	26	b	0	17	169	50	559	1.12	(0.63- 2.00)
DEKKER	2	b	0	190	2072	249	4585	1.69	(1.39- 2.05)
DUHME1	2	b	2	-	-	-	-	1.19	(0.88- 1.61)
DUHME3	2	b	2	-	-	-	-	0.96	(0.62- 1.47)
GILLIL	41	b	8	-	-	-	-	1.70	(1.10- 2.50)
GOLD	10	b	11	-	-	-	-	1.07	(0.79- 1.44)
HJERN1	7	b	0	11	257	88	1804	0.88	(0.46- 1.66)
HJERN2	7	b	0	7	201	66	1552	0.82	(0.37- 1.81)
INFANT	2	b	0	45	32	273	289	1.49	(0.92- 2.41)
LAM1	11	b	0	5	109	35	2328	3.05	(1.17- 7.94)
MELSOM	2	b	0	39	24	44	49	1.81	(0.94- 3.47)
MUMCUO	5	b	0	107	16	119	38	2.14	(1.13- 4.05)
NHANE3	48	b	0	182	1659	126	1506	1.31	(1.03- 1.66)
PALMIE	2	b	0	145	204	67	96	1.02	(0.70- 1.49)
PETERS	5	b	6	-	-	-	-	1.22	(0.78- 1.92)
STRACH	2	b	0	40	29	364	382	1.45	(0.88- 2.38)
STURM	9	b	7	-	-	-	-	1.72	(1.60- 1.84)
WILLE1	13	b	0	8	4	30	67	4.47	(1.25- 15.99)
ZHENG	10	b	0	36	33	118	305	2.82	(1.68- 4.73)
Partial Totals				1196	8775	3018	33340		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	22	b	0	0.24	110.86	4.06	0.0119
AGABI2	22	b	0	0.30	153.83	2.79	0.0002
CHEN2	26	b	0	0.12	11.56	1.13	0.6897
DEKKER	2	b	0	0.52	100.20	0.88	0.0000
DUHME1	2	b	2	0.17	42.11	2.77	0.2590
DUHME3	2	b	2	-0.04	20.62	4.58	0.8529
GILLIL	41	b	8	0.53	22.80	0.23	0.0113
GOLD	10	b	11	0.07	42.63	5.61	0.6587
HJERN1	7	b	0	-0.13	9.37	2.95	0.6890
HJERN2	7	b	0	-0.20	6.11	2.43	0.6214
INFANT	2	b	0	0.40	16.50	0.02	0.1060
LAM1	11	b	0	1.12	4.20	1.97	0.0223
MELSOM	2	b	0	0.59	9.05	0.24	0.0743
MUMCUO	5	b	0	0.76	9.38	1.01	0.0201
NHANE3	48	b	0	0.27	68.04	1.73	0.0254
PALMIE	2	b	0	0.02	26.92	4.57	0.9245
PETERS	5	b	6	0.20	18.94	1.01	0.3869
STRACH	2	b	0	0.37	15.42	0.06	0.1464
STURM	9	b	7	0.54	786.64	9.87	0.0000
WILLE1	13	b	0	1.50	2.36	2.69	0.0214
ZHENG	10	b	0	1.04	14.32	5.26	0.0001

RR data

	N	21
	NS	21
	Wt	1491.87
Het	Chi	55.85
Het	df	20
Het	P	***
Fixed	RR	1.54
	RRl	1.46
	RRu	1.62
	P	+++
Random	RR	1.40
	RRl	1.24
	RRu	1.58
	P	+++
Asymm	P	N.S.

Appendix Table D4 - 6

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Unadjusted

RR data

	N	21				
	NS	21				
	Wt	1491.87				
Het	Chi	55.85				
Het	df	20				
Het	P	***				
Fixed	RR	1.54				
	RRl	1.46				
	RRu	1.62				
	P	+++				
Random	RR	1.40				
	RRl	1.24				
	RRu	1.58				
	P	+++				
Asymm	P	N.S.				

		Sex		
		both	male	female	Total
	N	21			21
	NS	21			21
	Wt	1491.87			1491.87
Het	Chi	55.85			55.85
Het	df	20			20
Het	P	***			***
Fixed	RR	1.54			1.54
	RRl	1.46			1.46
	RRu	1.62			1.62
	P	+++			+++
Random	RR	1.40			1.40
	RRl	1.24			1.24
	RRu	1.58			1.58
	P	+++			+++
Between	Chi				
Between	df				
Between	P				N.S.

		Measure of exposure			
		cigs	persn	other	Total
	N	10	6	5	21
	NS	10	6	5	21
	Wt	402.59	169.51	919.77	1491.87
Het	Chi	8.88	7.16	17.81	55.85
Het	df	9	5	4	20
Het	P	N.S.	N.S.	**	***
Fixed	RR	1.26	1.73	1.64	1.54
	RRl	1.14	1.49	1.54	1.46
	RRu	1.39	2.02	1.75	1.62
	P	+++	+++	+++	+++
Random	RR	1.26	1.77	1.39	1.40
	RRl	1.14	1.43	1.06	1.24
	RRu	1.39	2.20	1.81	1.58
	P	+++	+++	+	+++
Between	Chi				22.00
Between	df				2
Between	P				***

Appendix Table D4 - 7

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNESI	ARIF	BARRET	BECKET	BENCIV	BENER	BRABIN	BURCHF	BURR	BUTZ
	CHEN1	CUNNI2	DEBENE	DELL	DODGE	DOLD	ECE	EHRLI2	FARBE1	FARBE2	FARBE3	FAROOQ	FERGUS	FLYNN1	FLYNN2	FORAST
	FREEM1	FREEM2	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GURKAN	HAJNAL	JAAKK2	JENKIN	KAPLAN	KASPER
	KAY	KEARNE	KELLY	KENDIR	KERSHA	KIVITY	KUEHR	KUHR	LEE3	LEEDER	LEROUX	LEVES1	LEVES2	LEVES3	LIS	LISTER
	MAIER	MARTIN	MCCON1	MCKEEV	MONTEF	MONTEI	MOYES1	MOYES2	MURRAY	NILSSO	NYSTAD	OCONNE	ODDY	PIROGO	POKHAR	PONSON
	QIAN	RASANE	RATAGE	RENNIE	RONCH1	RONCH2	RONCH3	RONMA2	RONMA3	ROSASV	RUDNIK	SANZOR	SCHENK	SENNHA	SHAMS2	SHAMSS
	SHERMA	SIGURS	SOYSET	SPIEKE	SQUILL	STAZI	TAYLOR	TIMONE	TSIMOY	ULRIK	VARELA	VAVILI	VENNER	VERHOE	VOLKME	VONMAF
	WARKE	WICKMA	WITHER	XU	YUAN	ZEIGER	ZEJDA	ZHANG								
3	CELEDO	LOPEZC	OLIVET	WEITZ1	WEITZ2											
4	ADDOYO	AGUDOT	ANNES2	ARSHAD	AZIZI	BALL	BERGMA	CALL	CHHABR	CHINN	CLARK	CSONKA	DAIGLE	DEKOK	DIJKST	DOTTER
	DUHME2	DUHME4	EHRLI1	FAGBUL	FIELDE	FORSB1	FORSB2	FORSB3	FUJI	GUPTA	HABY	HALONE	HOST	HU1	HU2	HUGHES
	JAAKKO	JANG	JONES	KABESC	KALYO1	KALYO2	KARUNA	KNIGHT	LAU	LEE1	LEE2	LEEN	LILLJE	LINDFO	MAVALE	MCCON2
	MELIA	MILLER	MOHAME	MOUSSA	NICOLA	NITTA	OHARA	PIC	RIBEIR	RONMA1	SARRAZ	SCHMIT	SELCUK	SHIVA	SHOHAT	SOMERV
	SOTOQU	SPENGL	STANHO	STERN1	STERN2	STODDA	TARIQ	TOMINA	WANG	WIJGA	WILLE2	WOLFO1	WOLFO3	YANG		
5	CUNNI1	LAM2	WOLFO2													

Appendix Table D4 - 8

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Current Asthma
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL
HJERN1	HJERN1	1	HJERN1/HJERN2
HJERN2	HJERN2	1	HJERN1/HJERN2
DUHME1	BEHREN	2	DUHME1/BEHREN

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
CUNNI1	10	b	8	11	all	NAmer	1988	1996	CS	9	AnyHh	NoHhMemb	current	non	cigs	30	999	1.07	?
LAM2	8	b	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999	0.81	?
STRACH	14	b	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	<1m	non	cigs	11	999	*	n
WOLFO2	8	b	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	21	999	1.82	?

