

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

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,
Both Sexes by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2011</u>														
All Races	1975-81	0.7	1981-03	-1.1*	2003-11	0.8*							0.6	0.8*
White	1975-03	-0.9*	2003-11	1.1*									0.9*	1.1*
Black	1975-84	2.4*	1984-11	-2.5*									-2.5*	-2.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2011</u>														
All Races	1992-03	-1.3*	2003-11	0.6*									0.4	0.6*
White	1992-03	-1.1*	2003-11	1.1*									0.9*	1.1*
Black	1992-11	-2.5*											-2.5*	-2.5*
<u>SEER 9 Observed Incidence^a, 1975-2011</u>														
All Races	1975-81	0.7	1981-03	-1.1*	2003-11	0.5							0.3	0.5
White	1975-03	-0.9*	2003-11	0.9*									0.7	0.9*
Black	1975-84	2.5*	1984-11	-2.6*									-2.6*	-2.6*
<u>SEER 13 Observed Incidence^b, 1992-2011</u>														
All Races	1992-03	-1.3*	2003-11	0.4									0.2	0.4
White	1992-03	-1.1*	2003-11	0.9*									0.7*	0.9*
White NH ^{ef}	1992-03	-0.8*	2003-11	1.1*									0.8*	1.1*
Black	1992-11	-2.6*											-2.6*	-2.6*
Black NH ^{ef}	1992-11	-2.6*											-2.6*	-2.6*
API ^e	1992-11	-1.1*											-1.1*	-1.1*
AI/AN ^{eg}	1992-11	-1.6											-1.6	-1.6
Hispanic ^f	1992-03	-2.1*	2003-11	1.4									1.0	1.4
<u>U.S. Cancer Mortality^c, 1975-2011</u>														
All Races	1975-79	-0.5	1979-93	-1.7*	1993-00	-2.7*	2000-09	-1.4*	2009-11	1.5			-0.8	0.1
White	1975-05	-1.9*	2005-11	0.0									-0.6	0.0
Black	1975-80	3.3*	1980-93	-1.6*	1993-11	-3.9*							-3.9*	-3.9*
<u>U.S. Cancer Mortality^c, 1992-2011</u>														
All Races	1992-00	-2.6*	2000-09	-1.4*	2009-11	1.6							-0.8	0.1
White	1992-00	-2.4*	2000-11	-0.7*									-0.7*	-0.7*
White NH ^{ef}	1992-00	-2.3*	2000-11	-0.6*									-0.6*	-0.6*
Black	1992-11	-3.8*											-3.8*	-3.8*
Black NH ^{ef}	1992-11	-3.8*											-3.8*	-3.8*
API ^e	1992-11	-2.3*											-2.3*	-2.3*
AI/AN ^{eg}	1992-11	-1.6*											-1.6*	-1.6*
Hispanic ^f	1992-11	-2.4*											-2.4*	-2.4*

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.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 New Hampshire and Oklahoma.

^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 20.2
Cancer of the Oral Cavity and Pharynx for Selected Subsites (Invasive)

Trends in SEER 9 Observed Incidence^a Using the Joinpoint Regression Program,
1975-2011 With up to Five Joinpoints,
By Race and Sex

		JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d
		Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2007-11
<u>Cancer of the Tongue</u>														
All Races	Both Sexes	1975-99	0.4*	1999-11	2.1*									2.1*
All Races	Male	1975-99	0.4*	1999-11	2.6*									2.6*
All Races	Female	1975-11	0.5*											0.5*
White	Male	1975-98	0.5*	1998-11	3.1*									3.1*
White	Female	1975-11	0.7*											0.7*
Black	Male	1975-89	1.2	1989-11	-2.6*									-2.6*
Black	Female	1975-11	-1.6*											-1.6*
<u>Cancer of the Floor of Mouth, Gum and Other Mouth</u>														
All Races	Both Sexes	1975-82	1.1	1982-11	-2.3*									-2.3*
All Races	Male	1975-83	0.6	1983-07	-2.9*	2007-11	0.4							0.4
All Races	Female	1975-82	1.4	1982-11	-1.8*									-1.8*
White	Male	1975-84	-0.2	1984-06	-2.7*	2006-11	0.4							0.4
White	Female	1975-86	0.4	1986-11	-1.9*									-1.9*
Black	Male	1975-77	53.4	1977-96	-2.1*	1996-11	-7.1*							-7.1*
Black	Female	1975-11	-1.9*											-1.9*
<u>Cancer of the Oropharynx and Tonsil</u>														
All Races	Both Sexes	1975-99	0.0	1999-11	3.1*									3.1*
All Races	Male	1975-99	0.4*	1999-11	3.4*									3.4*
All Races	Female	1975-00	-1.6*	2000-11	1.3									1.3
White	Male	1975-97	0.3	1997-11	4.1*									4.1*
White	Female	1975-04	-1.1*	2004-11	3.4									3.4
Black	Male	1975-11	-0.7*											-0.7*
Black	Female	1975-11	-1.5*											-1.5*
<u>Cancer of the Salivary Gland</u>														
All Races	Both Sexes	1975-11	0.5*											0.5*
All Races	Male	1975-11	0.5*											0.5*
All Races	Female	1975-11	0.4*											0.4*
White	Male	1975-11	0.6*											0.6*
White	Female	1975-11	0.3*											0.3*
Black	Male	1975-96	3.3*	1996-11	-4.2*									-4.2*
Black	Female	1975-11	0.7											0.7
<u>Cancer of the Lip</u>														
All Races	Both Sexes	1975-96	-3.1*	1996-11	-4.8*									-4.8*
All Races	Male	1975-96	-3.7*	1996-11	-5.9*									-5.9*
All Races	Female	1975-96	0.2	1996-11	-2.3*									-2.3*
White	Male	1975-96	-3.5*	1996-11	-5.9*									-5.9*
White	Female	1975-11	-0.6*											-0.6*
Black	Male	-	-											-
Black	Female	-	-											-

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.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).

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2011.

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

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

^a
^b
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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,
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,
Males by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2011</u>														
All Races	1975-83	-0.2	1983-03	-1.4*	2003-11	0.9*							0.7	0.9*
White	1975-01	-1.2*	2001-11	0.8*									0.8*	0.8*
Black	1975-87	1.8*	1987-11	-3.1*									-3.1*	-3.1*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2011</u>														
All Races	1992-03	-1.5*	2003-11	0.8*									0.5	0.8*
White	1992-03	-1.2*	2003-11	1.3*									1.0*	1.3*
Black	1992-11	-3.0*											-3.0*	-3.0*
<u>SEER 9 Observed Incidence^a, 1975-2011</u>														
All Races	1975-83	-0.1	1983-01	-1.5*	2001-11	0.3							0.3	0.3
White	1975-01	-1.2*	2001-11	0.7									0.7	0.7
Black	1975-87	1.9*	1987-11	-3.2*									-3.2*	-3.2*
<u>SEER 13 Observed Incidence^b, 1992-2011</u>														
All Races	1992-03	-1.6*	2003-11	0.6									0.4	0.6
White	1992-01	-1.5*	2001-11	0.7*									0.7*	0.7*
White NH ^{ef}	1992-01	-1.3*	2001-11	0.9*									0.9*	0.9*
Black	1992-11	-3.1*											-3.1*	-3.1*
Black NH ^{ef}	1992-11	-3.0*											-3.0*	-3.0*
API ^e	1992-11	-1.1*											-1.1*	-1.1*
AI/AN ^{eg}	1992-06	-6.6*	2006-11	13.7									4.2	13.7
Hispanic ^f	1992-11	-0.7											-0.7	-0.7
<u>U.S. Cancer Mortality^c, 1975-2011</u>														
All Races	1975-77	0.7	1977-93	-2.0*	1993-00	-2.8*	2000-09	-1.3*	2009-11	2.3			-0.5	0.5
White	1975-04	-2.2*	2004-11	0.3									-0.3	0.3
Black	1975-80	3.7*	1980-93	-1.4*	1993-01	-4.8*	2001-04	0.1	2004-09	-6.6*	2009-11	4.8	-2.7	-1.1
<u>U.S. Cancer Mortality^c, 1992-2011</u>														
All Races	1992-00	-2.8*	2000-09	-1.4*	2009-11	2.4							-0.5	0.5
White	1992-00	-2.7*	2000-11	-0.5									-0.5	-0.5
White NH ^{ef}	1992-00	-2.5*	2000-11	-0.3									-0.3	-0.3
Black	1992-11	-3.8*											-3.8*	-3.8*
Black NH ^{ef}	1992-11	-3.8*											-3.8*	-3.8*
API ^e	1992-11	-2.4*											-2.4*	-2.4*
AI/AN ^{eg}	1992-11	-2.1											-2.1	-2.1
Hispanic ^f	1992-05	-3.7*	2005-11	-1.2									-2.0*	-1.2

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

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

Table 20.4
Cancer of the Oral Cavity and Pharynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,
Females by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2011</u>														
All Races	1975-79	3.1	1979-11	-0.7*									-0.7*	-0.7*
White	1975-80	2.2	1980-11	-0.7*									-0.7*	-0.7*
Black	1975-11	-1.4*											-1.4*	-1.4*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2011</u>														
All Races	1992-11	-0.7*											-0.7*	-0.7*
White	1992-04	-1.3*	2004-11	0.7									0.2	0.7
Black	1992-11	-1.4*											-1.4*	-1.4*
<u>SEER 9 Observed Incidence^a, 1975-2011</u>														
All Races	1975-79	3.2	1979-11	-0.8*									-0.8*	-0.8*
White	1975-81	1.7	1981-11	-0.7*									-0.7*	-0.7*
Black	1975-11	-1.5*											-1.5*	-1.5*
<u>SEER 13 Observed Incidence^b, 1992-2011</u>														
All Races	1992-11	-0.8*											-0.8*	-0.8*
White	1992-11	-0.8*											-0.8*	-0.8*
White NH ^{ef}	1992-11	-0.6*											-0.6*	-0.6*
Black	1992-11	-1.5*											-1.5*	-1.5*
Black NH ^{ef}	1992-11	-1.4*											-1.4*	-1.4*
API ^e	1992-11	-1.1*											-1.1*	-1.1*
AI/AN ^{eg}	1992-11	0.1											0.1	0.1
Hispanic ^f	1992-11	-0.6											-0.6	-0.6
<u>U.S. Cancer Mortality^c, 1975-2011</u>														
All Races	1975-90	-0.9*	1990-03	-2.4*	2003-11	-1.4*							-1.5*	-1.4*
White	1975-91	-1.1*	1991-01	-2.5*	2001-11	-1.4*							-1.4*	-1.4*
Black	1975-91	-0.3	1991-11	-3.5*									-3.5*	-3.5*
<u>U.S. Cancer Mortality^c, 1992-2011</u>														
All Races	1992-11	-2.0*											-2.0*	-2.0*
White	1992-11	-1.8*											-1.8*	-1.8*
White NH ^{ef}	1992-11	-1.7*											-1.7*	-1.7*
Black	1992-11	-3.5*											-3.5*	-3.5*
Black NH ^{ef}	1992-11	-3.5*											-3.5*	-3.5*
API ^e	1992-11	-1.8*											-1.8*	-1.8*
AI/AN ^{eg}	1992-11	-0.6											-0.6	-0.6
Hispanic ^f	1992-11	-1.1*											-1.1*	-1.1*

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.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).

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

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

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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 20.5
Cancer of the Oral Cavity and Pharynx (Invasive)

Delay-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	21.20	7.09	13.30	21.73	6.92	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	12.74	20.11	6.94	12.60	19.86	7.02	14.45	23.86	6.66
1978	13.38	20.88	7.71	13.21	20.76	7.58	15.83	25.97	8.05
1979	14.04	21.91	8.01	13.71	21.60	7.75	18.46	28.16	10.77
1980	13.34	20.26	7.91	12.98	19.98	7.62	16.82	25.39	9.59
1981	13.58	20.84	7.92	13.40	20.52	7.94	16.65	28.16	7.46
1982	13.35	20.34	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	7.28	16.13	26.09	8.32
1984	13.47	20.79	7.86	13.01	20.16	7.64	18.91	30.00	10.07
1985	13.34	19.84	8.24	13.27	19.61	8.36	16.12	25.98	8.53
1986	12.46	19.13	7.20	12.35	18.85	7.30	16.18	28.10	6.97
1987	13.20	20.53	7.51	13.11	20.16	7.68	16.81	30.01	7.00
1988	12.13	18.15	7.31	11.79	17.71	7.09	16.44	25.57	9.09
1989	12.13	18.31	7.27	11.85	17.73	7.30	15.75	27.17	7.05
1990	12.67	19.42	7.35	12.40	18.84	7.41	16.06	27.91	6.92
1991	12.18	18.36	7.26	12.10	18.13	7.32	14.42	23.73	7.32
1992	11.97	18.34	6.92	11.83	18.05	6.94	14.86	25.22	6.94
1993	12.43	18.72	7.29	12.23	18.41	7.22	15.55	24.87	8.11
1994	11.73	17.70	6.84	11.44	16.90	6.94	15.70	26.84	6.99
1995	11.55	16.96	7.20	11.53	16.74	7.34	13.64	22.82	6.66
1996	11.79	17.78	7.00	11.47	17.27	6.87	15.03	24.47	7.63
1997	11.52	17.37	6.75	11.54	17.23	6.86	11.50	18.35	6.20
1998	11.26	16.70	6.78	11.28	16.46	6.95	13.02	22.34	6.33
1999	10.60	15.58	6.49	10.51	15.46	6.38	11.82	20.09	5.74
2000	10.77	16.10	6.31	10.70	15.70	6.42	11.74	20.73	4.94
2001	10.86	15.56	6.93	10.92	15.62	6.95	12.14	19.07	7.03
2002	11.16	16.39	6.74	11.35	16.67	6.79	11.17	16.99	6.56
2003	10.56	15.70	6.20	10.53	15.71	6.05	11.81	17.06	7.62
2004	10.88	16.18	6.32	11.11	16.53	6.33	10.26	16.27	5.85
2005	10.78	15.70	6.59	10.94	16.11	6.45	11.12	16.59	7.02
2006	10.83	15.91	6.46	11.04	16.09	6.60	10.06	16.72	5.08
2007	10.90	16.20	6.31	11.20	16.66	6.33	10.08	15.72	5.79
2008	11.09	16.50	6.43	11.53	17.08	6.62	8.82	13.86	5.00
2009	11.16	16.51	6.49	11.36	16.79	6.51	10.55	15.86	6.46
2010	11.06	16.43	6.32	11.42	16.87	6.48	8.77	13.48	5.07
2011	11.49	17.01	6.67	12.00	17.79	6.81	9.14	14.34	5.18

Additional information on the model used to delay-adjust SEER Incidence rates can be found at <http://surveillance.cancer.gov/delay/>.

