

# The impact of reporting practices on state and local lip cancer rates, or: How many per million depends on the vermilion

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# Lip parts



Philtrum

Upper lip NOS {

Lower lip NOS {

Mentolabial sulcus

Vermillion border

Skin of upper lip, upper lip

Upper lip vermillion, upper lip,  
upper lipstick area

Oral commissure

Lower lip vermillion, lower lip,  
lower lipstick area

Skin of lower lip, lower lip

In the U.S., oral cancer and pharynx incidence ranges from 7.8 per 100,000 (Utah) to 13.5 (Kentucky) – less than a two-fold difference

Lip cancer incidence ranges from 0.3 (Ohio) to 2.7 (Idaho) – a nine-fold difference

Source: CINA+ 2007-2011

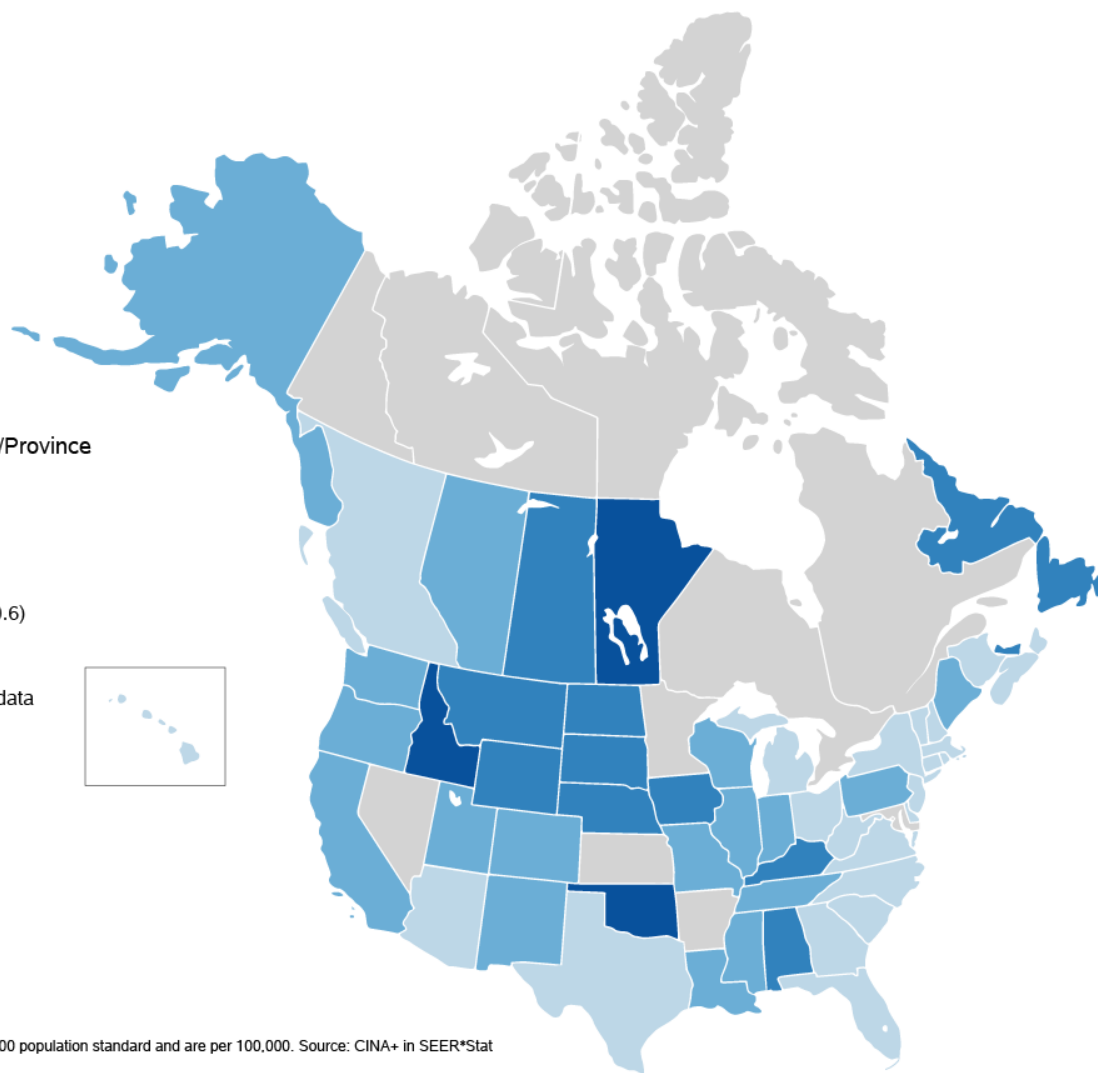
In Canada, oral cancer and pharynx incidence ranges from 8.9 per 100,000 (Saskatchewan) to 15.9 (Northwest Territories) – less than a two-fold difference

Lip cancer incidence ranges from 0.25 (New Brunswick) to 3.0 (Manitoba) – a 12-fold difference

Source: CINA+ 2007-2011

### Lip Cancer Rates, by State/Province 2007-2011

- 2.0 - 3.0
- 1.0 - < 2.0
- 0.5 - < 1.0 (average = 0.6)
- 0.25 - < 0.5
- Missing or insufficient data



