

Appendix 1

Table S1. Search strategy for studies aimed to evaluate the association between dietary acrylamide and site-specific cancer. Details are provided below for PubMed, Web of Science and Scopus databases, though with database-specific adjustments accommodated to the requirements of each database as follows.

Review questions	
1) In the pooled analysis of all available and eligible studies, is dietary acrylamide exposure associated with risk of site-specific cancer?	
2) In the pooled analysis of all available and eligible studies, what is the shape of the dose-response relationship between dietary acrylamide exposure and the risk of site-specific cancer?	
The search was conducted on March 7, 2022.	
No time limit defined.	
Language: English	
Population: Adults or older adults (18 and over)	
Intervention/Exposure: Higher levels of intake to dietary acrylamide	
Comparator: Lower levels of intake to dietary acrylamide	
Outcomes: Risk of cancer incidence (RR; HR or OR)	
Study design: Cohort studies, case-cohort and case-control studies	
Exclusion criteria: breast, endometrial and ovarian carcinoma risk	
Database	Searches
PubMed	((acrylamides[MeSH Terms]) OR (acrylamide*[Title/Abstract])) AND (((((((Neoplasms[MeSH Terms]) OR (Neoplasia*[Title/Abstract])) OR (Neoplasm*[Title/Abstract])) OR (Tumor*[Title/Abstract])) OR (Cancer*[Title/Abstract])) OR (Malignanc*[Title/Abstract])) AND ((Risk[MeSH Terms]) OR (Risk*[Title/Abstract]))))
Web of Science	(TS=(Neoplasia*) OR TS=(Neoplasm*) OR TS=(Tumor*) OR TS=(Cancer*) OR TS=(Malignanc*)) AND TS=(risk*) AND TS=(acrylamide*)
Scopus	(TITLE-ABS-KEY (neoplasia*) OR TITLE-ABS-KEY (neoplasm*) OR TITLE-ABS-KEY (tumor*) OR TITLE-ABS-KEY (cancer*) OR TITLE-ABS-KEY (malignanc*)) AND TITLE-ABS-KEY (risk*) AND TITLE-ABS-KEY (acrylamide*)

Appendix 2

Figure S1. Forest plot of dietary acrylamide exposure and risk of oral cavity cancer. CI: confidence interval; RR: relative risk.

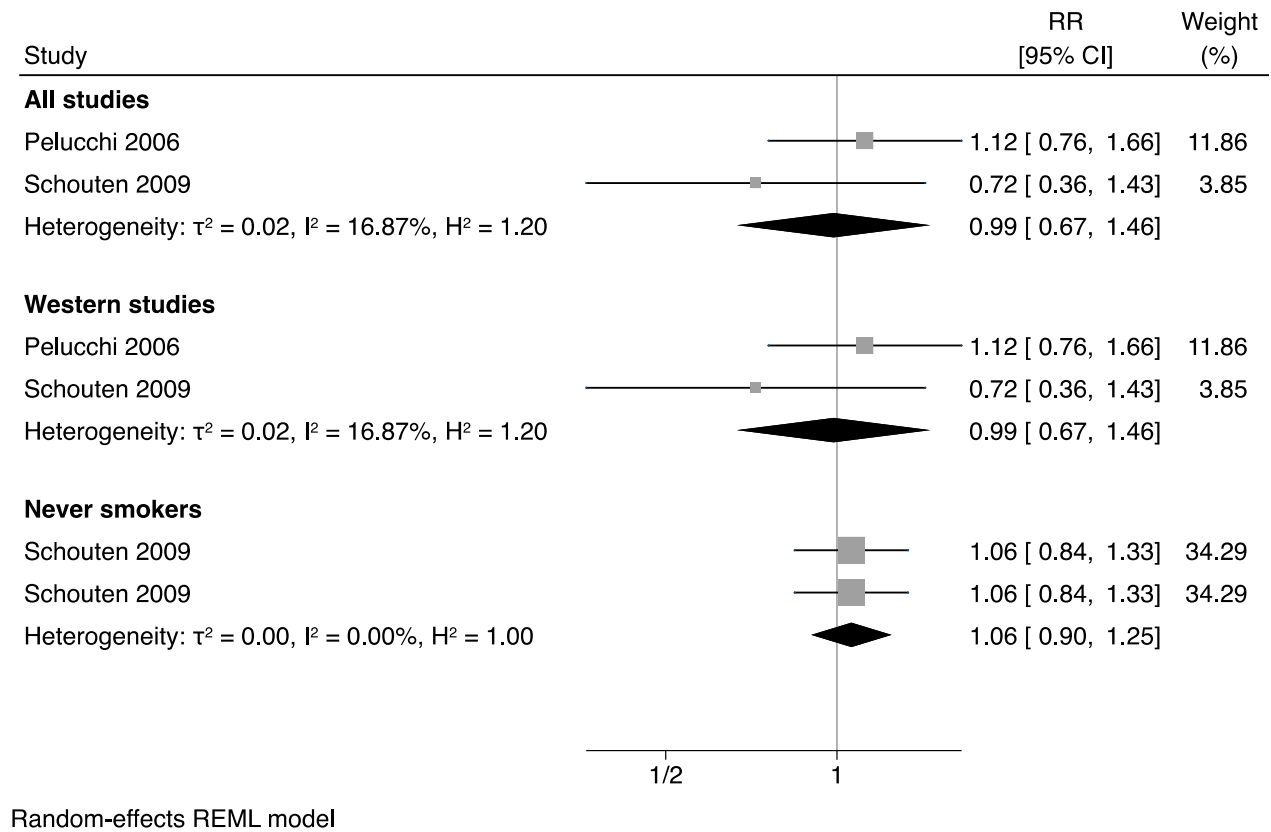
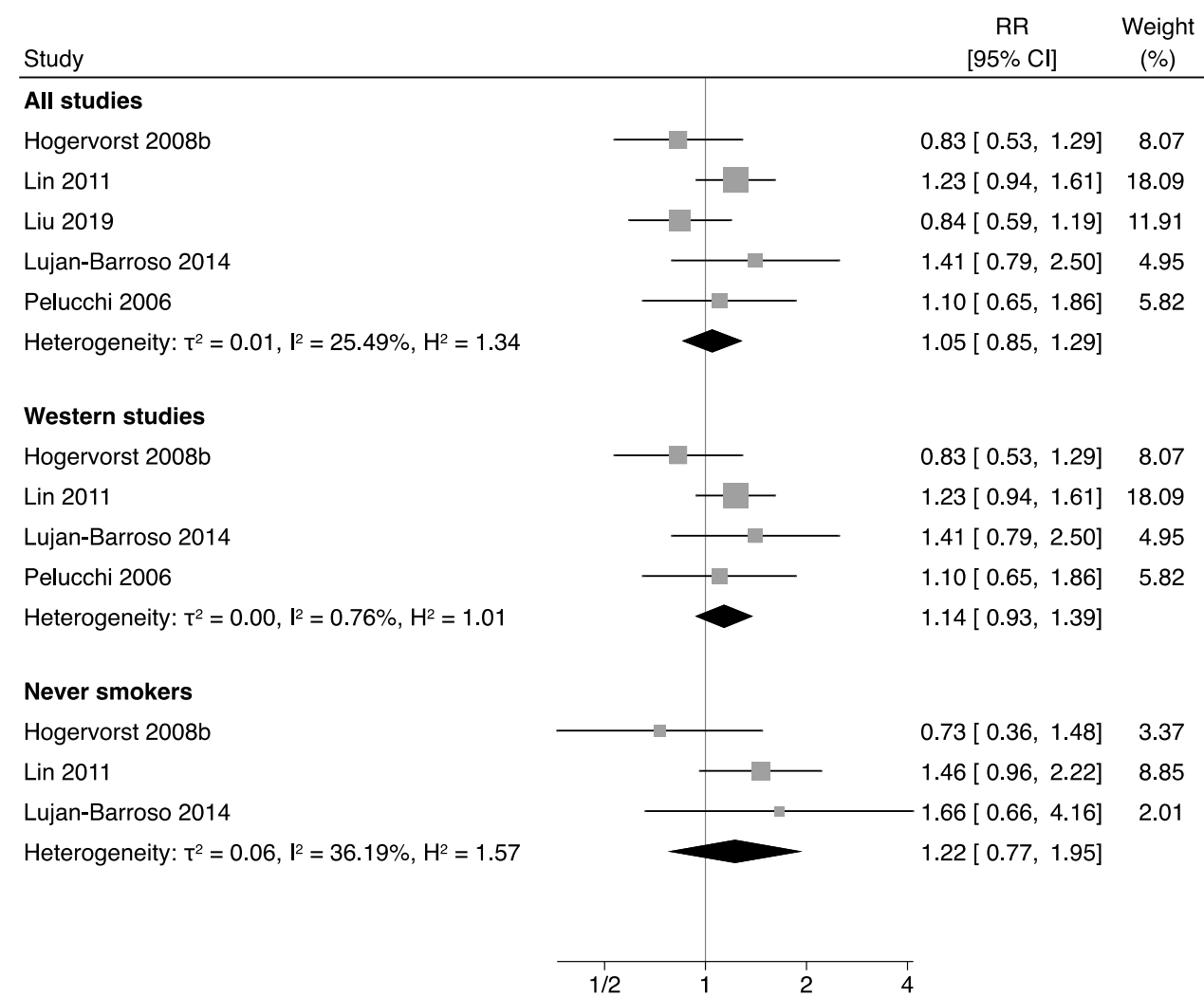


Figure S2. Forest plot and funnel plot of dietary acrylamide exposure and risk of esophageal cancer. CI: confidence interval; RR: relative risk; SE: standard error.



