Worldwide trends in incidence rates for oral cavity and oropharyngeal cancers

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## **Data Supplement**

**Supplemental Table 1:** Shows age ranges used for age-period cohort analyses of oropharyngeal cancers and oral cavity cancers, separately among men and women.

**Supplemental Table 2**: Shows net drifts from age-period cohort modeling for oropharyngeal cancers ,oral cavity cancers, and lung cancers among men in countries with non-significant trends or with significantly decreasing trends in oropharyngeal cancer incidence. P-values comparing oropharyngeal cancers vs. oral cavity cancers as well as comparing oropharyngeal cancers vs. lung cancers are also shown.

**Supplemental Table 3**: Shows net drifts from age-period cohort modeling for oropharyngeal cancers, oral cavity cancers, and lung cancers among women in countries with non-significant trends or with significantly decreasing trends in oropharyngeal cancer incidence. P-values comparing oropharyngeal cancers vs. oral cavity cancers as well as comparing oropharyngeal cancers vs. lung cancers are also shown.

**Supplementary Figure 1**: Shows trends in the proportion of oral cavity and oropharyngeal cancers (combined) that did not have an anatomic site specification. Results are shown for countries with significant increases in oropharyngeal cancer incidence either among men or among women.

Country	Age range (men)	Age range (women)
Asia	25-74	
India	25-84	25-74
Japan	25-74	30-74
Philippines	30-79	25-74
Singapore	30-74	35-60
Thailand		30-74
Australia	30-84	30-79
Europe		
Austria	40-79	40-69
Denmark	35-84	35-84
Estonia	30-84	40-79
France	35-84	35-84
Italy	35-84	35-84
Netherlands	40-74	40-74
Poland	35-74	35-69
Slovakia	35-84	35-79
Spain	40-69	40-69
Switzerland	40-84	40-84
U.K.	25-84	25-84
North America		
Canada	30-84	30-84
U.S.	25-84	25-84
South and Central America		
Brazil	40-79	50-69
Colombia/Costa	30-84	35-79
Rica/ Ecuador		

## Supplemental Table 1: Age ranges utilized for age-period cohort analyses (1983-2002)

Supplemental Table 2: Net drifts for oropharyngeal cancers, oral cavity cancers, and lung cancers among men for countries with non-significant trends or significantly decreasing trends in incidence of oropharyngeal cancers (1983-2002)

Country	Oropharyngeal cancers <sup>a</sup>	Oral cavity cancers <sup>ь</sup>	Lung cancer Net Drift (95% CI) °	P-value for oropharvngeal vs.	P- value for oropharvngeal
	Net Drift (95%	Net Drift (95% CI) <sup>c</sup>		oral cavity	vs. lung cancer
	CI) °				
Asia					
India	-3.6 (-2.9 to -4.3)	1.0 (0.4 to -1.7)	-1.3 (-0.0 to -2.6)	<0.001	0.002
Philippines	-1.8 (-4.0 to 0.4)	-2.8 (-1.3 to -4.4)	-4.3 (-2.8 to -5.8)	0.46	0.07
Singapore	0.02 (-2.5 to 2.6)	-0.1 (-2.6 to 2.4)	-5.1 (-3.3 to -6.9)	0.93	<0.001
Thailand	2.9 (-1.0 to 6.9)	1.0 (-2.9 to 5.0)	-1.3 (-4.7 to 2.2)	0.51	0.12
Europe					
Austria	2.8 (-2.4 to 8.2)	-0.1 (-4.1 to 4.0)	-5.2 (-3.1 to -7.2)	0.40	0.005
Estonia	2.1 (-0.03 to 4.2)	1.7 (0.0 to 3.5)	6.7 (5.5 to 7.9)	0.80	<0.001
France	-2.8 (-2.3 to -3.3)	-2.8 (-2.2 to -3.3)	-3.0 (-2.4 to -3.6)	0.82	0.64
Italy	-1.2 (-0.2 to -2.2)	-1.4 (-0.5 to -2.2)	-4.5 (-3.9 to -5.1)	0.84	<0.001
Poland	2.7 (0.01 to 5.4)	0.3 (-1.7 to 2.3)	-3.7 (-2.4 to -5.0)	0.16	<0.001
Spain	1.3 (-0.1 to -5.4)	0.3 (-1.7 to 2.3)	0.4 (-0.6 to 1.4)	0.36	0.31
Switzerland	1.0 (-0.5 to 2.6)	-0.8 (-2.3 to 0.8)	-4.5 (-3.5 to -5.5)	0.11	<0.001
South and Central America					
Colombia, Costa Rica, and Ecuador <sup>d</sup>	0.5 (-1.7 to 2.9)	-2.4 (-0.6 to -4.1)	-4.6 (-2.9 to -6.3)	0.05	<0.001

<sup>a</sup> Oropharyngeal cancers: base of tongue, lingual tonsil, tonsil, oropharynx, pharynx not otherwise specified, and Waldeyer ring.

