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SUPPLEMENTARY MATERIAL

Prevalence of tobacco consumption among pulmonary tuberculosis patients and its correlation with tuberculosis incidence: a systematic review and meta-analysis in the Indian context

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Key words: tuberculosis, tobacco consumption, pulmonary tuberculosis, smokeless tobacco, systematic review and meta-analysis.

Supplementary Table 1. Search strategy (30/09/24).

Database	No	Search Query	Results
PubMed			
	#1	"Tuberculosis"[Title/Abstract] OR "TB"[Title/Abstract]	272,308
	#2	"Tobacco"[Title/Abstract] OR "SLTS"[Title/Abstract] OR "Smoking"[Title/Abstract]	360,748
	#3	"india"[MeSH Terms] OR "india"[All Fields] OR "indias"[All Fields] OR "indias"[All Fields]	858,713
	#4	#1 AND #2 AND #3	323
Embase			
	#1	'tuberculosis':ti,ab OR 'tb':ti,ab	299,884
	#2	'tobacco':ti,ab OR 'slts':ti,ab OR 'smoking':ti,ab	508,603
	#3	'india'/exp OR 'india':ti,ab,kw OR 'indias':ti,ab,kw	275,261
	#4	#1 AND #2 AND #3	371
Web of Science			
	#1	TS=("Tuberculosis" OR "TB")	227,897
	#2	TS=("Tobacco" OR "SLTS" OR "Smoking")	393,983
	#3	TS=("India" OR "Indias")	236,065
	#4	#1 AND #2 AND #3	171
Scopus			
	#1	(TITLE-ABS ("Tuberculosis") OR TITLE-ABS ("TB"))	331,916
	#2	(TITLE-ABS ("Tobacco") OR TITLE-ABS ("SLTS") OR TITLE-ABS ("Smoking"))	444,600
	#3	(TITLE-ABS-KEY ("India") OR TITLE-ABS-KEY ("Indias"))	637,423
	#4	#1 AND #2 AND #3	247

Supplementary Table 2. Characteristics of the study.

