

Table 20.1a
Cancer of the Oral Cavity and Pharynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
Both Sexes by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^d</u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-1981	0.6	1981-2006	-1.1*							-1.1*	-1.1*
White	1975-2006	-0.8*									-0.8*	-0.8*
Black	1975-1984	2.4*	1984-2006	-2.5*							-2.5*	-2.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.3*									-1.3*	-1.3*
White	1992-2006	-1.0*									-1.0*	-1.0*
Black	1992-2006	-2.6*									-2.6*	-2.6*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1981	0.7	1981-2006	-1.1*							-1.1*	-1.1*
White	1975-2006	-0.9*									-0.9*	-0.9*
Black	1975-1984	2.5*	1984-2006	-2.6*							-2.6*	-2.6*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.4*									-1.4*	-1.4*
White	1992-2006	-1.2*									-1.2*	-1.2*
White NH ^{ef}	1992-2006	-0.9*									-0.9*	-0.9*
Black	1992-2006	-2.8*									-2.8*	-2.8*
Black NH ^{ef}	1992-2006	-2.7*									-2.7*	-2.7*
API ^e	1992-2006	-1.3*									-1.3*	-1.3*
AI/AN ^{eg}	1992-2006	-3.4*									-3.4*	-3.4*
Hispanic ^e	1992-2006	-2.3*									-2.3*	-2.3*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

^c Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

^e API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

^f Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, ME, MD, MN, NH, NY, ND, OK and VT.

^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero ($p < .05$).

- Joinpoint regression line analysis could not be performed on data series.

Table 20.1b
Cancer of the Oral Cavity and Pharynx for Selected Subsites (Invasive)

Trends in SEER 9 Observed Incidence^a Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints,
By Race and Sex

		<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^b</u>
		Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-2006
<u>Cancer of the Tongue</u>												
All Races	Both Sexes	1975-1999	0.4*	1999-2006	2.0*							2.0*
All Races	Male	1975-2006	0.7*									0.7*
All Races	Female	1975-2006	0.4*									0.4*
White	Male	1975-2006	1.0*									1.0*
White	Female	1975-2006	0.6*									0.6*
Black	Male	1975-1989	1.4	1989-2006	-3.1*							-3.1*
Black	Female	1975-2006	-1.3*									-1.3*
<u>Cancer of the Floor of Mouth, Gum and Other Mouth</u>												
All Races	Both Sexes	1975-1984	0.5	1984-2006	-2.6*							-2.6*
All Races	Male	1975-1984	0.3	1984-2006	-3.0*							-3.0*
All Races	Female	1975-1987	0.1	1987-2006	-2.2*							-2.2*
White	Male	1975-1984	-0.1	1984-2006	-2.8*							-2.8*
White	Female	1975-1986	0.7	1986-2006	-2.2*							-2.2*
Black	Male	1975-1977	53.5	1977-1996	-2.2*	1996-2006	-7.2*					-7.2*
Black	Female	1975-2006	-1.6*									-1.6*
<u>Cancer of the Oropharynx and Tonsil</u>												
All Races	Both Sexes	1975-1999	0.0	1999-2006	2.6*							2.6*
All Races	Male	1975-1995	0.2	1995-2006	2.1*							2.1*
All Races	Female	1975-2006	-1.3*									-1.3*
White	Male	1975-1996	0.3	1996-2006	3.3*							3.3*
White	Female	1975-2006	-1.1*									-1.1*
Black	Male	1975-2006	-0.6									-0.6
Black	Female	1975-2006	-1.9*									-1.9*
<u>Cancer of the Salivary Gland</u>												
All Races	Both Sexes	1975-2006	0.5*									0.5*
All Races	Male	1975-2006	0.6*									0.6*
All Races	Female	1975-2006	0.4*									0.4*
White	Male	1975-2006	0.6*									0.6*
White	Female	1975-2006	0.3									0.3
Black	Male	1975-1999	2.7*	1999-2006	-9.0							-9.0
Black	Female	1975-2006	0.5									0.5
<u>Cancer of the Lip</u>												
All Races	Both Sexes	1975-1998	-3.2*	1998-2006	-6.1*							-6.1*
All Races	Male	1975-1996	-3.7*	1996-2006	-6.4*							-6.4*
All Races	Female	1975-2001	0.0	2001-2006	-7.4*							-7.4*
White	Male	1975-1996	-3.4*	1996-2006	-6.6*							-6.6*
White	Female	1975-2001	0.1	2001-2006	-7.4*							-7.4*
Black	Male	-	-									-
Black	Female	-	-									-

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^a The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2006.

^b

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The APC/AAPC is significantly different from zero ($p < .05$).

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Joinpoint regression line analysis could not be performed on data series.

Table 20.2
Cancer of the Oral Cavity and Pharynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
Males by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^d</u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-2006	-1.2*									-1.2*	-1.2*
White	1975-2006	-1.1*									-1.1*	-1.1*
Black	1975-1987	1.9*	1987-2006	-3.2*							-3.2*	-3.2*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.5*									-1.5*	-1.5*
White	1992-2006	-1.2*									-1.2*	-1.2*
Black	1992-2006	-3.2*									-3.2*	-3.2*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1983	-0.2	1983-2006	-1.4*							-1.4*	-1.4*
White	1975-2006	-1.2*									-1.2*	-1.2*
Black	1975-1987	1.9*	1987-2006	-3.3*							-3.3*	-3.3*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.6*									-1.6*	-1.6*
White	1992-2006	-1.3*									-1.3*	-1.3*
White NH ^{ef}	1992-2006	-1.1*									-1.1*	-1.1*
Black	1992-2006	-3.3*									-3.3*	-3.3*
Black NH ^{ef}	1992-2006	-3.3*									-3.3*	-3.3*
API ^e	1992-2006	-1.6*									-1.6*	-1.6*
AI/AN ^{eg}	1992-2006	-6.6*									-6.6*	-6.6*
Hispanic ^e	1992-2006	-2.6*									-2.6*	-2.6*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

^c Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

^e API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

^f Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, ME, MD, MN, NH, NY, ND, OK and VT.

^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero ($p < .05$).

- Joinpoint regression line analysis could not be performed on data series.

Table 20.3
Cancer of the Oral Cavity and Pharynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
Females by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^d</u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-1980	2.5	1980-2006	-0.9*							-0.9*	-0.9*
White	1975-1981	2.0	1981-2006	-0.9*							-0.9*	-0.9*
Black	1975-2006	-1.3*									-1.3*	-1.3*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.1*									-1.1*	-1.1*
White	1992-2006	-1.2*									-1.2*	-1.2*
Black	1992-2006	-1.0									-1.0*	-1.0*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1980	2.6*	1980-2006	-1.0*							-1.0*	-1.0*
White	1975-1981	2.1*	1981-2006	-1.0*							-1.0*	-1.0*
Black	1975-2006	-1.4*									-1.4*	-1.4*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.3*									-1.3*	-1.3*
White	1992-2006	-1.4*									-1.4*	-1.4*
White NH ^{ef}	1992-2006	-1.1*									-1.1*	-1.1*
Black	1992-2006	-1.2*									-1.2*	-1.2*
Black NH ^{ef}	1992-2006	-1.1									-1.1*	-1.1*
API ^e	1992-2006	-0.8									-0.8	-0.8
AI/AN ^{eg}	1992-2006	1.9									1.9	1.9
Hispanic ^e	1992-2006	-2.0*									-2.0*	-2.0*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

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^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

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^c Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

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^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero ($p < .05$).