Random-effects REML model

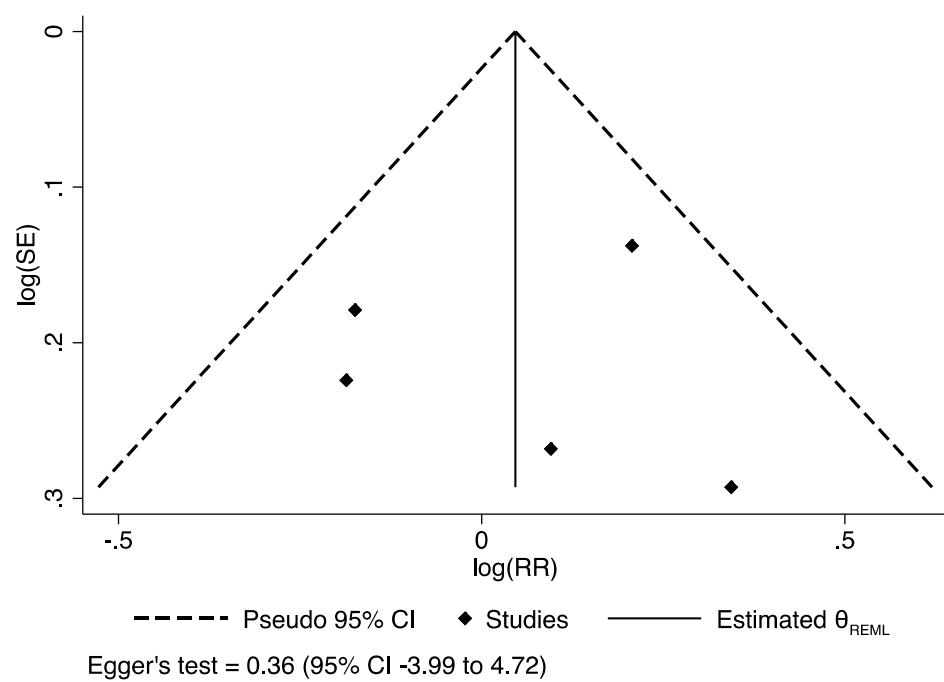


Figure S3. Forest plot of dietary acrylamide exposure and risk of stomach cancer. CI: confidence interval; RR: relative risk.

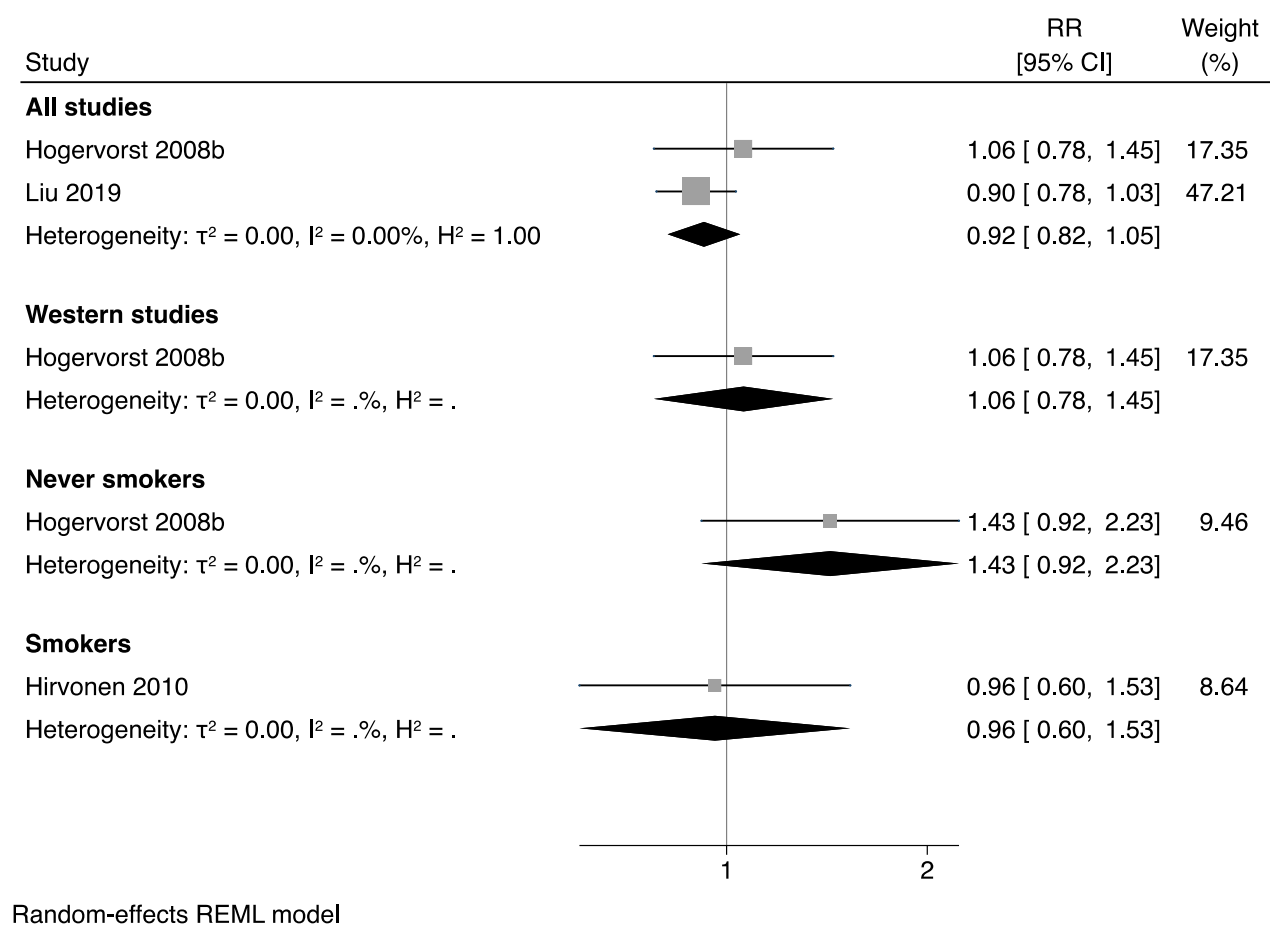
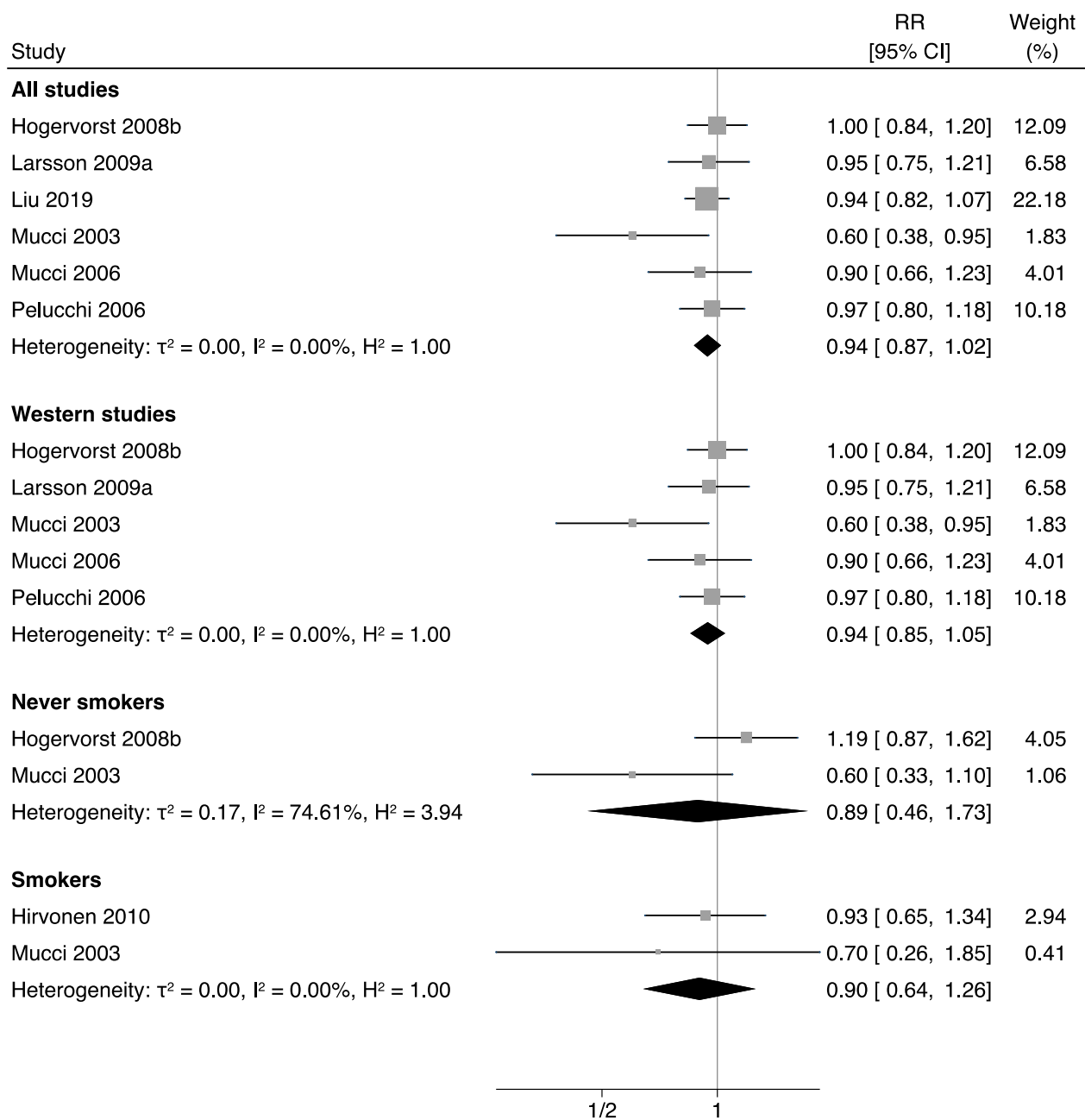


Figure S4. Forest plot and funnel plot of dietary acrylamide exposure and risk of colorectal cancer. CI: confidence interval; RR: relative risk; SE: standard error.