Appendix Table D5 -

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)

This analysis is restricted to results for:
1) Biochemical, total, household (overall), or parental exposure
2) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
3) Results for low amount of exposure
4) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
5) ASTHMA : lifetime, current
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) ONSET : yes, no (prevalence)
16) For overlapping studies: principal rather than subsidiary studies, and for prospective studies, most recent follow-up
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
(and those which actually differ from the adjusted results in Appendix Table D1 - 1 are marked 'x' in Section -1)
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D5 - 1

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	CompD1	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	29	x	b	c	6	7	all	Eu:Ita	1994	1999	CC	11	Mother	NotMothr	current	non	cigs	1	10
AGABI2	29	x	b	c	13	14	all	Eu:Ita	1994	1999	CC	12	Mother	NotMothr	current	non	cigs	1	10
CHEN2	38		b	l	6	17	all	NAmer	1993	1996	CS	6	AnyHh	NoHhMemb	current	non	cigs	1	9
DEKKER	4	x	b	c	5	8	all	NAmer	1988	1991	CC	9	AnyHh	NoHhMemb	unspec	non	persn	1	1
DOLD	18		b	l	9	11	all	Eu:Ger	1989	1992	CS	1	AnyHh	NoHhMemb	unspec	non	cigs	1	10
DUHME1	1	x	b	c	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
DUHME3	1	x	b	c	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
ECE	4		b	l	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	10
EHRLI2	6		b	l	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	3	7
FERGUS	16		b	l	0	6	all	Auslia	1977	1985	Pr	1	Mother	NotMothr	in life	non	cigs	1	10
GILLIL	71		b	l	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	1	1
GOLD	8	x	b	c	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	1	19
HJERN1	14	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	9	Mother	NotMothr	current	non	cigs	1	14
HJERN2	14	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	9	Father	NotFathr	current	non	cigs	1	14
INFANT	8	x	b	c	3	4	all	NAmer	1988	1993	CC	19	Mother	NotMothr	in life	non	cigs	1	20
LAM1	5		b	l	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1
LEE3	2		b	l	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
LISTER	7		b	l	0	4	all	Auslia	1989	1998	CS	8	Mother	NotMothr	current	non	cigs	1	14
MAIER	2		b	l	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	1	1
MELSOM	1	x	b	c	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
MUMCUO	4	x	b	c	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	30
NHANE3	26		b	l	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	0	3
PALMIE	1	x	b	c	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	1	19
PETERS	4	x	b	c	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	1	1
PIROGO	1		b	l	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
RATAGE	6		b	l	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	9
RONCH1	1		m	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH1	4		f	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH2	1		b	l	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH3	1		b	l	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
STRACH	7	x	b	c	13	18	all	Eu:UK	1993	1995	CC	4	Mother	NotMothr	current	non	cigs	1	10
STURM	6	x	b	c	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	0	0
VENNER	4		m	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
VENNER	1		f	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
WILLE1	12	x	b	c	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	20	29
ZHENG	20	x	b	c	6	10	all	As:FE	1999	2002	CC	6	AnyHh	NoHhMemb	in life	non	persn	1	1

Appendix Table D5 - 2

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	29	b	11	200	-	573	-	1.22	(1.03- 1.45)
AGABI2	29	b	12	233	-	816	-	1.14	(0.97- 1.33)
CHEN2	38	b	6	8	-	61	-	1.62	(0.68- 3.85)
DEKKER	4	b	9	196	-	249	-	1.40	(1.13- 1.73)
DOLD	18	b	1	119	-	295	-	1.13	(0.90- 1.42)
DUHME1	1	b	2	-	-	-	-	1.12	(0.84- 1.49)
DUHME3	1	b	2	-	-	-	-	0.96	(0.67- 1.37)
ECE	4	b	0	217	1294	132	906	1.15	(0.91- 1.45)
EHRLI2	6	b	0	19	24	19	24	1.00	(0.43- 2.34)
*FERGUS	16	b	1	24	-	87	-	0.85	(0.54- 1.34)
GILLIL	71	b	0	30	209	226	1294	0.82	(0.55- 1.24)
GOLD	8	b	11	-	-	-	-	1.20	(0.93- 1.55)
HJERN1	14	b	9	20	-	88	-	0.92	(0.56- 1.50)
HJERN2	14	b	9	5	-	34	-	1.00	(0.43- 2.35)
INFANT	8	b	19	138	-	273	-	1.16	(0.77- 1.76)
LAM1	5	b	4	118	-	201	-	0.89	(0.69- 1.12)
LEE3	2	b	0	663	-	1094	-	0.81	(0.73- 0.89)
LISTER	7	b	8	-	-	-	-	1.33	(0.98- 1.81)
MAIER	2	b	0	25	102	73	674	2.26	(1.37- 3.73)
MELSOM	1	b	0	35	51	44	49	0.76	(0.42- 1.38)
MUMCUO	4	b	0	74	46	119	38	0.51	(0.31- 0.86)
NHANE3	26	b	6	198	-	175	-	1.10	(0.70- 1.70)
PALMIE	1	b	0	90	133	67	96	0.97	(0.64- 1.46)
PETERS	4	b	6	-	-	-	-	0.76	(0.55- 1.07)
PIROGO	1	b	0	6	36	4	37	1.54	(0.40- 5.92)
RATAGE	6	b	0	20	22	58	30	0.47	(0.22- 0.99)
RONCH1	1	m	0	14	177	48	790	1.30	(0.70- 2.41)
RONCH1	4	f	0	12	170	35	764	1.54	(0.78- 3.03)
Subtotal RONCH1								1.41	(0.89- 2.22)
RONCH2	1	b	0	44	266	93	726	1.29	(0.88- 1.90)
RONCH3	1	b	0	28	240	91	696	0.89	(0.57- 1.40)
STRACH	7	b	4	82	-	364	-	1.13	(0.73- 1.74)
STURM	6	b	7	-	-	-	-	1.33	(1.22- 1.44)
VENNER	4	m	0	179	424	48	116	1.02	(0.70- 1.49)
VENNER	1	f	0	185	429	50	130	1.12	(0.78- 1.62)
Subtotal VENNER								1.07	(0.82- 1.39)
WILLE1	12	b	0	11	6	30	67	4.09	(1.39- 12.10)
ZHENG	20	b	6	126	-	118	-	1.30	(1.00- 1.80)
Partial Totals				3119	3629	5565	6437		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	29	b	11	0.20	131.37	1.34	0.0227
AGABI2	29	b	12	0.13	154.23	0.17	0.1037
CHEN2	38	b	6	0.48	5.11	0.76	0.2754
DEKKER	4	b	9	0.34	84.71	4.82	0.0020
DOLD	18	b	1	0.12	73.89	0.04	0.2935
DUHME1	1	b	2	0.11	46.78	0.01	0.4383
DUHME3	1	b	2	-0.04	30.03	0.58	0.8230
ECE	4	b	0	0.14	71.12	0.13	0.2356
EHRLI2	6	b	0	0.00	5.30	0.05	1.0000
*FERGUS	16	b	1	-0.16	18.60	1.26	0.4833
GILLIL	71	b	0	-0.20	23.09	2.00	0.3459
GOLD	8	b	11	0.18	58.89	0.42	0.1618
HJERN1	14	b	9	-0.08	15.83	0.52	0.7401
HJERN2	14	b	9	0.00	5.33	0.05	1.0000
INFANT	8	b	19	0.15	22.48	0.06	0.4816
LAM1	5	b	4	-0.12	65.49	3.01	0.3457
LEE3	2	b	0	-0.21	391.25	37.28	0.0000
LISTER	7	b	8	0.29	40.82	1.43	0.0684
MAIER	2	b	0	0.82	15.39	7.95	0.0014
MELSOM	1	b	0	-0.27	10.95	1.47	0.3736
MUMCUO	4	b	0	-0.67	14.29	8.34	0.0118
NHANE3	26	b	6	0.10	19.52	0.00	0.6737
PALMIE	1	b	0	-0.03	22.74	0.38	0.8829
PETERS	4	b	6	-0.27	34.69	4.81	0.1060
PIROGO	1	b	0	0.43	2.12	0.24	0.5284

