

Supplementary Table 1. The Most Frequent Occupational Categories and Corresponding Geometric Mean ELF-MF Exposure Estimates in CLIC Pooled Case-Control Dataset. Occupations and Exposure Estimates Were Retrieved From ELF-MF JEM Developed for INTEROCC Study (23).

ISCO code	Occupation	Geometric mean magnetic field (μT)
fathers		
1222	Production and operations department managers in construction	0.02
2411	Accountants	0.11
3433	Bookkeepers	0.11
8324	Heavy truck and lorry drivers	0.11
8322	Car, taxi and van drivers	0.12
5220	Shop salespersons and demonstrators	0.12
3112	Civil engineering technicians	0.12
7141	Painters and related workers	0.12
3415	Technical and commercial sales representatives	0.13
2131	Computer system designers and analysts	0.13
4190	Other office clerks	0.13
9-83.20 ^a	Railway-engine drivers	17.88
mothers		
1222	Production and operations department managers in construction	0.02
3231	Nursing associate professionals	0.11
3431	Administrative secretaries and related associate professionals	0.11
5220	Shop salespersons and demonstrators	0.12
3211	Life science technicians	0.12
4222	Receptionists and information clerks	0.12
4190	Other office clerks	0.13
4121	Accounting and bookkeeping clerks	0.13
3310	Primary education teaching associate professionals	0.13
2131	Computer system designers and analysts	0.13
8311	Locomotive-engine drivers	5.48

Abbreviations: ELF-MF, extremely low-frequency magnetic fields; JEM, job-exposure matrix; μT , microTesla.

^a ISCO-68 code

Supplementary Table 2. Estimated Risk of Acute Lymphoblastic Leukaemia (ALL) and Acute Myeloid Leukaemia (AML) in the Offspring Following Parental Occupational Exposure to Extremely Low-Frequency Magnetic Fields (ELF-MF) in a Pooled Analysis of Childhood Leukaemia International Consortium (CLIC) Studies. Analysis Stratified by Child's Birth Year.

ELF-MF exposure, μ T	Birth date \leq 1990						Birth date $>$ 1990					
	ALL			AML			ALL			AML		
	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI
Paternal ELF-MF exposure at conception^b												
\leq 0.2	3519/6449	1.00		293/4057	1.00		3343/6930	1.00		430/5515	1.00	
$>$ 0.2	348/746	1.06	0.96-1.22	54/684	1.18	0.86-1.60	632/1176	1.03	0.92-1.14	78/1025	0.99	0.76-1.28
\leq 0.1	1106/2319	1.00		145/1432	1.00		1297/2671	1.00		168/1858	1.00	
$>$ 0.1- \leq 0.2	2413/4130	1.01	0.92-1.11	148/2625	0.67	0.52-0.86	2046/4259	0.91	0.84-1.00	262/3657	0.90	0.73-1.11
$>$ 0.2- \leq 1	324/672	1.10	0.94-1.29	48/610	0.91	0.63-1.30	612/1120	0.98	0.86-1.11	74/983	0.91	0.67-1.22
$>$ 1	24/74	0.79	0.48-1.25	6/74	1.01	0.38-2.23	20/56	0.79	0.46-1.31	4/42	1.44	0.42-3.75
Maternal ELF-MF exposure during pregnancy^{b,c}												
\leq 0.2	3596/7119	1.00		356/4919	1.00		3797/7847	1.00		501/6377	1.00	
$>$ 0.2	195/376	1.02	0.85-1.22	21/256	1.16	0.70-1.82	276/542	0.98	0.84-1.14	24/453	0.70	0.44-1.05
\leq 0.1	2078/4501	1.00		259/3361	1.00		2235/4642	1.00		305/3609	1.00	
$>$ 0.1- \leq 0.2	1518/2618	0.97	0.89-1.07	97/1558	0.85	0.65-1.10	1562/3205	0.98	0.90-1.06	196/2768	0.89	0.73-1.09
$>$ 0.2	195/376	1.01	0.84-1.21	21/256	1.11	0.67-1.75	276/542	0.97	0.83-1.14	24/453	0.67	0.42-1.01

Abbreviations: ALL, acute lymphoblastic leukaemia; AML, acute myeloid leukaemia; μ T, micro Tesla; OR, odds ratio; 95% CI, 95% confidence interval.