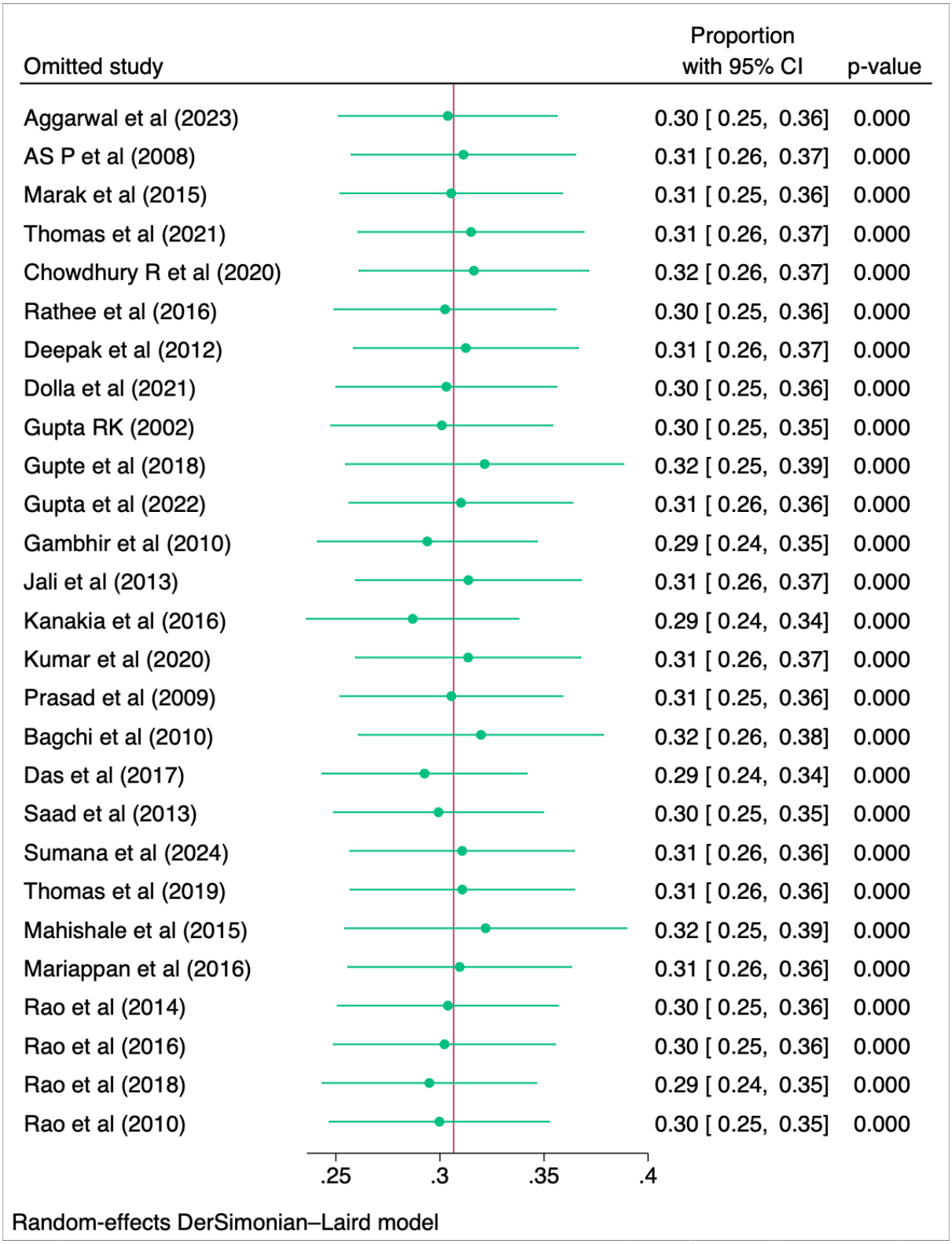
Sl no	Author (last name *et al.*)	Year of study	Zone	Type of study (survey/ cross-sectional study/ case control/ cohort)	TB patients	Status of tuberculosis (completed treatment/ under treatment/ treatment not started)	Number of cases who are smoking	Number of cases who are using smokeless tobacco	Comparator group
1	Aggarwal *et al.* [8]	2022	Central India	Cross-sectional study	420	under treatment	153	160	
2	AS P *et al.* [9]	2006-2007	South India	Cross-sectional study	215	Completed treatment	41	23	
3	Marak *et al.* [10]	2013-14	North East India	Cross-sectional study	110	Under Treatment	37	68	Present
4	Thomas *et al.* [11]	2015-20	Pan India	Cross-sectional study	199	Treatment not Started before Dx	21		
5	Chowdhury R *et al.* [12]	2019	North India	Cross-sectional study	447	Under treatment or already treated	37		
6	Rathee *et al.* [13]	2010-11	North India	Cross-sectional study	101	Under treatment	42		
7	Deepak *et al.* [14]	2007	South India	Cross-sectional study	202	completed treatment	33	60	
8	Dolla *et al.* [15]	2015	South India	Cross-sectional study	192	Treatment not Started before Dx	75		
9	Gupta RK *et al.* [16]		North India	Cross-sectional study	25	under treatment	13		Present
10	Gupte *et al.* [17]	2015-2017	West India	Cross-sectional study	1304	under treatment and completed treatment	38	212	
11	Gupta *et al.* [18]	2019	North India	Cross-sectional study	197	under treatment	43	5	
12	Gambhir *et al.* [19]	2009	North India	Case-Control study	55	Not Available	37		Present