Appendix Table D5 - 2

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
RATAGE	6	b	0	-0.75	6.85	4.98	0.0483
RONCH1	1	m	0	0.26	10.08	0.28	0.4023
RONCH1	4	f	0	0.43	8.40	0.94	0.2103
Subtotal RONCH1				0.50	18.48	1.22	
RONCH2	1	b	0	0.26	25.90	0.64	0.1933
RONCH3	1	b	0	-0.11	19.12	0.86	0.6183
STRACH	7	b	4	0.12	20.37	0.01	0.5812
STURM	6	b	7	0.29	559.02	19.59	0.0000
VENNER	4	m	0	0.02	26.74	0.16	0.9175
VENNER	1	f	0	0.11	28.23	0.01	0.5433
Subtotal VENNER				-0.06	54.96	0.17	
WILLE1	12	b	0	1.41	3.27	5.63	0.0108
ZHENG	20	b	6	0.26	44.48	1.20	0.0802

RR data

	N	36
	NS	34
	Wt	2116.46
Het	Chi	111.42
Het	df	35
Het	P	***
Fixed	RR	1.10
	RRl	1.06
	RRu	1.15
	P	+++
Random	RR	1.09
	RRl	0.99
	RRu	1.19
	P	(+)
Asymm	P	N.S.

Appendix Table D5 - 3

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

RR data

	N	36
	NS	34
	Wt	2116.46
Het	Chi	111.42
Het	df	35
Het	P	***
Fixed	RR	1.10
	RRl	1.06
	RRu	1.15
	P	+++
Random	RR	1.09
	RRl	0.99
	RRu	1.19
	P	(+)
Asymm	P	N.S.

Sex

		both	male	female	Total
	N	32	2	2	36
	NS	32	2	2	36
	Wt	2043.02	36.82	36.62	2116.46
Het	Chi	110.03	0.43	0.65	111.42
Het	df	31	1	1	35
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.10	1.09	1.21	1.10
	RRl	1.05	0.79	0.87	1.06
	RRu	1.15	1.51	1.67	1.15
	P	+++	N.S.	N.S.	+++
Random	RR	1.08	1.09	1.21	1.09
	RRl	0.97	0.79	0.87	0.99
	RRu	1.19	1.51	1.67	1.19
	P	N.S.	N.S.	N.S.	(+)
Between	Chi				0.30
Between	df				2
Between	P				N.S.

Measure of exposure

		cigs	persn	other	Total
	N	22	7	7	36
	NS	20	7	7	34
	Wt	1171.62	265.53	679.31	2116.46
Het	Chi	50.39	17.21	14.00	111.42
Het	df	21	6	6	35
Het	P	***	**	*	***
Fixed	RR	1.01	1.06	1.31	1.10
	RRl	0.95	0.94	1.21	1.06
	RRu	1.07	1.20	1.41	1.15
	P	N.S.	N.S.	+++	+++
Random	RR	1.06	1.01	1.29	1.09
	RRl	0.95	0.80	1.04	0.99
	RRu	1.18	1.26	1.60	1.19
	P	N.S.	N.S.	+	(+)
Between	Chi				29.81
Between	df				2
Between	P				***

Appendix Table D5 - 4

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

REF	NRR	X	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	21	x	b	c	6	7	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	1	10
AGABI2	21	x	b	c	13	14	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	1	10
CHEN2	12	x	b	l	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	9
DEKKER	1	x	b	c	5	8	all	NAmer	1988	1991	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
DOLD	14	x	b	l	9	11	all	Eu:Ger	1989	1992	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
DUHME1	1		b	c	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
DUHME3	1		b	c	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	1	1
ECE	4		b	l	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	1	10
EHRLI2	6		b	l	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	3	7
FERGUS	14	x	b	l	0	6	all	Auslia	1977	1985	Pr	0	Mother	NotMothr	in life	non	cigs	1	10
GILLIL	71		b	l	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	1	1
GOLD	8		b	c	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	1	19
HJERN1	6	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	0	Mother	NotMothr	current	non	cigs	1	14
HJERN2	6	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	0	Father	NotFathr	current	non	cigs	1	14
INFANT	1	x	b	c	3	4	all	NAmer	1988	1993	CC	0	Mother	NotMothr	in life	non	cigs	1	20
LAM1	1	x	b	l	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
LEE3	2		b	l	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	1	10
LISTER	5	x	b	l	0	4	all	Auslia	1989	1998	CS	0	Mother	NotMothr	current	non	cigs	1	14
MAIER	2		b	l	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	1	1
MELSOM	1		b	c	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
MUMCUO	4		b	c	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	30
NHANE3	35	x	b	l	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	0	3
PALMIE	1		b	c	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	1	19
PETERS	4		b	c	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	1	1
PIROGO	1		b	l	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	1	1
RATAGE	6		b	l	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	1	9
RONCH1	1		m	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH1	4		f	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH2	1		b	l	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
RONCH3	1		b	l	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	20	39
STRACH	1	x	b	c	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	current	non	cigs	1	10
STURM	6		b	c	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	0	0
VENNER	4		m	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
VENNER	1		f	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	1	29
WILLE1	12		b	c	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	20	29
ZHENG	8	x	b	c	6	10	all	As:FE	1999	2002	CC	0	AnyHh	NoHhMemb	in life	non	persn	1	1

