Supplemental Material

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eTable 1. PRISMA Checklist

Section/topic	#	Checklist item	Reported on Page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1, title
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.	2, abstract
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	3, introduction
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	4, introduction
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.	No
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.	4-5, Study Eligibility
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.	5, search strategy
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	5, search strategy
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).	5, study selection
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.	6, data extraction
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	6, data extraction

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.	6, quality assessment and risk of bias
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	6-7, statistical analyses
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.	6-7, statistical analyses & heterogeneity and sensitivity analyses
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	6, quality assessment and risk of bias
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	7, heterogeneity and sensitivity analyses
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	7, study selection
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	8-9, study characteristics; Table 1
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	9-10, risk of bias within studies; Table 1 & supplemental material etable 2
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	10-12, figure 2, figure 3, supplemental material efigure 1, efigure 2, efigure 3

Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	10-12, figure 2, figure 3, supplemental material efigure 1, efigure 2, efigure 3
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	10-11, risk of bias across studies
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	10-12, figure 3, supplemental material efigure 1, efigure 2, efigure 3
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	12,14, discussion
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	13-14, discussion
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	15, conclusion
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	15, funding

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

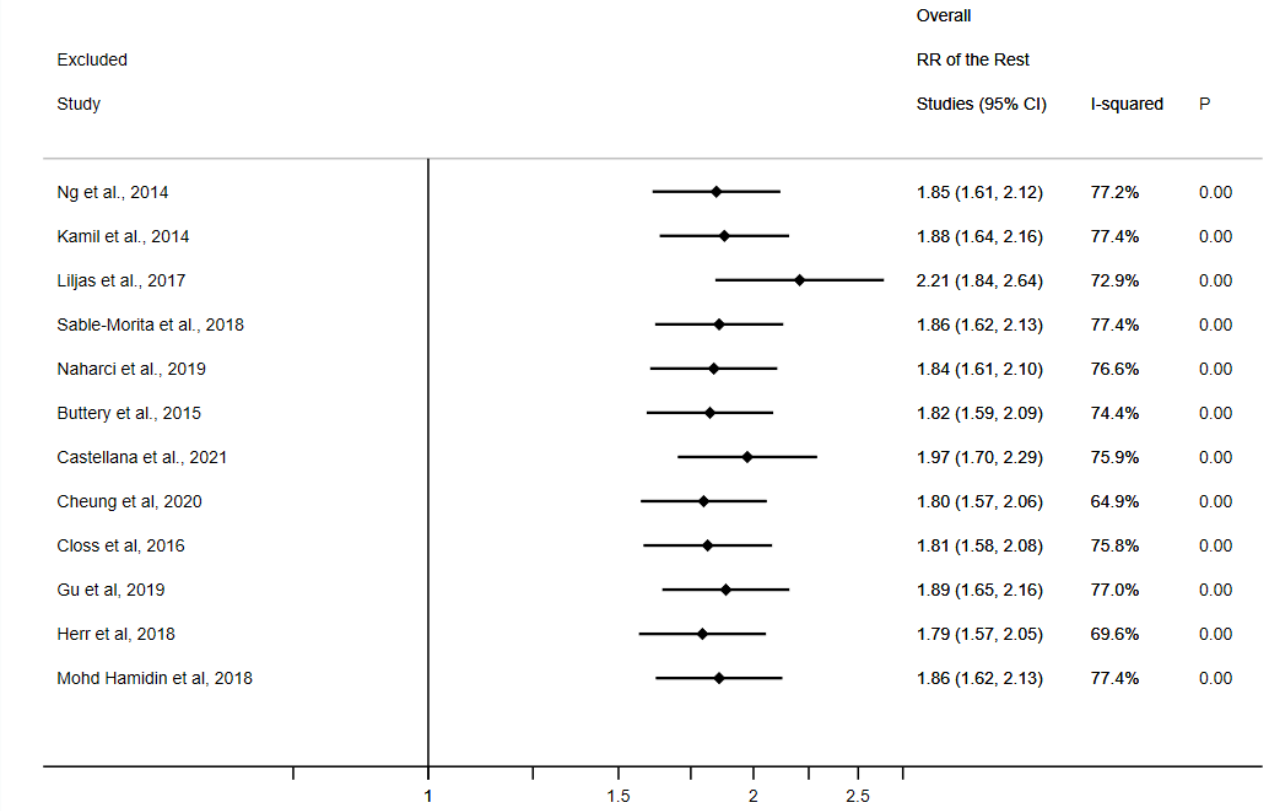
eTable 2. Quality assessment of the reviewed studies