13	Jali *et al.* [20]	2012	South India	Cross-sectional study	264	Not Available	36		
14	Kanakia *et al.* [21]	2014	South India	Cross-sectional study	78	Unclear	63		
15	Kumar *et al.* [22]	2018	North India	Cross-sectional study	211	Newly Diagnosed	29	23	
16	Prasad *et al.* [23]	2004	North India	Case-Control study	111	Not Mentioned	37	24	Present
17	Bagchi *et al.* [24]	2003	West India	Cross-sectional study	538	Under treatment	15		
18	Das *et al.* [25]	2011-12	East India	Cross-sectional study	374	Under treatment	227		
19	Saad *et al.* [26]	2011-12	Central India	Case-Control study	613	Under treatment	277		Present
20	Sumana *et al.* [27]	2019-20	South India	Cohort study	300	Under treatment	62	33	
21	Thomas *et al.* [28]	2014 onwards	South India	Cohort study	455	Under treatment	94		
22	Mahishale *et al.* [29]	2012-13	South India	Cohort study	2350	Under treatment	49		
23	Mariappan *et al.* [30]	2013-14	South India	Cross-sectional study	235	Under treatment	55	23	
24	Rao *et al.* [31]	2009-10	Central India	Cross-sectional study	221	Not started Rx	82		Present
25	Rao *et al.* [32]	2009-10	Central India	Cross-sectional study	23	Not started Rx	11		Present
26	Rao *et al.* [33]	2013-14	Central India	Case-Control study	220	Not started Rx	128		Present
27	Bhat *et al.* [34]	2007-08	Central India	Cross-sectional study	133	Not started Rx	64		Present

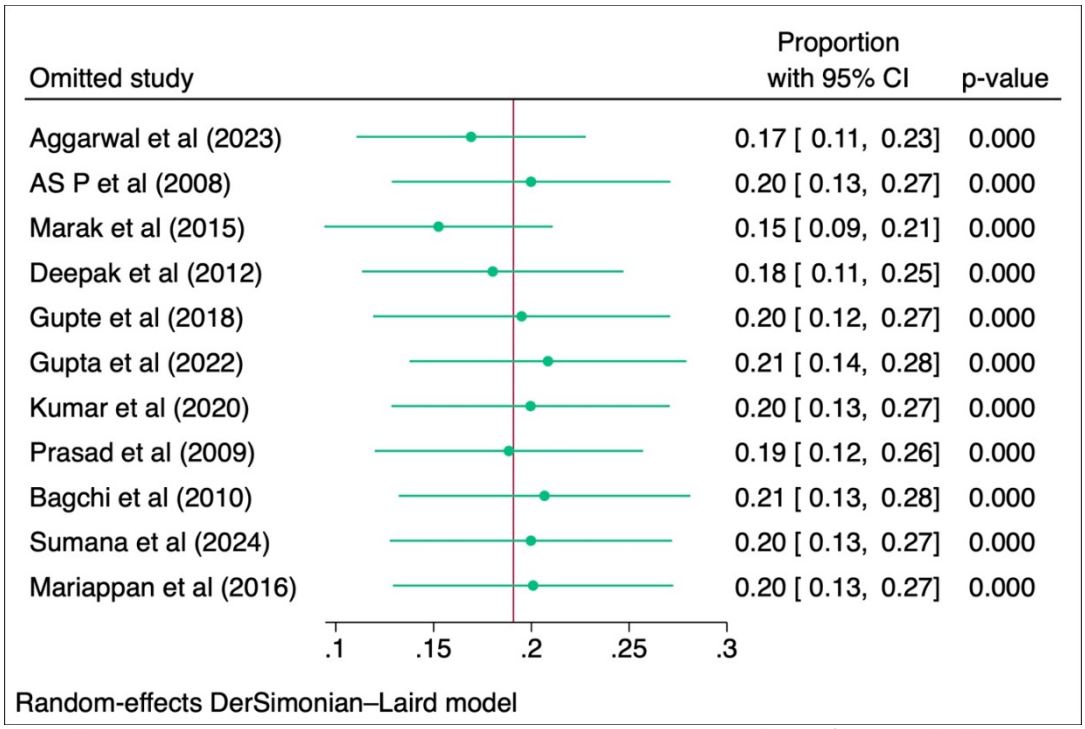
Supplementary Table 3. Risk of bias assessment.