<sup>b</sup> Oral cavity cancers: oral tongue, gum, floor of mouth, palate, and other and unspecified parts of the mouth.

<sup>c</sup> Net drifts and 95% CIs estimated from age-period-cohort modeling.

<sup>d</sup> Registries in Colombia, Costa Rica, and Ecuador were combined for analyses due to sparse sample sizes.

Supplemental Table 3: Net drifts for oropharyngeal cancers, oral cavity cancers, and lung cancers among women for countries with stable or decreasing incidence of oropharyngeal cancers (1983-2002)

Country	Oropharyngeal	Oral cavity	Lung cancers	P-value for	P-value for
	Net Drift (95% Cl)	Net Drift (95% CI) <sup>c</sup>		vs. oral cavity	
				for oral barriy	cancer
Asia					
India	-4.1 (-2.9 to -5.4)	-2.1 (-1.4 to -2.8)	NE	0.006	NE
Japan	2.8 (-0.1 to -5.7)	-0.01 (-1.1 to 1.1)	1.2 (-0.9 to 3.3)	0.08	0.39
Philippines	-7.5 (-4.8 to -10.2)	-4.9 (-3.1 to -6.7)	-3.8 (-1.5 to -6.1)	0.12	0.23
Singapore	3.4 (-3.4 to 10.7)	1.6 (-1.9 to 5.3)	-6.3 (-2.1 to -10.3)	0.66	0.02
Thailand	-5.6 (-9.8 to -1.2)	-1.1 (-4.4 to 2.3)	-2.7 (-0.6 to -4.6)	0.11	0.19
Australia	1.2 (-0.2 to 2.7)	0.5 (-0.3 to 1.3)	-2.3 (-1.1 to -3.5)	0.37	<0.001
Europe					
Austria	1.4 (-8.1 to 11.8)	-0.6 (-9.3 to 8.9)	1.4 (-4.1 to 7.3)	0.78	0.99
Italy	-0.1 (-2.8 to 2.6)	2.2 (0.7 to 3.7)	0.8 (-0.4 to -1.9)	0.15	0.28
Spain	0.7 (-3.9 to 5.5)	5.5 (1.4 to 9.6)	4.3 (0.9 to 7.8)	0.13	0.22
North America					
Canada	-0.2 (-1.1 to 0.6)	-0.6 (-1.2 to 0.0)	-1.8 (-1.2 to -2.4)	0.50	0.003
U.S.	-1.6 (-0.9 to -2.3)	-1.5 (-0.9 to -2.1)	-2.4 (-1.4 to -3.3)	0.84	0.13
South and Central					
America					
Brazil	1.1 (-9.6 to 12.9)	3.8 (-3.2 to 11.3)	4.1 (-10.4 to 2.6)	0.69	0.70
Colombia, Costa	-3.6 (-7.8 to 0.9)	-1.4 (-3.2 to 0.5)	-1.5 (-4.4 to 1.5)	0.37	0.50
Rica, and					
Ecuador <sup>d</sup>					

<sup>a</sup> Oropharyngeal cancers: base of tongue, lingual tonsil, tonsil, oropharynx, pharynx not otherwise specified, and Waldeyer ring.

<sup>b</sup> Oral cavity cancers: oral tongue, gum, floor of mouth, palate, and other and unspecified parts of the mouth.

<sup>°</sup> Net drifts and 95% CIs estimated from age-period-cohort modeling

<sup>d</sup> Registries in Colombia, Costa Rica, and Ecuador were combined for analyses due to sparse sample sizes.



**Supplementary Figure 1:** Trends in the proportion of oral cavity and oropharyngeal cancers (combined) that did not have an anatomic site specification (1983-2002)