Appendix Table D5 - 5

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

REF	NRR	SEX	ADJ	Numbers Exposed Case	Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	21	b	0	200	2829	573	9614	1.19	(1.00- 1.40)
AGABI2	21	b	0	233	2585	816	10166	1.12	(0.96- 1.31)
CHEN2	12	b	0	8	89	61	548	0.81	(0.37- 1.74)
DEKKER	1	b	0	196	2550	249	4585	1.42	(1.17- 1.72)
DOLD	14	b	0	119	1248	295	3613	1.17	(0.93- 1.46)
DUHME1	1	b	2	-	-	-	-	1.12	(0.84- 1.49)
DUHME3	1	b	2	-	-	-	-	0.96	(0.67- 1.37)
ECE	4	b	0	217	1294	132	906	1.15	(0.91- 1.45)
EHRLI2	6	b	0	19	24	19	24	1.00	(0.43- 2.34)
*FERGUS	14	b	0	24	188	87	639	0.94	(0.62- 1.43)
GILLIL	71	b	0	30	209	226	1294	0.82	(0.55- 1.24)
GOLD	8	b	11	-	-	-	-	1.20	(0.93- 1.55)
HJERN1	6	b	0	20	363	88	1804	1.13	(0.69- 1.86)
HJERN2	6	b	0	5	108	66	1552	1.09	(0.43- 2.76)
INFANT	1	b	0	138	135	273	289	1.08	(0.81- 1.45)
LAM1	1	b	0	118	1461	201	2162	0.87	(0.69- 1.10)
LEE3	2	b	0	663	-	1094	-	0.81	(0.73- 0.89)
LISTER	5	b	0	-	-	-	-	1.26	(0.95- 1.68)
MAIER	2	b	0	25	102	73	674	2.26	(1.37- 3.73)
MELSOM	1	b	0	35	51	44	49	0.76	(0.42- 1.38)
MUMCUO	4	b	0	74	46	119	38	0.51	(0.31- 0.86)
NHANE3	35	b	0	198	1729	175	1457	0.95	(0.77- 1.18)
PALMIE	1	b	0	90	133	67	96	0.97	(0.64- 1.46)
PETERS	4	b	6	-	-	-	-	0.76	(0.55- 1.07)
PIROGO	1	b	0	6	36	4	37	1.54	(0.40- 5.92)
RATAGE	6	b	0	20	22	58	30	0.47	(0.22- 0.99)
RONCH1	1	m	0	14	177	48	790	1.30	(0.70- 2.41)
RONCH1	4	f	0	12	170	35	764	1.54	(0.78- 3.03)
Subtotal RONCH1								1.41	(0.89- 2.22)
RONCH2	1	b	0	44	266	93	726	1.29	(0.88- 1.90)
RONCH3	1	b	0	28	240	91	696	0.89	(0.57- 1.40)
STRACH	1	b	0	82	64	364	382	1.34	(0.94- 1.92)
STURM	6	b	7	-	-	-	-	1.33	(1.22- 1.44)
VENNER	4	m	0	179	424	48	116	1.02	(0.70- 1.49)
VENNER	1	f	0	185	429	50	130	1.12	(0.78- 1.62)
Subtotal VENNER								1.07	(0.82- 1.39)
WILLE1	12	b	0	11	6	30	67	4.09	(1.39- 12.10)
ZHENG	8	b	0	126	248	118	305	1.31	(0.97- 1.78)
Partial Totals				3119	17226	5597	43553		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	21	b	0	0.17	138.84	0.81	0.0443
AGABI2	21	b	0	0.12	166.60	0.08	0.1345
CHEN2	12	b	0	-0.21	6.47	0.61	0.5864
DEKKER	1	b	0	0.35	102.79	6.58	0.0004
DOLD	14	b	0	0.16	77.69	0.29	0.1715
DUHME1	1	b	2	0.11	46.78	0.02	0.4383
DUHME3	1	b	2	-0.04	30.03	0.55	0.8230
ECE	4	b	0	0.14	71.12	0.15	0.2356
EHRLI2	6	b	0	0.00	5.30	0.05	1.0000
*FERGUS	14	b	0	-0.06	21.61	0.54	0.7647
GILLIL	71	b	0	-0.20	23.09	1.95	0.3459
GOLD	8	b	11	0.18	58.89	0.46	0.1618
HJERN1	6	b	0	0.12	15.46	0.01	0.6321
HJERN2	6	b	0	0.08	4.44	0.00	0.8579
INFANT	1	b	0	0.08	45.92	0.01	0.5927
LAM1	1	b	0	-0.14	68.51	3.78	0.2442
LEE3	2	b	0	-0.21	391.25	36.40	0.0000
LISTER	5	b	0	0.23	47.28	0.88	0.1120
MAIER	2	b	0	0.82	15.39	8.03	0.0014
MELSOM	1	b	0	-0.27	10.95	1.44	0.3736
MUMCUO	4	b	0	-0.67	14.29	8.26	0.0118
NHANE3	35	b	0	-0.05	83.13	1.68	0.6637
PALMIE	1	b	0	-0.03	22.74	0.36	0.8829
PETERS	4	b	6	-0.27	34.69	4.72	0.1060
PIROGO	1	b	0	0.43	2.12	0.24	0.5284

Appendix Table D5 - 5

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
RATAGE	6	b	0	-0.75	6.85	4.93	0.0483
RONCH1	1	m	0	0.26	10.08	0.29	0.4023
RONCH1	4	f	0	0.43	8.40	0.96	0.2103
Subtotal RONCH1				0.51	18.48	1.25	
RONCH2	1	b	0	0.26	25.90	0.67	0.1933
RONCH3	1	b	0	-0.11	19.12	0.83	0.6183
STRACH	1	b	0	0.30	30.13	1.23	0.1041
STURM	6	b	7	0.29	559.02	20.37	0.0000
VENNER	4	m	0	0.02	26.74	0.15	0.9175
VENNER	1	f	0	0.11	28.23	0.01	0.5433
Subtotal VENNER				-0.05	54.96	0.16	
WILLE1	12	b	0	1.41	3.27	5.66	0.0108
ZHENG	8	b	0	0.27	42.15	1.34	0.0769

RR data

	N	36
	NS	34
	Wt	2265.27
Het	Chi	114.35
Het	df	35
Het	P	***
Fixed	RR	1.10
	RRl	1.05
	RRu	1.15
	P	+++
Random	RR	1.08
	RRl	0.99
	RRu	1.18
	P	(+)
Asymm	P	N.S.

Appendix Table D5 - 6

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

RR data

	N	36
	NS	34
	Wt	2265.27
Het	Chi	114.35
Het	df	35
Het	P	***
Fixed	RR	1.10
	RRl	1.05
	RRu	1.15
	P	+++
Random	RR	1.08
	RRl	0.99
	RRu	1.18
	P	(+)
Asymm	P	N.S.

Sex

		both	male	female	Total
	N	32	2	2	36
	NS	32	2	2	36
	Wt	2191.82	36.82	36.62	2265.27
Het	Chi	112.93	0.43	0.65	114.35
Het	df	31	1	1	35
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.10	1.09	1.21	1.10
	RRl	1.05	0.79	0.87	1.05
	RRu	1.14	1.51	1.67	1.15
	P	+++	N.S.	N.S.	+++
Random	RR	1.07	1.09	1.21	1.08
	RRl	0.97	0.79	0.87	0.99
	RRu	1.18	1.51	1.67	1.18
	P	N.S.	N.S.	N.S.	(+)
Between	Chi				0.32
Between	df				2
Between	P				N.S.

Measure of exposure

		cigs	persn	other	Total
	N	22	7	7	36
	NS	20	7	7	34
	Wt	1238.04	284.31	742.92	2265.27
Het	Chi	49.65	19.96	21.03	114.35
Het	df	21	6	6	35
Het	P	***	**	**	***
Fixed	RR	1.01	1.08	1.27	1.10
	RRl	0.96	0.96	1.18	1.05
	RRu	1.07	1.21	1.36	1.15
	P	N.S.	N.S.	+++	+++
Random	RR	1.06	1.00	1.24	1.08
	RRl	0.96	0.79	1.00	0.99
	RRu	1.18	1.28	1.55	1.18
	P	N.S.	N.S.	(+)	(+)
Between	Chi				23.70
Between	df				2
Between	P				***

Appendix Table D5 - 7

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	CELEDO	CUNNI2	JAAKK2	KAPLAN	KELLY	LOPEZC	NYSTAD	OLIVET	WEITZ1	WEITZ2	XU	YUAN				
3	ADDOYO	AGUDOT	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNES2	ANNESI	ARIF	ARSHAD	AZIZI	BALL	BARRET	BECKET
	BENCIV	BENER	BERGMA	BRABIN	BURCHF	BURR	BUTZ	CALL	CHEN1	CHHABR	CHINN	CLARK	CSONKA	DAIGLE	DEBENE	DEKOK
	DELL	DIJKST	DODGE	DOTTER	DUHME2	DUHME4	EHRLI1	FAGBUL	FARBE1	FARBE2	FARBE3	FAROOQ	FIELDE	FLYNN1	FLYNN2	FORAST
	FORSB1	FORSB2	FORSB3	FREEM1	FREEM2	FUJI	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GUPTA	GURKAN
	HABY	HAJNAL	HALONE	HOST	HU1	HU2	HUGHES	JAAKKO	JANG	JENKIN	JONES	KABESC	KALYO1	KALYO2	KARUNA	KASPER
	KAY	KEARNE	KENDIR	KERSHA	KIVITY	KNIGHT	KUEHR	KUHR	LAU	LEE1	LEE2	LEEDER	LEEN	LEROUX	LEVES1	LEVES2
	LEVES3	LILLJE	LINDFO	LIS	MARTIN	MAVALE	MCCON1	MCCON2	MCKEEV	MELIA	MILLER	MOHAME	MONTEF	MONTEI	MOUSSA	MOYES1
	MOYES2	MURRAY	NICOLA	NILSSO	NITTA	OCONNE	ODDY	OHARA	PIC	POKHAR	PONSON	QIAN	RASANE	RENNIE	RIBEIR	RONMA1
	RONMA2	RONMA3	ROSASV	RUDNIK	SANZOR	SARRAZ	SCHENK	SCHMIT	SELCUK	SENNHA	SHAMS2	SHAMSS	SHERMA	SHIVA	SHOHAT	SIGURS
	SOMERV	SOTOQU	SOYSET	SPENGL	SPIEKE	SQUILL	STANHO	STAZI	STERN1	STERN2	STODDA	TARIQ	TAYLOR	TIMONE	TOMINA	TSIMOY
	ULRIK	VARELA	VAVILI	VERHOE	VOLKME	VONMAF	WANG	WARKE	WICKMA	WIJGA	WILLE2	WITHER	WOLFO3	YANG	ZEIGER	ZEJDA
	ZHANG															
4	CUNNI1	LAM2	WOLFO1	WOLFO2												