Sl no	Author (Last name *et al.*)	Was the sample frame appropriate to address the target population?	Were study participants sampled in an appropriate way?	Was the sample size adequate?	Were the study subjects and the setting described in detail?	Was the data analysis conducted with sufficient coverage of the identified sample?	Were valid methods used for the identification of the condition?	Was the condition measured in a standard, reliable way for all participants?	Was there appropriate statistical analysis?	Was the response rate adequate, and if not, was the low response rate managed appropriately?	
1	Aggarwal *et al.*	Yes	No	Yes	No	Yes	No	No	Yes	Yes	5
2	AS *et al.*	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	6
3	Marak *et al.*	No	Unclear	Yes	No	Yes	No	Yes	Yes	Yes	5
4	Thomas *et al.*	Yes	Yes	Yes	Yes	Yes	Unclear	No	Yes	Yes	7
5	Chowdhury *et al.*	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	8
6	Rathee *et al.*	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	7
7	Deepak *et al.*	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	7
8	Dolla *et al.*	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	7
9	Gupta RK	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	7
10	Gupte *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
11	Gupta *et al.*	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	7
13	Jali *et al.*	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Unclear	7
14	Kanakia *et al.*	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Not Applicable	6
15	Kumar *et al.*	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Unclear	6

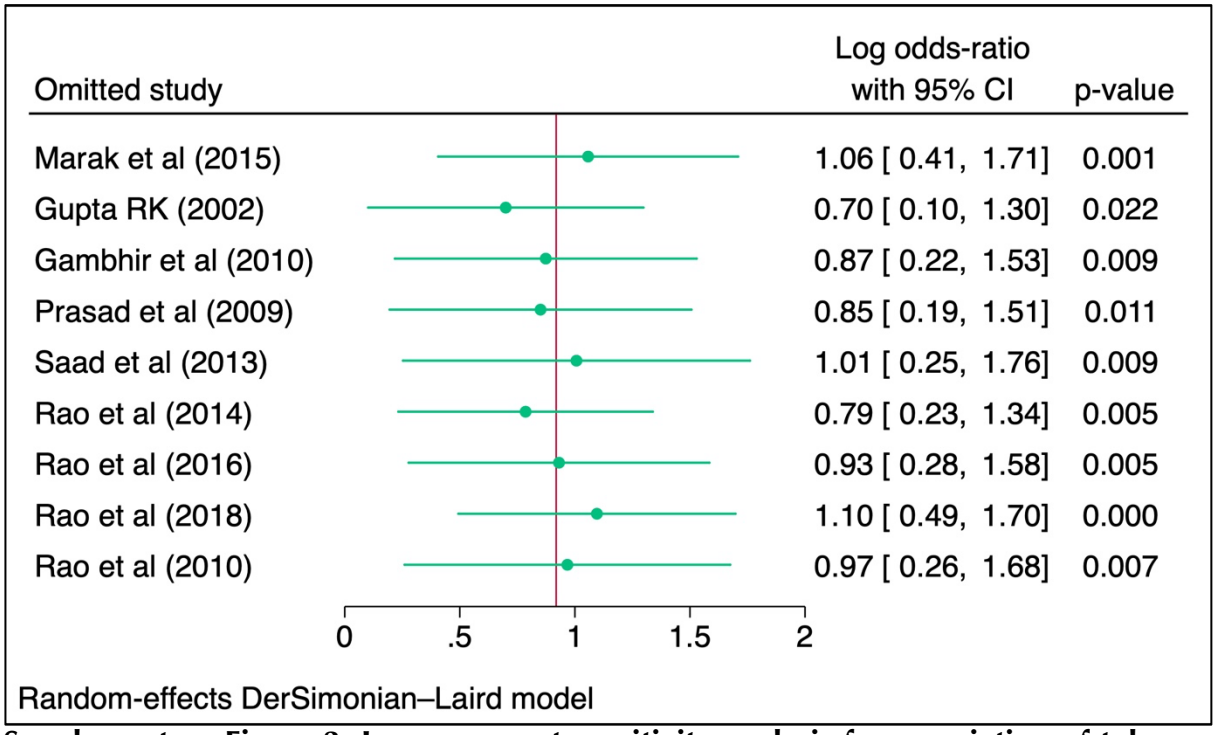
17	Bagchi *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
18	Das *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
20	Sumana *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
21	Thomas *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
22	Mahishale *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
23	Mariappan *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
24	Rao *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
25	Rao *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
27	Rao *et al.*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9
Case-control study											
12	Gambhir *et al.*	1	Unclear	1	1	1	1	1	1	Unclear	
16	Prasad *et al.*	1	1	Unclear	No	No	1	1	1	Unclear	
19	Saad *et al.*	1	1	1	1	1	1	1	1	1	
26	Rao *et al.*	1	1	1	1	1	1	No	1	1	