		Buttery et al (1)	Cakmur (2)	Castellana et al (3)	Cheung et al (4) Cross-sectional	Closs et al (5)	Kamil et al (2014) (6)	Liljas et al (7) Cross-sectional	Naharci et al (8)	Ng et at (9)	Sable-Morita et al (10)	Gu et al, (11)
Selection (Maximum 5)	Representativeness of the exposed cohort[a]	1	1	1	1	1	1	1	1	1	0	1
	Selection of the non-exposed cohort[a] / Sufficient simple size[b]	1	1	1	0	0	1	1	0	1	0	1
	Ascertainment of exposure[a b]	1	2	2	2	2	1	2	1	2	2	1
	Demonstration that outcome of interest was not present at start of study[a]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Description of non-respondents[b]	0	0	0	0	0	0	0	0	0	0	0
Comparability (Maximum 2)	Comparability of cohorts on the basis of the design or analysis controlled for confounders[a b]	2	1	1	1	1	2	2	2	1	2	2
Outcome (Maximum 3)	Assessment of outcome[a b c]	2	2	2	2	2	2	2	2	2	2	2
	Was follow-up long enough for outcomes to occur[a]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Adequacy of follow-up of cohorts[a]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Statistical test[b]	1	1	1	1	1	1	1	1	1	1	1
Overall quality		Good	Good	Good	Good	Good	Good	Good	Fair	Good	Fair	Good

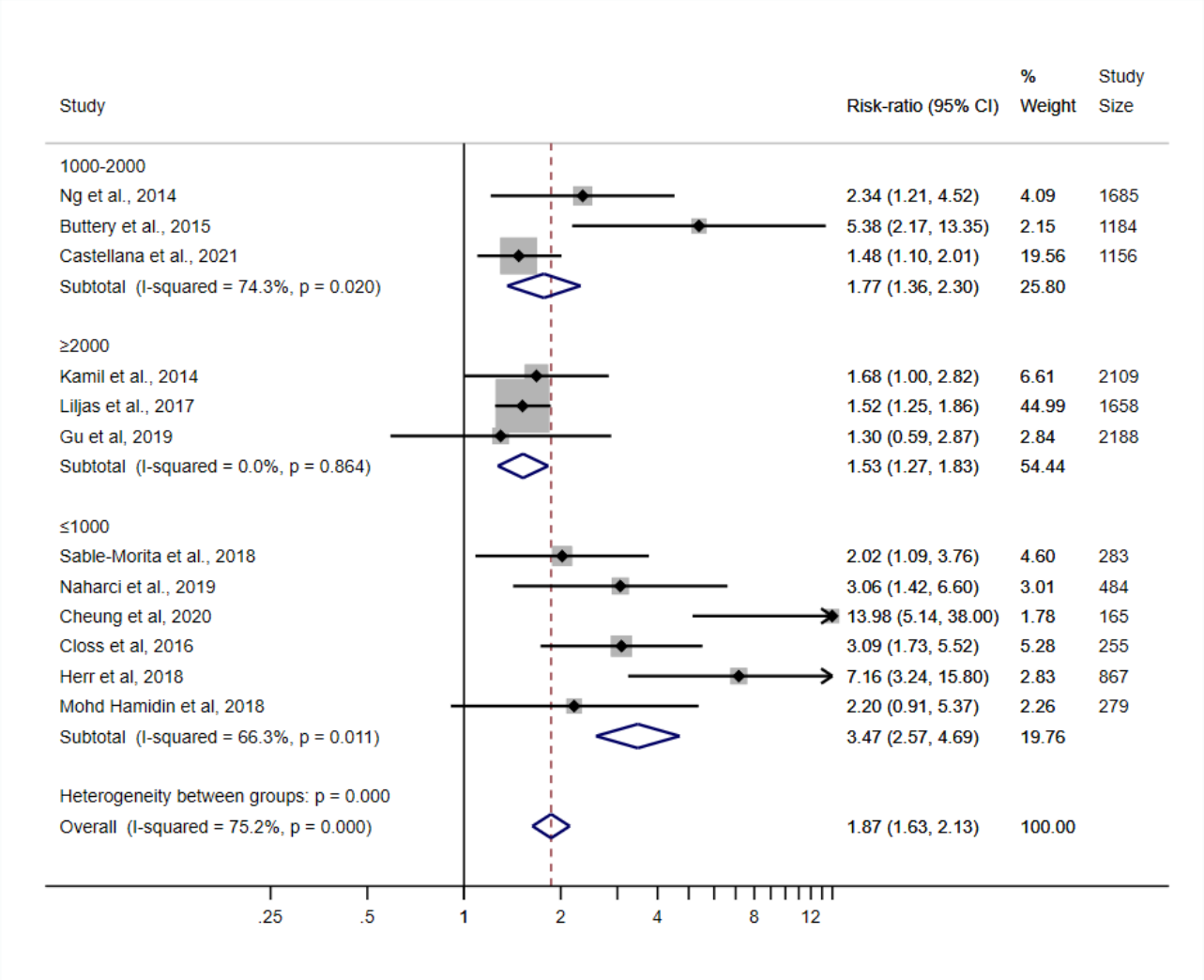
		Herr et al (12)	Mohd Hamidin et al (13)	Cheung et al (4) Longitudinal	Doba N et al (14)	Kamil et al 2016 (15)	Liljas et al (7) Longitudinal	Lorenzo-López et al (16)
Selection (Maximum 5)	Representativeness of the exposed cohort[a]	1	1	1	1	1	1	1
	Selection of the non-exposed cohort[a] / Sufficient simple size[b]	1	1	1	1	1	1	1
	Ascertainment of exposure[a b]	1	1	2	0	2	2	1
	Demonstration that outcome of interest was not present at start of study[a]	N/A	N/A	1	1	0	1	1
	Description of non-respondents[b]	1	1	N/A	N/A	N/A	N/A	N/A
Comparability (Maximum 2)	Comparability of cohorts on the basis of the design or analysis controlled for confounders[a b]	1	2	1	1	2	2	1
Outcome (Maximum 3)	Assessment of outcome[a b c]	2	2	1	1	1	1	1
	Was follow-up long enough for outcomes to occur[a]	N/A	N/A	1	1	1	1	1
	Adequacy of follow-up of cohorts[a]	N/A	N/A	1	1	1	0	0
	Statistical test[b]	1	1	N/A	N/A	N/A	N/A	N/A
Overall quality		Good	Good	Good	Good	Good	Good	Good