Appendix Table D5 - 8

Children - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : Low Dose
Lifetime Asthma (or Current if Lifetime not available)
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL
HJERN1	HJERN1	1	HJERN1/HJERN2
HJERN2	HJERN2	1	HJERN1/HJERN2
DUHME1	BEHREN	2	DUHME1/BEHREN

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
CUNNI1	7	b	c	8	11	all	NAmer	1988	1996	CS	9	AnyHh	NoHhMemb	current	non	cigs	1	9	1.12	?
LAM2	3	b	l	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	1	1	0.91	?
STRACH	13	b	c	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	<1m	non	cigs	1	10	*	n
WOLFO1	3	b	l	8	8	all	Eu:Ger	1977	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	1	10	0.94	?
WOLFO2	3	b	l	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	1	10	0.99	?

Appendix Table D6 -

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)

This analysis is restricted to results for:
1) Biochemical, total, household (overall), or parental exposure
2) Exposure during child's lifetime (also including parent ever smoker, but not specific in utero exposure or specific discontinued exposure)
3) Resultsfor high amount of exposure
4) Results complete enough for use in metaanalysis

Within each study, results are then selected (in the following order of preference, within each sex) for:
5) ASTHMA : lifetime, current
6) EXPOS : biochemical, total, household, parent
7) BIOMEA : saliva, blood, urine
8) MEASEX : number of cigarettes, number of persons, other
9) WHOPAR : any/unspecified parent, mother regardless of father, mother only, father regardless of mother, father only
10) WHESMO : during child's lifetime, ever (i.e. during smoker's lifetime), unspecified, at a specific age, current
11) UNEXSO : not specific parent, neither parent, none in household, none
12) UNEXTI : not at specified time, never (in smoker's lifetime), not at longer than specified time
13) UNEXHI : not exposed defined as smoked none, or smoked none+low
14) RACE : all in study or nearest available, otherwise by race
15) ONSET : yes, no (prevalence)
16) For overlapping studies: principal rather than subsidiary studies, and for prospective studies, most recent follow-up
Finally by Age: whole study if available, otherwise by widest available age group
and then for single sex results (m, f) in preference to results for both sexes combined (b).

Results adjusted for the most potential confounders are then chosen in Sections -1 to -3
(and those which actually differ from the adjusted results in Appendix Table D2 - 1 are marked 'x' in Section -1)
and results adjusted for the least confounders in Sections -4 to -6. (Those least adjusted results which actually differ from the most adjusted are marked 'x' in column X in Section -4)

Section -7 shows excluded studies, together with the stage (as above) at which no qualifying results were found.

Section -8 lists the potentially overlapping studies which have been included (1=principal, 2=subsidiary), and any results which would have been included in preference except that they had data not complete enough for use in metaanalysis. It also lists their significance (yes/no), if known.

Appendix Table D6 - 1

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	CompD2	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	30	x	b	c	6	7	all	Eu:Ita	1994	1999	CC	11	Mother	NotMothr	current	non	cigs	11	999
AGABI2	30	x	b	c	13	14	all	Eu:Ita	1994	1999	CC	12	Mother	NotMothr	current	non	cigs	11	999
CHEN2	39		b	l	6	17	all	NAmer	1993	1996	CS	6	AnyHh	NoHhMemb	current	non	cigs	10	999
DEKKER	5	x	b	c	5	8	all	NAmer	1988	1991	CC	9	AnyHh	NoHhMemb	unspec	non	persn	2	999
DOLD	20		b	l	9	11	all	Eu:Ger	1989	1992	CS	1	AnyHh	NoHhMemb	unspec	non	cigs	21	999
DUHME1	2	x	b	c	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
DUHME3	2	x	b	c	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
ECE	5		b	l	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	11	999
EHRLI2	9		b	l	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	36	999
FERGUS	17		b	l	0	6	all	Auslia	1977	1985	Pr	1	Mother	NotMothr	in life	non	cigs	11	999
GILLIL	72		b	l	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	2	999
GOLD	10	x	b	c	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	30	999
HJERN1	15	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	9	Mother	NotMothr	current	non	cigs	15	999
HJERN2	15	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	9	Father	NotFathr	current	non	cigs	15	999
INFANT	9	x	b	c	3	4	all	NAmer	1988	1993	CC	19	Mother	NotMothr	in life	non	cigs	21	999
LAM1	7		b	l	12	15	all	As:FE	1994	1998	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999
LEE3	4		b	l	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
LISTER	8		b	l	0	4	all	Auslia	1989	1998	CS	8	Mother	NotMothr	current	non	cigs	15	999
MAIER	3		b	l	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	2	999
MELSOM	2	x	b	c	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
MUMCUO	5	x	b	c	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	31	999
NHANE3	27		b	l	4	16	w+b	NAmer	1988	2001	CS	6	Bio-urine	Low	-	-	other	3	113
PALMIE	2	x	b	c	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	20	999
PETERS	5	x	b	c	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	2	999
PIROGO	2		b	l	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
RATAGE	7		b	l	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	10	999
RONCH1	2		m	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH1	5		f	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH2	2		b	l	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH3	2		b	l	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
STRACH	8	x	b	c	13	18	all	Eu:UK	1993	1995	CC	4	Mother	NotMothr	current	non	cigs	11	999
STURM	9	x	b	c	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	30	30
VENNER	5		m	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
VENNER	2		f	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
WILLE1	13	x	b	c	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	30	999
ZHENG	22	x	b	c	6	10	all	As:FE	1999	2002	CC	6	AnyHh	NoHhMemb	in life	non	persn	4	999