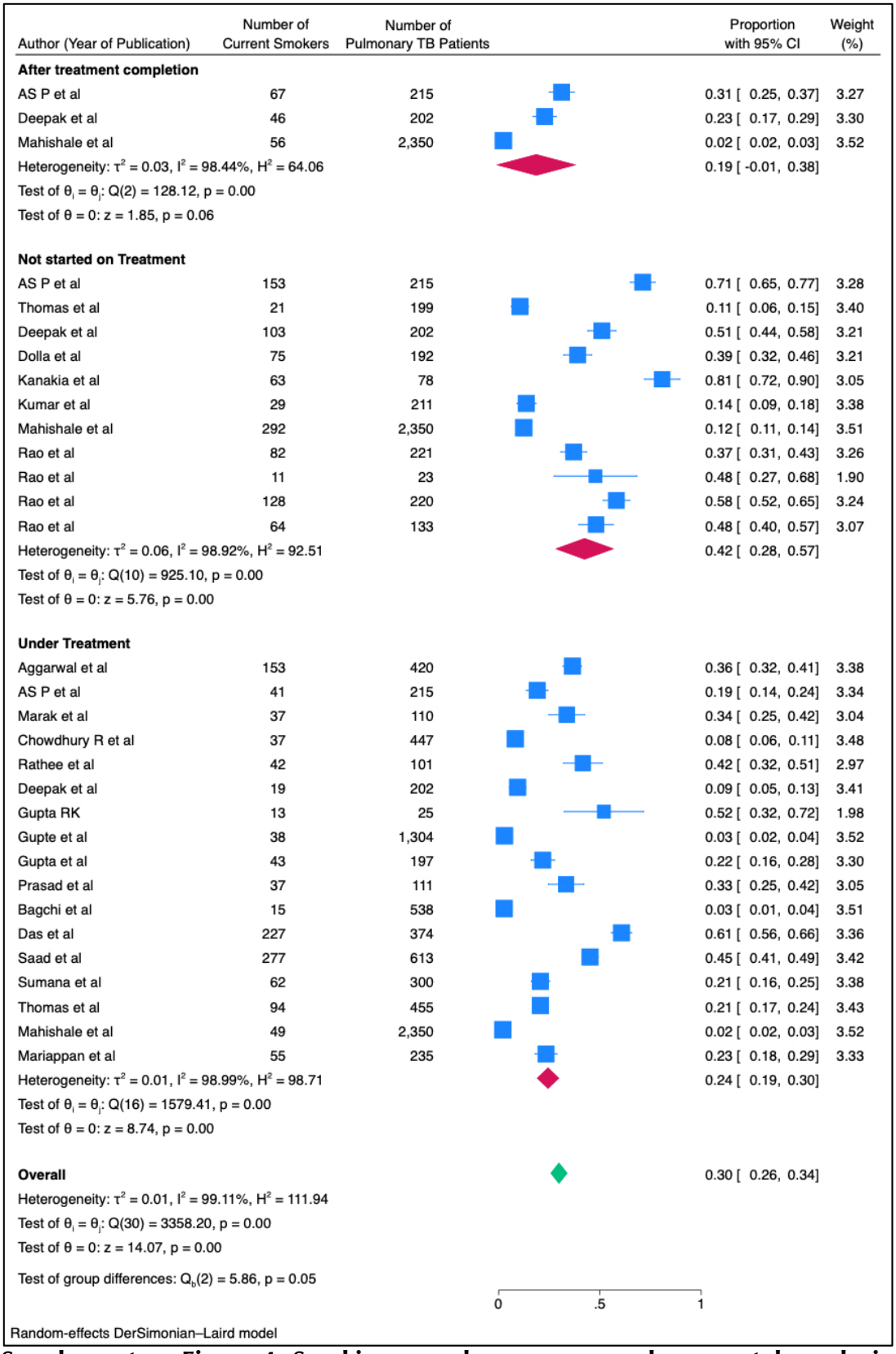
Supplementary Figure 1. Leave-one-out sensitivity analysis for smoking prevalence among pulmonary tuberculosis patients.



