

Supplemental Table 1 - Characteristics of individual studies in the International Head and Neck Cancer Epidemiology (INHANCE) consortium including information on dietary questionnaires.

Study Reference paper	Recruitment period	Source (cases/controls)	Participation rate, % (cases/controls)	Age eligibility (years)	Number of subjects (cases/controls)	Questionnaire, administration, reference period for the recall	Frequency	Serving size ^a	# Food items (including non-alcoholic beverages)	Condiments
Italy Multicenter Bosetti et al., 2003 ^b	1990-1999	Hospital/Hospital - unhealthy	>95/>95	18-80	1261/2716	FFQ, interviewer-administered, 2 year before disease	Raw data	S/M/L	78 (including 6 non-alcoholic beverages)	12
Switzerland Levi et al., 1998 ^b	1991-1997	Hospital/Hospital - unhealthy	>95/>95	<80	516/883	FFQ, interviewer-administered, 2 year before disease	Raw data	S/M/L	78 (including 6 non-alcoholic beverages)	12
Los Angeles, CA, USA Cui et al., 2006	1999-2004	Cancer registry/Neighborhood	49/68	18-65	417/1005	FFQ, interviewer-administered, during the past year	Raw data	M	78 (including 11 non-alcoholic beverages)	12
Boston, MA, USA Peters et al., 2005	1999-2004	Hospital/Residential records	88.7/48.7	≥18	584/659	FFQ, self-administered, during the past year	Categories	M	138 (including 12 non-alcoholic beverages)	18
New York, MSKCC, USA Schantz et al., 1997	1992-1994	Hospital/Blood donors	NA	NA	134/169	FFQ-diet history, self-administered, during the past year ^c	Raw data	S/M/L	88 (including 5 non-alcoholic beverages)	6
Milan (2006-2009), Italy Bravi et al., 2013 ^b	2006-2009	Hospital/Hospital - unhealthy	>95/>95	18-80	367/750	FFQ, interviewer-administered, 2 years before disease	Raw data	S/M/L	78 (including 6 non-alcoholic beverages)	12

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Buffalo, USA Jayaprakash et al., 2006	1982-1998	Hospital/Hospital	~50/~50	NA	632/1254	FFQ, self-administered, during the past few years	Categories	M	56 (including 12 non-alcoholic beverages)	4
North Carolina (2002-2006), USA Divaris et al., 2010 ^c	2002-2006	Cancer registry/DMV files	82/61	20-80	1368/1396	FFQ, interviewer-administered, during the past year	Categories	M	72 (including 5 non-alcoholic beverages) questions	11
Japan (2001-2005) Suzuki et al., 2006	2001-2005	Cancer hospital/Hospital-unhealthy	97/97	20-79	526/3102	FFQ, self-administered, during the past year	Categories	NA	51 (including 3 non-alcoholic beverages)	3
US Multicenter Blot et al., 1988	1983-1984	Cancer registry/Random digit dialing and health care rosters	75/76	18-79	1114/1268	FFQ, interviewer-administered, during the past year	Raw data	S/M/L	61 (including 13 non-alcoholic beverages)	9

ABBREVIATIONS: DMV: Department of Motor Vehicles; FFQ: food-frequency questionnaire; S: small; M: medium; MSKCC: Memorial Sloan Kettering Cancer Center; L: large; NA: not available.

^aA quantification of the medium serving size was provided in all the studies, except for the Japan one. ^bItaly Multicenter, Milan (2006-2009) and Switzerland studies were based on the same food-frequency questionnaire. ^cThe food-frequency questionnaire from the North Carolina study provided combined questions concerning consumption of specific food items and corresponding condiment habits or fat content of the food item of interest (i.e. while asking for cooked or raw vegetable consumption, the food frequency questionnaire asked for extra information on fat, sauce, or dressing added after cooking or at the table).

Supplemental Table 2 – Descriptive statistics on raw values of fiber intake (g/day) across studies and in all the studies combined. International Head and Neck Cancer Epidemiology (INHANCE) consortium.

Study name	20%	Median	Mean	80%
Boston	12.27	18.29	19.65	26.67
Buffalo	16.20	24.48	26.67	35.38
Italy Multicenter	16.85	22.39	23.23	29.06
Japan (2001-2005)	7.90	9.93	10.42	12.79
Los Angeles	5.60	8.80	9.58	12.81
Milan (2006-2009)	16.02	21.27	22.18	27.45
MSKCC	8.70	12.55	14.14	18.38
North Carolina (2002-2006)	10.43	14.67	15.79	20.43
Switzerland	11.23	16.84	17.85	23.76
US Multicenter	7.79	11.52	12.48	16.56
All studies combined	9.45	15.14	17.23	24.22

ABBREVIATIONS: MSKCC: Memorial Sloan Kettering Cancer Center.

Supplemental Table 3 - Odds ratios (ORs)^a of oral and pharyngeal cancer combined, and corresponding confidence intervals (95% CIs) on fiber intake quintile categories, according to anatomical subsite. International Head and Neck Cancer Epidemiology (INHANCE) consortium.

	Oral cavity			Oropharynx/ Hypopharynx		Oral cavity or pharynx not otherwise specified	
	Controls (n=8996)	Cases (n=1234)	OR (95% CI)	Cases (n=2024)	OR (95% CI)	Cases (n=636)	OR (95% CI)
I Quintile ^b	1430	331	1 (reference)	560	1 (reference)	171	1 (reference)
II Quintile ^b	1751	267	0.70 (0.58-0.85)	380	0.67 (0.55-0.81)	146	0.76 (0.59-0.98)
III Quintile ^b	1889	230	0.61 (0.50-0.74)	379	0.65 (0.55-0.77)	112	0.62 (0.48-0.82)
IV Quintile ^b	1986	216	0.51 (0.42-0.63)	354	0.57 (0.47-0.71)	107	0.45 (0.30-0.66)
V Quintile ^b	1940	190	0.39 (0.29-0.52)	351	0.54 (0.45-0.64)	100	0.46 (0.33-0.65)
<i>p</i> for linear trend			<0.001		<0.001		<0.001

^aEstimated from separate random-effects logistic regression models adjusted for age, sex, race, study center, education, cigarette smoking status, cigarette smoking intensity (number of cigarettes per day), cigarette smoking duration, cigar smoking status, pipe smoking status, alcohol drinking intensity (number of drinks per day), and the product (interaction) term for cigarette intensity and alcohol drinking, in the presence of heterogeneity between studies (*p*-values equal to 0.084, 0.005, and 0.036 for the oral cavity, oropharynx/hypopharynx, and 'oral cavity or pharynx not otherwise specified' subsites, respectively); ^bThe cut-offs for the quintile categories of fiber intake were: -0.786, -0.322, 0.129, and 0.729, respectively.