- Joinpoint regression line analysis could not be performed on data series.

Table 20.4
Cancer of the Oral Cavity and Pharynx (Invasive)
Age-adjusted SEER Incidence^a Rates by Year, Race and Sex

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975	13.21	21.19	7.10	13.30	21.72	6.93	13.38	20.16	8.25
1976	13.28	21.01	7.38	13.23	21.03	7.37	15.18	23.76	8.37
1977	12.73	20.11	6.95	12.59	19.85	7.01	14.45	23.86	6.65
1978	13.38	20.86	7.71	13.21	20.76	7.58	15.83	25.97	8.05
1979	14.04	21.94	8.01	13.72	21.63	7.74	18.39	28.16	10.64
1980	13.34	20.27	7.91	12.98	19.98	7.60	16.82	25.39	9.59
1981	13.59	20.85	7.92	13.40	20.51	7.95	16.65	28.16	7.46
1982	13.34	20.33	7.93	13.09	19.95	7.85	17.12	27.39	8.86
1983	13.29	21.21	7.24	13.25	21.21	7.29	16.12	26.08	8.32
1984	13.46	20.75	7.86	12.99	20.11	7.64	18.91	29.99	10.07
1985	13.33	19.84	8.24	13.27	19.60	8.35	16.07	25.87	8.53
1986	12.47	19.13	7.21	12.36	18.87	7.30	16.18	28.09	6.97
1987	13.21	20.55	7.51	13.11	20.19	7.66	16.81	30.00	6.99
1988	12.13	18.15	7.30	11.78	17.70	7.09	16.43	25.56	9.08
1989	12.12	18.30	7.26	11.84	17.71	7.30	15.75	27.16	7.05
1990	12.64	19.37	7.34	12.37	18.78	7.39	15.99	27.77	6.92
1991	12.16	18.35	7.25	12.08	18.11	7.30	14.41	23.71	7.32
1992	11.96	18.32	6.92	11.81	18.02	6.93	14.79	25.08	6.94
1993	12.43	18.71	7.29	12.23	18.41	7.21	15.54	24.85	8.10
1994	11.71	17.67	6.83	11.39	16.84	6.92	15.62	26.64	6.99
1995	11.54	16.93	7.20	11.53	16.73	7.34	13.47	22.46	6.66
1996	11.76	17.73	6.99	11.45	17.23	6.87	14.97	24.34	7.63
1997	11.51	17.33	6.76	11.52	17.19	6.87	11.45	18.24	6.19
1998	11.23	16.66	6.76	11.23	16.41	6.91	13.00	22.44	6.22
1999	10.57	15.55	6.45	10.46	15.42	6.33	11.74	19.78	5.82
2000	10.73	16.02	6.28	10.65	15.61	6.41	11.68	20.70	4.87
2001	10.77	15.40	6.89	10.83	15.46	6.90	11.88	18.61	6.91
2002	11.02	16.18	6.66	11.21	16.42	6.75	10.97	16.79	6.41
2003	10.40	15.43	6.12	10.33	15.41	5.95	11.57	16.69	7.51
2004	10.63	15.74	6.20	10.81	15.99	6.22	9.87	15.65	5.56
2005	10.41	15.15	6.37	10.52	15.48	6.20	10.78	16.10	6.87
2006	10.29	14.97	6.24	10.42	14.97	6.39	9.61	15.85	4.96
1975-2006	12.01	18.11	7.08	11.95	17.99	7.09	13.76	22.39	7.10

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 20.6a
Cancer of the Oral Cavity and Pharynx (Invasive)
SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2002-2006									
All ages	10.4	15.4	6.1	10.5	15.6	6.1	10.5	16.7	5.8
Under 65	6.3	9.4	3.4	6.3	9.3	3.3	7.1	10.9	3.8
65 and over	38.5	57.3	24.7	39.8	59.0	25.5	34.4	56.2	19.8
All ages (IARC world std) ^c	7.4	11.0	4.2	7.5	11.1	4.2	7.8	12.4	4.2
Age-Specific Rates, 2002-2006									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	-	-	0.1	-	-	-	-	-
10-14	0.3	0.3	0.3	0.3	0.2	0.3	-	-	-
15-19	0.4	0.4	0.4	0.4	0.4	0.3	0.6	-	-
20-24	0.7	0.6	0.8	0.6	0.5	0.7	0.8	-	-
25-29	1.1	1.0	1.1	0.9	0.9	1.0	1.1	1.1	1.0
30-34	1.7	1.8	1.6	1.5	1.5	1.4	1.7	1.8	1.6
35-39	2.9	3.6	2.3	2.7	3.3	2.0	2.7	3.1	2.3
40-44	5.9	8.3	3.5	5.7	8.1	3.2	6.1	8.5	4.0
45-49	11.9	17.7	6.2	11.7	17.5	5.8	13.9	19.9	8.5
50-54	18.8	29.1	8.9	18.8	29.3	8.5	21.9	34.3	11.4
55-59	25.5	40.2	11.7	25.7	40.1	11.7	30.1	52.2	11.8
60-64	31.6	48.4	16.1	32.5	49.6	16.5	32.9	54.9	15.4
65-69	35.7	54.0	19.9	36.7	54.9	20.6	35.2	58.8	17.2
70-74	39.3	58.4	23.9	40.8	59.8	25.3	39.7	69.7	18.6
75-79	40.1	58.5	26.9	41.6	60.7	27.7	35.2	53.5	23.9
80-84	40.2	60.0	27.8	41.4	62.3	28.3	31.1	53.5	18.8
85+	38.4	56.8	29.8	39.5	60.0	30.1	24.3	30.9	21.6
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2002-2006									
All ages									
Under 65									
65 and over									
All ages (IARC world std) ^c									
Age-Specific Rates, 2002-2006									
<1									
1-4									
5-9									
10-14									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59									
60-64									
65-69									
70-74									
75-79									
80-84									
85+									

^a SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^c Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

- Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 20.6b
 Cancer of the Oral Cavity and Pharynx by Subsite (Invasive)
 SEER Incidence^a Stage Distribution by Site,
 Age-Adjusted SEER Incidence^a and U.S. Death^b Rates by Age, Race and Sex

	Site									
	Oral Cavity & Pharynx	Lip	Tongue	Floor of Mouth	Gum & Other Mouth ^c	Oropharynx & Tonsil ^c	Hypophar. ^c	Salivary Gland	Nasophar. ^c	Other Oral Cavity & Pharynx ^c
<u>SEER Incidence</u>										
Stage Distribution, 2002-2006										
Percent of Total ^d										
Localized	34	89	36	41	-	-	-	44	-	-
Regional	44	4	44	47	-	-	-	31	-	-
Distant	14	1	14	5	-	-	-	16	-	-
Unstaged	8	7	6	6	-	-	-	8	-	-
Age-Adjusted Rates, 2002-2006										
Age at Diagnosis										
All ages	10.4	0.8	2.8	0.6	1.5	1.9	0.7	1.2	0.7	0.2
Under 65	6.3	0.3	1.8	0.4	0.7	1.4	0.3	0.7	0.5	0.1
65+	38.5	3.8	9.9	2.4	6.9	4.8	3.1	5.1	1.6	0.9
All ages(IARC world std) ^e	7.4	0.5	2.1	0.5	1.0	1.4	0.5	0.8	0.5	0.1
Sex										
Male	15.4	1.3	4.2	0.9	1.8	3.1	1.2	1.6	1.0	0.3
Female	6.1	0.4	1.7	0.4	1.2	0.7	0.3	1.0	0.4	0.1
Race										
White	10.5	0.9	3.0	0.7	1.5	1.9	0.7	1.2	0.4	0.2
Black	10.5	0.1	2.3	0.7	1.7	2.3	1.2	1.0	0.7	0.4
Other	8.8	0.4	2.0	0.3	1.2	0.8	0.4	1.1	2.5	0.1
<u>U.S. Mortality</u>										
Age-Adjusted Rates, 2002-2006										
Age at Death										
All ages										
Under 65										
65+										
All ages(IARC world std) ^e										
Sex										
Male										
Female										
Race										
White										
Black										
Other										

^a SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^c Stage distribution was not calculated for this site due to inconsistent coding of stage over time.