Random-effects REML model

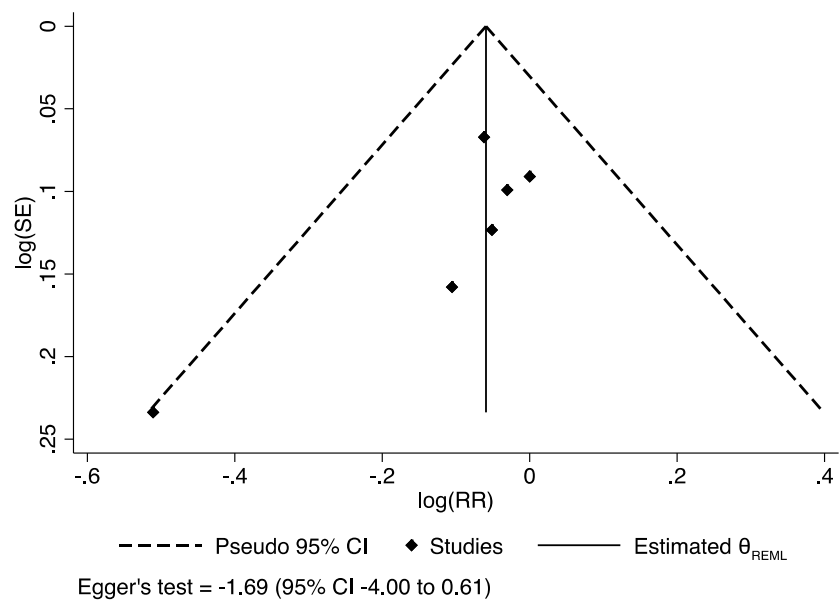


Figure S5. Forest plot of dietary acrylamide exposure and risk of colon cancer. CI: confidence interval; RR: relative risk.

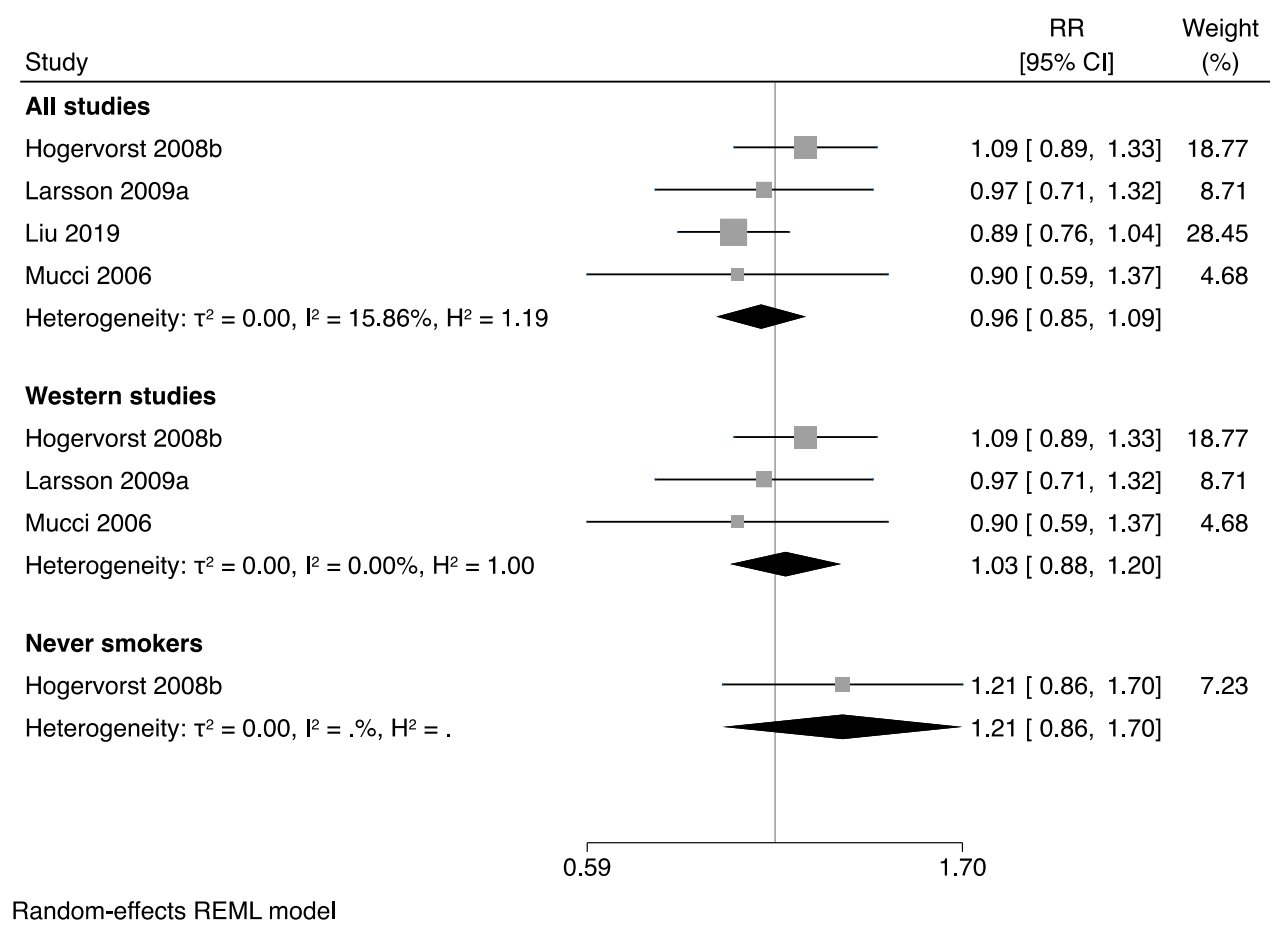


Figure S6. Forest plot of dietary acrylamide exposure and risk of rectal cancer. CI: confidence interval; RR: relative risk.