Appendix Table D6 - 2

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	SEX	ADJ	Number Exposed Case	Number Exposed Control	Non-exposed Case	Non-exposed Control	RR	95.00%CI
AGABI1	30	b	11	150	-	573	-	1.25	(1.03- 1.51)
AGABI2	30	b	12	214	-	816	-	1.23	(1.04- 1.45)
CHEN2	39	b	6	24	-	61	-	1.72	(0.93- 3.17)
DEKKER	5	b	9	190	-	249	-	1.59	(1.28- 1.98)
DOLD	20	b	1	23	-	295	-	1.00	(0.64- 1.57)
DUHME1	2	b	2	-	-	-	-	1.19	(0.88- 1.61)
DUHME3	2	b	2	-	-	-	-	0.96	(0.62- 1.47)
ECE	5	b	0	81	410	132	906	1.36	(1.00- 1.83)
EHRLI2	9	b	0	35	23	19	24	1.92	(0.86- 4.28)
*FERGUS	17	b	1	22	-	87	-	0.73	(0.45- 1.17)
GILLIL	72	b	0	17	98	226	1294	0.99	(0.58- 1.69)
GOLD	10	b	11	-	-	-	-	1.07	(0.79- 1.44)
HJERN1	15	b	9	11	-	88	-	0.80	(0.43- 1.48)
HJERN2	15	b	9	7	-	66	-	0.70	(0.32- 1.53)
INFANT	9	b	19	45	-	273	-	2.77	(1.35- 5.66)
LAM1	7	b	4	13	-	201	-	1.49	(0.81- 2.71)
LEE3	4	b	0	117	-	1094	-	0.83	(0.68- 1.00)
LISTER	8	b	8	-	-	-	-	1.76	(1.30- 2.37)
MAIER	3	b	0	8	43	73	674	1.72	(0.78- 3.79)
MELSOM	2	b	0	39	24	44	49	1.81	(0.94- 3.47)
MUMCUO	5	b	0	107	16	119	38	2.14	(1.13- 4.05)
NHANE3	27	b	6	226	-	175	-	1.30	(0.80- 2.20)
PALMIE	2	b	0	145	204	67	96	1.02	(0.70- 1.49)
PETERS	5	b	6	-	-	-	-	1.22	(0.78- 1.92)
PIROGO	2	b	0	7	46	4	37	1.41	(0.38- 5.18)
RATAGE	7	b	0	42	8	58	30	2.72	(1.13- 6.52)
RONCH1	2	m	0	9	58	48	790	2.55	(1.19- 5.46)
RONCH1	5	f	0	5	56	35	764	1.95	(0.73- 5.17)
Subtotal RONCH1								2.31	(1.27- 4.20)
RONCH2	2	b	0	16	85	93	726	1.47	(0.83- 2.61)
RONCH3	2	b	0	12	72	91	696	1.27	(0.67- 2.44)
STRACH	8	b	4	40	-	364	-	1.49	(0.80- 2.77)
STURM	9	b	7	-	-	-	-	1.72	(1.60- 1.84)
VENNER	5	m	0	38	53	48	116	1.73	(1.01- 2.96)
VENNER	2	f	0	29	37	50	130	2.04	(1.13- 3.66)
Subtotal VENNER								1.87	(1.26- 2.77)
WILLE1	13	b	0	8	4	30	67	4.47	(1.25- 15.99)
ZHENG	22	b	6	36	-	118	-	2.60	(1.50- 4.40)
Partial Totals				1716	1237	5597	6437		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	30	b	11	0.22	105.00	2.54	0.0222
AGABI2	30	b	12	0.21	139.12	4.09	0.0146
CHEN2	39	b	6	0.54	10.22	0.27	0.0830
DEKKER	5	b	9	0.46	80.74	0.59	0.0000
DOLD	20	b	1	0.00	19.08	2.73	1.0000
DUHME1	2	b	2	0.17	42.11	1.76	0.2590
DUHME3	2	b	2	-0.04	20.62	3.63	0.8529
ECE	5	b	0	0.30	42.62	0.23	0.0468
EHRLI2	9	b	0	0.65	6.01	0.45	0.1091
*FERGUS	17	b	1	-0.31	16.83	8.09	0.1967
GILLIL	72	b	0	-0.01	13.47	2.00	0.9801
GOLD	10	b	11	0.07	42.63	4.12	0.6587
HJERN1	15	b	9	-0.22	10.06	3.64	0.4791
HJERN2	15	b	9	-0.36	6.28	3.39	0.3716
INFANT	9	b	19	1.02	7.48	3.07	0.0053
LAM1	7	b	4	0.40	10.54	0.00	0.1955
LEE3	4	b	0	-0.19	103.31	32.96	0.0582
LISTER	8	b	8	0.57	42.61	1.49	0.0002
MAIER	3	b	0	0.54	6.12	0.16	0.1808
MELSOM	2	b	0	0.59	9.05	0.42	0.0743
MUMCUO	5	b	0	0.76	9.38	1.36	0.0201
NHANE3	27	b	6	0.26	15.02	0.20	0.3093
PALMIE	2	b	0	0.02	26.92	3.49	0.9245
PETERS	5	b	6	0.20	18.94	0.61	0.3869
PIROGO	2	b	0	0.34	2.26	0.00	0.6069
RATAGE	7	b	0	1.00	5.02	1.93	0.0253

Appendix Table D6 - 2

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
RONCH1	2	m	0	0.94	6.65	2.08	0.0156
RONCH1	5	f	0	0.67	4.04	0.34	0.1800
Subtotal RONCH1				0.85	10.68	2.41	
RONCH2	2	b	0	0.38	11.57	0.00	0.1904
RONCH3	2	b	0	0.24	9.12	0.17	0.4635
STRACH	8	b	4	0.40	9.96	0.00	0.2082
STURM	9	b	7	0.54	786.64	21.10	0.0000
VENNER	5	m	0	0.55	13.40	0.39	0.0442
VENNER	2	f	0	0.71	11.21	1.25	0.0171
Subtotal VENNER				0.50	24.61	1.64	
WILLE1	13	b	0	1.50	2.36	2.95	0.0214
ZHENG	22	b	6	0.96	13.27	4.42	0.0005

RR data

	N	36
	NS	34
	Wt	1679.65
Het	Chi	115.94
Het	df	35
Het	P	***
Fixed	RR	1.46
	RRl	1.39
	RRu	1.53
	P	+++
Random	RR	1.37
	RRl	1.22
	RRu	1.55
	P	+++
Asymm	P	N.S.

Appendix Table D6 - 3

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Adjusted

RR data

	N	36
	NS	34
	Wt	1679.65
Het	Chi	115.94
Het	df	35
Het	P	***
Fixed	RR	1.46
	RRl	1.39
	RRu	1.53
	P	+++
Random	RR	1.37
	RRl	1.22
	RRu	1.55
	P	+++
Asymm	P	N.S.

		Sex			
		both	male	female	Total
	N	32	2	2	36
	NS	32	2	2	36
	Wt	1644.36	20.04	15.25	1679.65
Het	Chi	111.81	0.67	0.01	115.94
Het	df	31	1	1	35
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.45	1.97	2.01	1.46
	RRl	1.38	1.27	1.22	1.39
	RRu	1.52	3.05	3.33	1.53
	P	+++	++	++	+++
Random	RR	1.33	1.97	2.01	1.37
	RRl	1.18	1.27	1.22	1.22
	RRu	1.51	3.05	3.33	1.55
	P	+++	++	++	+++
Between	Chi				3.45
Between	df				2
Between	P				N.S.

		Measure of exposure			
		cigs	persn	other	Total
	N	22	7	7	36
	NS	20	7	7	34
	Wt	652.50	148.28	878.88	1679.65
Het	Chi	54.39	7.61	15.18	115.94
Het	df	21	6	6	35
Het	P	***	N.S.	*	***
Fixed	RR	1.21	1.54	1.66	1.46
	RRl	1.12	1.31	1.56	1.39
	RRu	1.31	1.81	1.78	1.53
	P	+++	+++	+++	+++
Random	RR	1.31	1.53	1.45	1.37
	RRl	1.13	1.24	1.13	1.22
	RRu	1.51	1.88	1.87	1.55
	P	+++	+++	++	+++
Between	Chi				38.76
Between	df				2
Between	P				***