^a Adjusted for child's age and sex, highest level of education of either parent, case accrual time, study.

^b Median of ELF-MF was used for persons with multiple exposure assignment due to "one-to-many" job title conversion.

^c Due to small number of exposed cases in the category of $>$ 1 μ T, it was collapsed with category of $>$ 0.2- \leq 1 μ T.

Supplementary Table 3. Estimated Risk of Acute Lymphoblastic Leukaemia (ALL) and Acute Myeloid Leukaemia (AML) in the Offspring Following Parental Occupational Exposure to Extremely Low-Frequency Magnetic Fields (ELF-MF) in a Pooled Analysis of Childhood Leukaemia International Consortium (CLIC) Studies. Analysis Restricted to Case-Control Studies With Job History Coded to International Standard Classification of Occupations (ISCO) ^a.

ELF-MF exposure, μ T	ALL			AML		
	Cases/Controls	OR ^b	95% CI	Cases/Controls	OR ^b	95% CI
Paternal ELF-MF exposure at conception ^c						
≤ 0.2	2678/5739	1.00		331/3688	1.00	
> 0.2	557/973	1.05	0.93-1.18	64/803	0.97	0.72-1.29
≤ 0.1	1156/2650	1.00		159/1326	1.00	
$> 0.1 \leq 0.2$	1522/3089	0.98	0.89-1.09	172/2362	0.85	0.66-1.08
$> 0.2 \leq 1$	547/943	1.04	0.91-1.19	64/787	0.89	0.64-1.23
> 1	10/30	0.78	0.36-1.56	0/16		
Maternal ELF-MF exposure during pregnancy ^{c,d}						
≤ 0.2	3017/6333	1.00		375/4247	1.00	
> 0.2	256/492	1.01	0.86-1.19	21/357	0.68	0.42-1.06
≤ 0.1	1828/3997	1.00		231/2382	1.00	
$> 0.1 \leq 0.2$	1189/2336	1.06	0.97-1.17	144/1865	1.00	0.79-1.26
> 0.2	256/492	1.03	0.88-1.22	21/357	0.68	0.41-1.07

Abbreviations: ALL, acute lymphoblastic leukaemia; AML, acute myeloid leukaemia; μ T, micro Tesla; OR, odds ratio; 95% CI, 95% confidence interval.

^a Case-control studies with job histories coded to ISCO included Finland, France ADELE, France ESCALE, Greece NARECHEM (1993-1994), Greece NARECHEM (1996-2010), Italy SETIL.

^b Adjusted for child's age and sex, highest level of education of either parent, case accrual time, study.

^c Median of ELF-MF was used for persons with multiple exposure assignment due to "one-to-many" job title conversion.

^d Due to small number of exposed cases in the category of $> 1 \mu$ T, it was collapsed with category of $> 0.2 \leq 1 \mu$ T.

Supplementary Table 4. Estimated Risk of Acute Lymphoblastic Leukaemia (ALL) and Acute Myeloid Leukaemia (AML) in the Offspring Following Parental Occupational Exposure to Extremely Low-Frequency Magnetic Fields (ELF-MF) in a Pooled Analysis of Childhood Leukaemia International Consortium (CLIC) studies. Analysis Stratified by Child's Sex.