^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).

- Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 20.6
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
1975-2011	11.87	17.87	6.96	11.91	17.88	7.00	12.90	20.85	6.78
1975	13.21	21.20	7.09	13.30	21.73	6.92	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	12.74	20.11	6.94	12.60	19.86	7.02	14.45	23.86	6.66
1978	13.38	20.88	7.71	13.21	20.76	7.58	15.83	25.97	8.05
1979	14.04	21.91	8.01	13.71	21.60	7.75	18.46	28.16	10.77
1980	13.34	20.26	7.91	12.98	19.98	7.62	16.82	25.39	9.59
1981	13.58	20.84	7.92	13.40	20.52	7.94	16.65	28.16	7.46
1982	13.35	20.34	7.93	13.08	19.94	7.85	17.12	27.39	8.86
1983	13.28	21.21	7.24	13.25	21.21	7.28	16.13	26.08	8.32
1984	13.47	20.79	7.86	13.00	20.16	7.64	18.91	29.99	10.07
1985	13.33	19.84	8.24	13.27	19.61	8.35	16.12	25.98	8.53
1986	12.46	19.12	7.20	12.35	18.85	7.30	16.18	28.09	6.97
1987	13.20	20.53	7.51	13.10	20.15	7.67	16.81	30.00	6.99
1988	12.12	18.14	7.30	11.78	17.70	7.09	16.43	25.56	9.08
1989	12.12	18.31	7.27	11.84	17.72	7.30	15.75	27.16	7.05
1990	12.66	19.41	7.35	12.40	18.83	7.40	16.05	27.89	6.92
1991	12.17	18.35	7.26	12.09	18.12	7.32	14.41	23.71	7.32
1992	11.97	18.34	6.92	11.82	18.03	6.93	14.85	25.21	6.94
1993	12.43	18.71	7.29	12.22	18.39	7.21	15.54	24.85	8.10
1994	11.73	17.70	6.84	11.43	16.89	6.94	15.69	26.82	6.99
1995	11.54	16.95	7.20	11.52	16.72	7.34	13.63	22.80	6.66
1996	11.78	17.77	6.99	11.46	17.25	6.87	15.02	24.44	7.63
1997	11.51	17.36	6.74	11.52	17.21	6.85	11.49	18.32	6.20
1998	11.25	16.69	6.77	11.26	16.43	6.94	13.00	22.31	6.32
1999	10.58	15.56	6.47	10.49	15.43	6.37	11.80	20.05	5.73
2000	10.76	16.07	6.30	10.67	15.67	6.41	11.72	20.70	4.93
2001	10.84	15.53	6.91	10.89	15.58	6.93	12.11	19.03	7.01
2002	11.12	16.35	6.72	11.32	16.62	6.77	11.15	16.95	6.55
2003	10.52	15.65	6.17	10.49	15.66	6.03	11.77	17.01	7.60
2004	10.83	16.11	6.29	11.06	16.46	6.30	10.23	16.21	5.83
2005	10.73	15.63	6.55	10.89	16.03	6.41	11.07	16.52	6.99
2006	10.76	15.81	6.41	10.98	15.99	6.56	10.01	16.63	5.06
2007	10.82	16.08	6.25	11.13	16.54	6.29	10.02	15.63	5.75
2008	10.98	16.35	6.36	11.43	16.94	6.57	8.76	13.76	4.96
2009	11.02	16.32	6.39	11.25	16.62	6.44	10.46	15.73	6.40
2010	10.89	16.19	6.21	11.28	16.66	6.40	8.68	13.34	5.02
2011	11.18	16.58	6.48	11.75	17.41	6.67	8.97	14.07	5.08

^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 20.7
Cancer of the Oral Cavity and Pharynx (Invasive)
Age-adjusted U.S. Death^a Rates by Year, Race and Sex

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	3.18	4.92	1.81	3.02	4.60	1.77	4.70	8.22	2.09
1975	4.30	6.93	2.33	4.12	6.64	2.29	5.79	9.93	2.52
1976	4.22	6.89	2.22	4.03	6.55	2.17	6.08	10.55	2.62
1977	4.32	7.03	2.30	4.11	6.67	2.25	6.22	10.87	2.65
1978	4.19	6.78	2.26	3.99	6.41	2.21	6.15	10.69	2.68
1979	4.24	6.71	2.39	3.99	6.25	2.32	6.65	11.47	2.97
1980	4.16	6.69	2.27	3.87	6.12	2.22	6.97	12.48	2.76
1981	4.05	6.46	2.24	3.78	5.96	2.17	6.52	11.36	2.84
1982	4.02	6.46	2.22	3.74	5.96	2.13	6.62	11.46	2.94
1983	3.94	6.27	2.20	3.64	5.73	2.10	6.65	11.83	2.76
1984	3.88	6.18	2.17	3.61	5.64	2.12	6.37	11.70	2.38
1985	3.75	5.93	2.11	3.49	5.44	2.05	6.23	11.03	2.62
1986	3.72	5.80	2.16	3.42	5.27	2.07	6.51	11.35	2.93
1987	3.53	5.46	2.05	3.29	5.01	2.00	5.70	9.95	2.54
1988	3.59	5.63	2.05	3.33	5.14	1.98	5.99	10.67	2.55
1989	3.50	5.34	2.07	3.23	4.84	2.00	5.92	10.44	2.59
1990	3.58	5.61	2.03	3.29	5.07	1.96	6.12	11.05	2.52
1991	3.47	5.34	2.03	3.21	4.87	1.95	5.84	10.06	2.70
1992	3.34	5.15	1.94	3.09	4.66	1.89	5.56	9.97	2.31
1993	3.34	5.19	1.90	3.07	4.68	1.83	5.68	10.09	2.44
1994	3.15	4.84	1.83	2.92	4.41	1.77	5.33	9.26	2.39
1995	3.16	4.87	1.84	2.91	4.42	1.75	5.37	9.28	2.54
1996	3.03	4.64	1.75	2.82	4.24	1.71	4.86	8.69	2.07
1997	2.98	4.53	1.76	2.79	4.17	1.70	4.68	8.10	2.19
1998	2.96	4.53	1.72	2.80	4.20	1.68	4.53	7.91	2.09
1999	2.73	4.15	1.60	2.55	3.80	1.54	4.37	7.49	2.12
2000	2.69	4.06	1.58	2.52	3.72	1.55	4.12	7.30	1.76
2001	2.72	4.15	1.56	2.58	3.87	1.53	3.86	6.65	1.80
2002	2.68	4.08	1.55	2.57	3.87	1.51	3.65	6.26	1.73
2003	2.64	4.07	1.48	2.51	3.80	1.45	3.83	6.86	1.65
2004	2.61	3.99	1.48	2.49	3.72	1.46	3.81	6.84	1.62
2005	2.53	3.84	1.44	2.42	3.59	1.44	3.49	6.42	1.37
2006	2.48	3.78	1.40	2.39	3.60	1.38	3.22	5.57	1.49
2007	2.52	3.85	1.43	2.45	3.70	1.41	3.27	5.60	1.59
2008	2.45	3.74	1.39	2.40	3.61	1.38	2.98	5.04	1.47
2009	2.37	3.64	1.31	2.33	3.53	1.32	2.80	4.97	1.22
2010	2.47	3.75	1.40	2.45	3.68	1.40	2.79	4.76	1.37
2011	2.47	3.86	1.31	2.42	3.73	1.30	3.06	5.36	1.37

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

Table 20.8
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, 2007-2011									
All ages	11.0	16.5	6.2	11.4	17.0	6.4	9.4	14.7	5.3
Under 65	6.6	10.0	3.5	6.8	10.3	3.4	6.3	9.4	3.6
65 and over	40.9	61.4	25.3	42.9	63.8	26.8	31.0	51.7	17.2
All ages (IARC world std) ^c	7.8	11.8	4.3	8.1	12.2	4.4	7.1	11.0	3.9
Age-Specific Rates, 2007-2011									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	0.1	0.1	0.1	-	-	-	-	-
10-14	0.3	0.3	0.3	0.3	0.3	0.3	0.4	-	-
15-19	0.5	0.5	0.5	0.5	0.4	0.5	0.6	-	-
20-24	0.7	0.7	0.8	0.7	0.7	0.8	0.5	-	0.7
25-29	1.0	0.9	1.1	1.0	0.9	1.0	1.0	1.0	1.0
30-34	1.8	1.8	1.7	1.7	1.7	1.6	1.3	1.0	1.6
35-39	3.2	3.8	2.6	3.0	3.7	2.4	2.8	3.0	2.6
40-44	5.9	8.4	3.4	5.8	8.4	3.2	5.2	7.2	3.5
45-49	11.5	17.2	5.9	11.8	17.8	5.8	10.2	14.6	6.2
50-54	20.2	31.3	9.6	21.1	32.9	9.3	20.4	30.4	11.6
55-59	27.4	43.6	12.2	28.7	45.7	12.2	27.1	42.5	13.9
60-64	33.9	53.5	15.9	35.7	55.4	17.0	31.5	54.3	12.9
65-69	38.1	58.9	19.7	39.8	60.8	20.8	35.8	60.0	17.1
70-74	41.1	61.0	24.6	43.4	63.7	26.2	33.4	54.9	17.9
75-79	42.2	61.8	27.4	44.4	64.2	29.1	30.8	50.2	18.5
80-84	42.1	63.4	28.1	44.5	66.7	29.6	26.9	47.4	16.0
85+	42.6	64.4	31.8	44.5	66.5	33.7	20.5	34.8	14.8
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2007-2011									
All ages	2.5	3.8	1.4	2.4	3.7	1.4	3.0	5.1	1.4
Under 65	1.1	1.7	0.5	1.0	1.6	0.5	1.6	2.6	0.7
65 and over	11.8	17.8	7.3	11.9	17.6	7.5	12.5	22.4	6.0
All ages (IARC world std) ^c	1.6	2.5	0.8	1.5	2.4	0.8	2.1	3.6	0.9
Age-Specific Rates, 2007-2011									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.0	0.0	-	0.0	-	-	-	-	-
20-24	0.1	0.1	0.0	0.1	0.1	0.0	0.1	-	-
25-29	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-
30-34	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	-
35-39	0.3	0.4	0.2	0.3	0.4	0.2	0.4	0.6	-
40-44	0.7	1.0	0.4	0.7	1.0	0.4	1.0	1.4	0.7
45-49	1.7	2.6	0.8	1.5	2.3	0.7	2.7	4.0	1.5
50-54	3.4	5.3	1.5	3.2	5.0	1.4	5.0	7.8	2.4
55-59	5.2	8.5	2.1	5.0	8.1	1.9	7.8	13.2	3.2
60-64	6.8	11.2	2.8	6.7	10.8	2.8	9.7	17.3	3.6
65-69	8.6	13.6	4.1	8.4	13.0	4.2	12.0	22.4	4.1
70-74	10.3	15.8	5.7	10.3	15.5	5.8	12.2	21.7	5.4
75-79	12.0	18.2	7.3	12.1	18.0	7.5	11.8	21.9	5.5
80-84	14.4	21.1	10.0	14.6	21.1	10.2	13.2	22.7	8.2
85+	18.8	26.9	14.9	19.2	27.1	15.5	14.3	24.8	10.3