Rates are age-adjusted to the U.S. 2000 population standard and are per 100,000. Source: CINA+ in SEER\*Stat

	Utah	Idaho	Iowa
Oral Cavity and Pharynx	7.9 (1)	12.6 (40)	11.7 (26)
Oral Cavity	6.0 (1)	9.6 (50)	8.0 (29)
Oral Cavity excluding lip	5.3 (1)	7.1 (26)	6.7 (11)
Lip	0.7 (25)	2.5 (50)	1.3 (45)

Rates (age-adjusted per 100,000) and state ranks (1=lowest rate), 2007-2011, white non-Hispanics

There could actually be two problems:

- True skin cancers reported as lip cancers (which inflates lip cancer rates)
- True lip cancers being counted as skin cancers and not being reported at all (which deflates lip cancer rates)

## True skin cancers reported as lip cancers:

NYSCR reviewed all lip cancers in NYS from 1995 to present containing the word “skin”, “basal”, or “BCC” anywhere in the text fields. These represented 24% (425/1738) of all lip cancers.

130 of 425 (31%) were determined to be skin. 3 were determined to be sites other than lip or skin.

The deleted/changed cases were disproportionately from smaller, non-COC facilities. Only 10% were from New York City. All years from 1990s-2010s were represented.

Crude lip cancer rates for these years have now dropped by 8%.  
Crude oral cavity & pharynx rates have now dropped by 0.5%.



These cases, for the most part, were processed automatically (because they passed all edits) – they were never touched or reviewed by a coder – most had only one source.

Our rule for these was: if not definitively lip, then assume skin

# True lip cancers not being reported:

(Idaho)

## **PATHOLOGY CONSULTATION**

SPECIMEN A: Shave Biopsy, Right Inferior Vermillion Lip

Signs and Symptoms: Erythem Tender Nodule W  
hyperkeratotic Scale

Clinical Diagnosis: R/O SCC

### **GROSS DESCRIPTION:**

Received in formalin is a piece of skin measuring 0.7 x  
0.6 x 0.2 cm which is inked, trisected and submitted in toto  
in 1 cassette.

### **MICROSCOPIC DESCRIPTION:**

(see description beneath Photomicrograph)

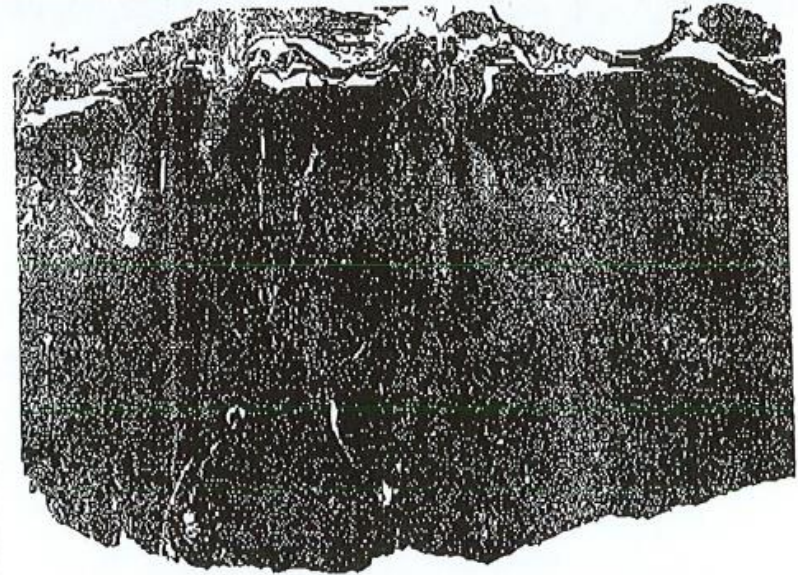
### **DIAGNOSIS:**

**INVASIVE SQUAMOUS CELL CARCINOMA, WELL TO  
MODERATELY DIFFERENTIATED. (ICD9-173.02)**

### **Comments:**

The lesion extends to the inked deep edge (base) of the  
specimen.

## **PHOTOMICROGRAPH**



The skin tissue demonstrates nests of atypical squamous  
cells extending into the dermis.

(New York)

Received fixed in formalin as "lower right lip" is a tan white nodule of soft tissue with tan brown base. Measuring 1.0 x 0.6 x 0.4 cm. The specimen was tetrasected and submitted in toto for embedding. Microscopic examination of wedge of soft tissue shows a specimen surfaced by stratified squamous epithelium with hyperkeratosis. Towards the center of the specimen, a proliferation of malignant keratinocytes invaded the subjacent dense fibrous connective tissue and extend to the base of the specimen. The malignant keratinocytes show anisonucleosis, nuclear hyperchromatism, and keratin pearl formation. The malignant infiltrate dissects the superficial bundles of skeletal muscle fibers at the base of the specimen. In addition, solar elastosis, patches of lymphocytes and eosinophils are noted. Epidermal appendages are also seen. WELL DIFFERENTIATED INVASIVE SQUAMOUS CELL CARCINOMA. RIGHT LOWER LIP. ICD: 140.1 The malignancy extends to the base of the specimen. Definitive treatment is warranted. UB13-02155\*Squamous cell carcinoma, keratinizing(8071)

Idaho has 1 lab with unfiltered path reports:

- 0 reportable lip cancers from this lab (ICD-9-CM 140.0-140.9)
- 32 non-reportable skin of lip (ICD-9-CM 173.00-173.02)
  - 7 of these 32 determined to be reportable lip after text review

What are our options?

