

Rates and Recent Trends in Squamous Cell Carcinomas of the Lip (SCCL) in the U.S., 2004-2008

J Cleveland¹, M Watson², R Wilson²

¹Division of Oral Health, CDC, Atlanta, GA ²Division of Cancer Prevention and Control, CDC, Atlanta, GA

BACKGROUND

- The majority of lip cancers are squamous cell carcinomas.
- Squamous cell carcinoma of the lip (SCCL) is strongly associated with long-term exposure to ultraviolet radiation from sunlight.
- SCCL has a 5-year survival of 90% if diagnosed early.

OBJECTIVE

- The objective of the study is to update the incidence and trends of invasive SCCL cancers using national data.

METHODS

- Data from CDC's NPCR and NCI's SEER Program, covering 100% of the U.S. population, were used to examine invasive lip cancers diagnosed during 2004-2008.
- Rates were calculated per 100,000 people and age adjusted to the 2000 US population.
- Statistics not displayed if fewer than 16 cases.
- Rates were examined by: anatomic site (e.g., upper vs. lower; external vs. internal), age, sex, race, Hispanic ethnicity, region and stage.
- Trends for 1999-2008 were also examined and cover 90.1% of U.S. population.

RESULTS

Rates and Counts of Oral Cancer by Site, 2004-2008

Site	Rate/100,000	Total Count	Percentage
Lip	0.58	8,953	10.3%
Tongue (all)	2.85	45,019*	51.8%
Salivary Gland	0.26	4,082	4.7%
Floor of Mouth	0.62	9,766	11.2%
Gum and Other Mouth	1.23	19,169	22.0%

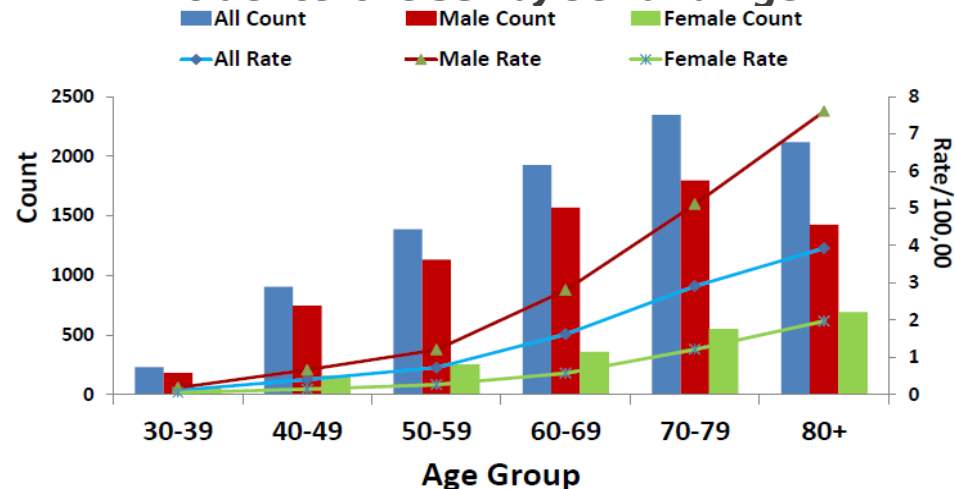
*Base of the tongue n=23,048

RESULTS (cont'd)

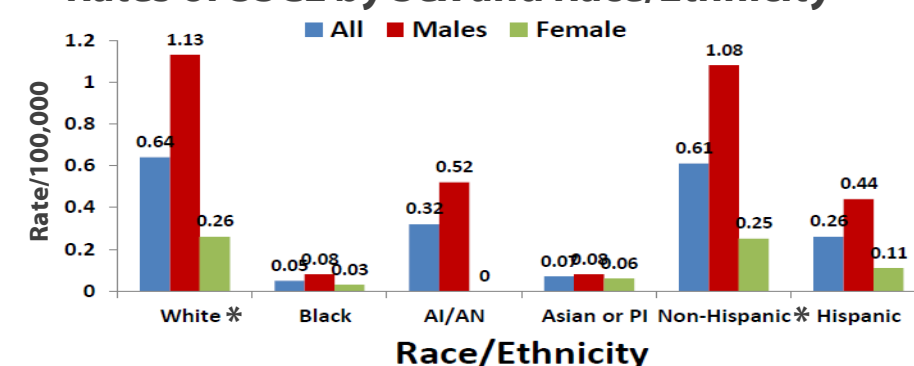
Average Annual Count of SCCL by Site and Sex, 2004-2008

