

**This is a Post-Referee Draft. For the final version please consult:**

LeHew CW, Weatherspoon DJ, Peterson CE, et al. The Health System and Policy Implications of Changing Epidemiology for Oral Cavity and Oropharyngeal Cancers in the United States From 1995 to 2016. *Epidemiol Rev.* April 2017:1-16.  
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**Table 2.** Significant Risk Factors for Oropharyngeal Cancers: Meta-analyses Published Between January 1, 1995 and March 22, 2016.

First Author, Year <sup>Reference #</sup>	Study Period	No. of Studies	Sample Size		Cancer Site (Exposure)	Findings		Comments
			No. cases	No. controls		OR	95% CI	
Turati, 2010 <sup>38</sup>	Up to September 2009	17	1,491	N/A	<u>Alcohol</u> P (Heavy drinkers)	6.62 <sup>a,c</sup>	4.72, 9.29	Increased odds by site
		6	293	N/A	T (Heavy drinkers)	4.11 <sup>a,c</sup>	2.46, 6.87	
		4	280	N/A	OPC (Heavy drinkers)	7.76 <sup>a,c</sup>	4.77, 12.62	
Tramacere, 2010 <sup>48</sup>	Up to September 2009	45	17,085	N/A	OCPC (Light drinkers)	1.21 <sup>b,c</sup>	1.10, 1.33	Increased odds
					OCPC (Heavy drinkers)	5.24 <sup>b,c</sup>	4.36, 6.30	
Turati, 2011 <sup>49</sup>	Up to October 2009	9	2,633	N/A	<u>Coffee</u> OCP	0.64 <sup>a,c</sup>	0.51, 0.80	Reduced odds
Xu, 2014 <sup>40</sup>	January 1966- May 2013	13	4,104	N/A	<u>Diet</u> OCPC (Processed meat)	1.91 <sup>a,c</sup>	1.19, 3.06	Increased odds
Hobbs, 2006 <sup>46</sup>	Inception to February 2004	5	383	1,816	<u>HPV</u> OPC	4.3 <sup>b</sup>	2.1, 8.9	Increased odds by site
		8	217	163	T	15.1 <sup>b</sup>	6.8, 33.7	
Ansary- Moghaddam, 2009 <sup>50</sup>	By January 2007	24	14,934	N/A	<u>Smoking Tobacco</u> OPC (Smoking)	3.41 <sup>a,c</sup>	2.74, 4.24	Increased odds with intensity of exposure and alcohol
					OPC (<20 CPD)	1.61 <sup>a,c</sup>	0.90, 2.88	
					OPC (≥20 CPD)	3.12 <sup>a,c</sup>	1.78, 5.47	
					OPC (Smoking nondrinkers)	2.62 <sup>a,c</sup>	2.01, 3.41	
					OPC (Smoking drinkers)	8.07 <sup>a,c</sup>	5.28, 12.40	
Rodu, 2002 <sup>47</sup>	1957-1998 <sup>d</sup>	3	169	472	<u>Smokeless Tobacco</u> P (SLT-unspecified)	2.3 <sup>b,c</sup>	1.2, 4.4	Increased odds: site and SLT material specific
			298	947	OPC (DS)	4.0 <sup>b,c</sup>	2.7, 5.9	
			655	2,718	OPC (SLT-unspecified)	1.5 <sup>b,c</sup>	1.1, 2.0	
			362	457	OPL (CT)	1.7 <sup>b,c</sup>	1.2, 2.4	
			93	393	OPL (DS)	13.0 <sup>b,c</sup>	8.0, 20.0	

Abbreviations: N/A, not available from published report; P, pharynx; T, tonsil; OPC, oropharyngeal; OCPC, oral cavity/pharynx; HPV, Human Papilloma Virus; CPD, cigarettes per day; SLT, smokeless tobacco; DS, dry snuff; OPL, oral cavity, pharynx, larynx; CT, chewing tobacco; <sup>a</sup>adjusted <sup>b</sup>adjustments unclear <sup>c</sup>relative risks <sup>d</sup>years of publications of used studies

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