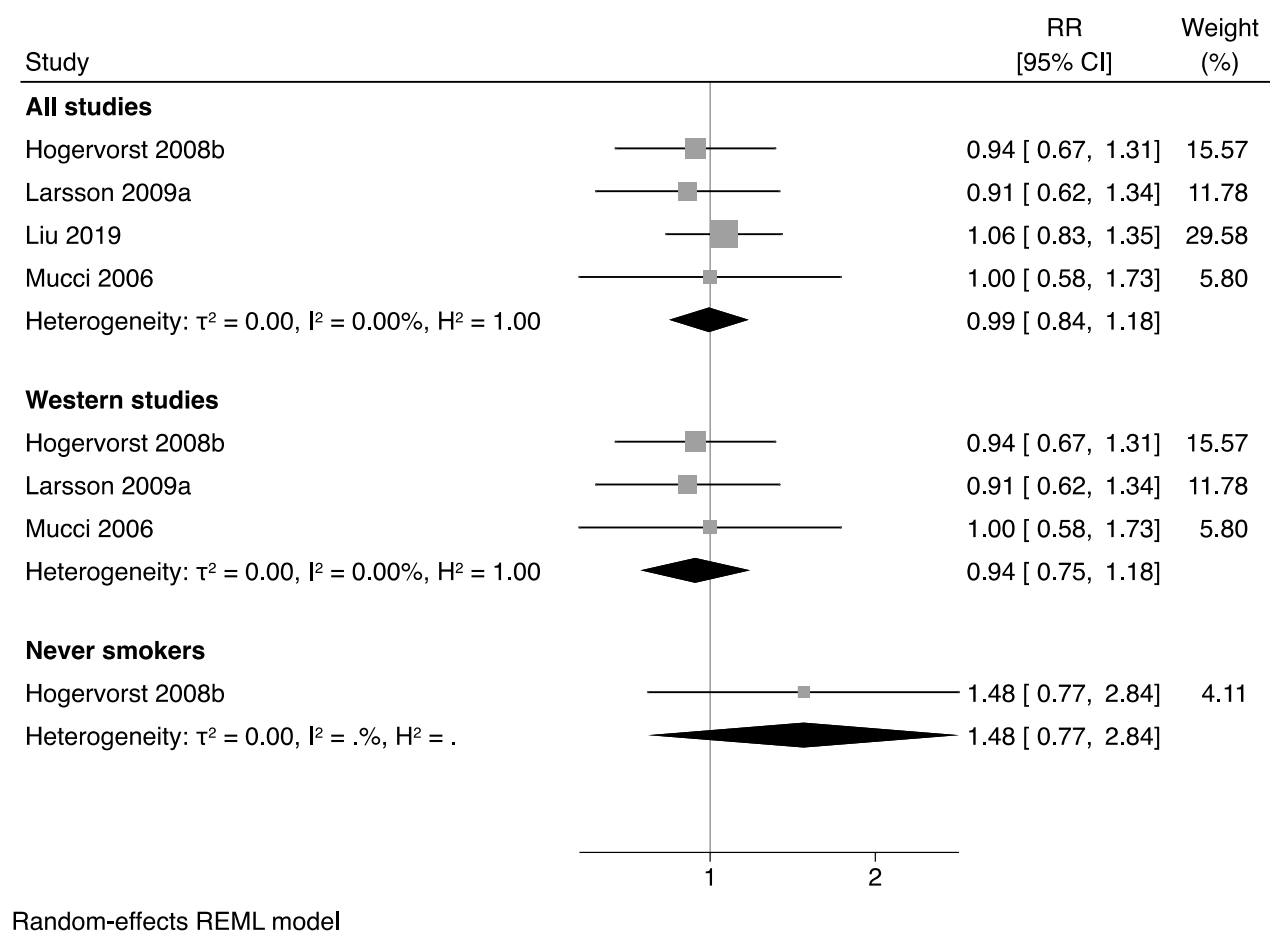
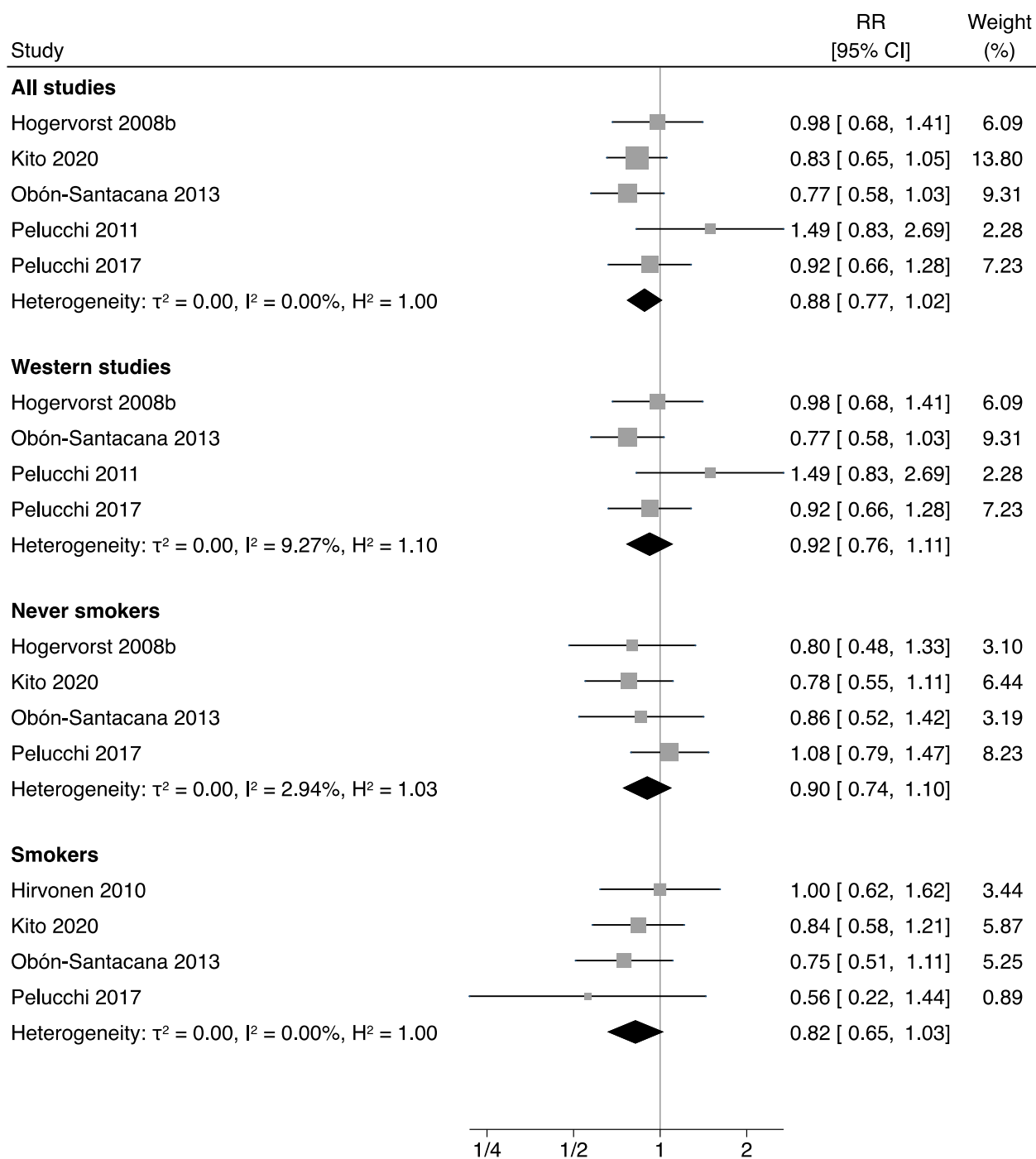


Figure S7. Forest plot and funnel plot of dietary acrylamide exposure and risk of pancreatic cancer. CI: confidence interval; RR: relative risk; SE: standard error.



Random-effects REML model

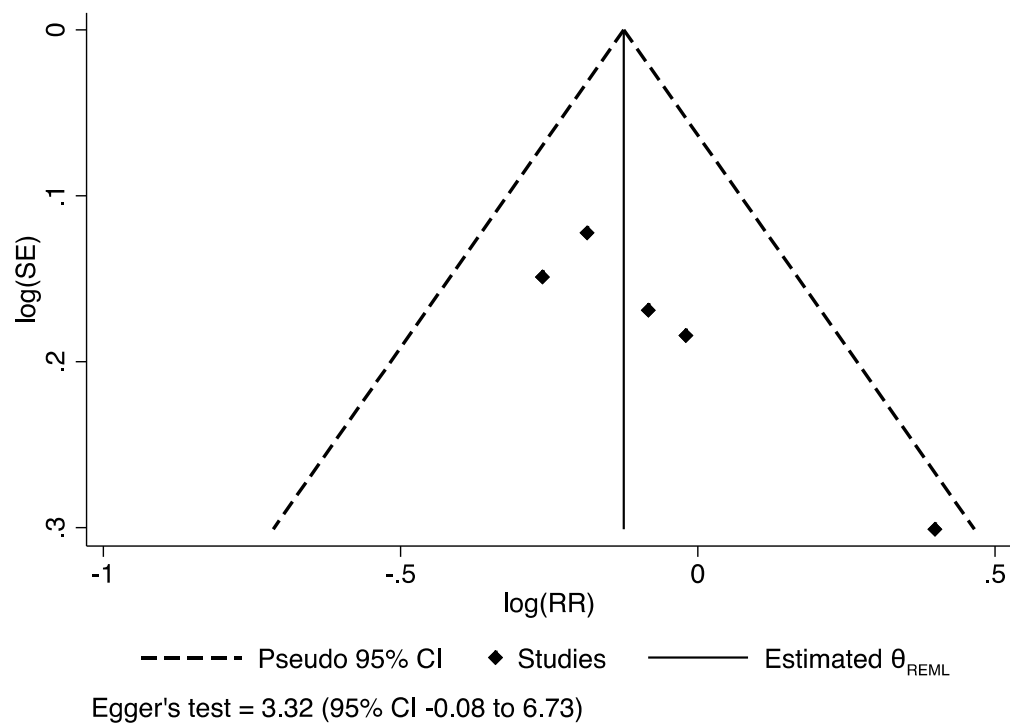


Figure S8. Forest plot of dietary acrylamide exposure and risk of laryngeal cancer. CI: confidence interval; RR: relative risk.