^d Percents may not sum to 100 due to rounding.

^e Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 20.7a
Cancer of the Oral Cavity and Pharynx (Invasive)

Survival Rates, by Race, Sex, Diagnosis Year, Stage and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival Rates									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	45	-	-	-	-	-
1970-1973 ^a	-	-	-	43	-	-	-	-	-
1975-1977 ^b	53.1	51.9	55.8	54.6	54.1	55.9	36.2	29.7	48.9
1978-1980 ^b	54.0	52.4	57.5	56.2	55.2	58.3	35.1	29.9	46.2
1981-1983 ^b	52.6	51.0	56.0	55.0	53.8	57.5	31.8	26.4	45.7
1984-1986 ^b	54.6	52.0	59.8	56.8	55.2	60.1	35.8	29.9	50.3
1987-1989 ^b	54.2	51.4	59.9	56.6	54.4	61.0	34.4	30.1	44.8
1990-1992 ^b	56.2	53.7	61.3	58.7	56.9	62.4	33.3	28.3	46.8
1993-1995 ^b	58.4	56.7	61.9	60.9	60.0	62.6	38.1	32.7	51.5
1996-1998 ^b	58.8	57.0	62.7	61.1	60.0	63.4	36.3	31.4	48.7
1999-2005 ^b	62.5 ^e	61.5 ^e	64.7 ^e	64.4 ^e	64.1 ^e	65.0 ^e	46.1 ^e	41.0 ^e	57.1
5-Year Period Survival Rates^{cd}									
Year of Diagnosis:									
1999-2005	61.6	60.6	63.8	63.5	63.2	64.3	42.8	37.9	54.1
Stage Distribution (%) 1999-2005^c									
All Stages									
Number of cases	39,621	27,290	12,331	32,210	22,337	9,873	3,888	2,731	1,157
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	34	30	42	36	32	44	22	18	31
Regional	46	49	38	45	49	37	51	54	45
Distant	14	14	12	12	13	11	20	21	18
Unstaged	7	7	7	7	7	7	6	6	6
5-Year Relative Survival Rates, 1999-2005^c									
Age at Diagnosis:									
Ages <45	77.4	74.2	83.2	80.0	77.3	85.1	62.0	54.0	73.4
Ages 45-54	64.9	63.3	69.9	68.6	67.4	72.9	40.2	37.8	46.4
Ages 55-64	60.2	58.8	64.5	62.6	61.4	66.1	38.8	36.7	46.8
Ages 65-74	55.1	54.5	56.2	56.6	56.8	56.3	35.4	31.0	45.7
Ages 75+	48.5	47.7	49.3	49.4	48.8	50.0	38.1	28.4	48.8 ^f
Ages <65	65.5	63.3	71.4	68.1	66.4	73.1	44.4	40.2	55.0
Ages 65+	52.5	52.3	53.0	53.8	54.1	53.3	36.5	30.4	47.3
Stage:									
All Stages	61.0	59.9	63.3	62.8	62.4	63.8	42.6	38.2	53.2
Localized	82.7	82.0	83.7	83.1	82.9	83.4	74.2	65.7	85.1
Regional	54.3	55.4	51.2	56.4	58.2	50.9	36.3	34.8	40.6
Distant	31.8	31.0	34.0	32.1	31.3	34.1	24.5	23.5	27.5
Unstaged	53.4	52.8	54.4	53.6	53.3	53.8	39.8	35.9	47.4 ^f

^a Rates are based on End Results data from a series of hospital registries and one population-based registry.

^b Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Rates are based on follow-up of patients into 2006.

^c Rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005.

^d The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2003-2005: 0-1 year survival),

(2002-2004: 1-2 year survival), (2001-2003: 2-3 year survival), (2000-2002: 3-4 year survival), (1999-2001: 4-5 years survival).

^e The difference in rates between 1975-1977 and 1999-2005 is statistically significant ($p < .05$).

^f The standard error of the survival rate is between 5 and 10 percentage points.

^g The standard error of the survival rate is greater than 10 percentage points.

- Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 20.7b
Cancer of the Oral Cavity and Pharynx by Subsite (Invasive)

Relative Survival Rates^a by Cancer Site, 1999-2005

Site	Number of Cases	Case Distribution (%)	Survival Years				
			1-Year Percent	2-Year Percent	3-Year Percent	4-Year Percent	5-Year Percent
Oral Cavity & Pharynx	39621	100	83.0	72.1	66.9	63.6	61.0
Lip	3250	8	98.5	96.0	94.1	92.1	91.1
Tongue	10438	26	82.3	69.6	64.3	61.5	59.5
Gum & Other Mouth	5485	14	81.6	71.2	66.4	62.7	59.5
Floor of Mouth	2462	6	79.8	66.6	60.1	56.7	53.0
Oropharynx & Tonsil	7234	18	83.6	72.9	68.1	64.3	62.1
Hypopharynx	2603	7	66.1	47.6	38.7	33.6	29.2
Salivary Gland	4555	11	89.4	82.1	77.7	76.1	73.9
Nasopharynx	2836	7	83.1	73.0	66.0	61.9	57.6
Other Oral Cavity & Pharynx	758	2	60.0	46.4	40.2	36.0	34.3

5-Year Relative Survival Rates, 1999-2005

SITE	Stage					All Stages			
	All Stages	Localized	Regional	Distant	Unstaged	White Male	White Female	Black Male	Black Female
Oral Cavity & Pharynx	61.0	82.7	54.3	31.8	53.4	62.4	63.8	38.2	53.2
Lip	91.1	93.8	55.3 ^b	44.4 ^b	81.5 ^b	90.8	92.0	85.9 ^c	-
Tongue	59.5	77.2	55.1	29.1	54.0	62.0	62.2	32.4	34.3
Gum & Other Mouth ^d	59.5	-	-	-	-	57.8	62.9	46.7	64.5
Floor of Mouth	53.0	75.5	38.5	15.3	44.9 ^b	53.0	56.7	37.3	56.2 ^b
Oropharynx & Tonsil ^d	62.1	-	-	-	-	66.9	59.1	36.5	40.9
Hypopharynx ^d	29.2	-	-	-	-	30.6	30.3	20.9	27.7 ^b
Salivary Gland	73.9	94.8	59.1	40.7	54.0	67.9	79.9	65.7	81.6
Nasopharynx ^d	57.6	-	-	-	-	55.0	49.5	48.9	54.4 ^b
Other Oral Cavity & Pharynx ^d	34.3	-	-	-	-	39.7	31.8	19.9 ^b	18.1 ^b

^a Rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005. The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

^b The standard error of the survival rate is between 5 and 10 percentage points.