^a SEER 18 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 20.9
 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, 2007-2011										
Percent of Total ^d										
Localized	33	87	35	44	-	-	-	45	-	-
Regional	45	5	46	46	-	-	-	31	-	-
Distant	17	2	15	7	-	-	-	19	-	-
Unstaged	5	6	4	4	-	-	-	6	-	-
Age-Adjusted Rates, 2007-2011										
Age at Diagnosis										
All ages	11.0	0.7	3.2	0.6	1.5	2.2	0.6	1.3	0.7	0.2
Under 65	6.6	0.3	2.0	0.3	0.7	1.7	0.3	0.7	0.5	0.1
65+	40.9	3.4	11.5	2.2	7.4	5.6	2.8	5.4	1.6	1.0
All ages(IARC world std) ^e	7.8	0.4	2.3	0.4	1.0	1.7	0.4	0.9	0.5	0.2
Sex										
Male	16.5	1.1	4.8	0.8	1.8	3.8	1.1	1.7	1.0	0.3
Female	6.2	0.3	1.8	0.3	1.3	0.8	0.2	1.0	0.4	0.1
Race										
White	11.4	0.8	3.5	0.6	1.5	2.4	0.6	1.3	0.4	0.2
Black	9.4	0.1	2.2	0.5	1.4	2.3	1.0	1.0	0.7	0.3
Other	8.8	0.4	2.1	0.3	1.4	0.9	0.4	1.0	2.2	0.1
<u>U.S. Mortality</u>										
Age-Adjusted Rates, 2007-2011										
Age at Death										
All ages	2.5	0.0	0.6	0.0	0.4	0.4	0.1	0.2	0.2	0.5
Under 65	1.1	0.0	0.3	0.0	0.1	0.2	0.0	0.1	0.1	0.2
65+	11.8	0.1	2.8	0.1	2.0	1.8	0.4	1.4	0.7	2.3
All ages(IARC world std) ^e	2.5	0.0	0.6	0.0	0.4	0.4	0.1	0.2	0.2	0.5
Sex										
Male	3.8	0.0	0.9	0.0	0.4	0.7	0.2	0.4	0.3	0.8
Female	1.4	0.0	0.4	0.0	0.3	0.2	0.0	0.1	0.1	0.2
Race										
White	2.4	0.0	0.6	0.0	0.4	0.4	0.1	0.2	0.2	0.4
Black	3.0	-	0.6	0.0	0.3	0.7	0.2	0.2	0.3	0.8
Other	1.9	-	0.4	-	0.2	0.2	0.1	0.1	0.7	0.2

^a SEER 18 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 20.10
Cancer of the Oral Cavity and Pharynx (Invasive)

5-Year Relative and Period Survival (Percent) 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 (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	45	-	-	-	-	-
1970-1973 ^a	-	-	-	43	-	-	-	-	-
1975-1977 ^b	52.5	51.5	54.8	54.0	53.7	54.8	35.8	29.7	48.6
1978-1980 ^b	53.3	51.8	56.5	55.3	54.4	57.4	34.7	29.7	45.5
1981-1983 ^b	51.7	50.0	55.1	54.0	52.8	56.5	30.9	25.3	45.9
1984-1986 ^b	54.1	51.6	59.0	56.3	54.8	59.4	35.1	29.5	49.4
1987-1989 ^b	53.5	51.0	58.7	55.9	54.1	59.7	33.9	29.8	44.2
1990-1992 ^b	55.4	53.2	60.0	57.9	56.4	61.0	32.6	28.1	45.3
1993-1995 ^b	57.6	56.2	60.5	60.0	59.4	61.2	37.9	33.1	50.3
1996-1998 ^b	57.7	56.2	61.0	59.9	59.1	61.4	36.0	31.1	48.9
1999-2003 ^b	61.6	60.7	63.5	63.5	63.5	63.5	45.0	39.8	56.9
2004-2010 ^b	65.6 ^f	65.3 ^f	66.3 ^f	67.4 ^f	67.4 ^f	67.2 ^f	44.9 ^f	42.3 ^f	50.3
5-Year Period Survival (Percent) ^{cd}									
2010	63.6	63.0	65.1	65.0	64.8	65.4	45.5	42.1	52.3
Stage Distribution (%) 2004-2010 ^{ee}									
All Stages									
Number of cases	51,074	35,952	15,122	41,772	29,695	12,077	4,877	3,366	1,511
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	31	26	42	32	27	43	20	15	31
Regional	47	50	37	47	51	38	49	53	41
Distant	18	19	15	16	17	13	27	29	23
Unstaged	5	5	6	5	5	6	4	4	6
5-Year Relative Survival (Percent), 2004-2010 ^c									
Age at Diagnosis:									
Ages <45	78.4	75.3	83.5	80.4	78.3	84.2	66.0	56.3	78.4
Ages 45-54	67.8	66.9	70.8	70.8	69.9	73.9	43.1	41.2	47.3
Ages 55-64	63.8	62.5	68.3	65.8	64.6	69.7	41.3	39.2	48.7
Ages 65-74	58.0	56.4	61.8	60.0	58.8	62.7	36.7	31.9	47.9
Ages 75+	48.6	49.0	48.2	49.6	50.2	48.9	32.1	29.8	33.6
Ages <65	67.7	65.9	72.8	69.8	68.3	74.3	46.7	42.5	56.5
Ages 65+	53.8	53.5	54.4	55.2	55.3	55.1	35.3	31.6	41.6
Stage ^{ee} :									
All Stages	62.7	61.9	64.6	64.3	64.0	65.1	43.7	39.9	52.0
Localized	82.7	81.6	84.3	82.6	81.8	83.8	76.6	71.2	82.2
Regional	60.5	61.9	56.3	62.4	64.1	56.5	41.5	40.8	43.7
Distant	37.3	37.5	36.9	38.2	38.7	36.9	24.1	22.6	28.2
Unstaged	49.3	48.9	49.8	49.0	49.0	48.8	37.0	32.4 ^g	42.2 ^g

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

^b SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).
Based on follow-up of patients into 2011.

^c SEER 18 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, New Jersey and Georgia excluding ATL/RG).
Based on follow-up of patients into 2011.

^d Period survival provides a 2010 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival), (2006-2008: 1-2 year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).

^e Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^f The difference between 1975-1977 and 2004-2010 is statistically significant ($p < .05$).

^g The standard error is between 5 and 10 percentage points.

^h The standard error is greater than 10 percentage points.

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

Table 20.11
Cancer of the Oral Cavity and Pharynx by Subsite (Invasive)

SEER^a Relative Survival (Percent) by Cancer Site, 2004-2010

Site	Number of Cases	Case Distribution (%)	Survival Time				
			1-Year Percent	2-Year Percent	3-Year Percent	4-Year Percent	5-Year Percent
Oral Cavity & Pharynx	51074	100	83.4	73.8	68.6	65.3	62.7
Lip	3207	6	98.2	94.9	93.1	91.4	89.5
Tongue	14723	29	83.7	73.0	67.7	64.7	62.7
Gum & Other Mouth	6458	13	81.0	70.8	65.4	62.2	59.7
Floor of Mouth	2655	5	79.9	68.4	61.2	56.4	51.4
Oropharynx & Tonsil	11023	22	85.2	76.6	71.8	68.5	66.1
Hypopharynx	2962	6	65.1	48.1	40.9	36.2	31.9
Salivary Gland	5819	11	88.6	81.2	77.0	73.8	72.4
Nasopharynx	3402	7	83.2	74.5	68.2	63.4	59.2
Other Oral Cavity & Pharynx	825	2	59.4	50.2	44.2	41.1	35.4

5-Year Relative Survival (Percent), 2004-2010

Site	Stage					All Stages			
	All Stages	Localized	Regional	Distant	Unstaged	White Male	White Female	Black Male	Black Female
Oral Cavity & Pharynx	62.7	82.7	60.5	37.3	49.3	64.0	65.1	39.9	52.0
Lip	89.5	93.3	47.6 ^b	52.3 ^b	77.9	90.4	86.1	-	-
Tongue	62.7	77.8	62.6	36.2	53.2	65.2	63.4	34.5	38.2
Gum & Other Mouth ^d	59.7	-	-	-	-	58.1	61.9	47.7	57.8
Floor of Mouth	51.4	74.5	38.1	20.4	42.0 ^b	50.5	57.6	35.4	46.4 ^b
Oropharynx & Tonsil ^d	66.1	-	-	-	-	69.8	63.2	42.7	41.6
Hypopharynx ^d	31.9	-	-	-	-	34.8	34.1	16.6	27.1 ^b
Salivary Gland	72.4	93.3	65.0	37.6	54.3	64.0	81.1	66.4	79.5
Nasopharynx ^d	59.2	-	-	-	-	55.5	54.7	52.3	56.4 ^b
Other Oral Cavity & Pharynx ^d	35.4	-	-	-	-	40.7	32.0	20.5 ^b	21.9 ^b

^a SEER 18 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, New Jersey and Georgia excluding ATL/RG). Based on follow-up of patients into 2011.

^b The standard error is between 5 and 10 percentage points.

^c The standard error is greater than 10 percentage points.

^d Survival by stage was 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 20.12
Cancer of the Oral Cavity and Pharynx (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	79.3	79.1	80.4	81.1	82.7	81.8	83.3	80.7	83.5	84.5	82.4	83.4	83.9	84.4	83.4	85.0	84.7	86.2	85.8	87.0
2-year	65.8	65.9	67.5	69.4	71.5	69.7	71.2	70.0	72.3	73.6	73.0	72.8	75.0	75.4	73.9	75.2	76.0	77.3	77.2	
3-year	59.8	59.5	61.0	63.1	65.2	63.5	66.1	64.2	65.5	68.6	67.0	67.5	70.3	70.7	68.6	70.4	71.1	71.5		
4-year	55.8	55.5	57.1	58.9	61.3	60.0	62.1	60.0	62.2	64.8	62.5	64.2	67.0	66.8	65.7	67.1	68.1			
5-year	52.8	52.3	54.0	56.1	58.5	57.7	58.5	57.1	58.9	62.0	60.0	61.8	65.1	64.8	63.8	64.7				
6-year	50.5	49.6	51.5	53.6	55.9	55.2	56.0	55.4	56.3	59.8	57.9	59.9	63.8	62.0	61.5					
7-year	48.3	47.4	49.0	51.5	53.4	53.4	54.2	53.9	53.9	57.8	56.2	58.4	62.2	60.3						
8-year	46.2	45.9	46.9	49.4	51.2	51.1	53.1	52.7	52.1	55.5	53.9	56.1	60.6							
9-year	44.3	43.9	45.0	47.1	49.3	49.8	51.7	52.1	50.3	53.8	51.5	54.3								
10-year	42.3	42.2	43.3	45.4	47.8	47.7	49.9	50.9	48.9	52.1	49.3									
11-year	40.4	40.7	42.0	43.6	45.9	46.3	47.8	48.7	47.9	50.3										
12-year	39.0	39.3	40.5	42.4	44.0	45.4	46.0	47.5	46.5											
13-year	37.7	37.6	38.9	40.9	42.4	43.0	44.6	45.9												
14-year	36.6	36.5	37.6	39.6	39.9	41.2	43.7													
15-year	35.2	34.9	36.6	38.6	38.4	39.9														
16-year	33.9	33.7	35.5	37.4																
17-year	32.9	32.8	34.5	36.3																
18-year	31.8	31.7	33.2																	
19-year	31.0	30.2	31.9																	
20-year	29.9	29.6	31.3																	

