

Early vaccination protects against childhood leukemia: A systematic review and meta-analysis

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Supplementary Table 1: PRISMA 2009 checklist of items to include when reporting a systematic review or meta-analysis¹.

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	Page 1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	Page 4
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	Page 5
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	Page 6
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	Page 6
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	Page 7
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	Page 6
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Page 6
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	Page 6-7

Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	Page 7-8
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	Page 8
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	Page 9-10
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	NA
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	Page 8

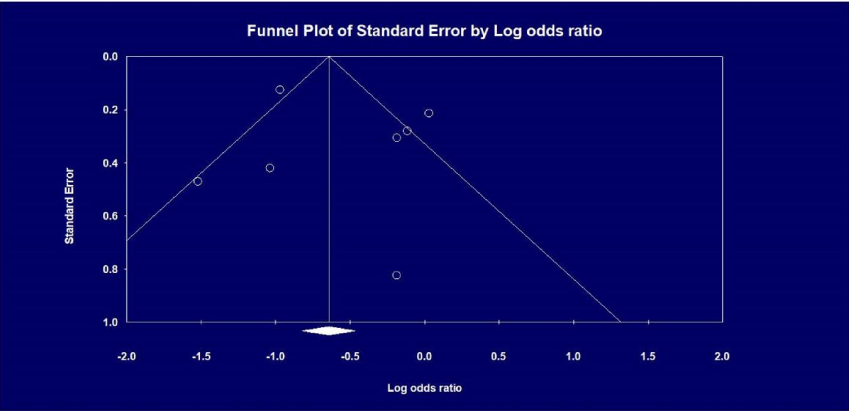
Supplementary Table 2A: Quality assessment of clinical trials studies

Studies	Domain of Assessment					
	Sequence Generation	Allocation Concealment	Blinding	Incomplete Outcome Data	Selective Outcome Reporting	Other
Comstock/1975	high	unclear	high	low	unclear	low
Sutherland /1982	low	unclear	low	low	unclear	low

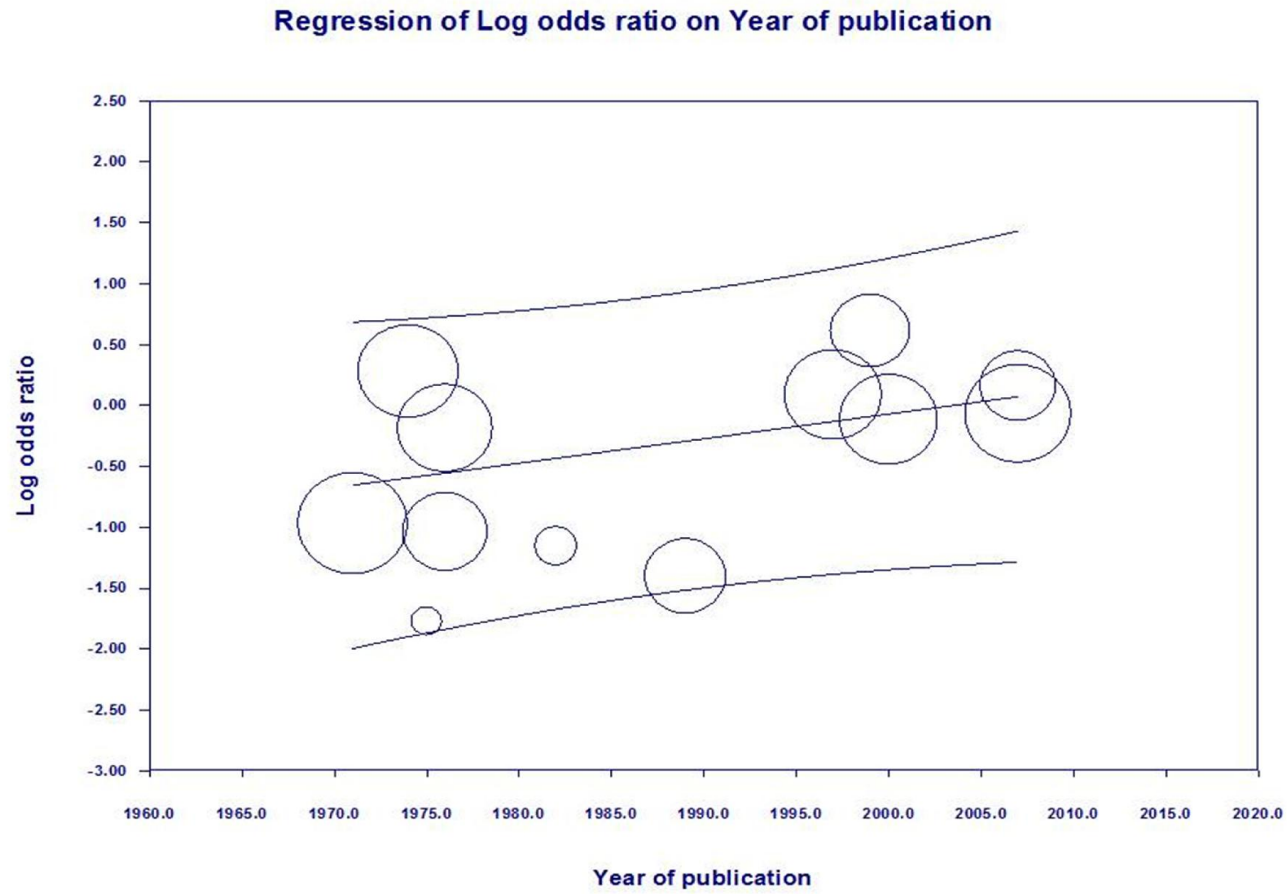
Supplementary Table 2B: Quality assessment of case control studies