Site/Description	Both Sexes		Male		Female	
	No.	(%)	No.	(%)	No.	(%)
C00.0-External upper lip	163	9.1%	80	5.8%	83	20.2%
C00.1-External lower lip	1144	63.9%	927	67.3%	218	52.4%
C00.2-External lip, NOS	37	2.0%	27	1.9%	10	2.4%
C00.3-Mucosa of upper lip	30	1.7%	16	1.1%	14	3.4%
C00.4-Mucosa of lower lip	244	13.6%	194	14.1%	52	12.2%
C00.5-Mucosa of lip, NOS	13	0.7%	10	0.7%	~	~
C00.6-Commissure of lip	36	2.0%	27	2.0%	8	2.0%
C00.8-Overlapping lesion of lip	13	0.8%	10	0.7%	4	1.0%
C00.9-Lip, NOS	111	6.2%	86	6.3%	24	5.8%
TOTAL	1791		1377		413	

Incidence of SCCL by Sex and Age

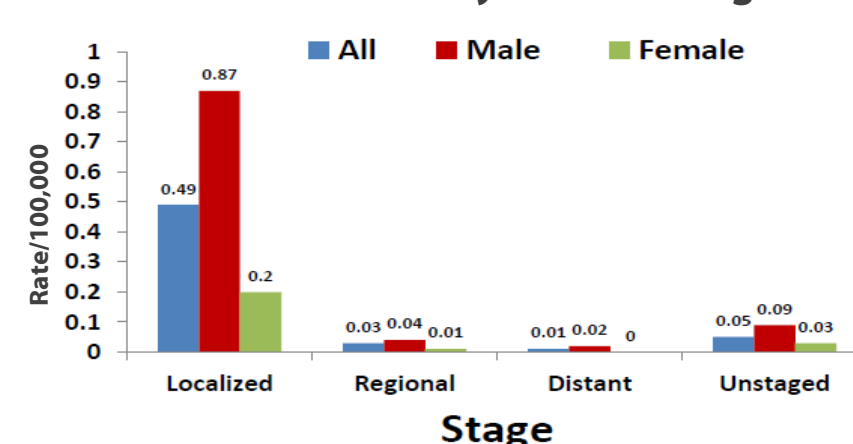


Rates of SSCL by Sex and Race/Ethnicity

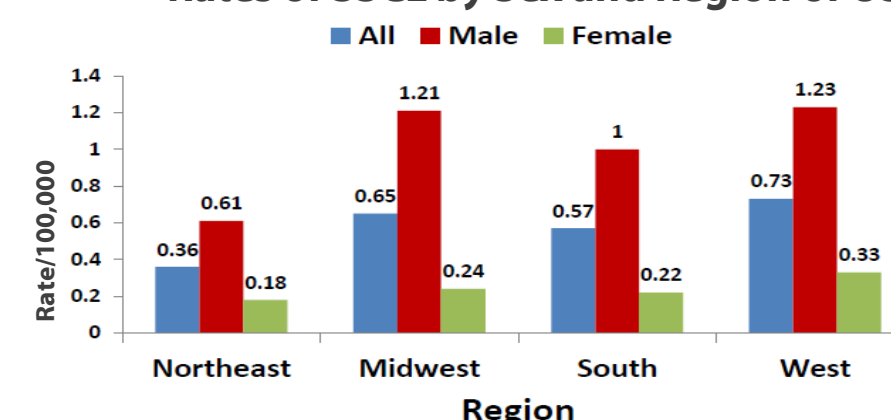


NOTE: Hispanic ethnicity is not mutually exclusive from race categories.
*Rates significantly higher than other races or ethnicity p<0.05

