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Supplemental Material

Long-Term Exposure to Nitrate and Trihalomethanes in Drinking Water and Prostate Cancer: A Multicase–Control Study in Spain (MCC-Spain)

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Additional File- Excel Document

Supplemental Table 1. Characteristics and drinking-water contaminant exposures of the participants excluded from the study population from a Multicase–Control Study in Spain (MCC-Spain) (N=653)

	Controls % or mean (SD)	Cases % or mean (SD)
n	354	299
Characteristics		
Age (years)	66.4 (9.2)	66.2 (7.7)
Educational level (%)		
Less than primary	20.3	25.4
Primary school	31.4	37.1
Secondary school	26.3	20.4
University	22.0	17.1
Family history of prostate cancer (first degree) (%)	15.0	20.7
Smoking status (%)		
Never	29.9	26.1
Former	55.4	56.2
Current smoker	14.7	17.7
WCRF/AICR cancer prevention score	3.4 (0.9)	3.2 (0.9)
Intake of red and processed meat (g/day)	78.1 (44.0)	80.5 (52.4)
Intake of total fiber (g/day)	11.5 (3.9)	10.9 (3.4)
Intake of fruit and vegetables (g/day)	519 (310)	474 (250)
Intake of vitamin C (mg/day)	156 (101)	144 (77)
Intake of vitamin E (mg/day)	11.0 (7.0)	10.5 (6.2)
Recruitment area (%)		
Asturias	13.6	2.7
Barcelona	49.7	34.4
Cantabria	16.1	24.7
Madrid	16.4	25.4
Valencia	4.2	12.7
Drinking-water contaminant exposures		
<i>Average concentrations in residential tap water</i>		
Nitrate (mg/L)	7.4 (4.2)	7.3 (4.2)
Brominated trihalomethane (µg/L)	39.1 (36.5)	29 (26.8)
Chloroform (µg/L)	18.5 (8.9)	18.6 (9.8)
<i>Daily average waterborne ingestion</i>		
Nitrate (mg/day)	11 (9.6)	12.2 (10.1)
Brominated trihalomethane (µg/day)	25.8 (43.7)	18.5 (34.7)
Chloroform (µg/day)	15.6 (20.3)	14.6 (23.3)

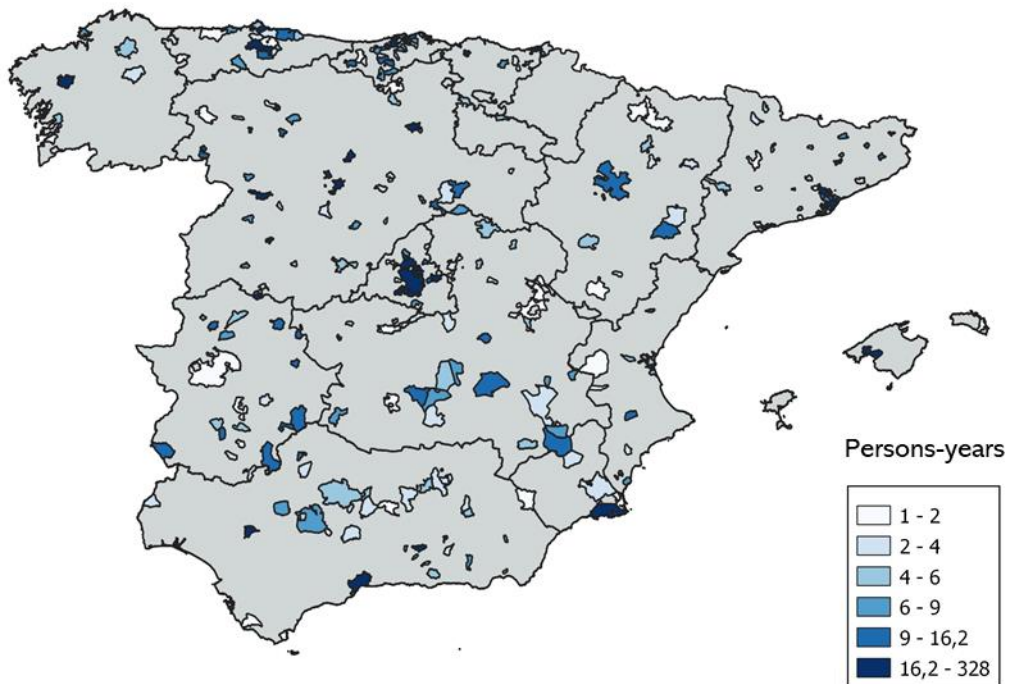
Supplemental Table 2. Mean (standard deviation) of age, adherence to WCRF/AICR cancer prevention score, red and processed meat consumption, fiber intake, total fruit and vegetables intake, vitamin C intake and vitamin E intake across waterborne ingested nitrate tertiles and by case-control status. Multicase–Control Study in Spain (MCC-Spain): 629 prostate cancer cases, 824 controls (N=1,453)*.

Waterborne ingested nitrate (tertiles)	<5.5 mg/day		5.5–13.8 mg/day		>13.8 mg/day	
	Controls (n=277)	Cases (n=192)	Controls (n=273)	Cases (n=186)	Controls (n=274)	Cases (n=251)
Age (years)	67.2 (8.3)	65.9 (7.3)	66.3 (8.6)	66.7 (7.5)	66.4 (7.9)	65.5 (7.1)
WCRF/AICR score	3.4 (1.0)	3.3 (0.9)	3.3 (1.0)	3.3 (0.9)	3.3 (1.0)	3.4 (1.0)
Intake of red and processed meat (g/day)	70.2 (36.9)	75.7 (37.6)	73.5 (37.2)	74.3 (39.4)	76.3 (39.6)	80.2 (43.7)
Intake of total fiber (g/day)	11.3 (4.0)	11.4 (3.7)	11.1 (3.7)	11.9 (3.9)	11.4 (3.6)	11.0 (3.2)
Intake of fruit and vegetables (g/day)	483(262)	513 (227)	477 (308)	477 (258)	497 (258)	510 (250)
Intake of vitamin C (mg/day)	149 (83)	154 (77)	147 (105)	146 (84)	147 (86)	151 (80)
Intake of vitamin E (mg/day)	10.0 (4.5)	10.1 (4.5)	10.1 (5.5)	10.4 (5.3)	11.1 (6.2)	11.2 (5.6)

*These analyses are performed excluding 171 subjects with missing data in the dietary variables.

WCRF/AICR cancer prevention score is based on The World Cancer Research Fund/American Institute for Cancer Research cancer prevention recommendations

Supplemental Figure 1. Geographic distribution of the water zones with data on nitrate and THM levels included in the study during the exposure window. Multicase–Control Study in Spain (MCC-Spain): 697cases, 927 controls (N= 1,624)



The intensity of the blue colour represents the number of person-years corresponding to each water zone. Corresponding numeric data can be found in **Excel Table S1**.

Supplemental Figure 2. Spearman's rank correlation coefficients between drinking-water exposures