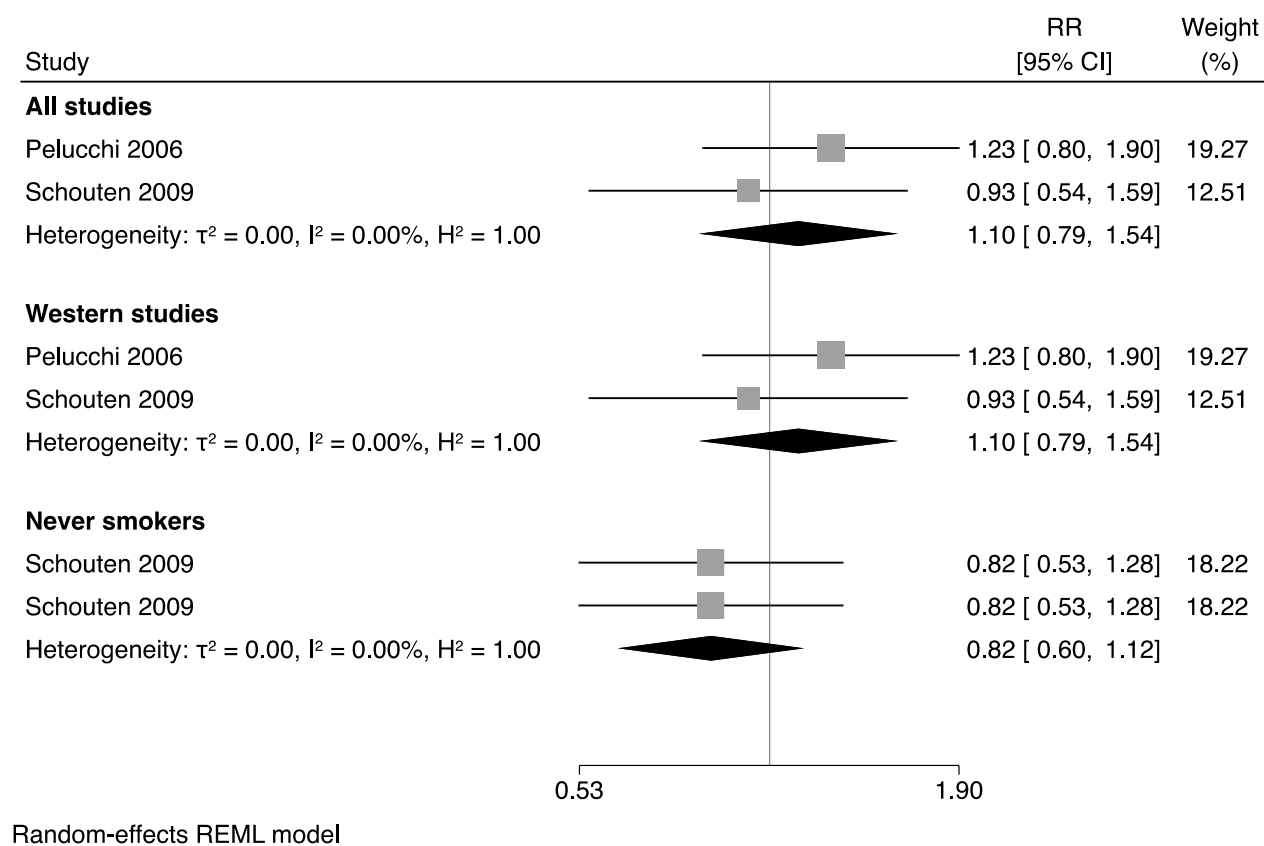


Figure S9. Forest plot of dietary acrylamide exposure and risk of lung cancer. CI: confidence interval; RR: relative risk.

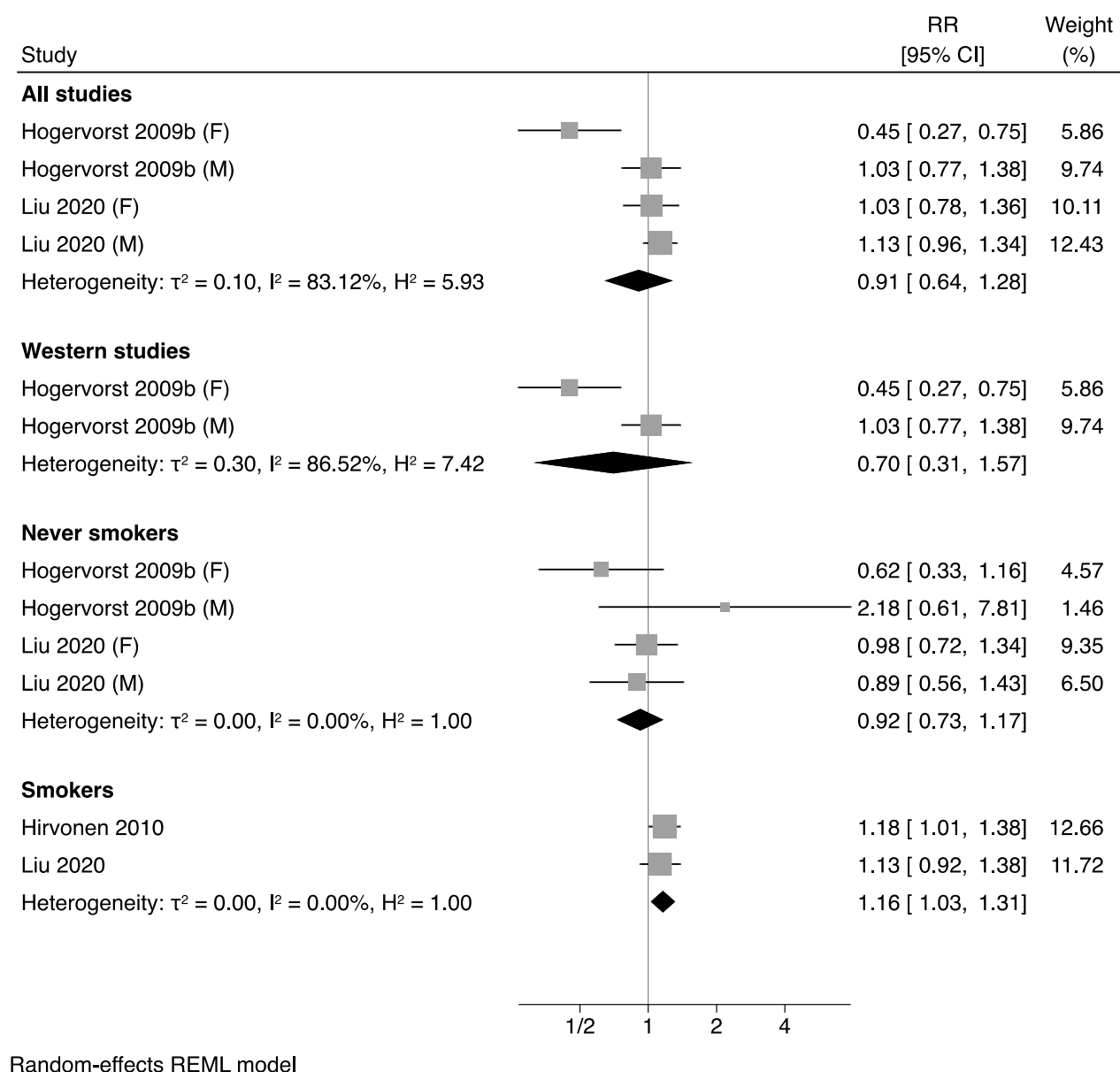
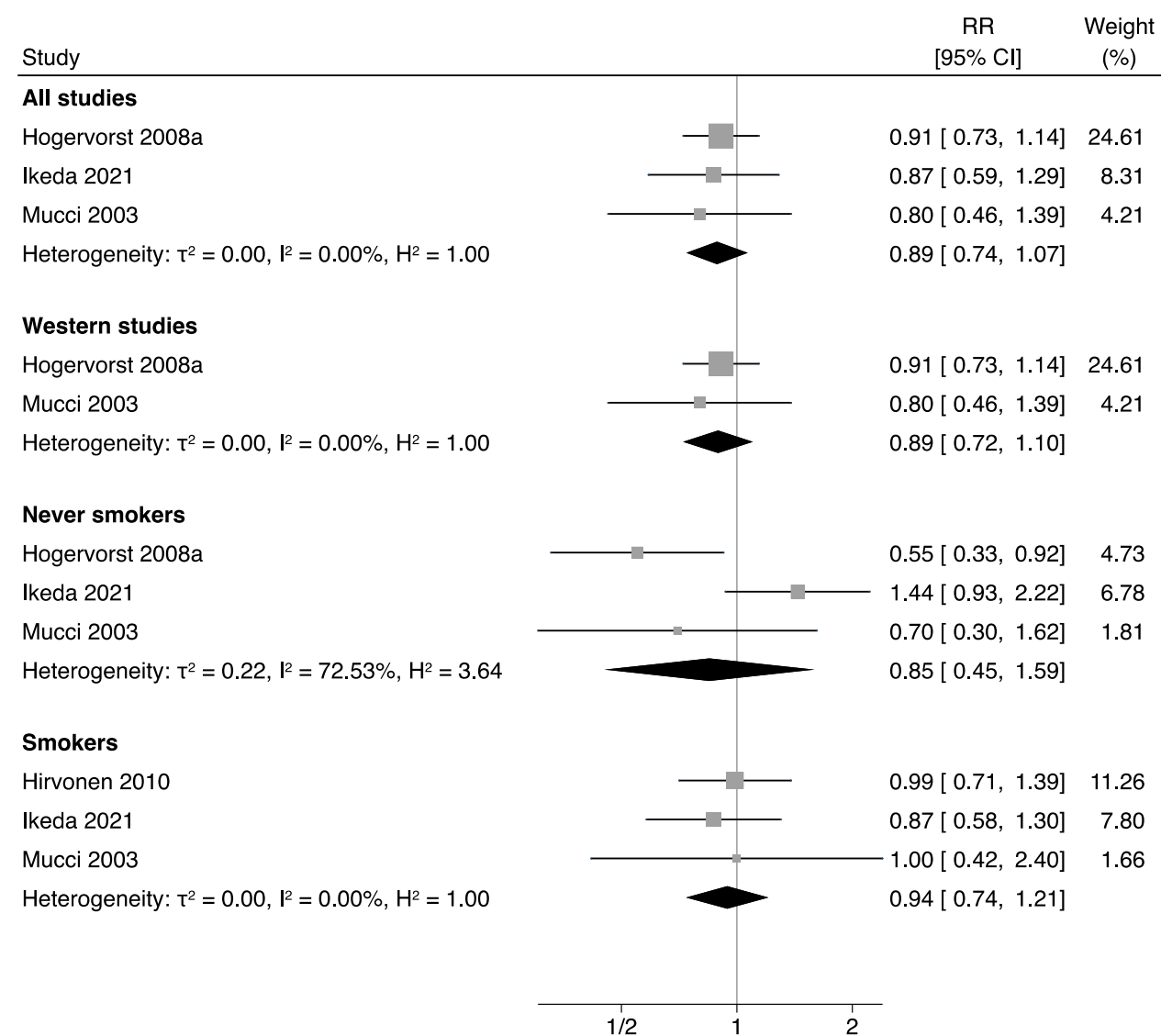
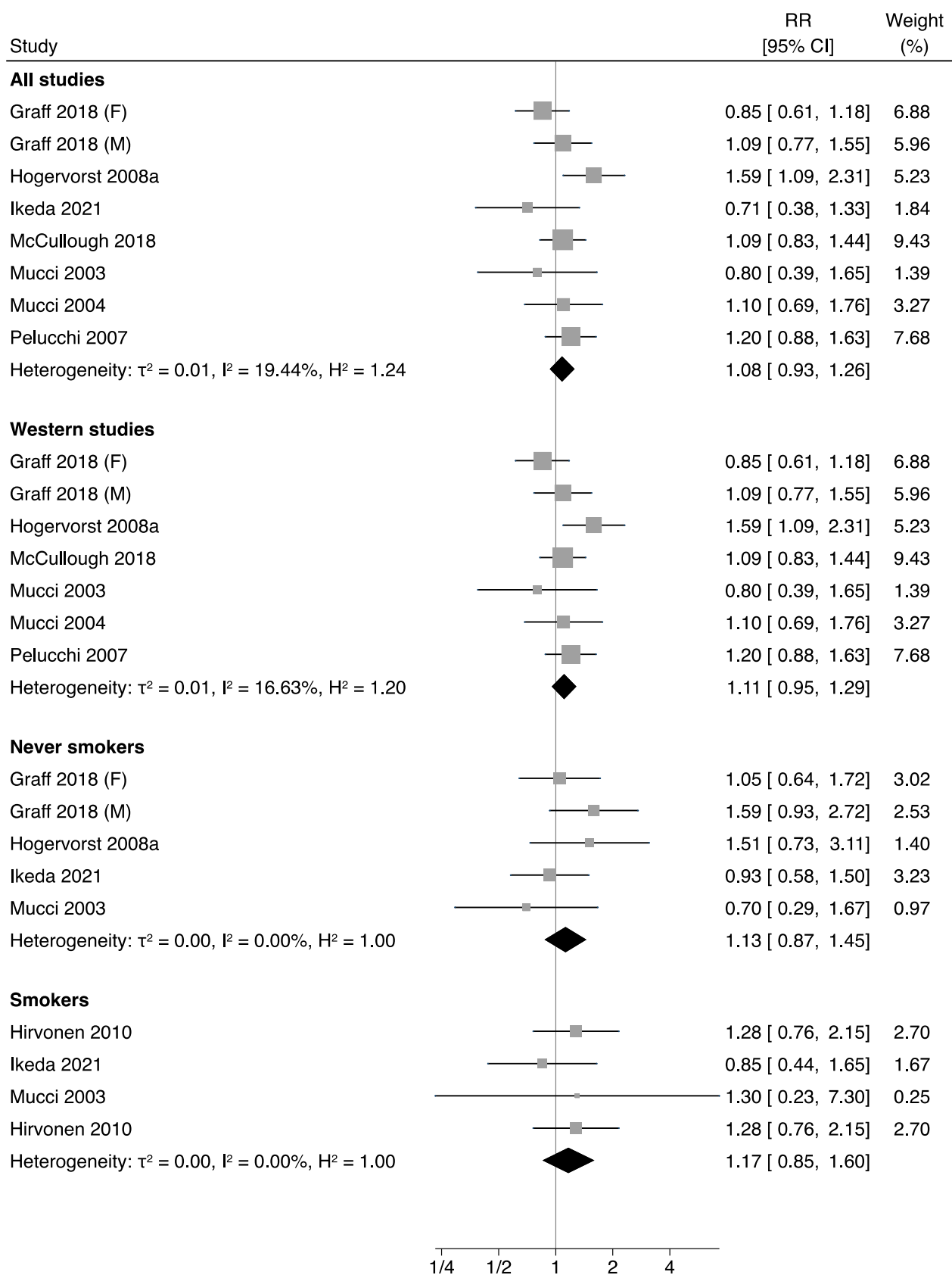


