

Appendix Table 1. Efficacy of Multivitamin and Mineral Supplement Use in Primary Prevention of Cancer\*

Study (Reference)	Disease End Point	Study Supplement†	Participants, n‡			Disease Events, n‡			Unadjusted Relative Risk (95% CI)	Unadjusted Odds Ratio (95% CI)	Comments
			Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients	Total	Supplements with Specified Nutrients	Supplements without Specified Nutrients			
Linxian General Population Trial (18)	Total cancer incidence	Retinol + zinc	29 584	–	–	1298	–	–	1.00 (0.89–1.11)	–	
		Riboflavin + niacin							0.95 (0.85–1.06)	–	
		Vitamin C + molybdenum							1.06 (0.95–1.18)	–	
		β-Carotene + selenium + α-tocopherol							0.93 (0.83–1.03)	–	
	Gastric cancer incidence	Retinol + zinc	29 584	–	–	539	–	–	0.96 (0.81–1.14)	–	
		Riboflavin + niacin							1.04 (0.88–1.23)	–	
		Vitamin C + molybdenum							1.10 (0.92–1.30)	–	
		β-Carotene + selenium + α-tocopherol							0.84 (0.71–1.00)	–	
	Esophageal cancer incidence	Retinol + zinc	29 584	–	–	640	–	–	1.07 (0.92–1.25)	–	
		Riboflavin + niacin					–	–	0.86 (0.74–1.01)	–	
		Vitamin C + molybdenum					–	–	1.06 (0.91–1.24)	–	
		β-Carotene + selenium + α-tocopherol					–	–	1.02 (0.87–1.19)	–	

Esophageal/ cardia cancer incidence	Retinol + zinc	29 584	–	–	1075	–	–	1.05 (0.93– 1.19)	–
	Riboflavin + niacin							0.94 (0.83– 1.06)	–
	Vitamin C + molybdenum							1.06 (0.94– 1.20)	–
	β-Carotene + selenium + α- tocopherol							0.94 (0.84– 1.06)	–
Total cancer death	Retinol + zinc	29 584	–	–	792	–	–	0.97 (0.85– 1.12)	–
	Riboflavin + niacin							0.98 (0.85– 1.13)	–
	Vitamin C + molybdenum							1.06 (0.92– 1.21)	–
	β-Carotene + selenium + α- tocopherol							0.87 (0.75– 1.00)	–
Stomach cancer death	Retinol + zinc	29 584	–	–	331	–	–	1.03 (0.83– 1.28)	–
	Riboflavin + niacin							1.00 (0.81– 1.24)	–
	Vitamin C + molybdenum							1.09 (0.88– 1.36)	–
	β-Carotene + selenium + α- tocopherol							0.79 (0.64– 0.99)	–
Esophageal cancer death	Retinol + zinc	29 584	–	–	360	–	–	0.93 (0.76– 1.15)	–
	Riboflavin + niacin							0.90 (0.73– 1.11)	–
	Vitamin C + molybdenum							1.05 (0.85– 1.29)	–
	β-Carotene + selenium + α- tocopherol							0.96 (0.78– 1.18)	–

	Esophageal/ gastric cardia cancer death	Retinol + zinc	29 584	–	–	613	–	–	1.04 (0.89– 1.22)	–	
		Riboflavin + niacin							0.95 (0.81– 1.11)	–	
		Vitamin C + molybdenum							1.06 (0.90– 1.24)	–	
		β-Carotene + selenium + α- tocopherol							0.90 (0.77– 1.05)	–	
Linxian General Population Trial: end-of- trial endoscopy survey (20)	Esophageal and gastric cancer and dysplasia	Retinol + zinc	391	197	194	<b>60</b>	28	32	–	0.83 (0.47– 1.46)	Adjusted for age, sex, smoking, and alcohol use
		Riboflavin + niacin		194	197		34	26	–	1.39 (0.79– 2.44)	Adjusted for age, sex, smoking, and alcohol use
		Vitamin C + molybdenum		206	185		37	23	–	1.61 (0.91– 2.86)	Adjusted for age, sex, smoking, and alcohol use
		β-Carotene + selenium + α- tocopherol		177	214		25	35	–	0.83 (0.47– 1.46)	Adjusted for age, sex, smoking, and alcohol use
	Esophageal and gastric cancer	Retinol + zinc	391	197	194	31	13	18	–	0.61 (0.29– 1.31)	
		Riboflavin + niacin		194	197		18	13	–	1.46 (0.68– 3.11)	
		Vitamin C + molybdenum		206	185		21	10	–	1.99 (0.90– 4.41)	
		β-Carotene + selenium + α- tocopherol		177	214		12	19	–	0.79 (0.36– 1.69)	

SU.VI.MAX (23)	Cancer incidence	Vitamin C + vitamin E + $\beta$ -carotene + selenium + zinc	12 741	6364	6377	562	267	295	0.90 (0.76–1.06)	–	<i>P</i> = 0.02 for the interaction between sex and randomized group
	Women only		7713	3844	3869	350	179	171	1.04 (0.85–1.29)	–	
	Men only		5028	2520	2508	212	88	124	0.69 (0.53–0.91) <sup>§</sup>	–	
SU.VI.MAX (24)	Prostate cancer incidence	Vitamin C + vitamin E + $\beta$ -carotene + selenium + zinc	5034	2522	2512	103	49	54	0.88 (0.60–1.29)	–	Men only
			4563	2293	2270	51	18	33	0.52 (0.29–0.92) <sup>§</sup>	–	In men with initial PSA level < 3.0 $\mu$ g/L
			292	149	143	50	31	19	1.54 (0.87–2.72)	–	In men with initial PSA level $\geq$ 3.0 $\mu$ g/L

\* – = not reported; PSA = prostate-specific antigen; SU.VI.MAX = SUplémentation en Vitamines et Minéraux AntioXydants.

†Unless otherwise specified, comparisons were made between groups receiving the combination of the listed nutrients and the groups receiving combinations of placebo or nutrients other than the nutrients listed.

‡The total number is presented (when available) if the number in each comparison group was not reported.

§*P* < 0.01.