Supplemental Table 1: PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	3-4
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	7
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	6
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	7
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	7
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	7
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	7
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	15
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	8
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	7
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	7
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	9
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	15
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	16
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	15
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	14

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	10
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	10
Study characteristics	17	Cite each included study and present its characteristics.	10
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	8
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	8
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	8
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	9
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	9
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	16
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	9
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	9
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	17
	23b	Discuss any limitations of the evidence included in the review.	18
	23c	Discuss any limitations of the review processes used.	18
	23d	Discuss implications of the results for practice, policy, and future research.	18
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	18
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	11
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	11
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	13
Competing interests	26	Declare any competing interests of review authors.	13
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	13

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit:

Supplemental Table 2: Search Strategy Summary

Period search was conducted	20 May 2023 to 20 June 2023
Inclusion criteria	• Cross sectional study • Studies published until 31 July 2023 • Studies conducted in Ethiopia. • Children (1-9 years) • Published in the English Language. • Studies reported the prevalence of Trachoma
Exclusion criteria	• Case reports • case series • review articles • letters to editors
Libraries	Worldwide
Records identified from secondary databases, Google scholar	("magnitude"[All Fields] OR "magnitudes"[All Fields] OR ("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalance"[All Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields]) OR ("burden"[All Fields] OR "burdened"[All Fields] OR "burdening"[All Fields] OR "burdens"[All Fields]) OR ("epidemiologies"[All Fields] OR "epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "epidemiology"[MeSH Terms] OR "epidemiology s"[All Fields])) AND ("trachoma"[MeSH Terms] OR "trachoma"[All Fields] OR "trachomas"[All Fields] OR ("eye infections"[MeSH Terms] OR ("eye"[All Fields] AND "infections"[All Fields]) OR "eye infections"[All Fields] OR ("eye"[All Fields] AND "infection"[All Fields]) OR "eye infection"[All Fields]) OR ("Trachomatous"[All Fields] AND ("intense"[All Fields] OR "intense ly"[All Fields] OR "intensities"[All Fields] OR "intensity"[All Fields] OR "intensively"[All Fields])) OR ("Trachomatous"[All Fields] AND "follicular"[All Fields])) AND ("Ethiopia"[MeSH Terms] OR "Ethiopia"[All Fields] OR "Ethiopia s"[All Fields])

Supplemental Table 3: Methodological quality assessment of included studies using the Newcastle-Ottawa quality assessment scale

Study	Selection				Comparability	Outcome		
	Representativeness of the sample	Sample size	Non respondents	Ascertainment of the exposure (maximum score=2)	The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled((maximum score=2))	Assessment of the outcome(maximum score=2)	Statistical test	Total(10)
Abashawl et.al[49]	1	0	0	1	0	2	2	6
Adamu et.al[50]	1	1	1	1	1	2	1	8
Adera et.al[31]	1	0	1	1	1	2	1	7
Admassu et.al[32]	1	0	1	2	1	2	1	8
Admasu et.al[33]	1	0	1	0	1	2	2	7
Alambo et.al[39]	1	0	1	1	1	2	1	7
Alemayehu et.al[52]	1	1	1	1	1	2	1	8
Alemayehu et.al [34]	1	1	1	1	1	2	2	9

Anteneh et.al[17]	1	0	1	1	0	2	2	7
Asres et.al[18]	1	1	1	1	1	2	1	8
Assefa et.al[48]	1	1	0	1	1	2	1	7
Belsti et.al[53]	1	1	1	1	1	2	1	8
Bero et.al[40]	1	0	1	1	1	2	2	8
Brhane et.al[51]	1	1	1	1	1	2	2	9
Duale et.al[47]	1	1	1	1	1	2	1	8
Ejigu et.al[54]	1	1	1	1	1	2	1	8
Emerson et.al[19]	1	0	1	1	1	2	1	7
Ferede et.al[20]	1	0	1	2	1	2	1	8
Gedefaw et.al[21]	1	0	1	0	1	2	2	7
Genet et.al [22]	1	0	1	1	1	2	1	7
Golovaty et.al[23]	1	1	1	1	1	2	1	8
Kassahun et.al[42]	1	1	1	1	1	2	2	9