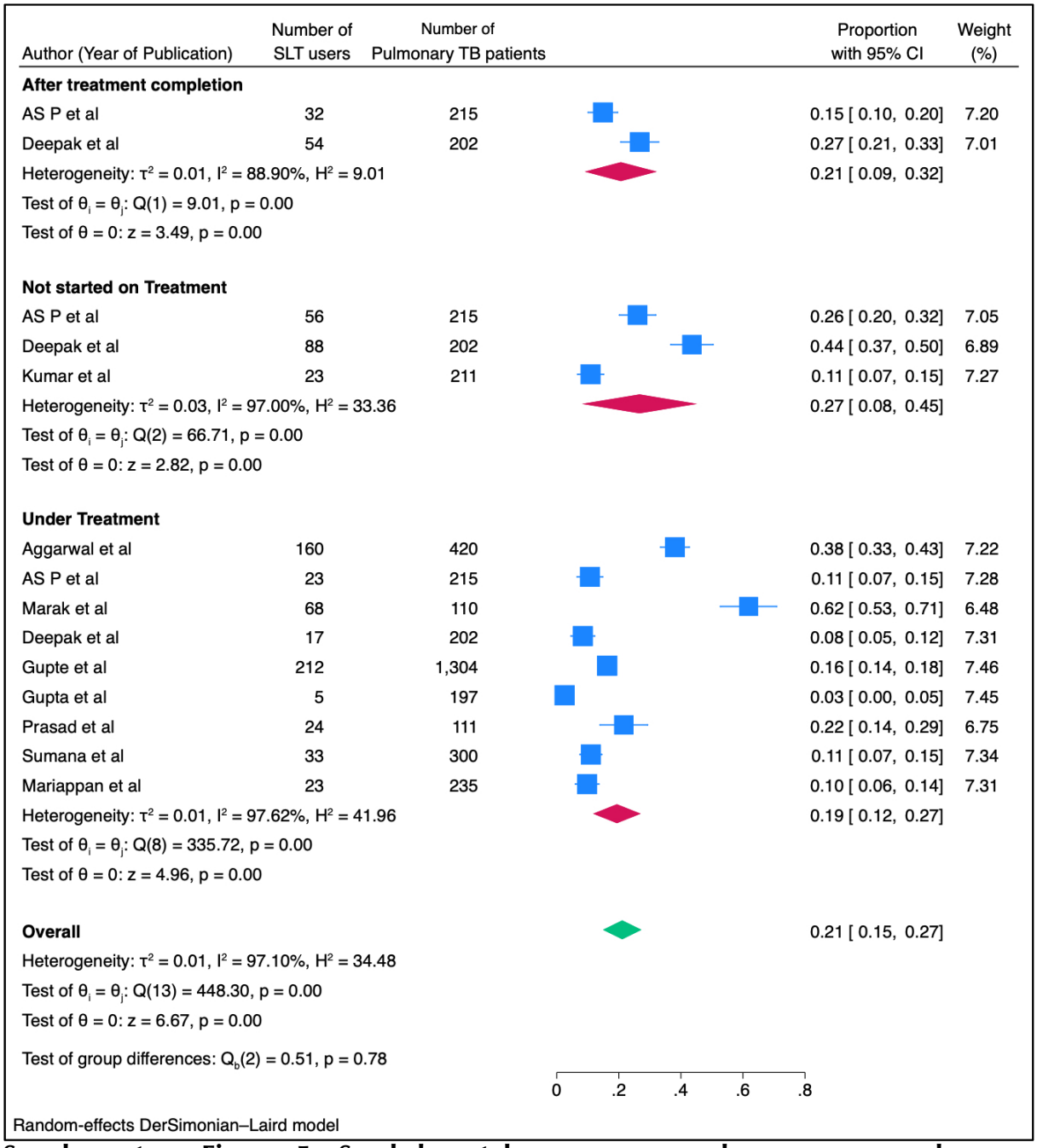
Supplementary Figure 2. Leave-one-out sensitivity analysis for smokeless tobacco users among pulmonary tuberculosis patients.