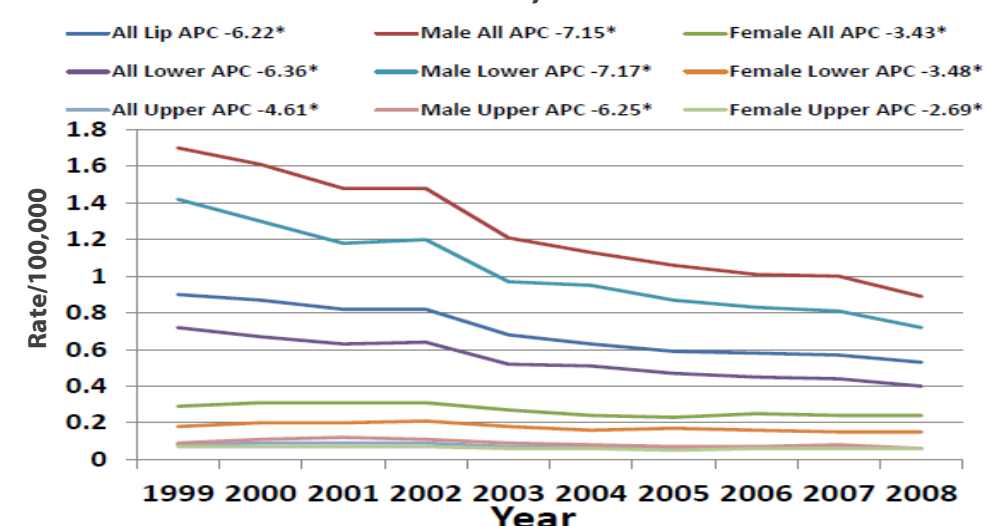
Rates of SSCL by Sex and Stage



Rates of SSCL by Sex and Region of US

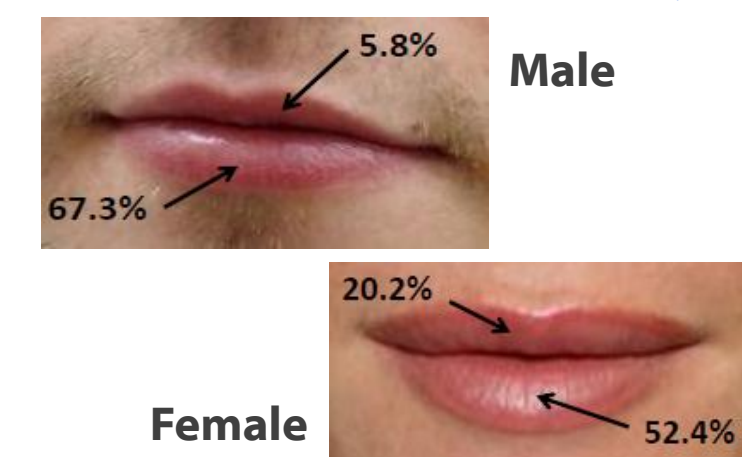


Annual Percentage Change in SSCL by Sex and Site, 1999-2008



* The APC is significantly different from zero (p<0.05).

External Upper and Lower SCCL by Sex



SUMMARY

- One in 10 oral cancers were SCCL.
- The majority of SCCL occur on the lower, external portion of the lip and are diagnosed in early stages.
- Incidence increased with age and was highest among males, ages 80+ (7.61/100,000).
- Rates were higher among whites and non-Hispanics and highest among person living in the West and Midwest regions.
- From 1999 to 2008, rates declined more rapidly among males than among females.

CONCLUSIONS

- Most SCCL in the US occur on the lower, external portion of the lip and among men in comparison to women.
- Rates have declined steadily over the last decade, likely associated with decreased sun exposure and smoking rates and increased used of UV lip protection.

JLCleveland@CDC.gov