ELF-MF exposure, μT	Boys						Girls					
	ALL			AML			ALL			AML		
	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI
Paternal ELF-MF exposure at conception^b												
≤ 0.2	3810/7404	1.00		382/5366	1.00		3052/5975	1.00		341/4206	1.00	
> 0.2	565/1061	1.10	0.98-1.23	62/935	1.00	0.74-1.32	415/861	0.96	0.85-1.10	70/774	1.13	0.85-1.49
≤ 0.1	1301/2742	1.00		182/1841	1.00		1102/2248	1.00		131/1449	1.00	
> 0.1-≤ 0.2	2509/4662	0.99	0.91-1.08	200/3525	0.68	0.54-0.85	1950/3727	0.92	0.83-1.01	210/2757	1.01	0.79-1.28
> 0.2-≤ 1	540/985	1.12	0.98-1.27	56/867	0.77	0.55-1.05	396/807	0.92	0.80-1.07	66/726	1.12	0.80-1.55
> 1	2576	0.81	0.50-1.28	6/68	1.04	0.39-2.29	19/54	0.76	0.44-1.28	4/48	1.40	0.41-3.59
Maternal ELF-MF exposure during pregnancy^{b,c}												
≤ 0.2	4146/8276	1.00		445/6302	1.00		3247/6690	1.00		412/4994	1.00	
> 0.2	257/504	0.97	0.82-1.13	25/392	0.92	0.59-1.39	214/414	1.04	0.87-1.24	20/317	0.76	0.46-1.20
≤ 0.1	2425/5036	1.00		292/3889	1.00		1888/4107	1.00		272/3081	1.00	
> 0.1-≤ 0.2	1721/3240	0.96	0.88-1.04	153/2413	0.93	0.75-1.16	1359/2583	1.00	0.91-1.09	140/1913	0.85	0.67-1.06
> 0.2	257/504	0.95	0.81-1.12	25/392	0.90	0.57-1.36	214/414	1.04	0.87-1.24	20/317	0.72	0.43-1.14

Abbreviations: ALL, acute lymphoblastic leukaemia; AML, acute myeloid leukaemia; μT , micro Tesla; OR, odds ratio; 95% CI, 95% confidence interval.

^a Adjusted for child's age, highest level of education of either parent, case accrual time, study.

^b Median of ELF-MF was used for persons with multiple exposure assignment due to "one-to-many" job title conversion.

^c Due to small number of exposed cases in the category of > 1 μT , it was collapsed with category of > 0.2-≤ 1 μT .

Supplementary Table 5. Estimated Risk of Acute Lymphoblastic Leukaemia (ALL) and Acute Myeloid Leukaemia (AML) in the Offspring Following Parental Occupational Exposure to Extremely Low-Frequency Magnetic Fields (ELF-MF) in a Pooled Analysis of Childhood Leukaemia International Consortium (CLIC) studies. Analysis Stratified by Child's Age ^a.

ELF-MF exposure, μT ^b	< 5 years old						\geq 5 years old					
	ALL			AML			ALL			AML		
	Cases/Controls	OR ^c	95% CI	Cases/Controls	OR ^c	95% CI	Cases/Controls	OR ^c	95% CI	Cases/Controls	OR ^c	95% CI
Paternal ELF-MF exposure at conception												
≤ 0.2	3934/7349	1.00		335/5148	1.00		2928/6030	1.00		386/4416	1.00	
> 0.2	564/1063	1.00	0.90-1.13	60/928	1.04	0.77-1.38	416/859	1.08	0.95-1.23	72/780	1.15	0.87-1.50
≤ 0.1	1344/2719	1.00		131/1752	1.00		1059/2271	1.00		180/1532	1.00	
$> 0.1 \leq 0.2$	2590/4630	0.99	0.91-1.08	204/3396	0.91	0.72-1.15	1869/3759	0.92	0.83-1.02	206/2884	0.76	0.61-0.94
$> 0.2 \leq 1$	541/993	1.02	0.89-1.16	57/866	0.99	0.70-1.37	395/799	1.03	0.89-1.20	65/726	0.93	0.68-1.27
> 1	23/70	0.73	0.44-1.17	3/62	0.85	0.20-2.36	21/60	0.86	0.51-1.41	7/54	1.49	0.60-3.17
Maternal ELF-MF exposure during pregnancy ^e												
≤ 0.2	4162/8161	1.00		394/6065	1.00		3231/6805	1.00		461/5222	1.00	
> 0.2	288/514	1.05	0.90-1.22	21/390	0.83	0.51-1.28	183/404	0.94	0.78-1.13	24/319	0.84	0.53-1.27
≤ 0.1	2305/4845	1.00		258/3666	1.00		2008/4298	1.00		304/3296	1.00	
$> 0.1 \leq 0.2$	1857/3316	1.04	0.96-1.13	136/2399	0.83	0.66-1.03	1223/2507	0.90	0.82-0.99	157/1926	0.98	0.79-1.21
> 0.2	288/514	1.07	0.91-1.25	21/390	0.77	0.47-1.20	183/404	0.90	0.75-1.09	24/319	0.84	0.53-1.27