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

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

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
<u>Cancer of the Tongue</u>																				
1-year	74.2	73.3	76.8	79.5	79.3	79.1	81.4	79.8	80.5	84.6	80.8	81.0	84.3	86.7	84.7	84.2	85.9	86.6	87.5	86.6
2-year	54.9	57.5	60.5	64.8	65.1	66.6	71.0	65.8	68.4	71.5	70.6	69.4	71.3	75.6	72.1	73.7	76.3	76.6	78.8	
3-year	47.4	50.8	54.3	57.4	58.5	60.4	65.0	59.2	60.3	66.1	63.9	63.8	66.9	70.9	65.0	69.0	70.3	71.6		
4-year	43.5	47.4	49.8	53.6	56.4	57.3	61.9	55.6	58.1	63.4	61.0	61.5	64.2	66.6	61.5	66.6	68.6			
5-year	40.1	44.5	47.3	50.8	53.9	55.4	57.9	53.0	55.0	62.1	58.5	59.7	61.4	64.9	60.2	64.8				
6-year	38.4	41.8	45.1	48.5	50.3	52.8	56.3	52.4	53.1	60.1	56.4	57.6	61.1	61.6	59.1					
7-year	37.2	38.9	42.3	46.7	48.3	51.2	55.0	49.6	50.8	57.9	54.4	56.5	59.5	59.1						
8-year	35.7	37.3	40.3	44.3	46.5	49.7	53.9	48.1	50.7	55.7	50.7	53.3	58.9							
9-year	34.2	34.8	38.8	42.0	44.6	48.5	52.9	47.4	48.8	54.7	48.2	52.0								
10-year	32.5	33.3	37.4	40.0	43.3	46.5	52.3	45.7	48.0	53.1	46.2									
<u>Cancer of the Lip</u>																				
1-year	99.1	97.6	99.2	100.0	99.9	98.1	100.0	99.2	97.3	98.1	95.1	99.3	99.3	99.6	98.2	96.8	96.0	99.8	93.3	100.0
2-year	97.4	95.8	98.0	98.8	99.4	94.1	97.0	97.9	95.1	96.2	93.7	99.3	99.2	99.6	95.3	94.4	95.1	98.2	91.3	
3-year	96.9	93.4	97.2	98.4	98.7	92.8	95.8	95.1	93.7	95.1	93.7	97.2	98.1	98.8	95.2	93.0	95.1	97.3		
4-year	95.6	92.0	96.9	97.3	96.3	91.3	93.4	93.2	92.1	92.6	90.5	97.2	98.1	95.8	95.2	89.6	93.7			
5-year	94.1	90.0	95.8	96.0	95.0	88.6	91.3	91.1	90.6	90.3	90.5	94.0	98.1	94.2	95.2	88.0				
6-year	92.3	87.6	95.0	94.6	95.0	87.4	89.6	89.4	89.4	90.3	87.9	93.7	98.1	94.2	95.2					
7-year	91.2	86.5	93.4	93.4	95.0	86.7	88.4	89.3	88.9	90.2	84.8	93.7	97.0	93.5						
8-year	89.8	86.0	91.8	92.2	90.4	83.3	88.4	87.0	88.7	90.2	82.4	93.4	97.0							
9-year	87.5	85.0	91.3	90.0	86.1	82.7	88.3	86.4	88.2	88.5	78.5	90.5								
10-year	85.8	83.4	91.3	88.2	82.1	82.7	85.8	86.4	88.2	88.2	75.4									
<u>Cancer of the Oropharynx and Tonsil</u>																				
1-year	70.5	70.6	72.8	74.4	80.3	79.7	81.1	80.9	86.9	82.2	83.7	85.2	82.6	83.9	84.1	85.2	86.2	86.1	88.4	90.2
2-year	53.3	52.8	55.9	61.3	69.6	66.3	66.7	66.8	74.8	67.2	72.1	76.1	75.4	74.8	74.4	75.0	77.7	78.6	80.8	
3-year	44.5	44.4	45.8	53.7	62.6	60.6	61.7	59.6	66.9	62.2	66.7	71.5	71.4	71.1	70.5	70.2	72.6	73.2		
4-year	38.9	39.3	41.6	49.0	58.3	54.1	56.2	54.7	63.0	57.2	60.6	67.4	68.1	67.0	66.7	68.2	70.7			
5-year	35.5	35.3	37.9	44.8	53.7	52.6	51.2	52.7	59.7	53.4	58.7	64.5	65.2	64.5	65.2	65.4				
6-year	32.1	31.8	34.6	42.6	50.0	47.7	48.2	50.8	57.4	52.0	54.8	63.7	63.6	62.3	63.9					
7-year	30.2	29.6	32.0	41.2	46.5	43.7	47.2	49.6	55.6	48.6	52.9	62.8	62.6	61.5						
8-year	26.2	28.0	30.2	39.0	45.3	42.4	46.0	48.8	52.0	46.2	52.9	59.7	60.8							
9-year	23.9	25.8	28.4	36.6	43.9	41.4	44.2	48.5	51.8	44.5	49.6	59.1								
10-year	22.5	23.2	26.2	35.4	42.8	40.2	43.4	46.0	49.6	42.6	48.5									

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

Table 20.14
Cancer of the Oral Cavity and Pharynx (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	78.7	78.5	79.5	80.5	82.6	81.5	82.5	80.2	83.9	84.2	82.8	83.6	84.1	85.0	83.8	85.0	85.8	86.6	86.2	87.0
2-year	65.0	65.1	66.1	68.2	70.6	69.0	69.8	70.0	71.2	73.0	73.3	71.6	74.8	75.1	74.1	74.5	76.7	77.9	77.5	
3-year	59.0	58.2	59.0	61.3	64.7	62.6	64.6	63.7	64.0	67.4	67.4	65.5	69.9	69.9	68.3	69.1	71.0	72.2		
4-year	54.7	54.0	54.8	57.0	60.3	58.8	59.9	59.1	60.4	63.8	62.2	62.4	66.6	65.5	65.5	65.9	67.5			
5-year	51.6	50.6	51.4	54.1	57.5	56.3	56.3	56.0	57.2	60.8	59.6	60.4	65.1	63.7	63.7	64.0				
6-year	49.3	48.0	49.2	51.7	54.8	53.4	53.8	54.4	54.5	58.3	57.2	58.5	64.0	61.2	60.7					
7-year	47.2	45.9	47.0	49.4	51.8	51.1	52.5	52.7	52.6	56.1	55.3	57.5	62.7	59.9						
8-year	45.2	44.3	44.7	47.6	49.4	49.1	51.4	51.2	51.1	53.7	52.7	55.3	60.9							
9-year	43.1	42.5	42.8	45.3	47.6	48.1	49.7	50.3	49.4	51.7	50.6	53.1								
10-year	41.2	40.5	40.8	43.8	45.8	45.8	48.3	49.3	48.4	50.0	48.7									
11-year	39.2	39.0	39.6	42.2	43.8	44.1	46.4	47.0	47.4	48.2										
12-year	37.9	37.8	38.2	40.9	42.1	43.3	44.5	46.1	46.3											
13-year	36.8	36.3	36.7	39.4	40.3	41.0	42.8	44.6												
14-year	35.7	35.2	35.5	38.0	37.0	39.8	41.5													
15-year	34.5	33.9	34.6	36.9	35.0	38.2														
16-year	33.1	32.7	33.6	35.7	34.0															
17-year	32.0	31.7	32.6	34.6																
18-year	31.1	30.5	31.4																	
19-year	30.4	28.7	29.9																	
20-year	29.3	28.1	29.2																	

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

Table 20.15
Cancer of the Oral Cavity and Pharynx (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	80.7	80.3	82.3	82.3	82.9	82.4	85.0	81.6	82.8	85.0	81.7	83.0	83.3	83.1	82.4	85.2	82.2	85.1	84.7	87.0
2-year	67.8	67.7	70.5	71.9	73.2	71.2	74.4	70.0	74.6	74.9	72.6	75.3	75.4	75.8	73.4	76.7	74.5	75.7	76.4	
3-year	61.5	62.4	65.3	66.9	66.2	65.4	69.4	65.3	68.6	71.5	66.4	71.5	71.0	72.6	69.2	73.5	71.4	69.8		
4-year	58.5	58.6	61.9	63.0	63.3	62.6	66.8	62.1	65.8	67.2	63.1	67.9	68.1	70.0	66.3	70.0	69.4			
5-year	55.5	55.9	59.2	60.2	60.3	60.4	63.4	59.2	62.3	64.7	60.9	64.6	65.0	67.4	64.2	66.4				
6-year	53.0	52.9	56.2	57.7	57.9	59.0	60.8	57.6	59.9	63.3	59.3	62.9	63.2	64.0	62.9					
7-year	51.0	50.7	53.1	55.9	56.4	58.0	58.1	56.4	56.8	61.7	57.8	60.3	61.1	61.2						
8-year	48.4	49.2	51.5	53.2	54.4	55.2	56.9	55.7	54.2	59.7	56.2	57.9	59.8							
9-year	46.8	46.9	49.7	50.9	52.5	53.2	55.9	55.7	52.1	58.5	53.3	56.8								
10-year	44.8	45.7	48.5	48.8	51.2	51.3	53.5	54.3	50.0	56.6	50.4									
11-year	43.0	44.2	47.0	46.6	49.7	50.7	50.9	52.2	49.2	54.8										
12-year	41.5	42.4	45.1	45.7	47.6	49.5	49.4	50.5	47.0											
13-year	39.9	40.3	43.4	44.0	46.3	47.2	48.5	48.6												
14-year	38.6	39.1	41.9	42.9	45.0	44.1	48.4													
15-year	37.0	37.2	40.6	41.9	44.4	43.2														
16-year	35.9	35.9	39.4	41.0	43.4															
17-year	34.9	35.0	38.4	39.6																
18-year	33.6	34.2	36.8																	
19-year	32.6	33.0	35.9																	
20-year	31.2	32.5	35.6																	

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

Table 20.16
Cancer of the Oral Cavity and Pharynx (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Both Sexes, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.00	0.01	1.10	0.28	Asian/ Pacific Islander	0	0.00	0.00	0.01	0.88	0.30
	10	0.00	0.01	0.04	1.11	0.29		10	0.00	0.01	0.05	0.88	0.30
	20	0.01	0.03	0.12	1.11	0.29		20	0.01	0.05	0.12	0.88	0.30
	30	0.03	0.11	0.33	1.11	0.29		30	0.04	0.11	0.23	0.88	0.30
	40	0.09	0.30	0.60	1.10	0.29		40	0.07	0.20	0.38	0.84	0.30
	50	0.22	0.53	0.81	1.04	0.28		50	0.13	0.31	0.53	0.78	0.29
	60	0.32	0.62	0.81	0.87	0.26		60	0.19	0.41	0.58	0.67	0.27
	70	0.34	0.56	-	0.62	0.21		70	0.24	0.42	-	0.52	0.24
80	0.29	-	-	0.37	0.16	80	0.21	-	-	0.34	0.19		
White	0	0.00	0.00	0.01	1.15	0.28	American Indian/ Alaska Native ^a	0	0.00	0.01	0.01	0.80	0.24
	10	0.00	0.01	0.04	1.16	0.28		10	0.00	0.01	0.03	0.81	0.24
	20	0.01	0.03	0.12	1.16	0.29		20	0.00	0.02	0.07	0.81	0.24
	30	0.02	0.11	0.34	1.16	0.29		30	0.02	0.07	0.22	0.82	0.25
	40	0.09	0.32	0.63	1.15	0.29		40	0.05	0.21	0.46	0.82	0.25
	50	0.23	0.55	0.85	1.09	0.28		50	0.17	0.43	0.65	0.80	0.26
	60	0.34	0.66	0.85	0.90	0.26		60	0.28	0.52	0.67	0.68	0.22
	70	0.36	0.58	-	0.64	0.21		70	0.28	0.45	-	0.46	0.19
80	0.30	-	-	0.38	0.16	80	0.24	-	-	0.25	0.15		
Black	0	0.00	0.00	0.01	0.80	0.28	Hispanic ^b	0	0.00	0.00	0.01	0.81	0.21
	10	0.00	0.01	0.03	0.81	0.29		10	0.00	0.01	0.02	0.82	0.21
	20	0.01	0.03	0.10	0.81	0.29		20	0.01	0.02	0.07	0.82	0.21
	30	0.02	0.10	0.30	0.82	0.29		30	0.01	0.06	0.17	0.82	0.21
	40	0.08	0.28	0.53	0.81	0.29		40	0.05	0.16	0.35	0.81	0.21
	50	0.21	0.47	0.66	0.76	0.29		50	0.11	0.31	0.53	0.78	0.21
	60	0.29	0.50	0.59	0.61	0.25		60	0.20	0.44	0.61	0.69	0.20
	70	0.25	0.36	-	0.39	0.19		70	0.26	0.45	-	0.54	0.17
80	0.16	-	-	0.20	0.12	80	0.24	-	-	0.36	0.13		

Devcan 6.8.0, August 2014, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

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

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 20.17
Cancer of the Oral Cavity and Pharynx (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Males, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.00	0.01	1.55	0.39	Asian/ Pacific Islander	0	0.00	0.00	0.02	1.25	0.41
	10	0.00	0.01	0.04	1.57	0.39		10	0.00	0.02	0.06	1.26	0.42
	20	0.01	0.04	0.16	1.57	0.39		20	0.01	0.06	0.16	1.26	0.42
	30	0.03	0.16	0.49	1.58	0.40		30	0.05	0.15	0.34	1.26	0.42
	40	0.13	0.47	0.91	1.57	0.40		40	0.11	0.29	0.57	1.22	0.41
	50	0.35	0.81	1.21	1.49	0.40		50	0.19	0.47	0.77	1.13	0.40
	60	0.50	0.93	1.17	1.24	0.36		60	0.29	0.61	0.83	0.98	0.37
	70	0.50	0.79	-	0.86	0.29		70	0.34	0.58	-	0.75	0.32
80	0.41	-	-	0.52	0.21	80	0.30	-	-	0.51	0.26		
White	0	0.00	0.00	0.01	1.61	0.38	American Indian/ Alaska Native ^a	0	0.00	0.00	0.01	1.24	0.33
	10	0.00	0.01	0.04	1.62	0.39		10	0.00	0.01	0.02	1.25	0.34
	20	0.01	0.04	0.16	1.63	0.39		20	0.01	0.02	0.09	1.26	0.34
	30	0.03	0.16	0.51	1.64	0.39		30	0.02	0.09	0.32	1.28	0.35
	40	0.13	0.49	0.95	1.64	0.40		40	0.08	0.32	0.71	1.30	0.36
	50	0.37	0.85	1.27	1.55	0.39		50	0.25	0.67	1.00	1.29	0.37
	60	0.52	0.97	1.22	1.28	0.35		60	0.45	0.81	1.11	1.12	0.32
	70	0.53	0.82	-	0.89	0.28		70	0.42	0.78	-	0.79	0.27
80	0.43	-	-	0.52	0.21	80	0.51	-	-	0.53	0.25		
Black	0	0.00	0.00	0.01	1.15	0.44	Hispanic ^b	0	0.00	0.00	0.01	1.12	0.29
	10	0.00	0.01	0.03	1.18	0.45		10	0.00	0.01	0.02	1.13	0.29
	20	0.01	0.03	0.14	1.18	0.45		20	0.00	0.02	0.08	1.13	0.29
	30	0.02	0.13	0.43	1.20	0.46		30	0.02	0.08	0.24	1.13	0.30
	40	0.11	0.42	0.81	1.21	0.47		40	0.06	0.23	0.53	1.13	0.30
	50	0.32	0.73	1.01	1.15	0.46		50	0.17	0.48	0.81	1.09	0.30
	60	0.46	0.77	0.90	0.93	0.41		60	0.33	0.67	0.89	0.98	0.28
	70	0.40	0.55	-	0.59	0.30		70	0.39	0.64	-	0.74	0.22
80	0.26	-	-	0.32	0.20	80	0.33	-	-	0.46	0.16		