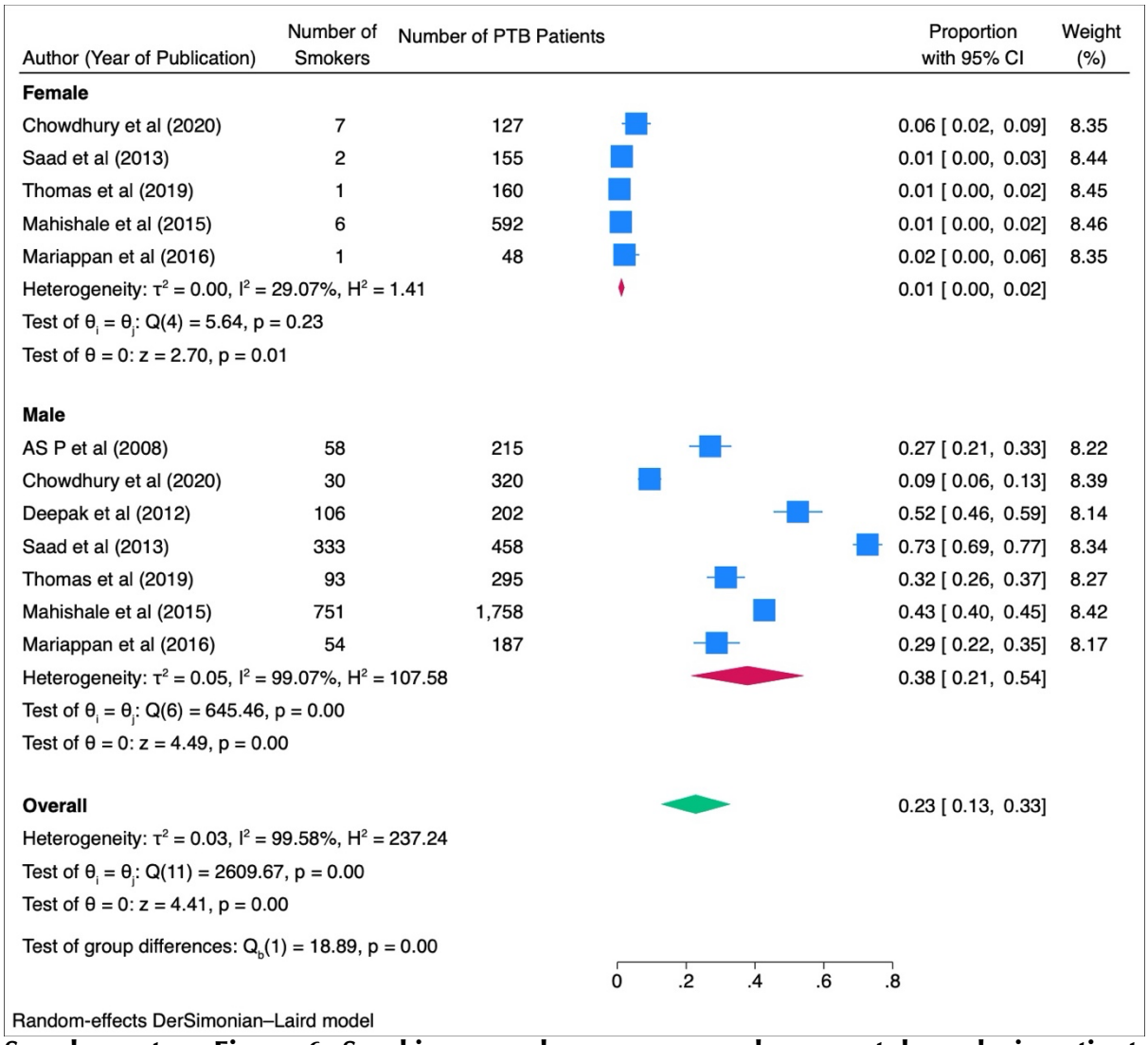
Supplementary Figure 3. Leave one out sensitivity analysis for association of tobacco smoking with pulmonary tuberculosis.