^c The standard error of the survival rate is greater than 10 percentage points.

^d Survival rates by stage were not calculated for this site due to inconsistent coding of stage over time.

- Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 20.8a
Cancer of the Oral Cavity and Pharynx (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER ^b)																			
1-year	80.3	80.2	81.3	82.1	81.9	80.5	82.1	83.8	83.5	82.2	84.3	81.5	84.3	85.3	83.5	84.2	84.6	85.0	83.9
2-year	66.4	66.6	68.1	70.1	69.7	69.4	69.1	72.4	72.2	70.3	71.6	70.6	72.9	73.9	73.7	73.3	75.4	75.9	
3-year	60.2	60.2	61.5	63.6	63.2	62.3	63.2	66.7	66.0	64.1	66.6	64.8	66.1	69.0	67.9	68.1	70.7		
4-year	56.3	56.2	57.7	60.4	58.6	57.8	59.1	62.4	62.3	60.6	62.8	60.8	62.8	65.3	63.5	65.0			
5-year	53.4	53.2	54.6	57.7	55.4	55.5	56.3	59.6	59.4	58.8	59.6	58.0	59.9	62.6	61.2				
6-year	51.1	50.5	52.2	55.6	52.7	53.0	54.1	57.0	57.0	56.5	57.3	57.0	57.3	60.9					
7-year	49.1	48.4	49.8	53.3	50.7	50.5	51.8	55.9	54.7	55.1	56.0	55.3	55.1						
8-year	47.0	46.9	47.8	51.6	49.3	48.5	49.8	52.9	52.7	53.0	55.0	54.6							
9-year	45.2	45.1	46.1	48.9	47.8	46.6	47.8	50.6	50.9	52.0	54.0								
10-year	43.3	43.5	44.5	47.1	46.2	45.2	46.6	48.7	49.8	50.1									
11-year	41.5	42.2	43.3	46.0	44.1	43.2	45.1	47.1	48.1										
12-year	40.1	40.9	41.9	45.1	42.2	42.1	44.7	46.2											
13-year	39.0	39.3	40.5	43.2	41.7	40.8	43.7												
14-year	38.1	38.4	39.4	42.1	41.2	39.5													
15-year	36.8	36.9	38.6	41.7	40.8														
16-year	35.7	35.8	37.7	41.4															
17-year	35.0	35.0	37.1																
18-year	34.1	34.1																	
19-year	33.6	32.7																	
20-year	32.7	32.4																	

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 20.8b
Cancer of the Oral Cavity and Pharynx For Selected Subsites (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER ^b)																			
<u>Cancer of the Tongue</u>																			
1-year	75.3	74.4	77.8	80.3	82.2	77.3	82.0	82.1	80.4	79.9	82.5	80.2	82.3	85.5	82.4	82.0	85.3	87.4	85.1
2-year	55.5	58.1	60.9	64.6	67.3	60.6	65.8	68.7	65.9	67.0	71.4	66.4	68.8	72.1	71.6	69.4	71.9	75.9	
3-year	48.1	51.4	55.0	58.5	59.3	51.2	57.6	63.2	59.2	61.1	65.7	59.8	61.1	66.9	65.2	63.9	67.5		
4-year	44.3	48.1	50.6	55.8	54.1	47.4	54.7	58.9	57.2	57.4	62.7	56.2	59.0	64.2	62.3	61.6			
5-year	41.1	45.5	48.1	52.9	53.3	44.6	52.3	55.1	54.8	55.8	59.0	53.7	56.3	63.1	60.0				
6-year	39.4	42.7	45.9	50.7	49.7	43.2	50.5	53.0	51.4	53.7	57.7	53.5	54.6	61.6					
7-year	38.4	40.1	43.2	48.0	48.0	41.6	47.8	52.4	49.5	52.6	57.0	51.0	52.3						
8-year	37.0	38.4	41.4	45.8	47.3	40.3	45.7	49.0	47.6	51.0	56.1	49.7							
9-year	35.9	35.7	39.8	42.8	45.8	36.5	43.4	47.1	43.4	47.1	46.0	50.2	55.6						
10-year	34.2	34.3	38.8	40.9	43.1	34.1	43.1	46.0	44.9	48.3									
<u>Cancer of the Lip</u>																			
1-year	99.3	98.2	99.5	99.0	100.0	100.0	99.3	100.0	99.9	98.3	100.0	99.3	97.5	97.9	94.9	99.6	99.4	99.8	97.9
2-year	97.5	96.6	98.0	97.8	98.2	98.5	98.7	100.0	99.5	94.1	96.9	97.8	95.3	95.7	93.9	99.6	99.4	99.8	
3-year	97.1	94.4	96.9	96.3	98.2	97.0	98.6	100.0	98.7	92.8	94.7	95.4	93.9	94.6	93.9	97.0	98.1		
4-year	95.7	93.3	96.6	96.3	97.4	95.3	98.6	98.1	95.8	91.9	93.2	93.6	92.1	91.4	91.5	96.7			
5-year	94.4	91.2	95.7	95.1	95.5	94.5	96.5	97.6	94.7	89.6	91.0	91.3	90.6	88.9	90.7				
6-year	92.6	89.2	94.8	93.2	95.5	91.0	95.9	97.2	94.7	88.7	89.6	90.1	89.9	88.8					
7-year	91.5	88.1	93.1	92.5	95.5	88.2	94.3	97.2	94.7	88.4	88.8	90.1	89.6						
8-year	90.3	88.1	91.7	92.2	95.1	85.9	91.6	96.1	90.5	85.5	88.8	87.5							
9-year	88.4	87.5	91.0	89.9	93.0	84.8	90.3	94.3	86.2	85.3	88.8								
10-year	86.6	86.4	90.8	89.1	91.0	83.2	88.7	91.4	82.1	85.3									
<u>Cancer of the Oropharynx and Tonsil</u>																			
1-year	71.4	72.4	74.0	76.8	76.8	71.4	77.6	74.7	81.1	80.4	81.7	81.2	87.5	82.9	84.1	85.8	82.7	84.5	84.4
2-year	54.2	53.4	56.9	60.5	63.0	58.5	64.8	63.7	70.2	66.8	67.4	66.7	75.5	67.7	72.6	76.8	76.1	75.1	
3-year	44.8	45.2	46.5	51.8	57.7	49.9	55.6	57.7	63.0	60.6	62.3	60.1	67.9	62.7	67.3	72.4	71.7		
4-year	39.4	40.1	42.4	48.1	53.3	45.1	49.7	53.4	58.9	54.3	56.8	55.1	63.6	58.1	60.9	68.4			
5-year	36.3	36.2	38.8	43.4	46.7	41.7	46.3	50.1	54.8	53.2	52.5	53.3	61.1	54.5	59.5				
6-year	32.9	33.0	35.8	43.1	41.8	40.7	44.3	47.1	51.4	48.9	49.4	52.3	58.2	53.7					
7-year	31.1	30.6	33.3	41.1	40.3	39.8	43.4	46.6	48.0	44.9	48.7	51.1	56.3						
8-year	27.5	29.1	31.7	39.7	37.7	38.8	41.5	43.3	47.3	43.9	48.2	50.7							
9-year	24.8	26.9	29.9	36.0	35.9	37.1	38.9	42.2	46.2	43.2	46.4								
10-year	23.6	24.5	27.9	35.8	34.1	37.1	35.7	41.3	45.5	42.3									

^a Survival rates are relative rates expressed as percents.