Devcan 6.8.0, August 2014, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

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

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

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

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Females, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.00	0.01	0.67	0.18	Asian/ Pacific Islander	0	0.00	0.00	0.01	0.56	0.20
	10	0.00	0.01	0.03	0.68	0.18		10	0.00	0.01	0.04	0.56	0.21
	20	0.01	0.03	0.08	0.68	0.18		20	0.01	0.04	0.08	0.56	0.21
	30	0.02	0.07	0.17	0.67	0.18		30	0.03	0.07	0.14	0.55	0.20
	40	0.05	0.15	0.30	0.66	0.18		40	0.04	0.11	0.21	0.53	0.20
	50	0.10	0.25	0.44	0.62	0.18		50	0.07	0.17	0.32	0.49	0.20
	60	0.16	0.35	0.49	0.54	0.17		60	0.10	0.26	0.38	0.43	0.19
	70	0.21	0.37	-	0.42	0.15		70	0.16	0.29	-	0.34	0.17
80	0.20	-	-	0.27	0.13	80	0.15	-	-	0.21	0.14		
White	0	0.00	0.00	0.01	0.70	0.18	American Indian/ Alaska Native ^a	0	0.00	0.01	0.01	0.40	0.16
	10	0.00	0.01	0.03	0.70	0.19		10	0.00	0.01	0.03	0.40	0.16
	20	0.01	0.03	0.08	0.70	0.19		20	0.00	0.03	0.05	0.40	0.16
	30	0.02	0.07	0.17	0.70	0.19		30	0.02	0.05	0.13	0.40	0.16
	40	0.05	0.15	0.30	0.68	0.19		40	0.02	0.11	0.22	0.38	0.16
	50	0.10	0.26	0.45	0.65	0.19		50	0.08	0.20	0.34	0.37	0.16
	60	0.17	0.37	0.52	0.57	0.18		60	0.12	0.27	0.30	0.30	0.15
	70	0.22	0.39	-	0.44	0.16		70	0.16	0.20	-	0.20	0.13
80	0.21	-	-	0.29	0.13	80	0.05	-	-	0.05	0.08		
Black	0	0.00	0.01	0.01	0.48	0.15	Hispanic ^b	0	0.00	0.00	0.01	0.54	0.14
	10	0.00	0.01	0.03	0.49	0.15		10	0.00	0.01	0.02	0.54	0.14
	20	0.01	0.03	0.07	0.49	0.15		20	0.01	0.02	0.05	0.54	0.14
	30	0.02	0.06	0.17	0.48	0.15		30	0.01	0.04	0.10	0.53	0.14
	40	0.04	0.15	0.28	0.47	0.15		40	0.03	0.09	0.18	0.52	0.14
	50	0.11	0.24	0.36	0.44	0.15		50	0.06	0.15	0.29	0.50	0.14
	60	0.14	0.27	0.34	0.35	0.13		60	0.09	0.24	0.37	0.46	0.13
	70	0.15	0.23	-	0.24	0.11		70	0.15	0.30	-	0.39	0.13
80	0.11	-	-	0.13	0.09	80	0.18	-	-	0.29	0.11		

Devcan 6.8.0, August 2014, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

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

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 20.19
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 18 Areas ^b			SEER 13 Areas ^b			SEER 9 Areas ^b		
	Rate 2007-2011			Trend 2002-2011 ^c			Trend 2002-2011 ^d		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	11.0	16.5	6.2	0.2	0.4	-0.8*	0.3	0.3	-0.8*
White	11.4	17.0	6.4	0.7*	0.7*	-0.8*	0.7	0.7	-0.7*
White Hispanic ^e	6.9	10.2	4.3	1.3	-0.7	-0.4	-	-	-
White Non-Hispanic ^e	12.2	18.3	6.8	0.8*	0.9*	-0.6*	-	-	-
Black	9.4	14.7	5.3	-2.6*	-3.1*	-1.5*	-2.6*	-3.2*	-1.5*
Asian/Pacific Islander	7.5	10.9	4.7	-1.1*	-1.1*	-1.1*	-	-	-
Amer Ind/Alaska Nat ^f	8.1	12.5	4.4	-1.6	-	-	-	-	-
Hispanic ^e	6.7	9.8	4.1	1.0	-0.7	-0.6	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2007-2011			Trend 2002-2011 ^h					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races	2.5	3.8	1.4	-0.8	-0.5	-2.0*			
White	2.4	3.7	1.4	-0.7*	-0.5	-1.8*			
White Hispanic ^e	1.6	2.5	0.8	-1.3*	-1.5*	-1.1*			
White Non-Hispanic ^e	2.5	3.8	1.4	-0.6*	-0.3	-1.7*			
Black	3.0	5.1	1.4	-3.8*	-3.8*	-3.5*			
Asian/Pacific Islander	1.9	2.9	1.2	-2.3*	-2.4*	-1.8*			
Amer Ind/Alaska Nat									
Total U.S.	1.8	2.7	1.2	-1.8*	-2.3*	-			
CHSDA Counties	2.3	3.4	1.4	-1.6*	-	-			
Non-CHSDA Counties	1.3	1.8	0.9	-	-	-			
Hispanic ^e	1.5	2.4	0.8	-2.4*	-2.0*	-1.1*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.1.0, April 2014, 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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

c The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2011.

d The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2011.

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 2002-2011 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

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 2002-2011 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2011.

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

Table 20.20
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>2007-2011, Rate per 100,000 persons^b</u>										
All Races										
Male and Female	11.0	0.7	3.2	0.6	1.5	2.2	0.6	1.3	0.7	0.2
Male	16.5	1.1	4.8	0.8	1.8	3.8	1.1	1.7	1.0	0.3
Female	6.2	0.3	1.8	0.3	1.3	0.8	0.2	1.0	0.4	0.1
White										
Male and Female	11.4	0.8	3.5	0.6	1.5	2.4	0.6	1.3	0.4	0.2
Male	17.0	1.3	5.2	0.9	1.8	4.0	1.1	1.8	0.6	0.4
Female	6.4	0.4	1.9	0.4	1.3	0.9	0.3	1.0	0.3	0.1
Black										
Male and Female	9.4	0.1	2.2	0.5	1.4	2.3	1.0	1.0	0.7	0.3
Male	14.7	0.1	3.6	0.9	1.7	4.0	1.9	1.1	1.1	0.4
Female	5.3	0.1	1.1	0.3	1.2	0.9	0.3	1.0	0.3	0.2
<u>Trend 2002-2011^b, APC(%)</u>										
All Races										
Male and Female	0.4*	-3.5*	1.8*	-3.2*	-0.5	2.9*	-2.5*	0.5	-0.9	-0.8
Male	0.4*	-4.1*	2.2*	-3.5*	-0.8	3.1*	-2.7*	0.4	-0.8	-0.5
Female	0.1	-2.1*	0.9	-2.2	0.0	1.8*	-2.2*	0.3	-1.3	-2.5
White										
Male and Female	0.8*	-3.7*	2.1*	-2.5*	-0.4	3.7*	-2.1*	0.9	-0.5	-0.5
Male	0.8*	-4.3*	2.4*	-3.0*	-0.7	3.9*	-2.4*	0.7	-0.8	0.3
Female	0.4	-2.1*	1.3*	-1.3	0.0	2.3*	-2.0*	0.7	-0.2	-3.3
Black										
Male and Female	-2.5*	-	-1.2	-6.5*	-3.7*	-0.8	-5.0*	-0.9	-3.1*	-3.9
Male	-2.9*	-	-1.2	-6.7*	-5.5*	-0.9	-5.2*	-0.8	-2.9	-6.8*
Female	-1.7	-	-1.2	-5.4*	-1.5	-0.5	-4.4	-1.1	-3.3	-

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

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 and trends are from the SEER 18 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, New Jersey and Georgia excluding ATL/RG).

- 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 20.21
Cancer of the Oral Cavity and Pharynx by Subsite
U.S. Mortality^a
Age-Adjusted Rates and Trends^b 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>2007-2011, Rate per 100,000 persons</u>										
All Races										
Male and Female	2.5	0.0	0.6	0.0	0.4	0.4	0.1	0.2	0.2	0.5
Male	3.8	0.0	0.9	0.0	0.4	0.7	0.2	0.4	0.3	0.8
Female	1.4	0.0	0.4	0.0	0.3	0.2	0.0	0.1	0.1	0.2
White										
Male and Female	2.4	0.0	0.6	0.0	0.4	0.4	0.1	0.2	0.2	0.4
Male	3.7	0.0	0.9	0.0	0.4	0.7	0.1	0.4	0.2	0.8
Female	1.4	0.0	0.4	0.0	0.3	0.2	0.0	0.1	0.1	0.2
Black										
Male and Female	3.0	-	0.6	0.0	0.3	0.7	0.2	0.2	0.3	0.8
Male	5.1	-	0.9	0.1	0.5	1.2	0.3	0.3	0.4	1.5
Female	1.4	-	0.3	-	0.2	0.3	0.1	0.1	0.1	0.3
<u>Trend 2002-2011 ,APC(%)</u>										
All Races										
Male and Female	-1.0*	-1.8	-0.8*	-8.2*	-1.6*	1.3*	-2.8*	-0.1	-1.1*	-2.4*
Male	-0.9*	-1.8	-0.6*	-8.9*	-1.7*	1.3*	-2.9*	0.0	-0.6	-2.1*
Female	-1.5*	-2.0	-1.4*	-5.8*	-1.4*	0.9	-2.2	-0.6	-2.5*	-3.7*
White										
Male and Female	-0.6*	-1.5	-0.4	-7.6*	-1.2*	2.0*	-2.9*	-0.1	-1.1	-1.8*
Male	-0.4	-1.6	-0.1	-8.3*	-1.1	2.0*	-2.6	-0.1	-0.6	-1.5*
Female	-1.3*	-1.9	-1.1*	-5.8	-1.2	1.2	-4.1*	-0.4	-2.6*	-3.2*
Black										
Male and Female	-3.4*	-	-3.7*	-11.6*	-5.4*	-1.0	-2.5	1.2	-3.4*	-4.8*
Male	-3.7*	-	-4.4*	-	-5.8*	-1.4	-4.6	2.3	-2.8	-4.5*
Female	-2.7*	-	-2.1	-	-4.3*	0.3	-	-1.1	-4.8	-5.7*

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

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

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).

- 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 20.22
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, 2007-2011</u>									
California	10.40	15.46	6.01	10.93	16.28	6.19	8.69	13.04	5.15
Greater Bay Area	10.45	15.22	6.26	11.30	16.58	6.51	8.80	11.90	6.24
San Francisco-Oakland	10.84	15.79	6.50	11.71	17.22	6.67	8.84	11.80	6.47
San Jose-Monterey	9.70	14.19	5.78	10.56	15.47	6.20	8.95	13.09	-
Los Angeles	9.23	13.90	5.37	9.58	14.46	5.41	9.19	14.38	5.40
Greater California	10.92	16.25	6.23	11.35	16.91	6.40	8.16	12.35	4.33
Connecticut	10.91	16.12	6.43	10.99	16.23	6.42	9.64	15.95	4.94
Detroit	12.18	18.37	7.01	12.35	18.46	7.06	11.85	18.46	6.92
Georgia	11.74	18.18	6.37	12.78	19.50	6.87	8.93	14.77	4.77
Atlanta	10.56	16.52	5.68	12.27	18.96	6.33	7.79	12.93	4.30
Rural Georgia	12.94	17.63	8.84	16.47	22.06	11.47	7.43	-	-
Greater Georgia	12.31	18.99	6.69	12.93	19.70	6.99	9.93	16.39	5.21
Hawaii	11.31	16.64	6.52	15.77	21.94	9.04	-	-	-
Iowa	11.64	17.92	6.11	11.55	17.77	6.07	8.99	13.62	-
Kentucky	13.46	20.98	6.99	13.38	20.90	6.87	11.42	17.22	6.79
Louisiana	12.56	19.67	6.47	13.19	20.63	6.53	11.12	17.68	6.10
New Jersey	10.08	14.98	6.02	10.46	15.34	6.32	7.88	12.39	4.69
New Mexico	9.71	14.80	5.18	9.99	15.31	5.20	-	-	-
Seattle-Puget Sound	11.81	16.89	7.27	12.16	17.28	7.51	8.05	11.66	4.60
Utah	7.78	10.92	4.89	7.75	10.83	4.90	-	-	-
9 SEER Areas ^b	10.98	16.31	6.34	11.37	16.85	6.47	9.37	14.49	5.43
11 SEER Areas ^b	10.52	15.66	6.09	10.95	16.26	6.23	9.30	14.42	5.40
13 SEER Areas ^b	10.53	15.67	6.10	10.96	16.28	6.24	9.28	14.35	5.41
18 SEER Areas ^b	10.96	16.45	6.23	11.39	17.05	6.39	9.40	14.74	5.32