Figure S10. Forest plot of dietary acrylamide exposure and risk of bladder cancer. CI: confidence interval; RR: relative risk.



Random-effects REML model

Figure S11. Forest plot and funnel plot of dietary acrylamide exposure and risk of renal cancer. CI: confidence interval; RR: relative risk; SE: standard error.



Random-effects REML model

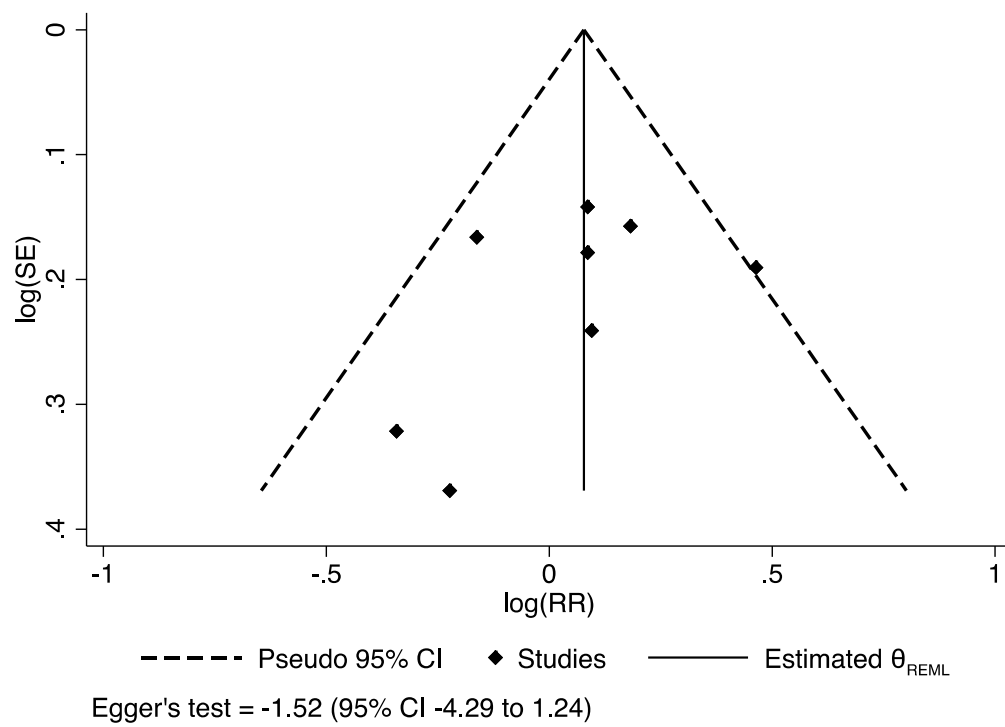
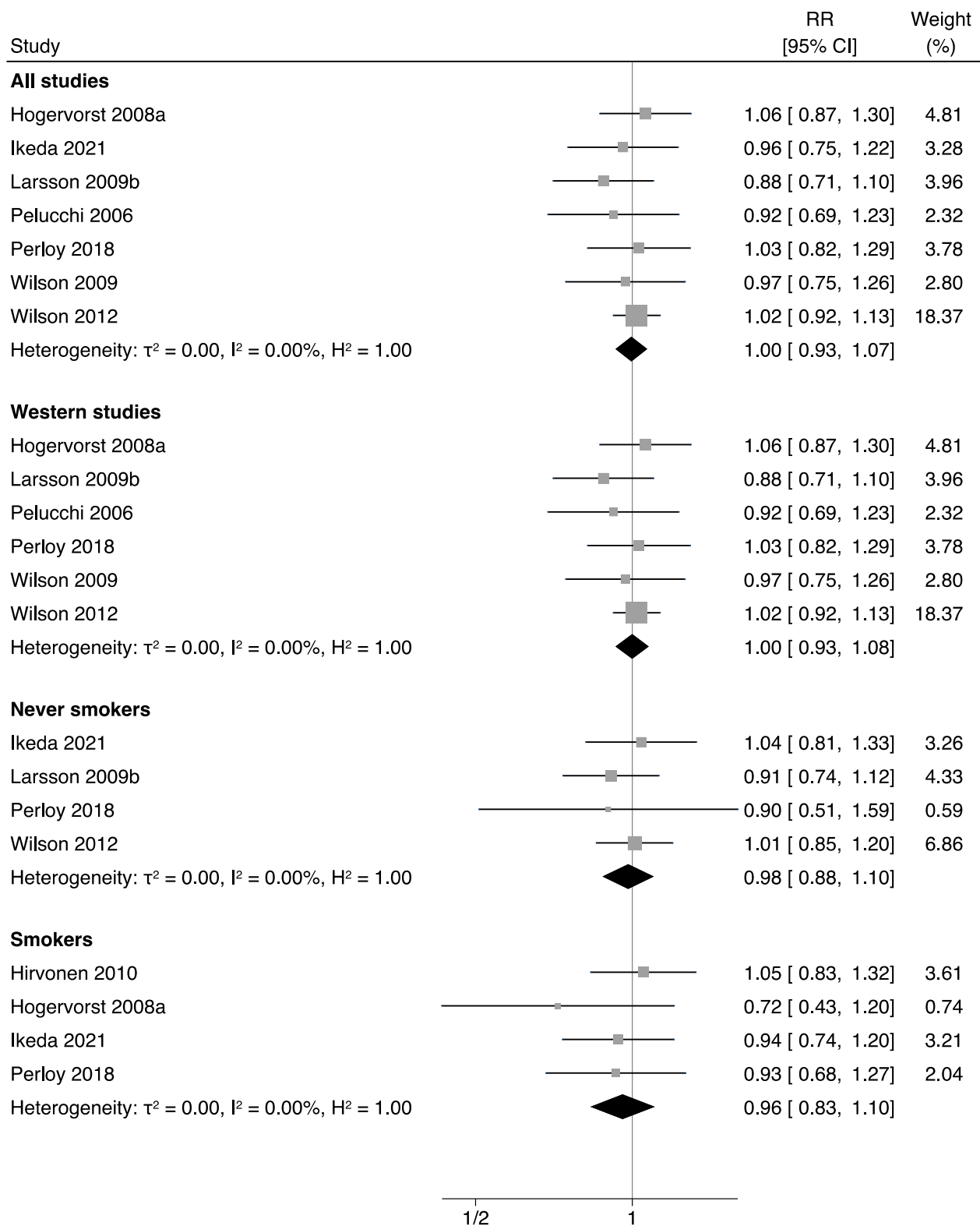