## From the NYSCR reporting manual...

### **3.2.1.8.1 Reportable Lip Cases**

The codes for the mucoepidermoid portions of the lip are C00.0-C00.9. These include the inner mucosal surface of the lip, the vermilion surface of the lip, i.e., the pinkish colored area where lipstick is applied and the vermilion border of the lip. Report these cases.

C44.0 is the code for the SKIN of the upper lip between the vermilion border and the nose and SKIN of the lower lip between the vermilion border and the chin. Do NOT report these cases.

### **3.2.1.8.4 Reportable Squamous Cell Carcinomas**

Squamous cell carcinomas ARE reportable when they arise in the mucoepidermoid sites of the:

- Vulva (C51.0-C51.9)
- Vagina (C52.9)
- Penis (C60.0-C60.9)
- Scrotum (C63.2)
- Lip (C00.0-C00.9)
- Anus (C21.0)

# From the Louisiana Tumor Registry...



## LOUISIANA TUMOR REGISTRY MEMO

### Anal & Lip Cancers: A Reportability Issue

Please utilize the following info from SEER when determining reportability for these two sites:

1. ANUS: Squamous Cell Carcinoma of the anus IS REPORTABLE *UNLESS known or stated to be skin of anus (or perianal skin)*.

*When stated specifically to involve the skin of anus (perianal skin/tissue) it is not reportable and should be coded to C44.5 (skin of anus) not C21x Anus and Anal Canal.--LTR*

2. LIP: **Basal Cell Carcinoma** of lip, NOS is coded to C44.0 (skin of lip) because basal cell starts on skin cells, not mucous membranes. **Basal cell carcinoma of the skin is not reportable EXCEPT for genital sites, which are reportable.**

**Squamous Cell Carcinoma (SCC)** of lip, NOS can involve either skin or vermilion border [mucosa] of the lip (or both as an overlapping lesion):

- SCC of lip, NOS IS REPORTABLE and coded to C009-- **unless stated as skin of the lip**. Other stated lip sites (lower lip; upper lip, etc—codes C000-C008) are also REPORTABLE—**unless stated as skin of the lip**.
- If SCC is overlapping skin and vermilion border, go with the **area of greatest involvement**. If more than 50% of the lesion is on the vermilion border, code to the vermilion border (C00x) as this IS REPORTABLE.

*When stated specifically to involve the skin of the lip it is not reportable and should be coded to C44.0 (skin of lip) not C00x Lip.--LTR*

#### LTR Suggestions:

*If no other info is available, read gross description in path report to determine what was excised by the specimen/lesion description—skin (yellow/tan/brown etc) vs mucosa (pink/red etc).--LTR*

*Also, documentation that the physician performed a "Wedge Resection" is a good indication that the cancer involves the vermilion border of the lip and not the skin of the lip (unless stated specifically to involve skin).--LTR*

References: SEER SINQ #20061040; #20031110\* and #20051049\*

\*Last updated March 5, 2008 by SEER Staff <http://seer.cancer.gov/seer inquiry>

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2. LIP: **Basal Cell Carcinoma** of lip, NOS is coded to C44.0 (skin of lip) because basal cell starts on skin cells, not mucous membranes. **Basal cell carcinoma of the skin is not reportable EXCEPT for genital sites, which are reportable.**

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*When stated specifically to involve the skin of the lip it is not reportable and should be coded to C44.0 (skin of lip) not C00x Lip.--LTR*

*LTR Suggestions:*

*If no other info is available, read gross description in path report to determine what was excised by the specimen/lesion description—skin (yellow/tan/brown etc) vs mucosa (pink/red etc).--LTR*

*Also, documentation that the physician performed a “Wedge Resection” is a good indication that the cancer involves the vermilion border of the lip and not the skin of the lip (unless stated specifically to involve skin).--LTR*

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## From the SEER coding manual...

12. In the *absence of any additional information about the primary site*, assign the codes listed for these primary sites

<b>Primary site</b>	<b>Code</b>
Anal margin	C445
Angle of the stomach	C162
Book-leaf lesion (mouth)	C068
Colored / lipstick portion of upper lip	C000
Distal conus	C720
Edge of tongue	C021
Frontoparietal (brain)	C718
Gastric angular notch	C163
Infrahilar area of lung	C349
Leptomeninges	C709
Masticatory space	C069
Nail bed, thumb	C446
Pancreatobiliary	C269
Parapharyngeal space	C490
Perihilar bile duct	C240

From FORDS...

- Ongoing education/training
- Inclusion of relevant language in coding manuals including FORDS
- Require manual review of all lip cancers
- Require manual review of most lip cancers based on text

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