^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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

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

Table 20.23
Cancer of the Oral Cavity and Pharynx (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates^a, 2007-2011</u>									
California	2.47	3.67	1.47	2.52	3.75	1.48	2.75	4.05	1.70
Greater Bay Area	2.33	3.40	1.42	2.21	3.22	1.33	2.68	4.04	1.59
San Francisco-Oakland	2.43	3.50	1.53	2.27	3.30	1.37	2.55	3.45	1.79
San Jose-Monterey	2.13	3.22	1.21	2.10	3.08	1.26	-	-	-
Los Angeles	2.35	3.51	1.42	2.32	3.47	1.38	3.04	4.56	1.90
Greater California	2.58	3.84	1.51	2.69	4.00	1.56	2.60	3.64	1.65
Connecticut	2.05	3.21	1.12	2.01	3.13	1.12	2.79	4.81	-
Detroit	2.51	3.91	1.35	2.30	3.56	1.23	3.39	5.47	1.87
Georgia	2.56	4.12	1.33	2.48	3.82	1.36	2.85	5.30	1.22
Atlanta	2.31	3.88	1.11	2.11	3.44	1.02	2.75	5.15	1.27
Rural Georgia	2.49	4.51	-	-	-	-	-	-	-
Greater Georgia	2.67	4.21	1.45	2.63	4.00	1.49	2.90	5.25	1.28
Hawaii	2.64	4.09	1.38	2.65	3.95	-	-	-	-
Iowa	2.23	3.43	1.23	2.19	3.35	1.24	5.18	-	-
Kentucky	2.70	4.28	1.42	2.68	4.24	1.40	3.41	5.81	-
Louisiana	3.29	5.46	1.50	3.14	4.91	1.62	3.72	7.24	1.14
New Jersey	2.07	3.12	1.24	2.00	2.91	1.28	2.76	5.37	1.01
New Mexico	2.24	3.28	1.31	2.33	3.40	1.37	-	-	-
Seattle-Puget Sound	2.90	4.09	1.89	2.96	4.17	1.93	2.44	-	-
Utah	1.48	1.81	1.16	1.44	1.74	1.16	-	-	-
9 SEER Areas ^b	2.36	3.53	1.38	2.27	3.36	1.33	2.93	4.84	1.53
11 SEER Areas ^b	2.34	3.51	1.38	2.27	3.37	1.34	2.96	4.80	1.59
13 SEER Areas ^b	2.34	3.50	1.37	2.26	3.35	1.33	2.96	4.85	1.56
18 SEER Areas ^b	2.45	3.73	1.40	2.42	3.63	1.41	3.00	5.20	1.40
Total U.S.	2.46	3.77	1.37	2.41	3.65	1.36	2.98	5.15	1.40

^a 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).

^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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

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

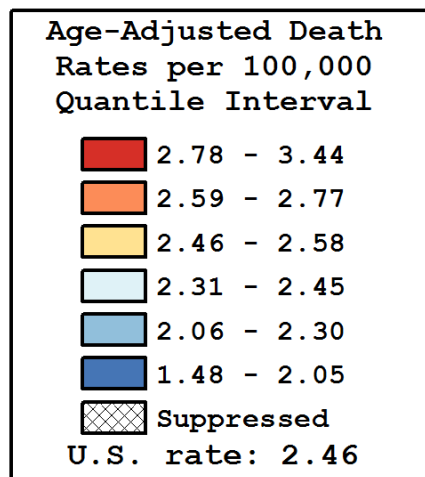
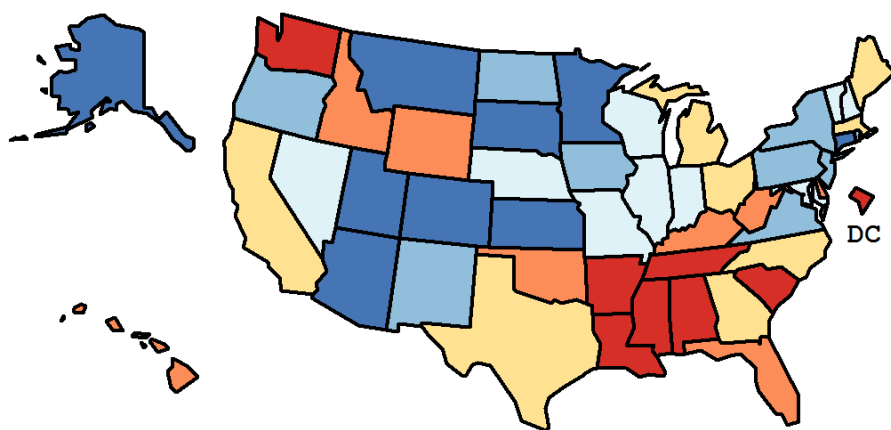
Table 20.24
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2007-2011

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	2.46	0.01		
High Five States				
Mississippi	3.44 ^b	0.15	(01)	40.19 ^c
D.C.	3.42	0.35	(02)	39.28 ^c
Louisiana	3.29 ^b	0.12	(03)	33.98 ^c
Arkansas	3.06 ^b	0.14	(04)	24.71 ^c
Tennessee	3.06 ^b	0.09	(05)	24.47 ^c
Low Five States				
Kansas	1.93 ^b	0.11	(47)	-21.26 ^c
Colorado	1.91 ^b	0.09	(48)	-22.18 ^c
South Dakota	1.86	0.20	(49)	-24.42 ^c
Alaska	1.73	0.26	(50)	-29.76 ^c
Utah	1.48 ^b	0.12	(51)	-39.69 ^c

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	2.82	0.10	(08)	14.64	Montana	2.01	0.19	(45)	-18.30 ^c
Alaska	1.73	0.26	(50)	-29.76 ^c	Nebraska	2.43	0.16	(28)	-1.08
Arizona	2.01 ^b	0.08	(44)	-18.04 ^c	Nevada	2.31	0.14	(33)	-6.05
Arkansas	3.06 ^b	0.14	(04)	24.71 ^c	New Hampshire	2.38	0.18	(30)	-3.23
California	2.47	0.04	(24)	0.59	New Jersey	2.07 ^b	0.07	(42)	-15.87 ^c
Colorado	1.91 ^b	0.09	(48)	-22.18 ^c	New Mexico	2.24	0.14	(36)	-8.92
Connecticut	2.05 ^b	0.10	(43)	-16.60 ^c	New York	2.17 ^b	0.04	(39)	-11.81
Delaware	2.59	0.23	(16)	5.48	North Carolina	2.55	0.07	(19)	3.92
D.C.	3.42	0.35	(02)	39.28 ^c	North Dakota	2.12	0.24	(40)	-13.67
Florida	2.73 ^b	0.05	(10)	10.94	Ohio	2.58	0.06	(17)	5.15
Georgia	2.56	0.08	(18)	4.25	Oklahoma	2.69	0.12	(12)	9.57
Hawaii	2.64	0.19	(13)	7.52	Oregon	2.30	0.10	(34)	-6.35
Idaho	2.59	0.18	(15)	5.51	Pennsylvania	2.22 ^b	0.05	(38)	-9.84
Illinois	2.39	0.06	(29)	-2.71	Rhode Island	2.09	0.19	(41)	-15.12 ^c
Indiana	2.32	0.08	(32)	-5.56	South Carolina	3.01 ^b	0.11	(06)	22.47 ^c
Iowa	2.23	0.11	(37)	-9.17	South Dakota	1.86	0.20	(49)	-24.42 ^c
Kansas	1.93 ^b	0.11	(47)	-21.26 ^c	Tennessee	3.06 ^b	0.09	(05)	24.47 ^c
Kentucky	2.70	0.11	(11)	10.01	Texas	2.52	0.05	(23)	2.59
Louisiana	3.29 ^b	0.12	(03)	33.98 ^c	Utah	1.48 ^b	0.12	(51)	-39.69 ^c
Maine	2.53	0.17	(20)	3.02	Vermont	2.45	0.25	(25)	-0.26
Maryland	2.44	0.09	(27)	-0.87	Virginia	2.28	0.08	(35)	-7.03
Massachusetts	2.52	0.08	(21)	2.76	Washington	2.97 ^b	0.09	(07)	20.78 ^c
Michigan	2.52	0.07	(22)	2.65	West Virginia	2.60	0.15	(14)	5.88
Minnesota	1.98 ^b	0.08	(46)	-19.57 ^c	Wisconsin	2.45	0.09	(26)	-0.34
Mississippi	3.44 ^b	0.15	(01)	40.19 ^c	Wyoming	2.77	0.31	(09)	12.61
Missouri	2.35	0.08	(31)	-4.18					



^a 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).

^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).

^c Absolute percent difference between state rate and total U.S. rate is 15% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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

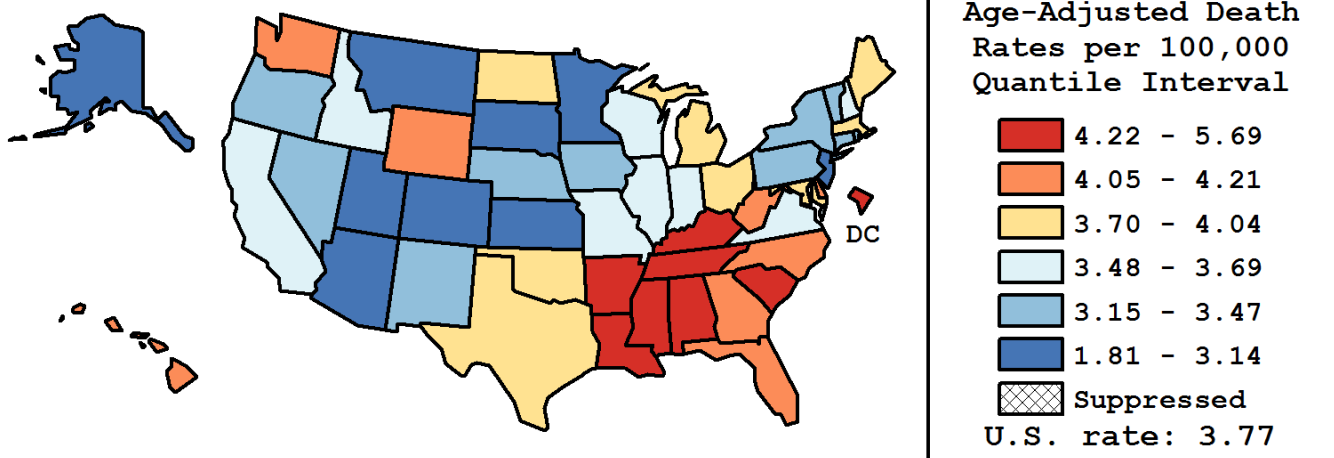
Table 20.25
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2007-2011

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	3.77	0.02		
High Five States				
Mississippi	5.69 ^b	0.29	(01)	51.04 ^c
Louisiana	5.46 ^b	0.23	(02)	44.81 ^c
D.C.	5.44	0.67	(03)	44.27 ^c
South Carolina	5.03 ^b	0.22	(04)	33.41 ^c
Tennessee	4.86 ^b	0.18	(05)	28.98 ^c
Low Five States				
South Dakota	2.73	0.36	(47)	-27.64 ^c
Montana	2.72	0.32	(48)	-27.74 ^c
Colorado	2.67 ^b	0.16	(49)	-29.11 ^c
Alaska	2.61	0.48	(50)	-30.85 ^c
Utah	1.81 ^b	0.20	(51)	-51.87 ^c

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	4.52 ^b	0.20	(07)	19.89 ^c	Montana	2.72	0.32	(48)	-27.74 ^c
Alaska	2.61	0.48	(50)	-30.85 ^c	Nebraska	3.34	0.28	(40)	-11.28
Arizona	3.14 ^b	0.14	(43)	-16.66 ^c	Nevada	3.42	0.24	(38)	-9.15
Arkansas	4.81 ^b	0.26	(06)	27.72 ^c	New Hampshire	3.68	0.33	(26)	-2.47
California	3.67	0.07	(27)	-2.57	New Jersey	3.12 ^b	0.12	(44)	-17.29 ^c
Colorado	2.67 ^b	0.16	(49)	-29.11 ^c	New Mexico	3.28	0.26	(41)	-13.04
Connecticut	3.21	0.19	(42)	-14.88	New York	3.39 ^b	0.09	(39)	-10.14
Delaware	4.07	0.43	(15)	7.98	North Carolina	4.10	0.14	(13)	8.71
D.C.	5.44	0.67	(03)	44.27 ^c	North Dakota	3.70	0.46	(24)	-1.97
Florida	4.21 ^b	0.09	(09)	11.67	Ohio	3.98	0.12	(18)	5.48
Georgia	4.12	0.15	(12)	9.33	Oklahoma	4.04	0.21	(17)	7.11
Hawaii	4.09	0.34	(14)	8.42	Oregon	3.47	0.19	(34)	-8.06
Idaho	3.69	0.32	(25)	-2.11	Pennsylvania	3.44	0.10	(36)	-8.85
Illinois	3.59	0.11	(29)	-4.80	Rhode Island	3.47	0.36	(33)	-8.02
Indiana	3.60	0.15	(28)	-4.39	South Carolina	5.03 ^b	0.22	(04)	33.41 ^c
Iowa	3.43	0.21	(37)	-9.00	South Dakota	2.73	0.36	(47)	-27.64 ^c
Kansas	2.83 ^b	0.20	(45)	-24.80 ^c	Tennessee	4.86 ^b	0.18	(05)	28.98 ^c
Kentucky	4.28	0.21	(08)	13.54	Texas	3.92	0.09	(20)	4.05
Louisiana	5.46 ^b	0.23	(02)	44.81 ^c	Utah	1.81 ^b	0.20	(51)	-51.87 ^c
Maine	3.81	0.32	(22)	1.05	Vermont	3.44	0.46	(35)	-8.78
Maryland	3.70	0.17	(23)	-1.94	Virginia	3.58	0.15	(30)	-4.92
Massachusetts	3.94	0.16	(19)	4.63	Washington	4.13	0.16	(11)	9.52
Michigan	3.90	0.13	(21)	3.45	West Virginia	4.18	0.28	(10)	10.93
Minnesota	2.83 ^b	0.15	(46)	-24.93 ^c	Wisconsin	3.51	0.16	(31)	-6.90
Mississippi	5.69 ^b	0.29	(01)	51.04 ^c	Wyoming	4.05	0.56	(16)	7.37
Missouri	3.49	0.15	(32)	-7.30					



^a 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).
^b Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
^c Absolute percent difference between state rate and total U.S. rate is 15% or more.
SE Standard error of the rate.
PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.