Figure S12. Forest plot and funnel plot of dietary acrylamide exposure and risk of prostatic cancer.
CI: confidence interval; RR: relative risk; SE: standard error.



Random-effects REML model

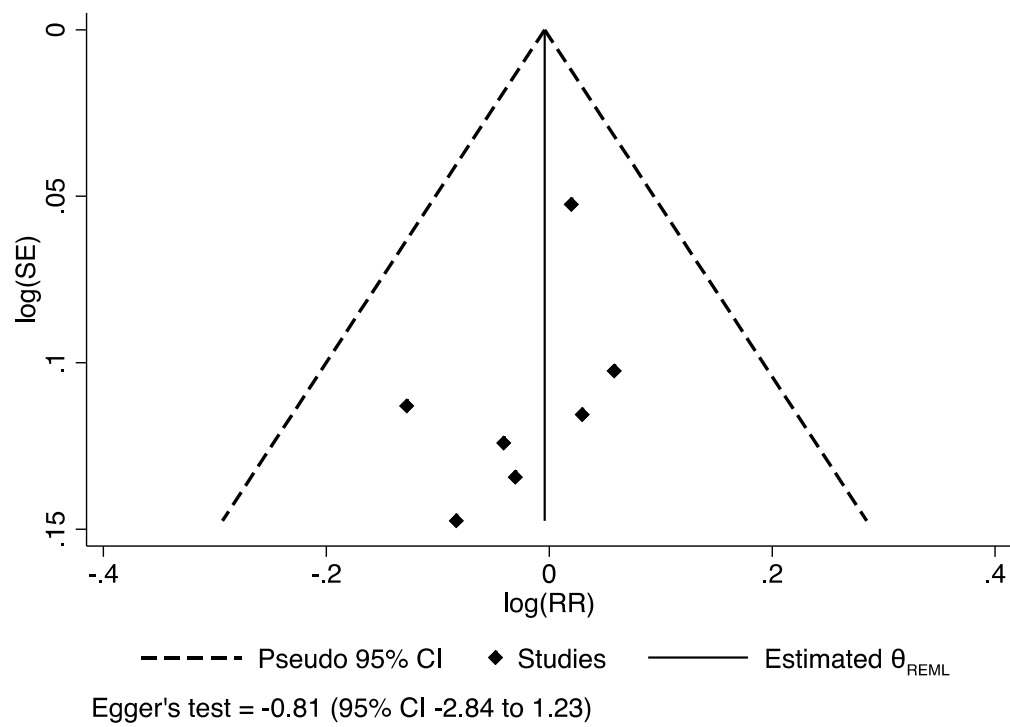
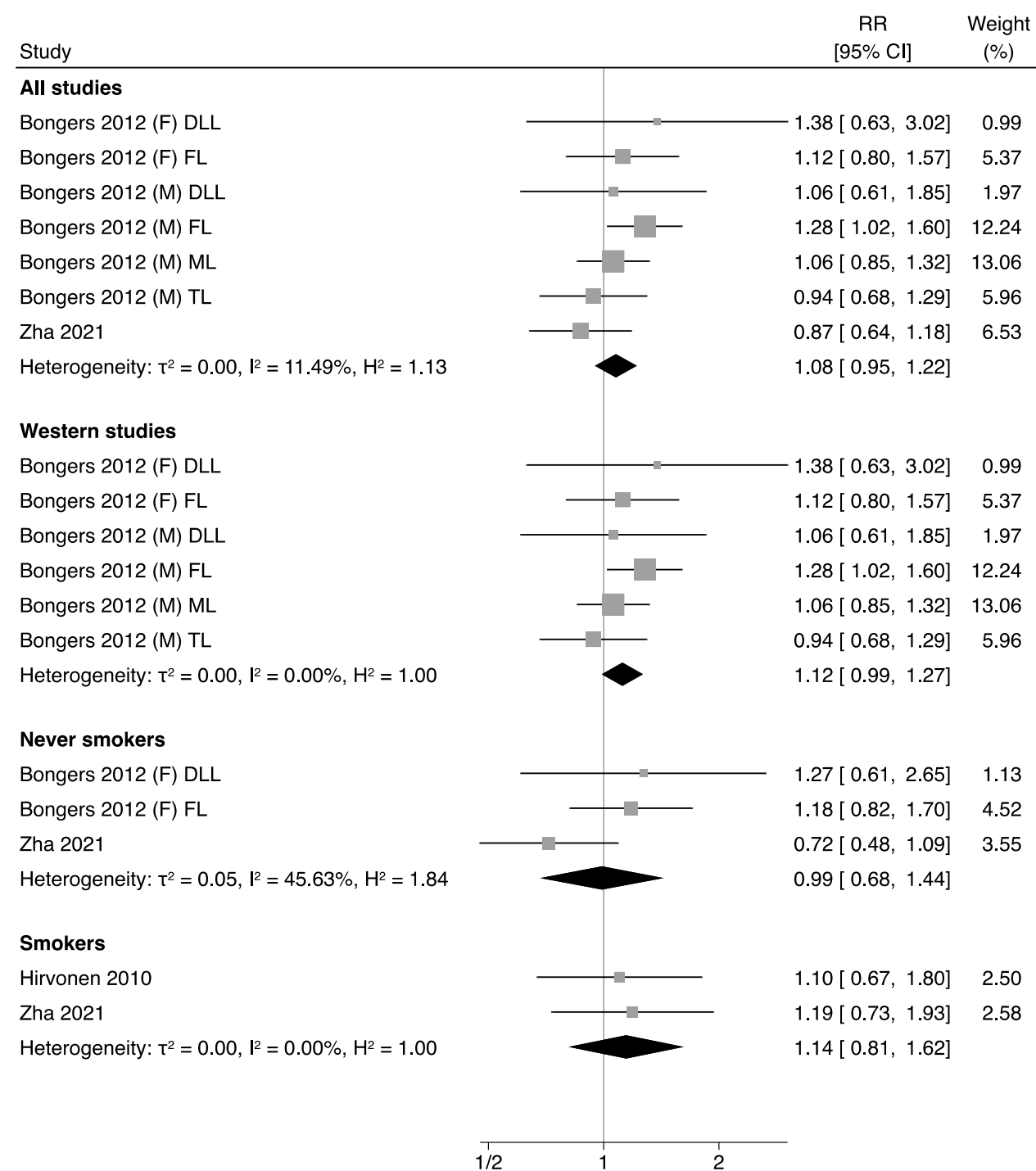


Figure S13. Forest plot of dietary acrylamide exposure and risk of lymphoma. CI: confidence interval; RR: relative risk.



Random-effects REML model

Figure S14. Forest plot of dietary acrylamide exposure and risk of multiple myeloma. CI: confidence interval; RR: relative risk.