^b Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 20.9
Cancer of the Oral Cavity and Pharynx (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER ^b)																			
1-year	79.7	79.6	80.6	81.3	81.5	79.8	81.0	84.0	83.5	81.9	83.4	81.1	84.7	85.1	84.1	84.4	84.9	85.6	84.4
2-year	65.5	65.7	66.6	68.0	68.7	68.1	67.6	72.6	71.2	69.6	70.1	70.4	71.9	73.3	73.8	72.1	75.1	75.8	
3-year	59.3	58.8	59.4	61.6	61.4	60.3	60.9	65.4	65.2	62.8	65.0	64.1	64.5	67.7	68.2	65.9	70.2		
4-year	54.9	54.7	55.3	58.2	55.4	56.2	57.1	60.8	60.9	59.0	60.6	59.6	60.8	64.1	63.3	63.0			
5-year	52.0	51.4	51.8	55.4	52.0	53.7	54.1	58.3	58.0	57.2	57.2	56.6	58.2	61.3	60.8				
6-year	49.7	48.8	49.7	53.2	49.4	51.5	51.6	55.9	55.3	54.4	54.8	55.6	55.3	59.1					
7-year	47.6	46.7	47.5	50.7	47.0	48.5	48.8	55.0	52.5	52.3	53.7	53.7	53.4						
8-year	45.7	45.1	45.3	49.3	45.7	46.4	47.7	52.2	50.3	50.5	52.8	52.6							
9-year	43.8	43.5	43.5	46.6	44.2	44.6	45.4	49.6	48.5	49.8	51.5								
10-year	41.7	41.6	41.6	45.6	42.2	43.2	44.6	47.7	47.0	47.9									
11-year	40.0	40.2	40.4	44.4	40.5	41.5	43.3	46.4	45.2										
12-year	38.7	39.0	39.0	43.7	38.2	40.3	42.7	45.5											
13-year	37.6	37.7	37.7	41.7	37.9	39.1	41.3												
14-year	36.8	36.8	36.6	40.4	37.7	37.7													
15-year	35.6	35.4	35.7	39.9	37.3														
16-year	34.4	34.3	34.9	39.3															
17-year	33.7	33.3	34.2																
18-year	33.0	32.3																	
19-year	32.5	30.6																	
20-year	31.7	30.1																	

^a

Survival rates are relative rates expressed as percents.

^b

Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 20.10
Cancer of the Oral Cavity and Pharynx (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER ^b)																			
1-year	81.7	81.3	82.8	83.9	82.8	81.9	84.5	83.5	83.6	82.6	86.2	82.4	83.4	85.8	82.3	83.9	84.0	83.5	82.8
2-year	68.4	68.4	71.2	74.7	71.7	72.3	72.5	71.9	74.0	71.8	75.0	71.0	75.0	75.2	73.3	76.0	76.1	76.2	
3-year	62.1	63.1	65.9	67.9	66.9	66.3	68.2	69.3	67.5	66.7	70.2	66.5	69.5	71.8	67.1	72.7	71.8		
4-year	59.3	59.2	62.6	65.1	65.0	61.2	63.5	65.9	64.9	63.8	68.0	63.4	66.9	67.8	64.0	69.2			
5-year	56.5	56.7	60.3	62.6	62.2	59.2	60.5	62.6	62.0	61.9	65.1	60.8	63.5	65.4	61.8				
6-year	54.1	54.0	57.3	60.7	59.3	56.3	59.4	59.2	60.3	60.8	62.9	59.7	61.6	64.6					
7-year	52.2	51.8	54.2	58.6	58.0	54.6	58.2	58.0	58.7	60.5	60.8	58.9	58.7						
8-year	49.8	50.5	52.9	56.3	56.4	52.8	54.5	54.6	57.1	58.1	59.9	58.6							
9-year	48.3	48.4	51.2	53.7	54.8	50.9	52.8	52.6	55.6	56.3	59.5								
10-year	46.4	47.2	50.3	50.3	54.0	49.6	51.1	50.7	54.6	54.6									
11-year	44.5	46.0	49.1	49.2	51.4	46.5	49.3	48.1	53.5										
12-year	43.1	44.4	47.5	47.9	50.3	45.3	49.1	47.6											
13-year	41.7	42.3	46.0	46.2	49.1	44.4	48.7												
14-year	40.5	41.4	44.9	45.5	47.7	43.1													
15-year	39.0	39.7	43.9	45.2	47.4														
16-year	38.0	38.7	42.9	45.2															
17-year	37.4	37.9	42.5																
18-year	36.3	37.3																	
19-year	35.5	36.6																	
20-year	34.4	36.4																	

^a

^b

Survival rates are relative rates expressed as percents.

Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 20.12a
Cancer of the Oral Cavity and Pharynx (Invasive)

SEER Incidence and U.S. Mortality
Age-Adjusted Rates and Trends^a
By Race/Ethnicity and Sex

SEER Incidence	SEER 17 Areas ^b			SEER 13 Areas ^b			SEER 9 Areas ^b		
	Rate 2002-2006			Trend 1997-2006 ^c			Trend 1997-2006 ^d		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	10.4	15.4	6.1	-1.4*	-1.6*	-1.3*	-1.1*	-1.4*	-1.0*
White	10.5	15.6	6.1	-1.2*	-1.3*	-1.4*	-0.9*	-1.2*	-1.0*
White Hispanic ^e	6.1	9.2	3.6	-2.3*	-2.7*	-2.0*	-	-	-
White Non-Hispanic ^e	11.2	16.7	6.5	-0.9*	-1.1*	-1.1*	-	-	-
Black	10.5	16.7	5.8	-2.8*	-3.3*	-1.2*	-2.6*	-3.3*	-1.4*
Asian/Pacific Islander	7.8	10.8	5.4	-1.3*	-1.6*	-0.8	-	-	-
Amer Ind/Alaska Nat ^f	7.1	9.2	5.1	-3.4*	-	-	-	-	-
Hispanic ^e	6.0	9.0	3.5	-2.3*	-2.6*	-2.0*	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2002-2006			Trend 1997-2006 ^h					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races									
White									
White Hispanic ^e									
White Non-Hispanic ^e									
Black									
Asian/Pacific Islander									
Amer Ind/Alaska Nat									
Total U.S.									
CHSDA Counties									
Non-CHSDA Counties									
Hispanic ^e									

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.3, April 2008, National Cancer Institute.

Statistic not shown. Rate based on less than 16 cases for the time interval.

Trend based on less than 10 cases for at least one year within the time interval.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends

are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

^c The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 2 Joinpoints over diagnosis years 1992-2006.

^d The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1975-2006.

^e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2002-2006 Hispanic and Non-Hispanic death rates exclude deaths from Minnesota, New Hampshire and North Dakota. The 1997-2006 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

^f Incidence data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^g US Mortality Files, National Center for Health Statistics, CDC.

^h The 1997-2006 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2006.

* The APC is significantly different from zero (p<.05).