Abbreviations: ALL, acute lymphoblastic leukaemia; AML, acute myeloid leukaemia; μT , micro Tesla; OR, odds ratio; 95% CI, 95% confidence interval.

^a Child's age at the index date: for cases, the date of diagnosis; and for controls either the date of recruitment or the date of questionnaire return.

^b Median of ELF-MF was used for persons with multiple exposure assignment due to "one-to-many" job title conversion.

^c Adjusted for child's sex, highest level of education of either parent, case accrual time, study.

^e Due to small number of exposed cases in the category of $> 1 \mu\text{T}$, it was collapsed with category of $> 0.2 \leq 1 \mu\text{T}$.

Supplementary Table 6. Estimated Risk of Acute Lymphoblastic Leukaemia (ALL) and Acute Myeloid Leukaemia (AML) in the Offspring Following Parental Occupational Exposure to Extremely Low-Frequency Magnetic Fields (ELF-MF) in a Pooled Analysis of Childhood Leukaemia International Consortium (CLIC) Studies. Analysis by Using 0 μ T and 0.4 μ T as Cut-Off Points for Dichotomous ELF-MF Exposure.

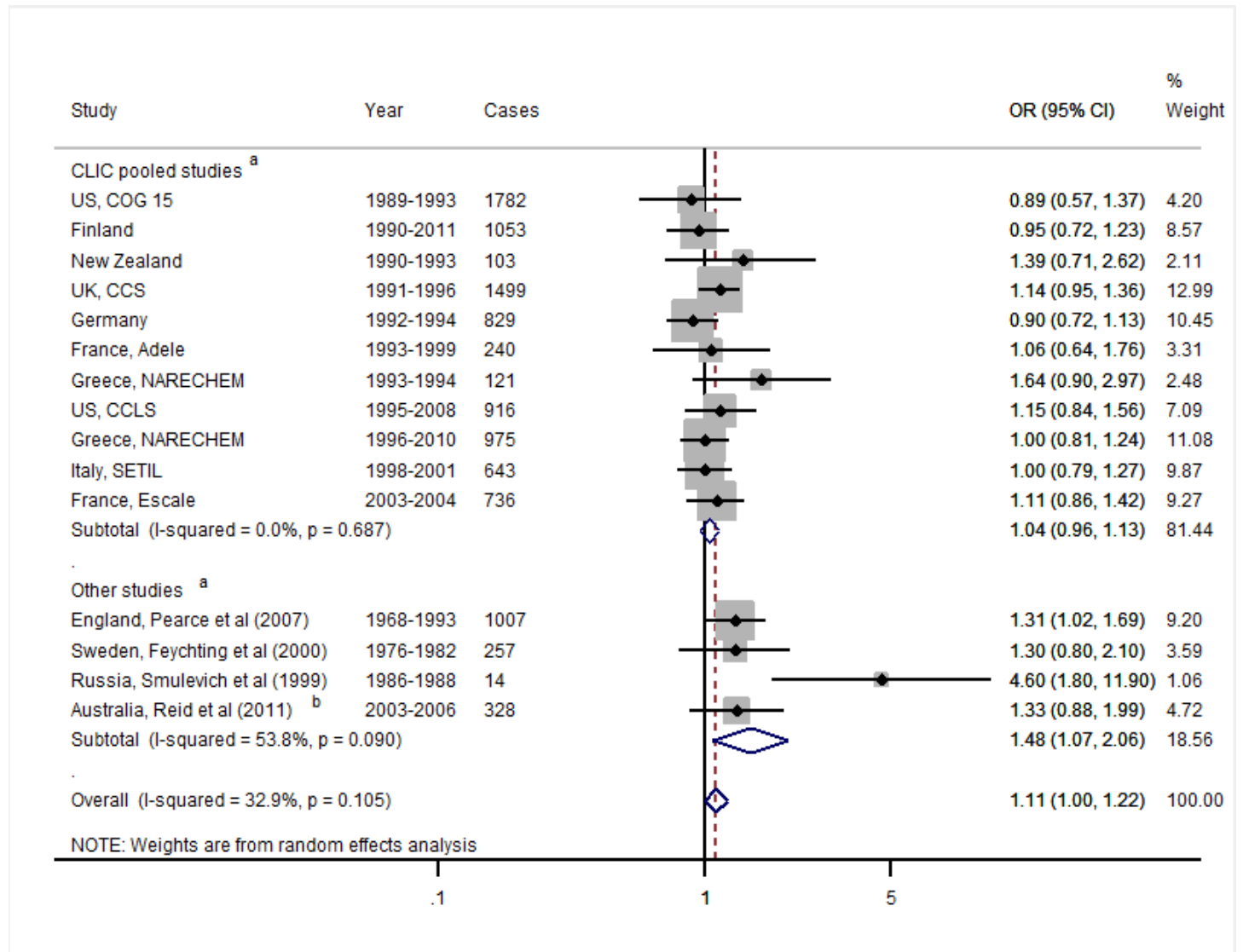
ELF-MF exposure, μ T	ALL			ALL T-lineage			ALL B-lineage			AML		
	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI	Cases/Controls	OR ^a	95% CI
Paternal ELF-MF exposure at conception^b												
≤ 0.4	7571/14743	1.00		693/12170	1.00		5200/12170	1.00		817/10783	1.00	
> 0.4	271/558	1.07	0.92-1.25	29/493	1.09	0.72-1.59	211/493	1.11	0.93-1.31	38/498	1.05	0.73-1.47
Maternal ELF-MF exposure during pregnancy^b												
≤ 0.4	7794/15726	1.00		727/13140	1.00		5416/13140	1.00		895/11890	1.00	
> 0.4	70/158	1.00	0.75-1.33	5/106	0.79	0.28-1.78	41/106	0.96	0.65-1.37	7/115	0.76	0.31-1.57

Abbreviations: ALL, acute lymphoblastic leukaemia; AML, acute myeloid leukaemia; μ T, micro Tesla; OR, odds ratio; 95% CI, 95% confidence interval.

^a Adjusted for child's age and sex, highest level education of either parent, case accrual time, study.

^b Median of ELF-MF was used for persons with multiple exposure assignment due to "one-to-many" job title conversion.