Studies	Domain of Assessment						
	Subject Selection						
Author/year/ref	Cases	Adequacy of case definition	Controls	Comparability of groups	Ascertainment of exposure/treatment	Follow-up	Overall
Dockerty/1999	2	2	2	2	0	1	High
Crispen/1976	2	1	2	2	0	1	High
Nishi/1989	1	2	2	0	0	0	High
Groves/1999	2	2	2	2	0	0	High
Von Kries/2000	2	2	2	2	2	0	high
MacArthur/2008	2	2	2	2	0	1	High
Mallol-Mesnard /2007	2	2	2	2	0	1	High
Ma/2005	2	2	2	2	0	1	Moderate
Petridou/1997	1	2	2	2	2	1	High
Salonen /1976	2	2	2	2	0	1	Moderate
Davignon/1971	2	2	2	2	0	0	High
Máthé /1974	2	1	2	2	0	0	High

Supplementary Figure 1: Funnel plot of publication bias assessment in the meta-analysis of association between early vaccination and childhood leukemia.

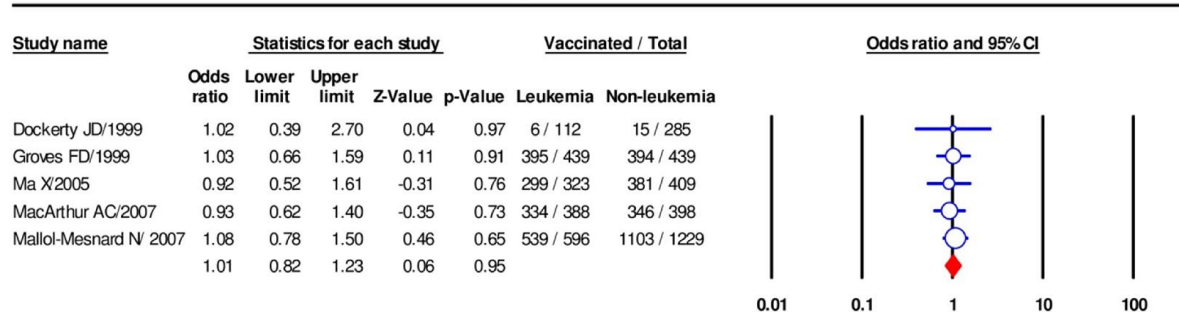


Supplementary Figure 2: The scatter-plot showing meta-regression of childhood leukemia on year of publication of BCG vaccination studies.