Kedir et.al[35]	1	0	1	1	0	2	2	7
Kemal et.al[41]	1	1	1	1	1	2	1	8
Kessete et.al[30]	1	1	0	1	1	2	1	7
Ketema et.al[24]	1	0	1	1	1	2	1	7
Mehari et.al [36]	1	0	1	2	1	2	1	8
Mekonnen et.al[15]	1	0	1	1	0	2	2	7
Mengistu et.al[37]	1	1	1	1	1	2	1	8
Mesfin et.al[43]	1	1	0	1	1	2	1	7
Mesfin et.al[2]	1	1	1	1	1	2	1	8
Mohammed et.al[8]	1	0	1	1	1	2	2	8
Negash et.al[46]	1	1	1	1	1	2	2	9
Nigussie et.al[25]	1	1	1	1	1	2	1	8
Nigusu et.al[26]	1	1	1	1	1	2	1	8
Oswald et.al[16]	1	0	1	1	1	2	1	7

Reda et.al[44]	1	0	1	2	1	2	1	8
Sadik et.al[45]	1	0	1	0	1	2	2	7
Shiferaw et.al[27]	1	0	1	1	1	2	1	7
Shimelash et.al[28]	1	1	1	1	1	2	1	8
Tadesse et.al[29]	1	1	1	1	1	2	2	9
Woldekidan et.al[38]	1	0	1	1	0	2	2	7

Supplemental Table 4: Study characteristics of included studies on the prevalence trachoma among children age 1-9 years; 2023

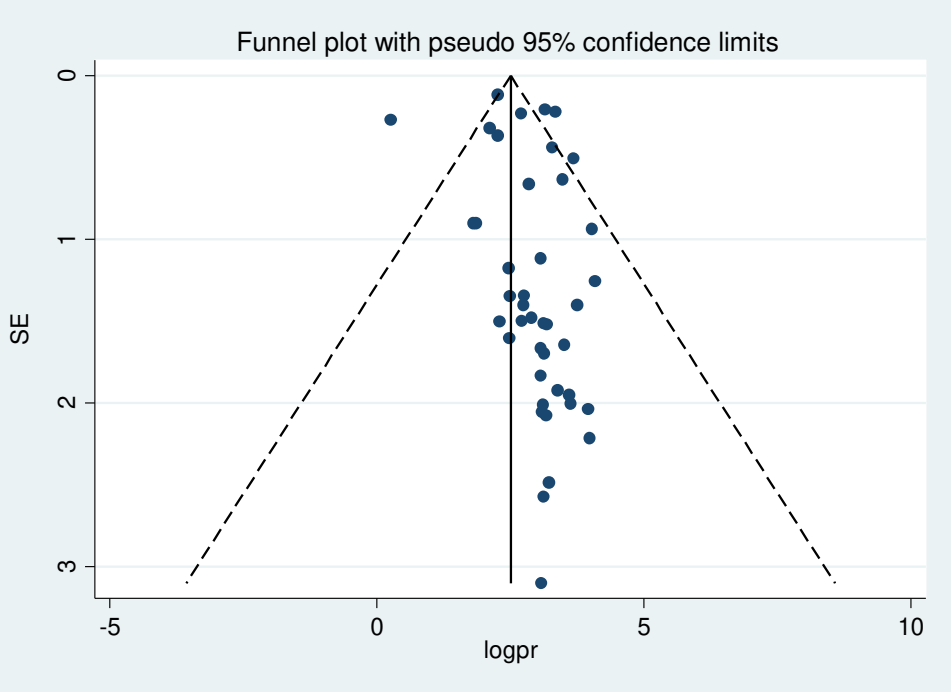
Author's	Year of Publication	Region	Study Area	Study Design	Sample Size	Male(n)	Female (n)	No of cases(n)	Prevalence %
Abashawl et.al[48]	2016	Gambela	Region-wide	CS	3238	NA	NA	557	17.2
Adamu et.al[49]	2016	Benishangul Gumuz	Region-wide	CS	7417	3212	4205	616	8.3
Adera et.al[30]	2016	SNNP	Region wide	CS	41,155	NA	NA	11,647	28.3
Admassu et.al[31]	2013	SNNP	Guragie	CS	768	386	382	175	22.8
Admasu et.al[32]	2015	SNNP	Dawro	CS	267	113	154	61	22.9
Alambo et.al[38]	2018	SNNP	Areka	CS	586	317	269	222	37.9
Alemayehu et.al[51]	2015	Diredawa	Dera	CS	671	351	320	105	15.6
Alemayehu et.al [33]	2005	SNNP	Guragie	CS	2788	NA	NA	1561	56.5
Anteneh et.al[16]	2016	Amhara	Gazegibela	CS	601	268	333	315	52.4
Asres et.al[17]	2016	Amhara	Gondar	CS	586	285	301	71	12.1
Assefa et.al[47]	2017	Harari	Harari	CS	1722	804	918	22	1.3
Belsti et.al[52]	2021	Southwest	Lare	CS	610	283	327	132	21.6
Bero et.al[39]	2016	Oromia	Region-wide	CS	41642	NA	NA	9744	23.4
Brhane et.al[50]	2007	Nationwide	Nation-wide	CS	9289	NA	NA	3725	40.1
Duale et.al[46]	2018	Somali	Region-wide	CS	23620	11462	12158	3543	15
Ejigu et.al[53]	2013	Southwest	Kersa	CS	305	154	151	77	25.2
Emerson et.al[18]	2008	Amhara	Region-wide	CS	5485	NA	NA	1794	32.7
Ferede et.al[19]	2017	Amhara	Dembia	CS	681	NA	NA	121	18.2
Gedefaw et.al[20]	2013	Amhara	Dangila	CS	409	215	194	49	12
Genet et.al [21]	2022	Amhara	Dangila	CS	704	337	367	43	6.1
Golovaty et.al[22]	2009	Amhara	Ankober	CS	507	219	288	275	53.9
Kassahun et.al[41]	2012	Oromia	Mojo	CS	431	NA	NA	97	22.5
Kedir et.al[34]	2020	SNNP	Silte	CS	561	279	282	165	29.4