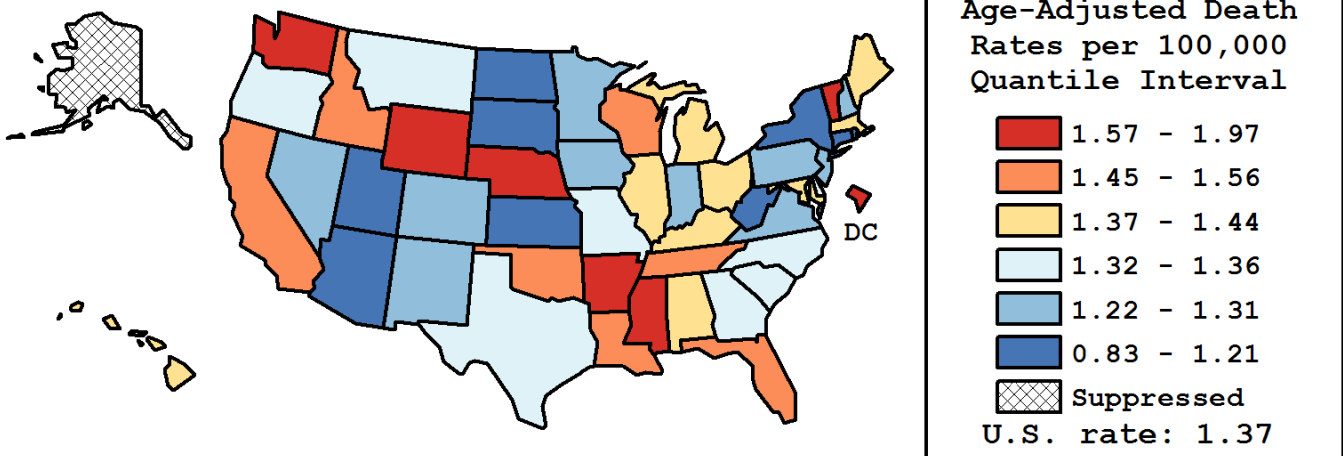
Table 20.26
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2007-2011

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	1.37	0.01		
High Five States				
Washington	1.97 ^b	0.10	(01)	43.85 ^c
D.C.	1.86	0.34	(02)	36.37 ^c
Wyoming	1.67	0.33	(03)	22.00 ^c
Mississippi	1.65	0.14	(04)	21.03 ^c
Vermont	1.63	0.27	(05)	19.36 ^c
Low Five States				
Connecticut	1.12	0.10	(46)	-17.85 ^c
South Dakota	1.07	0.20	(47)	-21.70 ^c
Arizona	1.04 ^b	0.08	(48)	-23.64 ^c
Rhode Island	1.03	0.18	(49)	-24.52 ^c
North Dakota	0.83	0.21	(50)	-39.01 ^c

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	1.44	0.10	(16)	5.51	Montana	1.34	0.21	(28)	-2.10
Alaska	-	-	(-)	-	Nebraska	1.62	0.17	(07)	18.90 ^c
Arizona	1.04 ^b	0.08	(48)	-23.64 ^c	Nevada	1.31	0.14	(32)	-3.83
Arkansas	1.63	0.14	(06)	19.31 ^c	New Hampshire	1.26	0.18	(34)	-7.48
California	1.47	0.04	(13)	7.43	New Jersey	1.24	0.07	(40)	-9.13
Colorado	1.25	0.10	(37)	-8.46	New Mexico	1.31	0.15	(33)	-3.92
Connecticut	1.12	0.10	(46)	-17.85 ^c	New York	1.21 ^b	0.04	(42)	-11.63
Delaware	1.35	0.22	(27)	-1.18	North Carolina	1.32	0.07	(31)	-3.30
D.C.	1.86	0.34	(02)	36.37 ^c	North Dakota	0.83	0.21	(50)	-39.01 ^c
Florida	1.45	0.05	(14)	6.36	Ohio	1.42	0.06	(18)	3.83
Georgia	1.33	0.07	(29)	-2.44	Oklahoma	1.53	0.12	(11)	12.26
Hawaii	1.38	0.18	(21)	1.06	Oregon	1.32	0.11	(30)	-3.27
Idaho	1.55	0.20	(10)	13.22	Pennsylvania	1.25	0.05	(38)	-8.80
Illinois	1.41	0.06	(20)	2.87	Rhode Island	1.03	0.18	(49)	-24.52 ^c
Indiana	1.24	0.08	(39)	-9.11	South Carolina	1.36	0.10	(25)	-0.85
Iowa	1.23	0.11	(41)	-10.01	South Dakota	1.07	0.20	(47)	-21.70 ^c
Kansas	1.18	0.12	(44)	-13.89	Tennessee	1.56	0.09	(08)	14.13
Kentucky	1.42	0.10	(17)	4.02	Texas	1.35	0.05	(26)	-1.16
Louisiana	1.50	0.11	(12)	9.88	Utah	1.16	0.14	(45)	-14.79
Maine	1.44	0.17	(15)	5.51	Vermont	1.63	0.27	(05)	19.36 ^c
Maryland	1.41	0.09	(19)	3.32	Virginia	1.26	0.08	(35)	-7.68
Massachusetts	1.38	0.08	(22)	0.64	Washington	1.97 ^b	0.10	(01)	43.85 ^c
Michigan	1.37	0.07	(23)	-0.07	West Virginia	1.20	0.14	(43)	-11.89
Minnesota	1.26	0.09	(36)	-8.17	Wisconsin	1.55	0.10	(09)	13.30
Mississippi	1.65	0.14	(04)	21.03 ^c	Wyoming	1.67	0.33	(03)	22.00 ^c
Missouri	1.36	0.09	(24)	-0.66					



^a 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).
^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
^c Absolute percent difference between state rate and total U.S. rate is 15% or more.
SE Standard error of the rate.
PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 20.27
Cancer of the Oral Cavity and Pharynx (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2011
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 <19 ^e	0 to <36 ^e	>=36 ^g	Complete ^h
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	104,979	63,968	41,453	25,800	16,755	11,048	240,509	272,072	9,519	281,591
	Males	73,503	43,500	26,936	16,080	9,991	6,396	162,690	181,087	5,404	186,491
	Females	31,476	20,468	14,517	9,720	6,764	4,652	77,819	90,985	4,115	95,100
White ^b	Both Sexes	90,294	55,546	35,905	22,683	14,785	9,685	208,193	235,908	8,152	244,060
	Males	63,742	38,449	23,635	14,379	9,020	5,752	142,627	159,182	4,640	163,822
	Females	26,552	17,097	12,270	8,304	5,765	3,933	65,566	76,726	3,512	80,238
Black ^b	Both Sexes	7,910	4,687	2,906	1,706	1,069	791	17,519	19,657	442	20,099
	Males	5,302	2,827	1,705	852	483	319	10,795	11,685	174	11,859
	Females	2,608	1,860	1,201	854	586	472	6,724	7,972	268	8,240
Asian/ Pacific Islander ^c	Both Sexes	3,954	2,474	1,683	+	+	+	8,925	+	+	+
	Males	2,546	1,502	991	+	+	+	5,514	+	+	+
	Females	1,408	972	692	+	+	+	3,411	+	+	+
Hispanic ^d	Both Sexes	5,606	3,052	1,946	+	+	+	11,582	+	+	+
	Males	3,509	1,912	1,179	+	+	+	7,116	+	+	+
	Females	2,097	1,140	767	+	+	+	4,466	+	+	+

Estimated prevalence percent^a on January 1, 2011, of the SEER^c population diagnosed in the previous 19 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		All Ages	0-9	10-19	20-29	Age Specific (Crude)					Age-Adjusted ^f	
						30-39	40-49	50-59	60-69	70-79	80+	All Ages
<u>Race</u>	<u>Sex</u>											
All Races ^c	Both Sexes	0.0679%	0.0004%	0.0022%	0.0062%	0.0160%	0.0464%	0.1283%	0.2212%	0.2572%	0.2336%	0.0639%
	Males	0.0925%	0.0004%	0.0019%	0.0062%	0.0159%	0.0588%	0.1905%	0.3395%	0.3837%	0.3440%	0.0923%
	Females	0.0438%	0.0004%	0.0025%	0.0063%	0.0162%	0.0341%	0.0688%	0.1141%	0.1554%	0.1690%	0.0397%
White ^c	Both Sexes	0.0738%	0.0005%	0.0021%	0.0060%	0.0151%	0.0448%	0.1329%	0.2369%	0.2750%	0.2456%	0.0666%
	Males	0.1015%	0.0004%	0.0017%	0.0056%	0.0145%	0.0584%	0.1993%	0.3628%	0.4092%	0.3622%	0.0967%
	Females	0.0463%	0.0005%	0.0026%	0.0065%	0.0157%	0.0308%	0.0674%	0.1193%	0.1643%	0.1767%	0.0401%
Black ^c	Both Sexes	0.0409%	-	0.0024%	0.0066%	0.0131%	0.0353%	0.1011%	0.1604%	0.1793%	0.1137%	0.0461%
	Males	0.0538%	-	0.0025%	0.0091%	0.0125%	0.0378%	0.1467%	0.2528%	0.2642%	0.1721%	0.0652%
	Females	0.0292%	-	0.0023%	0.0042%	0.0137%	0.0330%	0.0614%	0.0873%	0.1204%	0.0857%	0.0315%
Asian/ Pacific Islander ^c	Both Sexes	0.0574%	-	0.0023%	0.0065%	0.0223%	0.0596%	0.1160%	0.1591%	0.1927%	0.1906%	0.0557%
	Males	0.0741%	-	0.0028%	0.0060%	0.0256%	0.0728%	0.1616%	0.2365%	0.2790%	0.2663%	0.0765%
	Females	0.0421%	-	0.0018%	0.0069%	0.0194%	0.0479%	0.0769%	0.0949%	0.1265%	0.1441%	0.0390%
Hispanic ^d	Both Sexes	0.0231%	0.0003%	0.0014%	0.0045%	0.0094%	0.0220%	0.0640%	0.1195%	0.1631%	0.1617%	0.0368%
	Males	0.0279%	-	0.0013%	0.0041%	0.0087%	0.0251%	0.0889%	0.1673%	0.2483%	0.2078%	0.0500%
	Females	0.0182%	-	0.0015%	0.0049%	0.0101%	0.0188%	0.0403%	0.0788%	0.1003%	0.1343%	0.0261%

^a US 2011 cancer prevalence counts are based on 2011 cancer prevalence proportions from the SEER registries and 1/1/2011 US population estimates based on the average of 2010 and 2011 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: 36 years for 1975-2011 SEER 9 data; 19 years for 1992-2011 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 36 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 <36 and >=36. (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 20.28

Cancer of the Oral Cavity and Pharynx (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2007-2011
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)	40,374	84.0%	2,723	94.4%	13,790	97.1%	1,182	21.9%	2,436	95.5%
Squamous cell carcinoma (8070-8078,8083-8084)	39,392	82.0%	2,616	90.7%	13,572	95.6%	1,128	20.9%	2,413	94.6%
Adenocarcinoma ^c	4,962	10.3%	116	4.0%	224	1.6%	3,307	61.3%	88	3.4%
Other specific carcinomas ^d	527	1.1%	-	-	42	0.3%	302	5.6%	-	-
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	1,619	3.4%	-	-	87	0.6%	404	7.5%	-	-
Sarcoma and soft tissue ^e	162	0.3%	-	-	17	0.1%	35	0.6%	-	-
Other specific types ^f	225	0.5%	-	-	-	-	99	1.8%	-	-
Unspecified (8000-8005)	169	0.4%	-	-	30	0.2%	70	1.3%	-	-
Total	48,038	100.0%	2,884	100.0%	14,202	100.0%	5,399	100.0%	2,551	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 (8051-8131)	5,208	80.4%	1,757	63.1%	9,856	97.2%	2,697	96.7%	725	89.1%
Squamous cell carcinoma (8070-8078,8083-8084)	4,957	76.6%	1,588	57.0%	9,733	96.0%	2,670	95.7%	715	87.8%
Adenocarcinoma ^c	1,032	15.9%	90	3.2%	69	0.7%	18	0.6%	18	2.2%
Other specific carcinomas ^d	40	0.6%	48	1.7%	45	0.4%	20	0.7%	-	-
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	64	1.0%	822	29.5%	137	1.4%	40	1.4%	40	4.9%
Sarcoma and soft tissue ^e	35	0.5%	39	1.4%	-	-	-	-	-	-
Other specific types ^f	77	1.2%	-	-	-	-	-	-	-	-
Unspecified (8000-8005)	18	0.3%	16	0.6%	18	0.2%	-	-	-	-
Total	6,474	100.0%	2,786	100.0%	10,138	100.0%	2,790	100.0%	814	100.0%

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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.