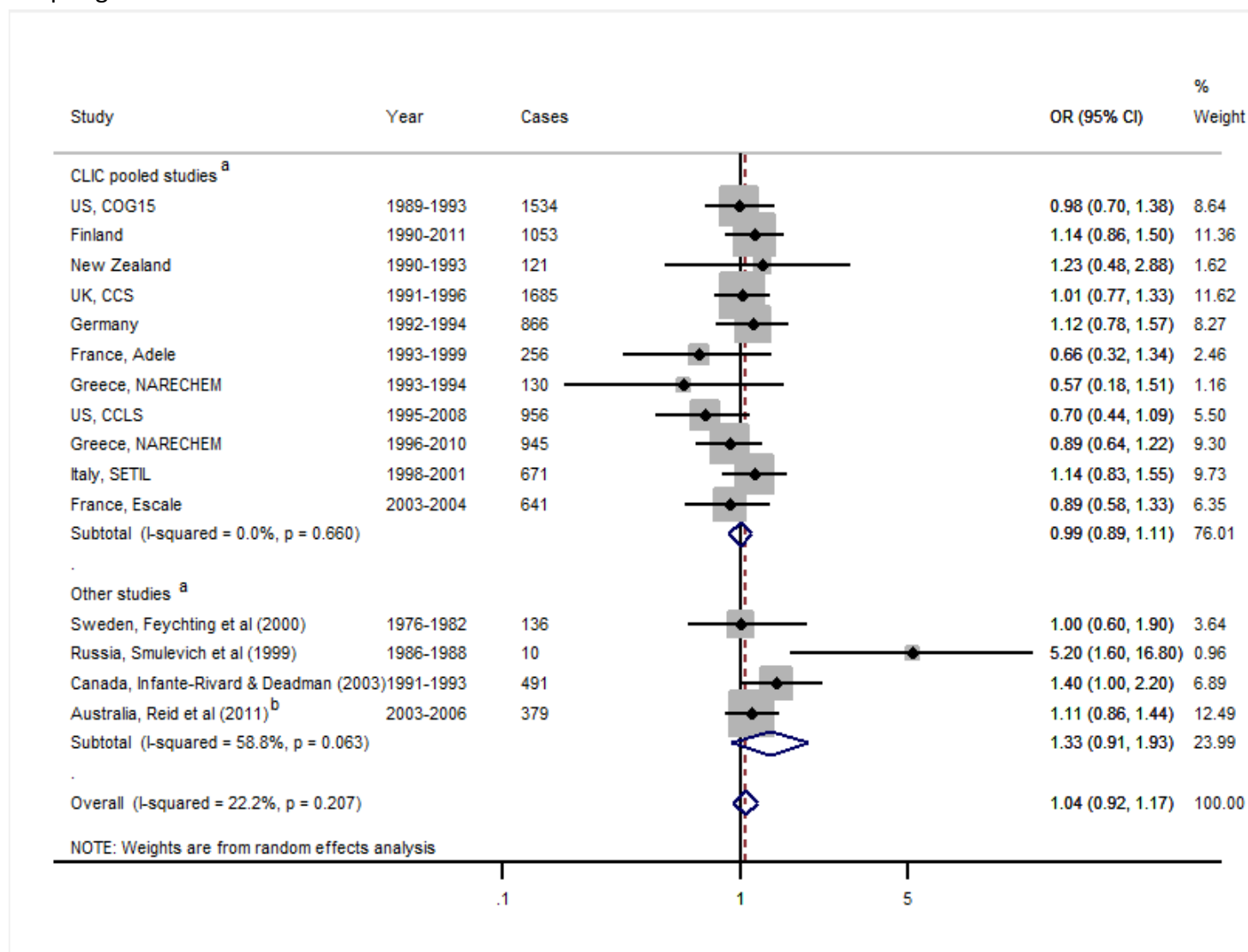
Supplementary Figure 1. Paternal occupational ELF-MF exposure at conception and leukaemia in the offspring.



^a CLIC pooled studies used a harmonized exposure metric while the other studies used individual and different metrics.

^b Reid et al (2011) reported OR estimates only for ALL, not overall leukaemia.