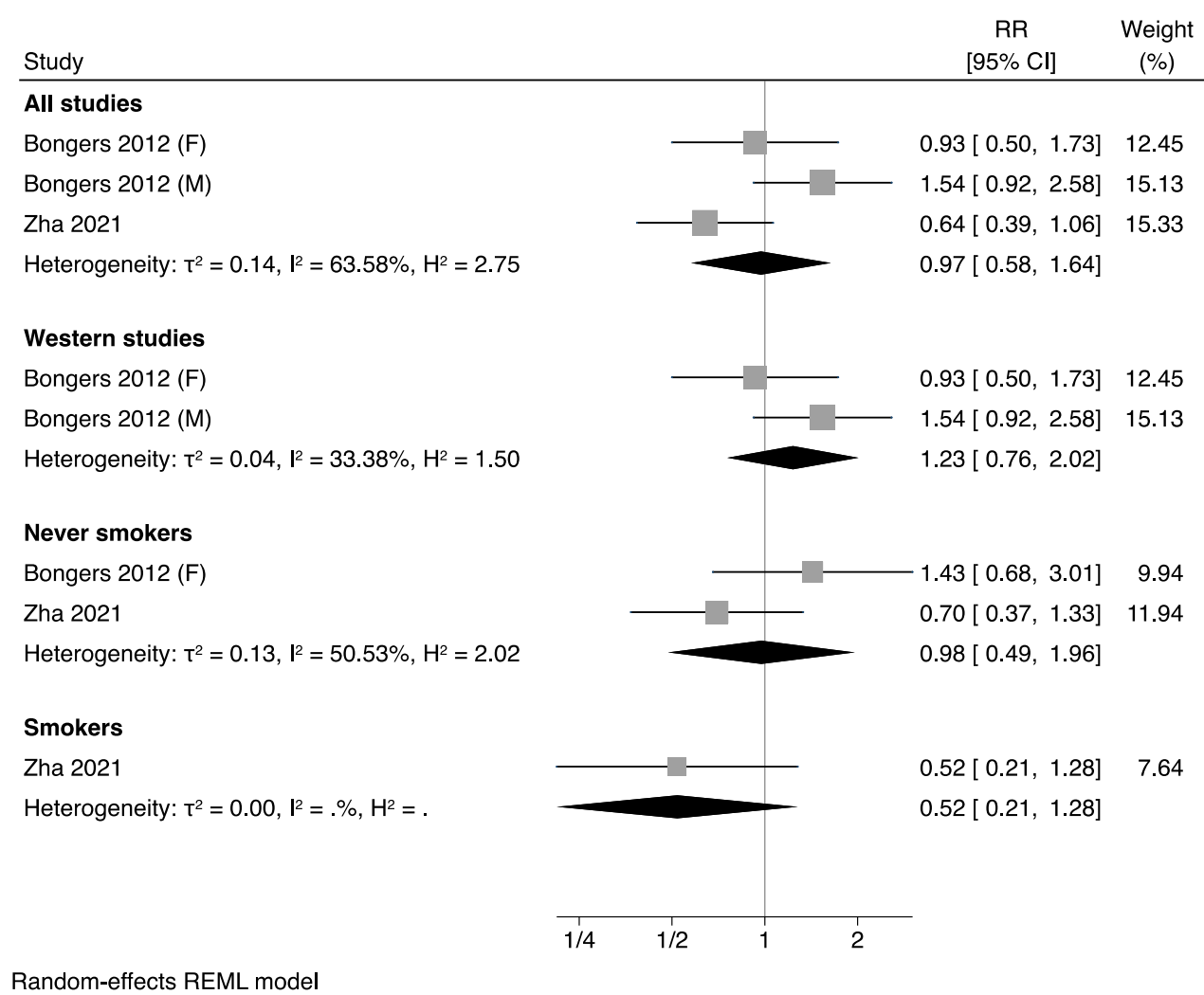


Figure S15. Forest plot of dietary acrylamide exposure and risk of melanoma. CI: confidence interval; RR: relative risk.

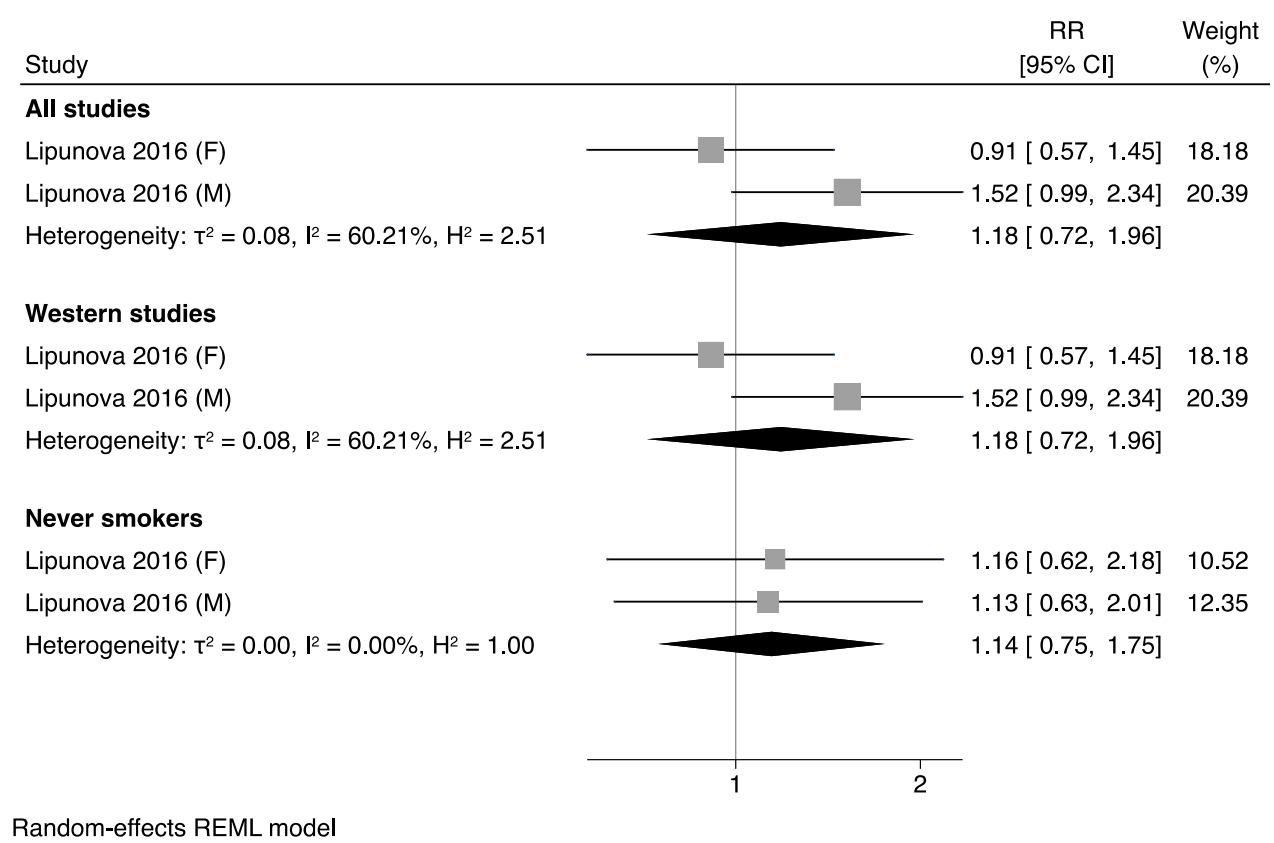


Figure S16. Results of the risk of bias assessment, using the ROBINS-I. Risk of bias domains by studies included.

	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Bongers 2012	-	+	+	?	?	+	+	?
Graff 2018	-	+	+	?	?	+	+	?
Hirvonen 2010	-	+	+	?	?	+	+	?
Hogervorst 2008a	-	+	+	?	?	+	+	?
Hogervorst 2008b	-	+	+	?	?	+	+	?
Hogervorst 2009a	-	+	+	?	?	+	+	?
Hogervorst 2009b	-	+	+	?	?	+	+	?
Ikeda 2021	-	+	+	?	?	+	+	?
Kito 2020	-	+	+	?	?	+	+	?
Larsson 2009a	-	+	+	?	?	+	+	?
Larsson 2009b	-	+	+	?	?	+	+	?
Lin 2011	-	-	-	?	+	+	+	?
Lipunova 2016	-	+	+	?	?	+	+	?
Liu 2019	-	+	+	?	?	+	+	?
Liu 2020	-	+	+	?	?	+	+	?
Lujan-Barroso 2014	-	+	+	?	?	+	+	?
McCullough 2019	-	+	+	?	?	+	+	?
Mucci 2003	-	-	-	+	?	+	+	?
Mucci 2004	-	-	-	+	+	+	+	-
Mucci 2006	-	+	+	?	?	+	+	?
Obón-Santacana 2013	-	+	+	?	?	+	+	?
Pelluchi 2006	-	-	-	+	+	+	+	-
Pelluchi 2011	-	-	-	+	+	+	+	-
Pelluchi 2016	-	-	-	+	?	+	+	?
Pelucchi 2007	-	-	-	+	+	+	+	-
Perloy 2018	-	+	+	?	?	+	+	?
Schouten 2009	-	+	+	?	?	+	+	?
Wilson 2009	-	-	-	+	?	+	+	?
Wilson 2011	-	+	+	?	?	+	+	?
Zha 2020	-	+	+	?	?	+	+	?
Zha 2021	-	+	+	?	?	+	+	?

Study

Domains:
D1: Bias due to confounding.
D2: Bias due to selection of participants.
D3: Bias in classification of interventions.
D4: Bias due to deviations from intended interventions.
D5: Bias due to missing data.
D6: Bias in measurement of outcomes.
D7: Bias in selection of the reported result.

Judgement
- Moderate
+ Low
? No information

Figure S17. Results of the risk of bias assessment, using the ROBINS-I. Overall graphical representation of risk of bias by domains

