Supplemental Material

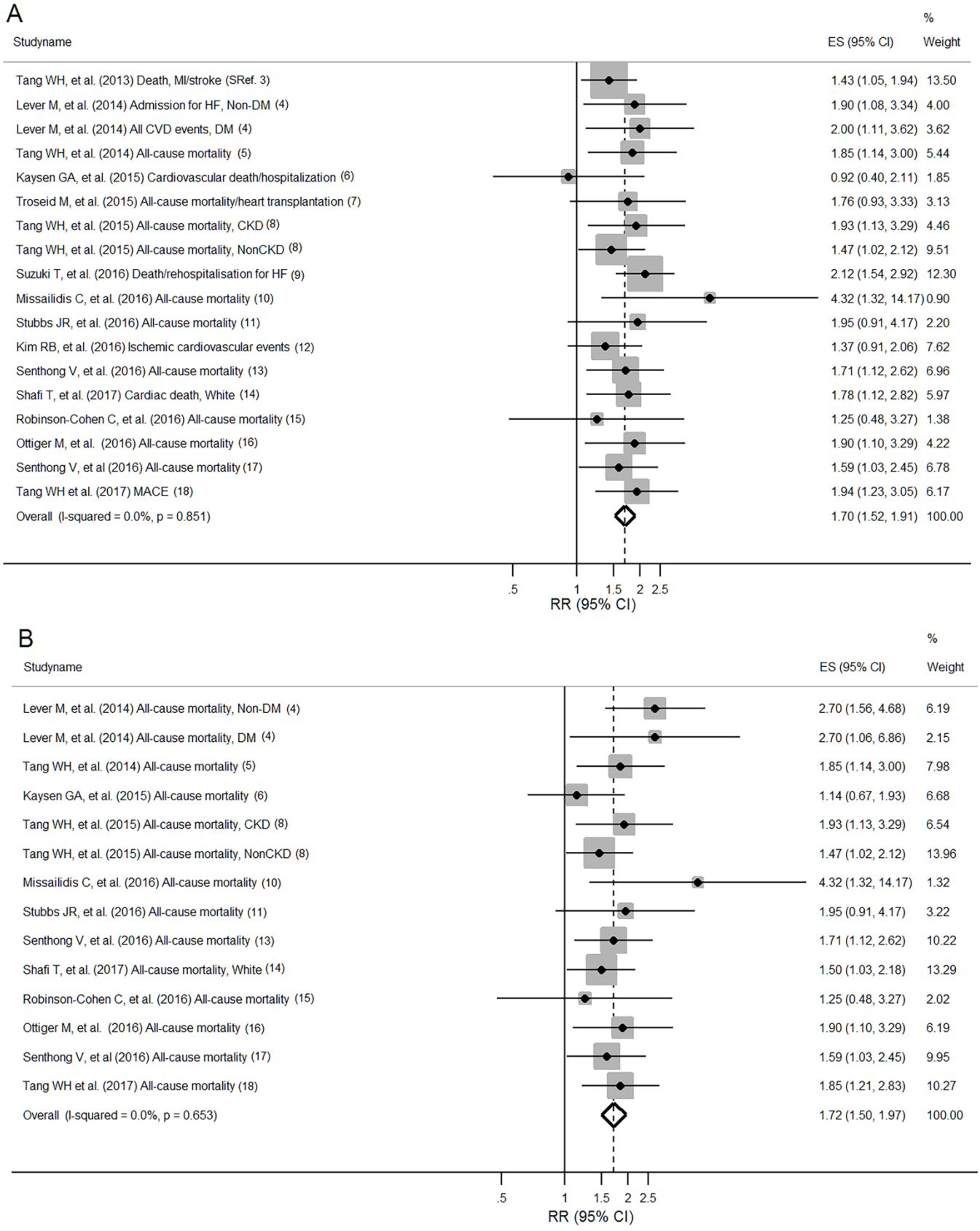
Table S1: Characteristics of the identified studies of trimethylamine N-oxide (TMAO) levels and the prevalent cardiovascular diseases (cross-sectional studies)

Source	Country	Study Population	Age, mean, y	TMAO, mean or median, μM	Men, %	Total N	Outcomes assessed	Events, N
Wang Z, et al. (2011)[1]	US	GeneBank	63.9	NA	49.3	1020	Coronary artery disease (CAD)	As%,41.0
							Peripheral artery disease (PAD)	As%, 24.5
							Cardiovascular disease (CVD) as indicated by either CAD or PAD	As%, 65.4
							Myocardial infarction (MI)	NA
		BioBank	64.5	NA	48.3	856	CAD	As%, 43.7
							PAD	As%, 21.5
							CVD as indicated by either CAD or PAD	As%, 65.2
							MI	NA
Mente A, et al. (2015)[2]	Canada	Study of Health Assessment and Risk in Ethnic Groups [SHARE] and SHARE and Aboriginal Peoples [SHARE-AP]	52.5	1.998	64.9	271	CVD	99

Table S2: Relative risks (RRs) of major cardiovascular events according to trimethylamine N-oxide (TMAO) levels in cross-sectional studies

Source	Outcome	Comparison	Model	Relative risk (95% CI)	Adjustment for Covariates
Wang Z, et al. (2011) GeneBank[1]	Coronary artery disease (CAD)	Highest quartile vs. lowest	Multivariate	2.59 (1.88, 3.55)	Age, sex, smoking, diabetes, medication use, hypertension, lipids, C-reactive protein (CRP), and estimated creatinine clearance
	Peripheral artery disease (PAD)	Same as the above	Multivariate	3.43 (2.26, 5.21)	Same as the above
	CAD + PAD	Same as the above	Multivariate	4.03 (2.54, 6.40)	Same as the above
	Cardiovascular disease (CVD)	Same as the above	Multivariate	2.54 (1.86, 3.47)	Same as the above
	Myocardial infarction (MI)	Same as the above	Multivariate	1.47 (0.90, 2.40)	Same as the above
Wang Z, et al. (2011) BioBank[1]	CAD	Highest quartile vs. lowest	Multivariate	3.08 (1.94, 4.88)	Same as the above
	PAD	Same as the above	Multivariate	3.75 (2.00, 7.03)	Same as the above
	CAD + PAD	Same as the above	Multivariate	4.00 (2.04, 7.82)	Same as the above
	CVD	Same as the above	Multivariate	3.08 (1.96, 4.86)	Same as the above
	MI	Same as the above	Multivariate	2.11 (1.33, 3.34)	Same as the above
Mente A, et al. (2015)[2]	CVD	Highest quintile (≥2.5 μM) vs. lowest	Crude	3.28 (1.37, 7.87)	Crude
			Multivariate	3.17 (1.05, 9.51)	Age, sex, body mass index (BMI), smoking and energy intake
			Multivariate	9.33 (1.88, 46.37)	Age, sex, BMI, smoking, energy intake, diabetes, meat intake, fish intake, and dietary cholesterol

Figure S1: Pooled relative risks of high trimethylamine N-oxide (TMAO) levels for the risk of major adverse clinical events/death (A) and all-cause mortality (B) using 18 data points.[3-18]



Dashed lines represent the overall effect, and gray boxes represent weight. SRef, Supplemental references; DM, diabetes; CKD, chronic kidney disease; HF, heart failure.

Supplemental References

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