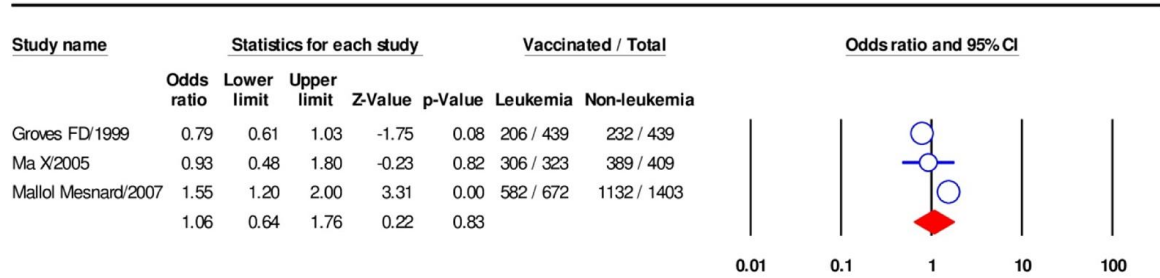
Supplementary Figure 3: Forest plot showing meta-analysis of mumps vaccination and subgroups meta-analysis.

Mumps vaccination



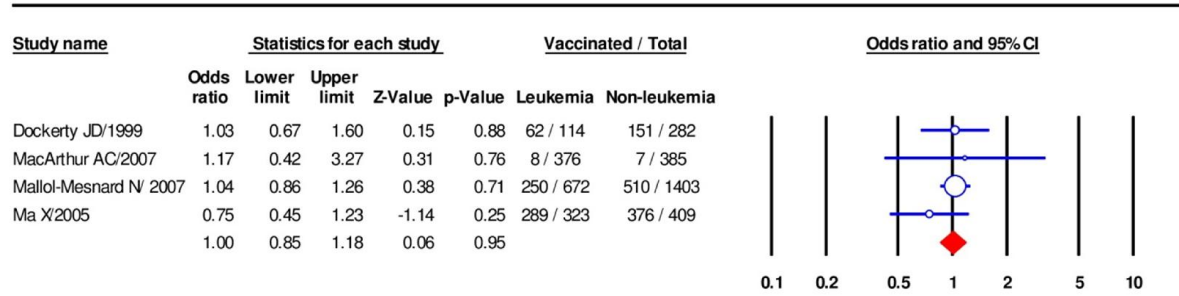
Supplementary Figure 4: Forest plot showing meta-analysis of HiB vaccination and subgroups meta-analysis.

HiB vaccination



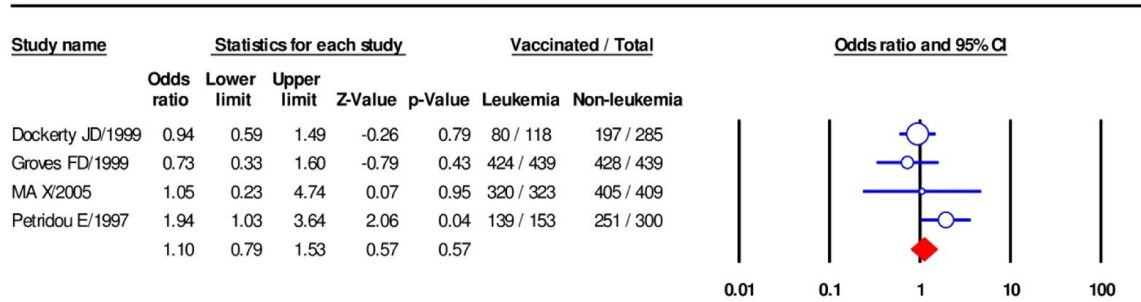
Supplementary Figure 5: Forest plot showing meta-analysis of rubella vaccination and subgroups meta-analysis.

HBV vaccination



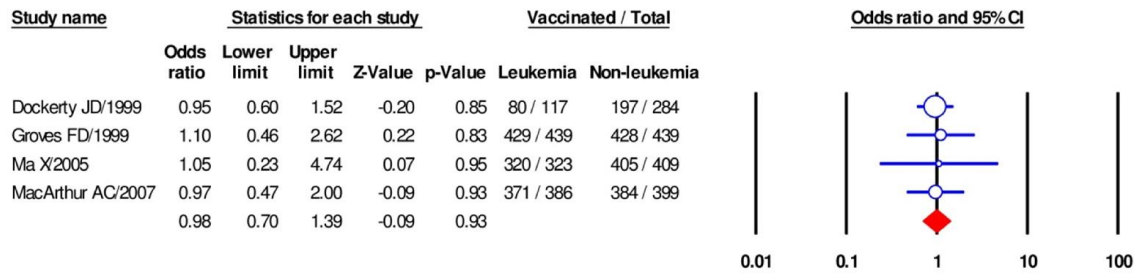
Supplementary Figure 6: Forest plot showing meta-analysis of triple vaccination and subgroups meta-analysis.