Table 20.12b
Cancer of the Oral Cavity and Pharynx by Subsite (Invasive)

SEER Incidence
Age-Adjusted Rates and Trends^a by Race and Sex

	Site									
	Oral Cavity & Pharynx	Lip	Tongue	Floor of Mouth	Gum & Other Mouth	Oropharynx & Tonsil	Hypophar.	Salivary Gland	Nasophar.	Other Oral Cavity & Pharynx
<u>2002-2006, Rate per 100,000 persons^b</u>										
All Races										
Male and Female	10.4	0.8	2.8	0.6	1.5	1.9	0.7	1.2	0.7	0.2
Male	15.4	1.3	4.2	0.9	1.8	3.1	1.2	1.6	1.0	0.3
Female	6.1	0.4	1.7	0.4	1.2	0.7	0.3	1.0	0.4	0.1
White										
Male and Female	10.5	0.9	3.0	0.7	1.5	1.9	0.7	1.2	0.4	0.2
Male	15.6	1.5	4.4	1.0	1.8	3.2	1.1	1.7	0.6	0.3
Female	6.1	0.4	1.7	0.4	1.2	0.8	0.3	0.9	0.2	0.1
Black										
Male and Female	10.5	0.1	2.3	0.7	1.7	2.3	1.2	1.0	0.7	0.4
Male	16.7	0.2	3.8	1.2	2.3	4.0	2.2	1.2	1.2	0.6
Female	5.8	-	1.2	0.4	1.3	0.9	0.4	1.0	0.4	0.2
<u>Trend 1997-2006^c, APC(%)</u>										
All Races										
Male and Female	-1.5*	-6.8*	1.3*	-6.5*	-2.3*	1.4*	-5.3*	0.1	-1.5	-7.8*
Male	-1.7*	-7.3*	1.2	-6.0*	-2.3*	1.6*	-5.7*	-0.1	-1.6	-9.0*
Female	-1.4*	-5.1*	1.3*	-7.6*	-2.3*	-0.5	-4.5*	0.2	-1.3	-5.4*
White										
Male and Female	-1.3*	-6.6*	1.8*	-6.0*	-2.4*	2.3*	-5.5*	-0.2	-1.8*	-7.5*
Male	-1.4*	-7.1*	1.7*	-5.2*	-2.0*	2.7*	-6.0*	-0.3	-2.0	-8.9*
Female	-1.5*	-4.8*	1.8*	-7.7*	-2.9*	0.0	-4.4	-0.5	-1.2	-5.3*
Black										
Male and Female	-2.7*	-	-2.2	-9.1*	-2.3	-2.2	-2.5	1.3	-0.6	-
Male	-3.6*	-	-3.0*	-10.0*	-4.9*	-2.2	-3.2	-1.0	-	-
Female	-1.1	-	-0.7	-	1.8	-1.9	-	3.1	-	-

The APC is the Annual Percent Change over the time interval.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b Incidence data used in calculating the rates are from the 17 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

^c Incidence data used in calculating the trends are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).

- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

* The APC is significantly different from zero ($p < .05$).

Table 20.13
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted SEER Incidence Rates^a
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence Rates^a, 2002-2006</u>									
Atlanta & Rural Georgia	10.12	15.04	6.19	10.24	15.23	6.01	10.05	15.29	6.45
Atlanta	9.98	14.74	6.19	10.07	14.85	6.02	10.11	15.40	6.53
Rural Georgia	12.49	20.27	6.17	13.01	21.39	-	10.55	16.81	-
California	10.01	14.69	6.00	10.25	15.13	6.01	9.65	14.74	5.54
Greater Bay Area	10.15	14.43	6.47	10.26	14.68	6.41	9.36	14.06	5.59
San Francisco-Oakland	10.68	15.13	6.88	10.83	15.27	6.95	9.42	14.02	5.80
San Jose-Monterey	9.14	13.11	5.70	9.29	13.68	5.48	9.93	15.89	-
Los Angeles	8.73	12.77	5.38	8.75	12.81	5.34	10.34	16.17	5.96
Greater California	10.58	15.70	6.13	10.87	16.23	6.17	9.08	13.67	5.00
Connecticut	10.36	15.50	6.03	10.16	15.18	5.90	12.52	19.37	7.59
Detroit	11.60	17.38	6.87	11.54	17.10	6.90	12.01	18.97	6.84
Hawaii	11.50	16.51	6.82	17.35	24.24	9.93	-	-	-
Iowa	11.26	17.10	6.36	11.01	16.71	6.21	13.58	22.39	-
Kentucky	11.79	18.65	6.06	11.72	18.51	6.03	11.07	18.16	5.34
Louisiana	12.17	19.17	6.34	12.24	18.71	6.68	11.96	20.71	5.35
New Jersey	9.86	14.53	6.00	9.79	14.44	5.89	10.22	16.49	5.83
New Mexico	9.12	13.58	5.14	9.68	14.42	5.40	-	-	-
Seattle-Puget Sound	10.88	15.62	6.63	11.28	16.18	6.83	7.03	10.67	-
Utah	8.06	11.55	4.92	8.15	11.76	4.89	-	-	-
9 SEER Areas ^b	10.55	15.49	6.31	10.66	15.66	6.30	10.51	16.17	6.22
11 SEER Areas ^b	10.05	14.75	6.06	10.17	14.94	6.04	10.44	16.13	6.13
13 SEER Areas ^b	10.07	14.78	6.07	10.18	14.96	6.04	10.44	16.12	6.13
17 SEER Areas ^b	10.38	15.42	6.09	10.50	15.62	6.08	10.51	16.65	5.82

^a Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 20.18
Cancer of the Oral Cavity and Pharynx (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2006
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <16 ^e	0 to <31 ^e	>=31 ^g	Complete ^h	
Race	Sex											
All Races ^b	Both Sexes	88,149	54,740	35,668	23,399	15,340	10,487	184,526	229,332	15,141	244,473	
	Males	59,730	35,629	22,720	14,107	9,060	6,161	121,846	148,389	8,861	157,250	
	Females	28,419	19,111	12,948	9,292	6,280	4,326	62,680	80,943	6,280	87,223	
White ^b	Both Sexes	75,611	47,666	31,443	20,922	13,658	9,255	160,023	199,915	12,831	212,746	
	Males	52,030	31,379	20,320	12,839	8,269	5,595	107,162	131,318	7,583	138,901	
	Females	23,581	16,287	11,123	8,083	5,389	3,660	52,861	68,597	5,248	73,845	
Black ^b	Both Sexes	7,560	3,920	2,478	1,453	1,008	707	14,343	17,246	776	18,022	
	Males	4,627	2,322	1,335	743	429	270	8,459	9,780	308	10,088	
	Females	2,933	1,598	1,143	710	579	437	5,884	7,466	468	7,934	
Asian/ Pacific Islander ^c	Both Sexes	3,186	2,038	1,172	+	+	+	6,552	+	+	+	
	Males	1,981	1,254	704	+	+	+	4,030	+	+	+	
	Females	1,205	784	468	+	+	+	2,522	+	+	+	
Hispanic ^d	Both Sexes	4,089	2,379	1,449	+	+	+	8,131	+	+	+	
	Males	2,676	1,463	806	+	+	+	5,062	+	+	+	
	Females	1,413	916	643	+	+	+	3,069	+	+	+	