Appendix Table D6 - 4

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

REF	NRR	X	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI
AGABI1	22	x	b	c	6	7	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	11	999
AGABI2	22	x	b	c	13	14	all	Eu:Ita	1994	1999	CC	0	Mother	NotMothr	current	non	cigs	11	999
CHEN2	13	x	b	l	6	17	all	NAmer	1993	1996	CS	0	AnyHh	NoHhMemb	current	non	cigs	10	999
DEKKER	2	x	b	c	5	8	all	NAmer	1988	1991	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
DOLD	16	x	b	l	9	11	all	Eu:Ger	1989	1992	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
DUHME1	2		b	c	5	8	all	Eu:Ger	1994	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
DUHME3	2		b	c	5	8	all	Eu:Ger	1995	1998	CS	2	AnyHh	NoHhMemb	unspec	non	other	2	999
ECE	5		b	l	6	15	all	Eu:est	1999	2001	CS	0	AnyHh	NoHhMemb	current	non	cigs	11	999
EHRLI2	9		b	l	3	14	all	NAmer	1988	1992	CC	0	Bio-urine	Low	-	-	other	36	999
FERGUS	15	x	b	l	0	6	all	Auslia	1977	1985	Pr	0	Mother	NotMothr	in life	non	cigs	11	999
GILLIL	72		b	l	8	12	all	NAmer	1993	2001	CS	0	AnyHh	NoHhMemb	current	non	persn	2	999
GOLD	10		b	c	6	14	all	NAmer	1974	1993	Pr	11	Mother	NotMothr	current	non	cigs	30	999
HJERN1	7	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	0	Mother	NotMothr	current	non	cigs	14	999
HJERN2	7	x	b	c	3	15	all	Eu:Sca	1996	2001	CS	0	Father	NotFathr	current	non	cigs	14	999
INFANT	2	x	b	c	3	4	all	NAmer	1988	1993	CC	0	Mother	NotMothr	in life	non	cigs	21	999
LAM1	3	x	b	l	12	15	all	As:FE	1994	1998	CS	0	AnyHh	NoHhMemb	unspec	non	persn	3	999
LEE3	4		b	l	6	15	all	As:FE	2001	2003	CS	0	AnyHh	NoHhMemb	unspec	non	cigs	21	999
LISTER	6	x	b	l	0	4	all	Auslia	1989	1998	CS	0	Mother	NotMothr	current	non	cigs	15	999
MAIER	3		b	l	5	9	all	NAmer	1994	1997	CS	0	TotETS	None	current	non	other	2	999
MELSOM	2		b	c	11	17	all	As:cen	1997	2001	CC	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
MUMCUO	5		b	c	3	15	all	As:ME	1986	1994	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	31	999
NHANE3	36	x	b	l	4	16	w+b	NAmer	1988	2001	CS	0	Bio-urine	Low	-	-	other	3	113
PALMIE	2		b	c	1	12	all	Eu:Ita	*	1990	CC	0	AnyPar	NoParent	unspec	non	cigs	20	999
PETERS	5		b	c	9	14	all	As:FE	1989	1996	Pr	6	AnyHh	NoHhMemb	current	non	persn	2	999
PIROGO	2		b	l	0	15	all	Eu:est	*	2004	CS	0	AnyHh	NoHhMemb	unspec	non	persn	2	999
RATAGE	7		b	l	5	15	all	As:cen	1996	2000	CC	0	AnyHh	NoHhMemb	unspec	non	cigs	10	999
RONCH1	2		m	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH1	5		f	l	6	13	all	Eu:Ita	1974	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH2	2		b	l	6	14	all	Eu:Ita	1992	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
RONCH3	2		b	l	6	14	all	Eu:Ita	1998	2001	CS	0	AnyHh	Low	current	non	cigs	40	999
STRACH	2	x	b	c	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	current	non	cigs	11	999
STURM	9		b	c	12	14	all	NAmer	1999	2004	CS	7	TotETS	None	unspec	non	other	30	30
VENNER	5		m	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
VENNER	2		f	l	8	15	all	As:FE	1995	2001	CS	0	Father	NoParent	current	never	cigs	30	999
WILLE1	13		b	c	3	15	all	Eu:Sca	1988	1991	CC	0	Bio-urine	Low	-	-	other	30	999
ZHENG	10	x	b	c	6	10	all	As:FE	1999	2002	CC	0	AnyHh	NoHhMemb	in life	non	persn	4	999

Appendix Table D6 - 5

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

				Number Exposed		Non-exposed			
REF	NRR	SEX	ADJ	Case	Control	Case	Control	RR	95.00%CI
AGABI1	22	b	0	150	1982	573	9614	1.27	(1.05- 1.53)
AGABI2	22	b	0	214	1984	816	10166	1.34	(1.15- 1.57)
CHEN2	13	b	0	24	162	61	548	1.33	(0.80- 2.20)
DEKKER	2	b	0	190	2072	249	4585	1.69	(1.39- 2.05)
DOLD	16	b	0	23	257	295	3613	1.10	(0.70- 1.71)
DUHME1	2	b	2	-	-	-	-	1.19	(0.88- 1.61)
DUHME3	2	b	2	-	-	-	-	0.96	(0.62- 1.47)
ECE	5	b	0	81	410	132	906	1.36	(1.00- 1.83)
EHRLI2	9	b	0	35	23	19	24	1.92	(0.86- 4.28)
*FERGUS	15	b	0	22	205	87	639	0.79	(0.51- 1.22)
GILLIL	72	b	0	17	98	226	1294	0.99	(0.58- 1.69)
GOLD	10	b	11	-	-	-	-	1.07	(0.79- 1.44)
HJERN1	7	b	0	11	257	88	1804	0.88	(0.46- 1.66)
HJERN2	7	b	0	7	201	66	1552	0.82	(0.37- 1.81)
INFANT	2	b	0	45	32	273	289	1.49	(0.92- 2.41)
LAM1	3	b	0	13	101	201	2162	1.38	(0.76- 2.51)
LEE3	4	b	0	117	-	1094	-	0.83	(0.68- 1.00)
LISTER	6	b	0	-	-	-	-	1.75	(1.33- 2.29)
MAIER	3	b	0	8	43	73	674	1.72	(0.78- 3.79)
MELSOM	2	b	0	39	24	44	49	1.81	(0.94- 3.47)
MUMCUO	5	b	0	107	16	119	38	2.14	(1.13- 4.05)
NHANE3	36	b	0	226	1615	175	1457	1.17	(0.94- 1.44)
PALMIE	2	b	0	145	204	67	96	1.02	(0.70- 1.49)
PETERS	5	b	6	-	-	-	-	1.22	(0.78- 1.92)
PIROGO	2	b	0	7	46	4	37	1.41	(0.38- 5.18)
RATAGE	7	b	0	42	8	58	30	2.72	(1.13- 6.52)
RONCH1	2	m	0	9	58	48	790	2.55	(1.19- 5.46)
RONCH1	5	f	0	5	56	35	764	1.95	(0.73- 5.17)
Subtotal RONCH1								2.31	(1.27- 4.20)
RONCH2	2	b	0	16	85	93	726	1.47	(0.83- 2.61)
RONCH3	2	b	0	12	72	91	696	1.27	(0.67- 2.44)
STRACH	2	b	0	40	29	364	382	1.45	(0.88- 2.38)
STURM	9	b	7	-	-	-	-	1.72	(1.60- 1.84)
VENNER	5	m	0	38	53	48	116	1.73	(1.01- 2.96)
VENNER	2	f	0	29	37	50	130	2.04	(1.13- 3.66)
Subtotal VENNER								1.87	(1.26- 2.77)
WILLE1	13	b	0	8	4	30	67	4.47	(1.25- 15.99)
ZHENG	10	b	0	36	33	118	305	2.82	(1.68- 4.73)
Partial Totals				1716	10167	5597	43553		

*prospective study

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
AGABI1	22	b	0	0.24	110.86	2.16	0.0119
AGABI2	22	b	0	0.30	153.83	1.06	0.0002
CHEN2	13	b	0	0.29	15.14	0.13	0.2660
DEKKER	2	b	0	0.52	100.20	2.12	0.0000
DOLD	16	b	0	0.09	19.59	1.61	0.6847
DUHME1	2	b	2	0.17	42.11	1.76	0.2590
DUHME3	2	b	2	-0.04	20.62	3.62	0.8529
ECE	5	b	0	0.30	42.62	0.23	0.0468
EHRLI2	9	b	0	0.65	6.01	0.46	0.1091
*FERGUS	15	b	0	-0.24	19.80	7.52	0.2896
GILLIL	72	b	0	-0.01	13.47	2.00	0.9801
GOLD	10	b	11	0.07	42.63	4.11	0.6587
HJERN1	7	b	0	-0.13	9.37	2.43	0.6890
HJERN2	7	b	0	-0.20	6.11	2.04	0.6214
INFANT	2	b	0	0.40	16.50	0.01	0.1060
LAM1	3	b	0	0.33	10.84	0.03	0.2842
LEE3	4	b	0	-0.19	103.31	32.94	0.0582
LISTER	6	b	0	0.56	52.04	1.71	0.0001
MAIER	3	b	0	0.54	6.12	0.16	0.1808
MELSOM	2	b	0	0.59	9.05	0.42	0.0743
MUMCUO	5	b	0	0.76	9.38	1.36	0.0201
NHANE3	36	b	0	0.15	87.38	4.44	0.1532
PALMIE	2	b	0	0.02	26.92	3.49	0.9245
PETERS	5	b	6	0.20	18.94	0.61	0.3869
PIROGO	2	b	0	0.34	2.26	0.00	0.6069
RATAGE	7	b	0	1.00	5.02	1.93	0.0253