Triple vaccination

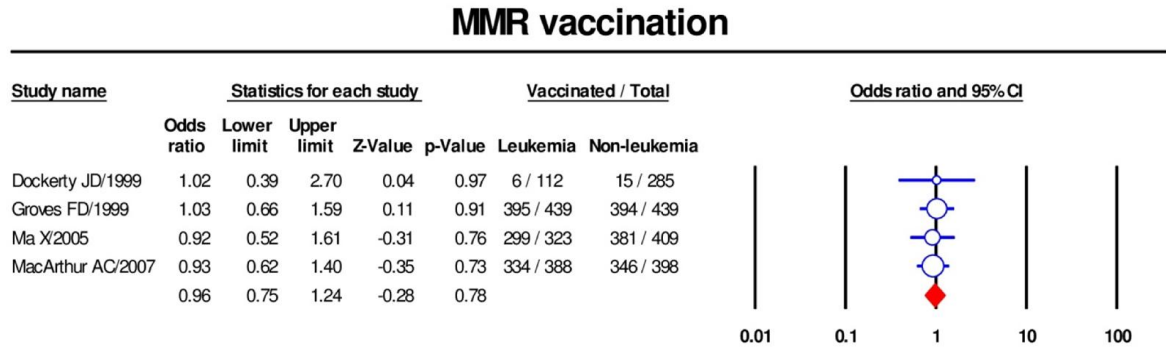


Supplementary Figure 7: Forest plot showing meta-analysis of polio sip vaccination and subgroups meta-analysis.

Polio sip vaccination

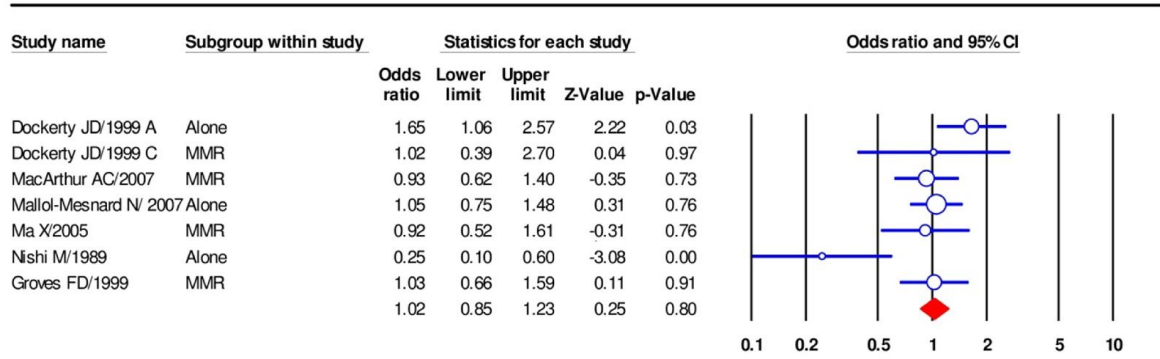


Supplementary Figure 8: Forest plot showing meta-analysis of MMR vaccination and subgroups meta-analysis.

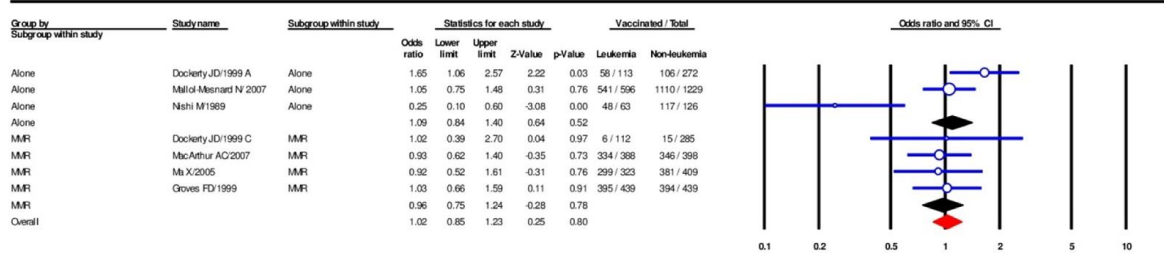


Supplementary Figure 9: Forest plot showing meta-analysis of measles vaccination and subgroups meta-analysis.

Measles vaccination



Measles vaccination subgroups



- 1 Moher, D., Liberati, A., Tetzlaff, J. & Altman, D. G. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine* **151**, 264-269 (2009).