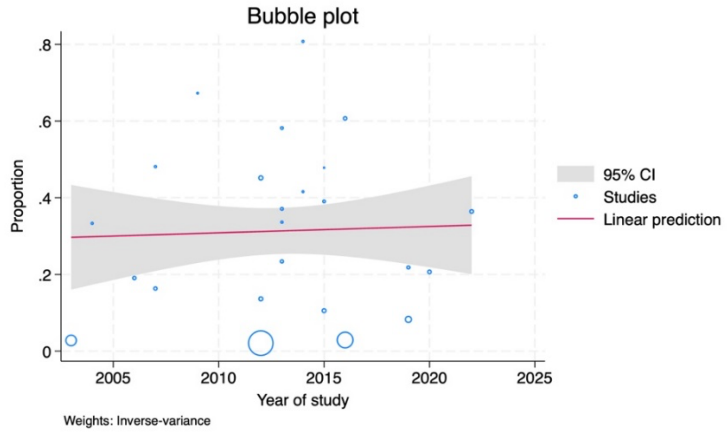
Supplementary Figure 4. Smoking prevalence among pulmonary tuberculosis patients stratified by treatment stage.



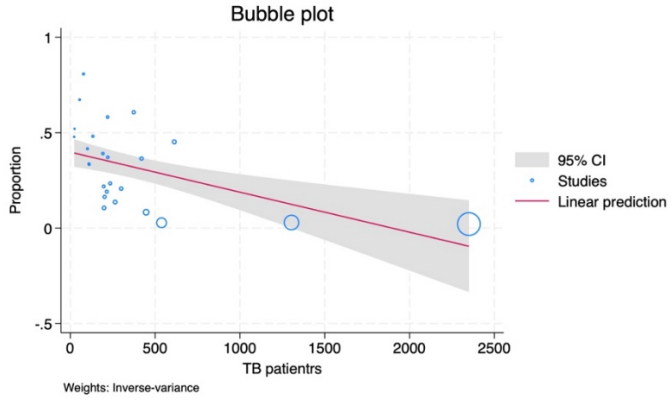
Supplementary Figure 5. Smokeless tobacco use prevalence among pulmonary tuberculosis patients stratified by treatment stage.



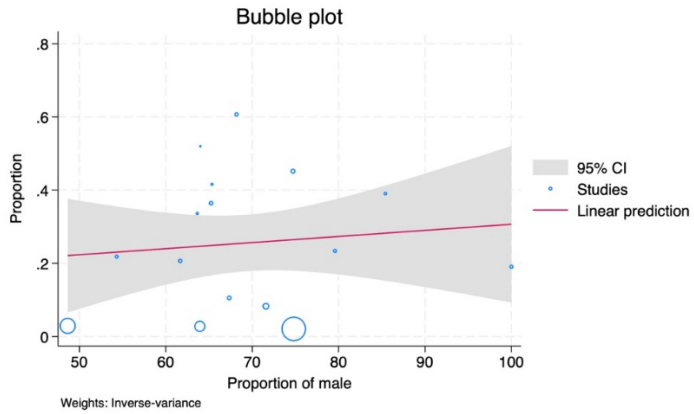
Supplementary Figure 6. Smoking prevalence among pulmonary tuberculosis patients by gender.



Supplementary Figure 7. Bubble plot of meta-regression showing the relationship between publication year and smoking prevalence among pulmonary tuberculosis patients.



Supplementary Figure 8. Bubble plot of meta-regression showing the relationship between sample size and smoking prevalence among pulmonary tuberculosis patients.



Supplementary Figure 9. Bubble plot of meta-regression showing the relationship between proportion of male and smoking prevalence among pulmonary tuberculosis patients.