Note: [a] Items for cohort study. [b] Items adapted for cross-sectional study, according to the work of Modesti et al (17). [c] Maximum 1 point for cohort study, 2 for cross-sectional study. Good quality: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome domain; Fair quality: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome domain; Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome domain.

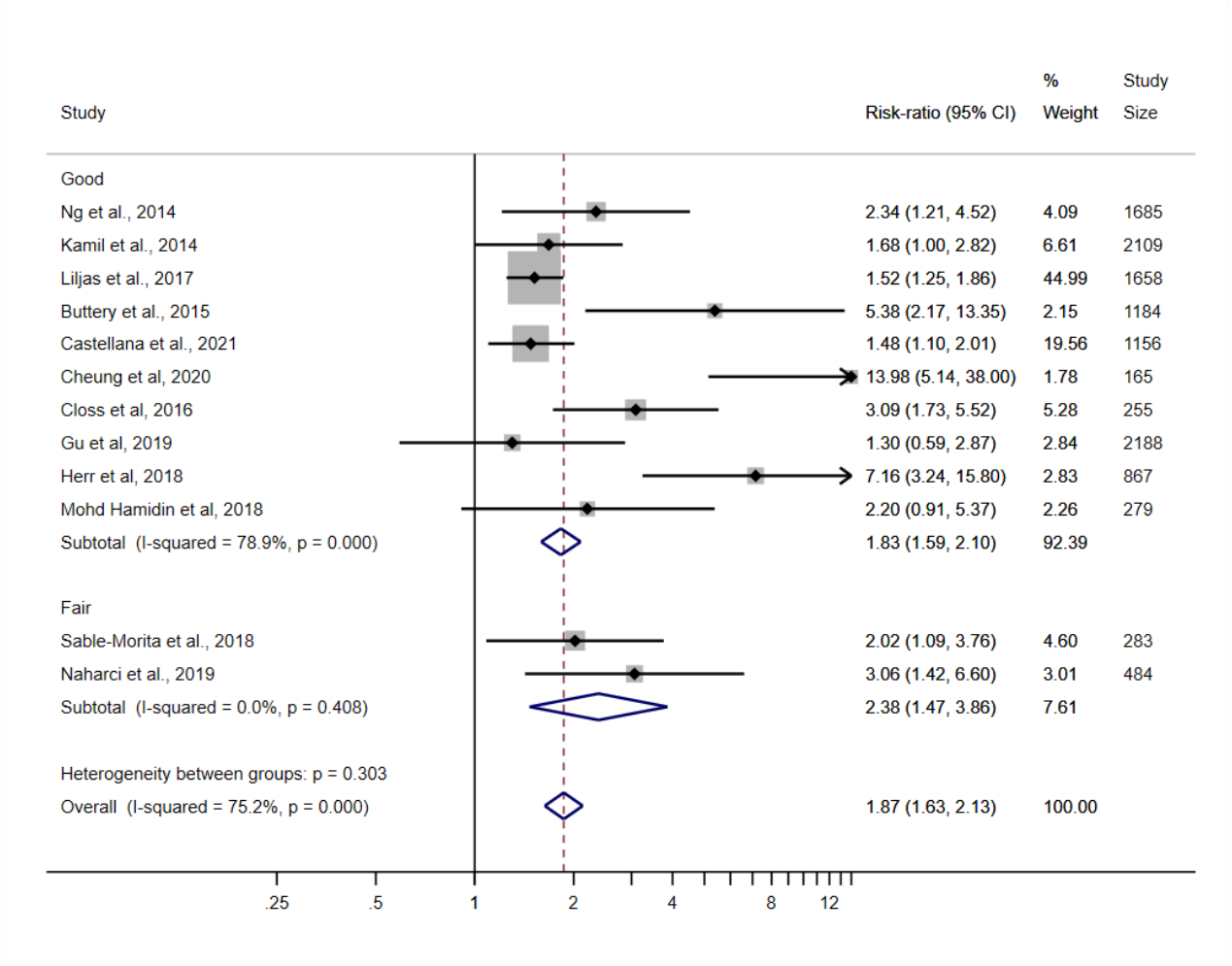
eFigure 1. Graph showing overall risk ratio and heterogeneity with each study removed



eFigure 2. Subgroup analyses according to the sample size of studies



eFigure 3. Subgroup analyses according to quality of studies



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