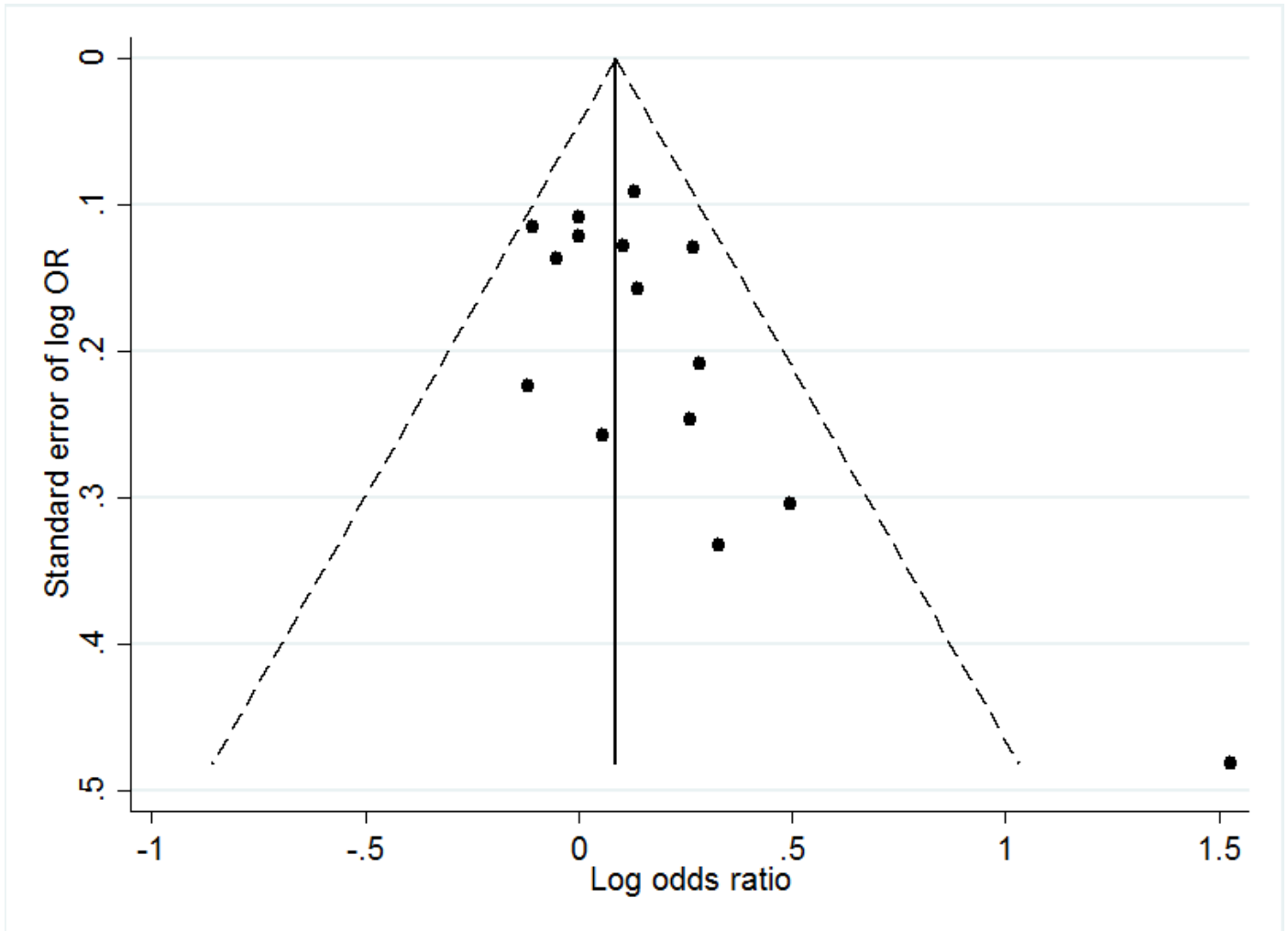
Supplementary Figure 2. Maternal occupational ELF-MF exposure during pregnancy and leukaemia in the offspring.



^a CLIC pooled studies used a harmonized exposure metric while the other studies used individual and different metrics.

^b Reid et al (2011) reported OR estimates only for ALL, not overall leukaemia.

Supplementary Figure 3. Funnel plot for paternal occupational ELF-MF exposure at conception and leukaemia in the offspring.



Supplementary Figure 4. Funnel plot for maternal occupational ELF-MF exposure during pregnancy and leukaemia in the offspring.