Estimated prevalence percent^a on January 1, 2006, of the SEER 11 population diagnosed in the previous 16 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	All Ages	Age Specific (Crude)									Age-Adjusted ^f	
		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages	
Race	Sex											
All Races ^c	Both Sexes	0.0550%	0.0003%	0.0020%	0.0058%	0.0143%	0.0419%	0.1125%	0.1847%	0.2236%	0.2066%	0.0556%
	Males	0.0732%	-	0.0018%	0.0050%	0.0144%	0.0548%	0.1667%	0.2775%	0.3295%	0.3072%	0.0797%
	Females	0.0372%	0.0004%	0.0022%	0.0066%	0.0142%	0.0289%	0.0607%	0.1009%	0.1419%	0.1507%	0.0353%
White ^c	Both Sexes	0.0584%	0.0003%	0.0020%	0.0056%	0.0129%	0.0399%	0.1135%	0.1940%	0.2374%	0.2150%	0.0569%
	Males	0.0784%	-	0.0015%	0.0046%	0.0131%	0.0534%	0.1696%	0.2910%	0.3511%	0.3253%	0.0824%
	Females	0.0384%	0.0004%	0.0024%	0.0068%	0.0127%	0.0259%	0.0583%	0.1040%	0.1476%	0.1545%	0.0351%
Black ^c	Both Sexes	0.0361%	-	0.0026%	0.0055%	0.0128%	0.0365%	0.1023%	0.1498%	0.1617%	0.1093%	0.0442%
	Males	0.0461%	-	0.0039%	0.0059%	0.0106%	0.0427%	0.1514%	0.2297%	0.2431%	0.1323%	0.0617%
	Females	0.0271%	-	0.0014%	0.0052%	0.0147%	0.0310%	0.0615%	0.0877%	0.1076%	0.0982%	0.0309%
Asian/ Pacific Islander ^c	Both Sexes	0.0502%	-	0.0014%	0.0066%	0.0214%	0.0560%	0.1085%	0.1402%	0.1643%	0.1727%	0.0506%
	Males	0.0637%	-	-	0.0068%	0.0231%	0.0714%	0.1515%	0.2072%	0.2200%	0.2423%	0.0685%
	Females	0.0375%	-	0.0016%	0.0064%	0.0198%	0.0418%	0.0707%	0.0834%	0.1234%	0.1268%	0.0360%
Hispanic ^d	Both Sexes	0.0182%	-	0.0011%	0.0025%	0.0079%	0.0204%	0.0569%	0.1057%	0.1366%	0.1340%	0.0315%
	Males	0.0220%	-	0.0010%	0.0021%	0.0074%	0.0249%	0.0783%	0.1559%	0.2005%	0.1786%	0.0434%
	Females	0.0143%	-	0.0013%	0.0029%	0.0084%	0.0157%	0.0366%	0.0632%	0.0901%	0.1081%	0.0219%

^a US 2006 cancer prevalence counts are based on 2006 cancer prevalence proportions from the SEER registries and 1/1/2006 US population estimates based on the average of 2005 and 2006 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^{b c d} Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

^e Maximum limited-duration prevalence: 31 years for 1975-2006 SEER 9 data; 16 years for 1990-2006 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

^f Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.

^{g h i} (g) Cases diagnosed more than 31 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <31 and >=31. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

+ Not available.

Table 20.19

Cancer of the Oral Cavity and Pharynx (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2002-2006
All Races, Both Sexes, by site

Histology ^a	Oral Cavity and Pharynx		Lip		Tongue		Salivary Gland		Floor of Mouth	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Epidermoid carcinoma ^b (8051-8131)	31,425	82.8%	2,678	95.2%	10,131	96.6%	926	20.8%	2,238	95.7%
Squamous cell carcinoma (8070-8078,8083-8084)	30,432	80.2%	2,594	92.2%	9,937	94.8%	877	19.7%	2,208	94.4%
Adenocarcinoma (8050,8140-8147,8160-8162,8180-8221, 8250-8507,8514,8520-8551,8560,8570-8574, 8576,8940-8941)	4,236	11.2%	95	3.4%	166	1.6%	2,862	64.2%	77	3.3%
Other specific carcinomas (8012-8015,8030-8046,8150-8155, 8170-8180,8230-8249,8508, 8510-8513,8561-8562,8575,8580-8671)	430	1.1%	-	-	21	0.2%	232	5.2%	-	-
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	1,396	3.7%	-	-	115	1.1%	291	6.5%	-	-
Sarcoma and soft tissue (8680-8713,8800-8921,8990-8991,9040-9044, 9120-9136,9150-9252,9370-9373,9540-9582)	172	0.5%	-	-	22	0.2%	45	1.0%	-	-
Other specific types (8720-8790,8930-8936,8950-8983,9060-9110, 9260-9365,9380-9539)	190	0.5%	-	-	-	-	68	1.5%	-	-
Unspecified (8000-8005)	95	0.3%	-	-	18	0.2%	34	0.8%	-	-
Total	37,944	100.0%	2,813	100.0%	10,483	100.0%	4,458	100.0%	2,339	100.0%

Histology ^a	Gum and Other Mouth		Nasopharynx		Oropharynx and Tonsil		Hypopharynx		Other Oral Cavity and Pharynx	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Epidermoid carcinoma ^b	4,283	79.9%	1,468	60.9%	6,755	96.9%	2,386	96.6%	560	87.4%
Squamous cell carcinoma	4,049	75.5%	1,201	49.9%	6,654	95.5%	2,359	95.5%	553	86.3%
Adenocarcinoma	886	16.5%	67	2.8%	47	0.7%	18	0.7%	18	2.8%
Other specific carcinomas	17	0.3%	77	3.2%	37	0.5%	23	0.9%	-	-
Unspecified, Carcinoma, NOS	57	1.1%	740	30.7%	108	1.5%	30	1.2%	35	5.5%
Sarcoma and soft tissue	31	0.6%	36	1.5%	-	-	-	-	-	-
Other specific types	72	1.3%	18	0.7%	-	-	-	-	-	-
Unspecified	-	-	-	-	-	-	-	-	-	-
Total	5,361	100.0%	2,409	100.0%	6,970	100.0%	2,470	100.0%	641	100.0%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Percents may not sum to 100 due to rounding.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

^b Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

- Statistic not shown due to fewer than 16 cases during the time period.

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Oral Cavity and Pharynx, by Race and Sex



Figure 20.1

^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.
* The APC is significantly different from zero ($p < 0.05$).