Appendix Table D6 - 5

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

REF	NRR	SEX	ADJ	Ys	Ws	Qs	Ps
RONCH1	2	m	0	0.94	6.65	2.08	0.0156
RONCH1	5	f	0	0.67	4.04	0.34	0.1800
Subtotal RONCH1				0.85	10.68	2.42	
RONCH2	2	b	0	0.38	11.57	0.00	0.1904
RONCH3	2	b	0	0.24	9.12	0.17	0.4635
STRACH	2	b	0	0.37	15.42	0.00	0.1464
STURM	9	b	7	0.54	786.64	21.16	0.0000
VENNER	5	m	0	0.55	13.40	0.39	0.0442
VENNER	2	f	0	0.71	11.21	1.25	0.0171
Subtotal VENNER				0.50	24.61	1.64	
WILLE1	13	b	0	1.50	2.36	2.95	0.0214
ZHENG	10	b	0	1.04	14.32	6.21	0.0001

RR data

	N	36
	NS	34
	Wt	1824.86
Het	Chi	112.89
Het	df	35
Het	P	***
Fixed	RR	1.46
	RRl	1.39
	RRu	1.53
	P	+++
Random	RR	1.37
	RRl	1.22
	RRu	1.52
	P	+++
Asymm	P	N.S.

Appendix Table D6 - 6

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Unadjusted

RR data

	N	36
	NS	34
	Wt	1824.86
Het	Chi	112.89
Het	df	35
Het	P	***
Fixed	RR	1.46
	RRl	1.39
	RRu	1.53
	P	+++
Random	RR	1.37
	RRl	1.22
	RRu	1.52
	P	+++
Asymm	P	N.S.

Sex

		both	male	female	Total
	N	32	2	2	36
	NS	32	2	2	36
	Wt	1789.57	20.04	15.25	1824.86
Het	Chi	108.77	0.67	0.01	112.89
Het	df	31	1	1	35
Het	P	***	N.S.	N.S.	***
Fixed	RR	1.45	1.97	2.01	1.46
	RRl	1.39	1.27	1.22	1.39
	RRu	1.52	3.05	3.33	1.53
	P	+++	++	++	+++
Random	RR	1.33	1.97	2.01	1.37
	RRl	1.18	1.27	1.22	1.22
	RRu	1.49	3.05	3.33	1.52
	P	+++	++	++	+++
Between	Chi				3.45
Between	df				2
Between	P				N.S.

Measure of exposure

		cigs	persn	other	Total
	N	22	7	7	36
	NS	20	7	7	34
	Wt	704.54	169.09	951.24	1824.86
Het	Chi	48.48	9.74	24.59	112.89
Het	df	21	6	6	35
Het	P	***	N.S.	***	***
Fixed	RR	1.24	1.61	1.62	1.46
	RRl	1.15	1.39	1.52	1.39
	RRu	1.34	1.87	1.72	1.53
	P	+++	+++	+++	+++
Random	RR	1.30	1.57	1.40	1.37
	RRl	1.14	1.24	1.09	1.22
	RRu	1.48	1.99	1.81	1.52
	P	+++	+++	++	+++
Between	Chi				30.08
Between	df				2
Between	P				***

Appendix Table D6 - 7

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Excluded studies (and stage at which they were excluded)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	CELEDO	CUNNI2	JAAKK2	KAPLAN	KELLY	LOPEZC	NYSTAD	OLIVET	WEITZ1	WEITZ2	XU	YUAN				
3	ADDOYO	AGUDOT	AKCAKA	ALBA	ALDAWO	ALFRA1	ALFRA2	ANDRAE	ANNES2	ANNESI	ARIF	ARSHAD	AZIZI	BALL	BARRET	BECKET
	BENCIV	BENER	BERGMA	BRABIN	BURCHF	BURR	BUTZ	CALL	CHEN1	CHHABR	CHINN	CLARK	CSONKA	DAIGLE	DEBENE	DEKOK
	DELL	DIJKST	DODGE	DOTTER	DUHME2	DUHME4	EHRLI1	FAGBUL	FARBE1	FARBE2	FARBE3	FAROOQ	FIELDE	FLYNN1	FLYNN2	FORAST
	FORSB1	FORSB2	FORSB3	FREEM1	FREEM2	FUJI	GOREN1	GOREN2	GOREN3	GOREN4	GOREN5	GOREN6	GORTM1	GORTM2	GUPTA	GURKAN
	HABY	HAJNAL	HALONE	HOST	HU1	HU2	HUGHES	JAAKKO	JANG	JENKIN	JONES	KABESC	KALYO1	KALYO2	KARUNA	KASPER
	KAY	KEARNE	KENDIR	KERSHA	KIVITY	KNIGHT	KUEHR	KUHR	LAU	LEE1	LEE2	LEEDER	LEEN	LEROUX	LEVES1	LEVES2
	LEVES3	LILLJE	LINDFO	LIS	MARTIN	MAVALE	MCCON1	MCCON2	MCKEEV	MELIA	MILLER	MOHAME	MONTEF	MONTEI	MOUSSA	MOYES1
	MOYES2	MURRAY	NICOLA	NILSSO	NITTA	OCONNE	ODDY	OHARA	PIC	POKHAR	PONSON	QIAN	RASANE	RENNIE	RIBEIR	RONMA1
	RONMA2	RONMA3	ROSASV	RUDNIK	SANZOR	SARRAZ	SCHENK	SCHMIT	SELCUK	SENNHA	SHAMS2	SHAMSS	SHERMA	SHIVA	SHOHAT	SIGURS
	SOMERV	SOTOQU	SOYSET	SPENGL	SPIEKE	SQUILL	STANHO	STAZI	STERN1	STERN2	STODDA	TARIQ	TAYLOR	TIMONE	TOMINA	TSIMOY
	ULRIK	VARELA	VAVILI	VERHOE	VOLKME	VONMAF	WANG	WARKE	WICKMA	WIJGA	WILLE2	WITHER	WOLFO3	YANG	ZEIGER	ZEJDA
	ZHANG															
4	CUNNI1	LAM2	WOLFO1	WOLFO2												

Appendix Table D6 - 8

IESAST - Meta-analysis of Exposure during Lifetime, Biochemical/Total (or nearest equivalent) : High Dose
Lifetime Asthma (or Current if Lifetime not available)
Potentially overlapping studies

REF	REFGP	PRINC	OVERLAP
GILLIL	GILLIL	1	MCCON1/GILLIL
HJERN1	HJERN1	1	HJERN1/HJERN2
HJERN2	HJERN2	1	HJERN1/HJERN2
DUHME1	BEHREN	2	DUHME1/BEHREN

Adjusted - insufficient data for metaanalysis

REF	NRR	SEX	AST	AGEL	AGEH	RACE	LOC	BEGYR	PUBYR	STTYP	ADJ	EXPOS-who	UNEXsrce	EXP-time	UNEXTI	MEAS	LO	HI	RR	SIG
CUNNI1	10	b	c	8	11	all	NAmer	1988	1996	CS	9	AnyHh	NoHhMemb	current	non	cigs	30	999	1.07	?
LAM2	5	b	l	8	13	all	As:FE	1995	1999	CS	4	AnyHh	NoHhMemb	unspec	non	persn	3	999	0.71	?
STRACH	14	b	c	13	18	all	Eu:UK	1993	1995	CC	0	Mother	NotMothr	<1m	non	cigs	11	999	*	n
WOLFO1	5	b	l	8	8	all	Eu:Ger	1977	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	21	999	0.40	?
WOLFO2	5	b	l	10	10	all	Eu:Ger	1979	1995	CS	7	AnyHh	NoHhMemb	current	non	cigs	21	999	0.63	?