Kemal et.al[40]	2019	Oromia	Medawalebu	CS	406	215	191	89	22
Kessete et.al[29]	2012	Amhara	Baso Liben	CS	792	391	401	191	24.1
Ketema et.al[23]	2014	SNNP	Guragie	CS	735	366	369	47	6.4
Mehari et.al [35]	2022	Oromia	Arsi Negele	CS	178	93	85	39	21.91
Mekonnen et.al[14]	2016	SNNP	Zala	CS	611	286	325	224	36.7
Mengistu et.al[36]	2006	Tigray	Region wide	CS	1526	NA	NA	903	59.2
Mesfin et.al[42]	2005	Amhara	Ebinet&East Belesa	CS	1244	601	643	527	42.4
Mesfin et.al[2]	2005	SNNP	Goro	CS	826	438	388	278	33.7
Mohammed et.al[8]	2018	Afar	Region-wide	CS	6399	NA	NA	611	9.6
Negash et.al[45]	2015	Amhara	Gonji Kolella	CS	618	353	265	143	23.1
Nigussie et.al[24]	2022	Amhara	Tarimaber	CS	736	380	356	116	15.8
Nigusu et.al[25]	2017	Amhara	Region wide	CS	62869	NA	NA	6035	9.6
Oswald et.al[15]	2020	Tigray	Deguatemben	CS	502	257	245	108	21.5
Reda et.al[43]	2016	Tigray	Region-wide	CS	10023	NA	NA	2676	26.7
Sadik et.al[44]	2013	Amhara	Makisegnit	CS	420	209	211	100	23.8
Shiferaw et.al[26]	2022	Amhara	Debretabor	CS	394	70	324	39	9.9
Shimelash et.al[27]	2017	Amhara	Wollo	CS	1358	638	720	293	21.6
Tadesse et.al[28]	2019	SNNP	Lemo	CS	574	NA	NA	87	15.2

CS: Cross-sectional study

Supplemental Table 5: Meta-regression of factors related to the heterogeneity on the pooled prevalence of trachoma among 1-9 years of age children in Ethiopia, 2023

Variables	Coefficient	95% CI	P-value
Year of Publication	-1.83	-2.54 to -1.10	0.00
Region	1.23	-1.19-3.66	0.30
Sample Size	-.000	-.00 to 0.00	0.49



Supplemental Figure 1: Funnel plot depicting publication bias of studies reporting the pooled prevalence of trachoma among 1-9 years of age children in Ethiopia, 2023