SEER Incidence and US Death Rates^a Cancer of the Oral Cavity and Pharynx, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2006
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2006

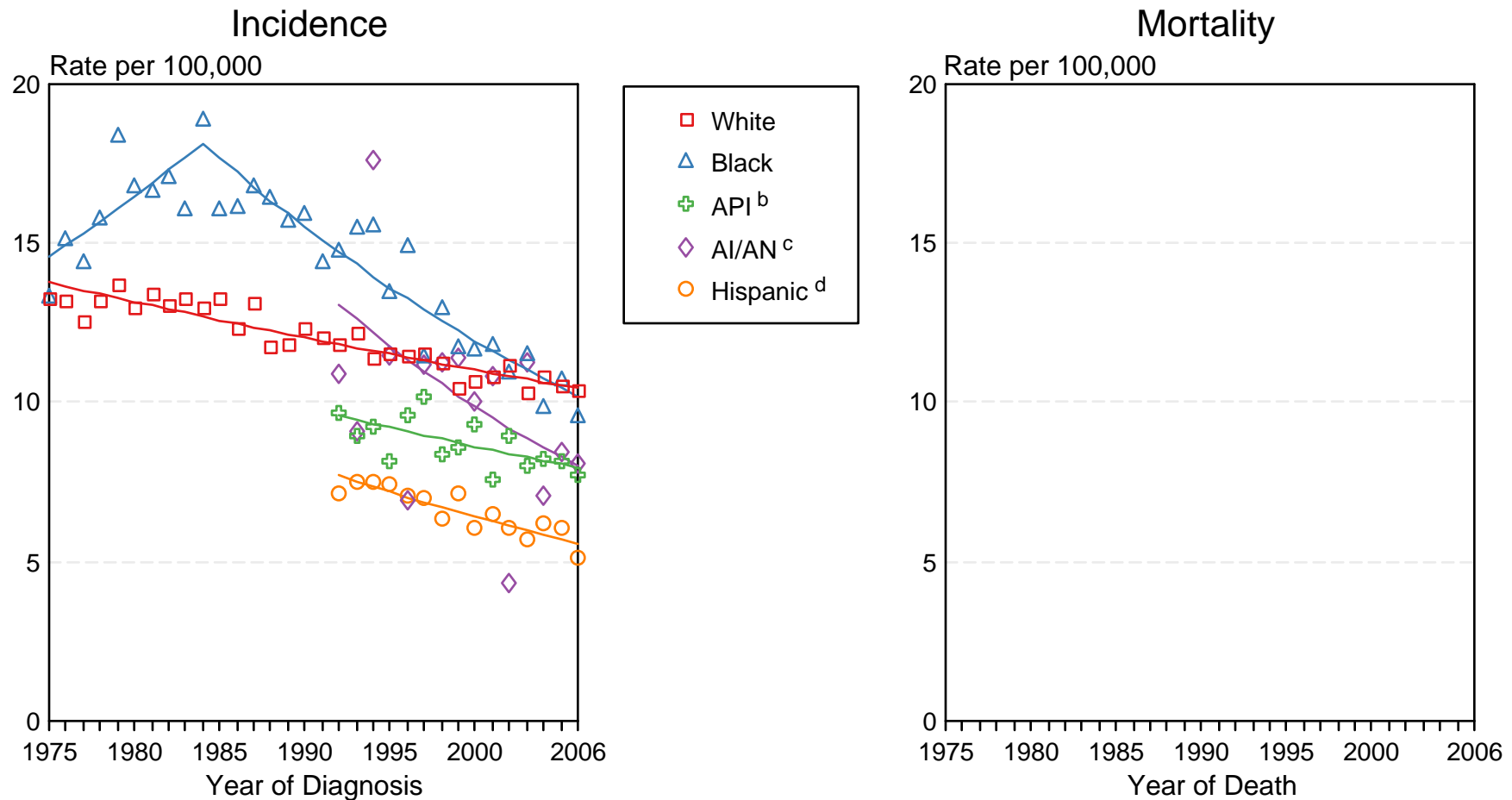


Figure 20.2

Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2006 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2006 allow a maximum of 2 joinpoints.

^b API = Asian/Pacific Islander.

^c AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, and Vermont.

SEER Incidence Rates^a

Cancer of the Oral Cavity and Pharyngeal for Selected Subsites, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2005

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2005

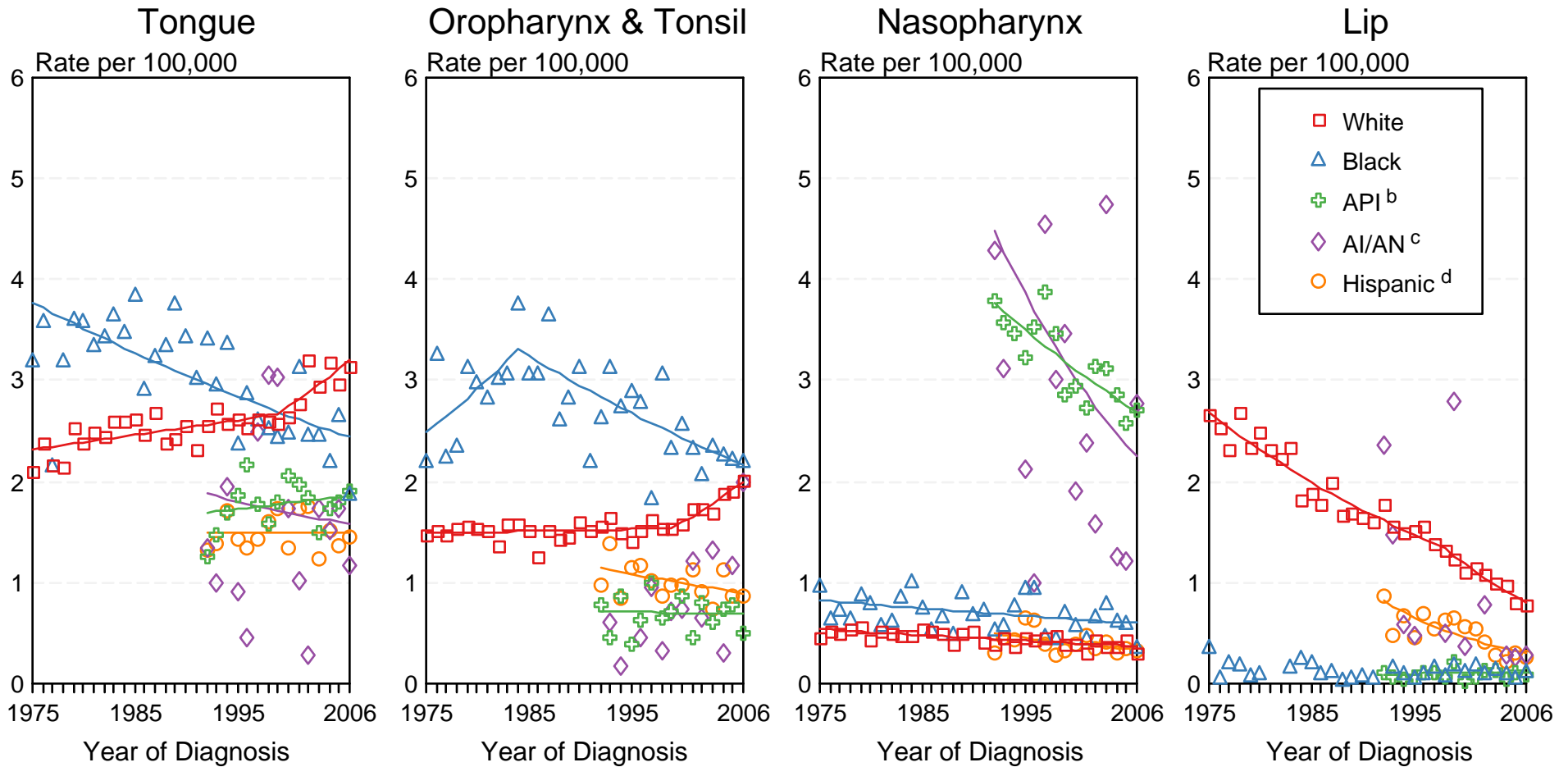


Figure XX-3

Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2005 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2005 allow a maximum of 3 joinpoints. Regression lines could not be calculated for data series that had at least one diagnosis year with a 0 case count.

^b API = Asian/Pacific Islander.

^c AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.