^c Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

^d Other specific carcinomas includes histologies 8012-8015, 8030-8046, 8150-8155, 8170-8180, 8230-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

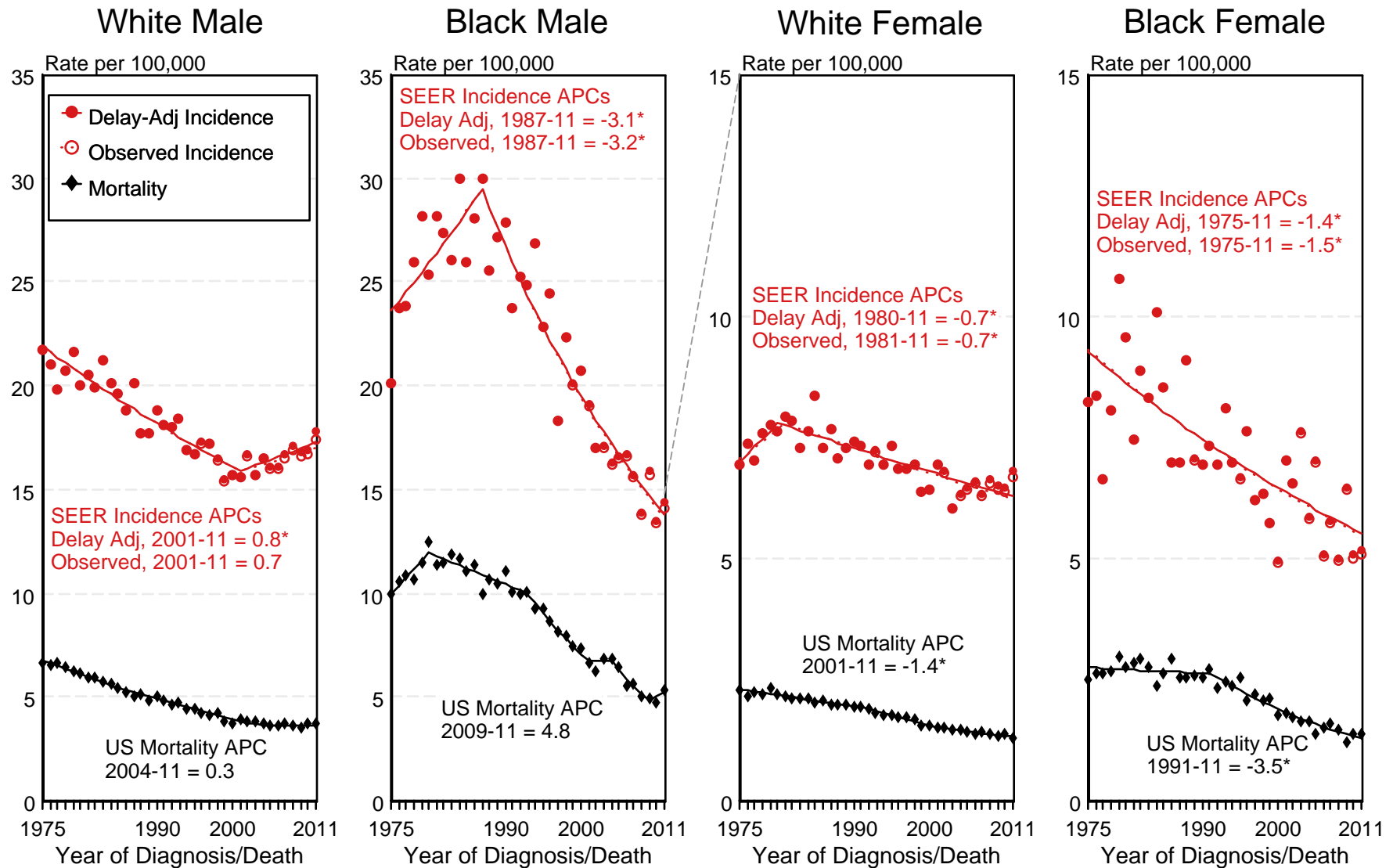
^e Sarcoma and soft tissue includes histologies 8680-8713, 8800-8921, 8990-8991, 9040-9044, 9120-9136, 9150-9252, 9370-9373, 9540-9582.

^f Other specific types includes histologies 8720-8790, 8930-8936, 8950-8983, 9060-9110, 9260-9365, 9380-9539.

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

Figure 20.1

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



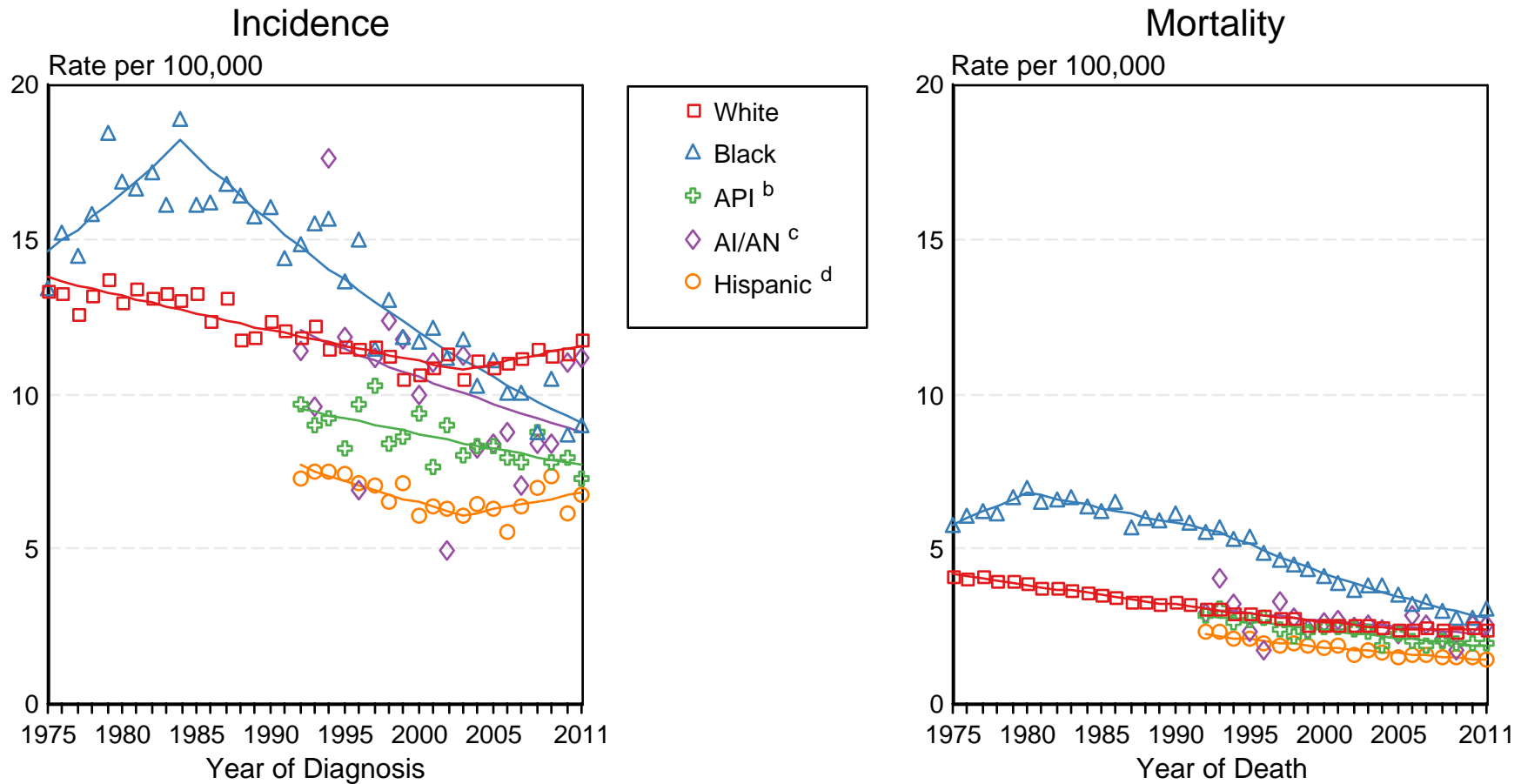
^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer 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 ($p < 0.05$).

Figure 20.2

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

Joinpoint Analyses for Whites and Blacks from 1975-2011

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2011



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 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 allow a maximum of 3 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. 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 New Hampshire and Oklahoma.

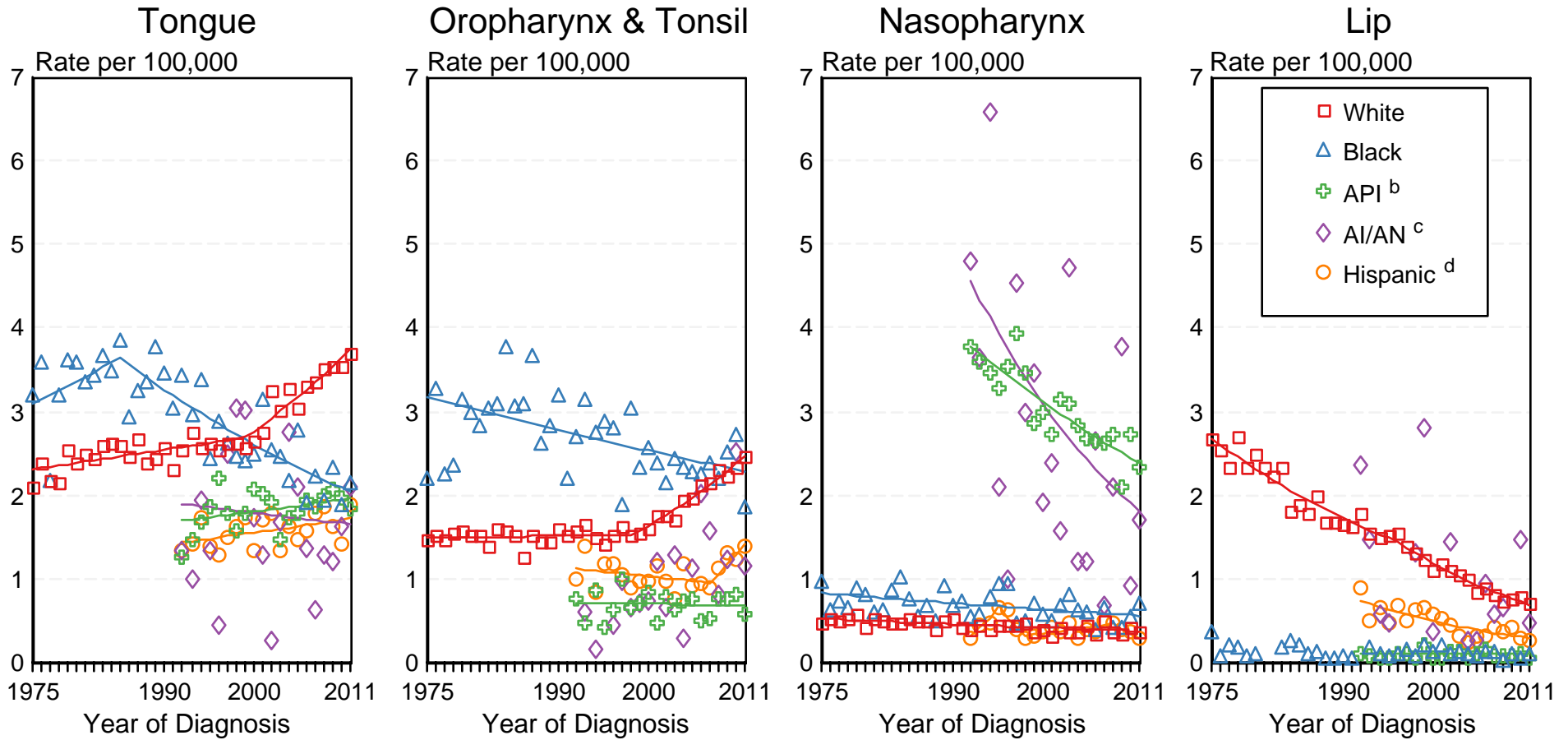
Figure 20.3

SEER Incidence Rates^a

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

Joinpoint Analyses for Whites and Blacks from 1975-2011

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2011



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 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 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.

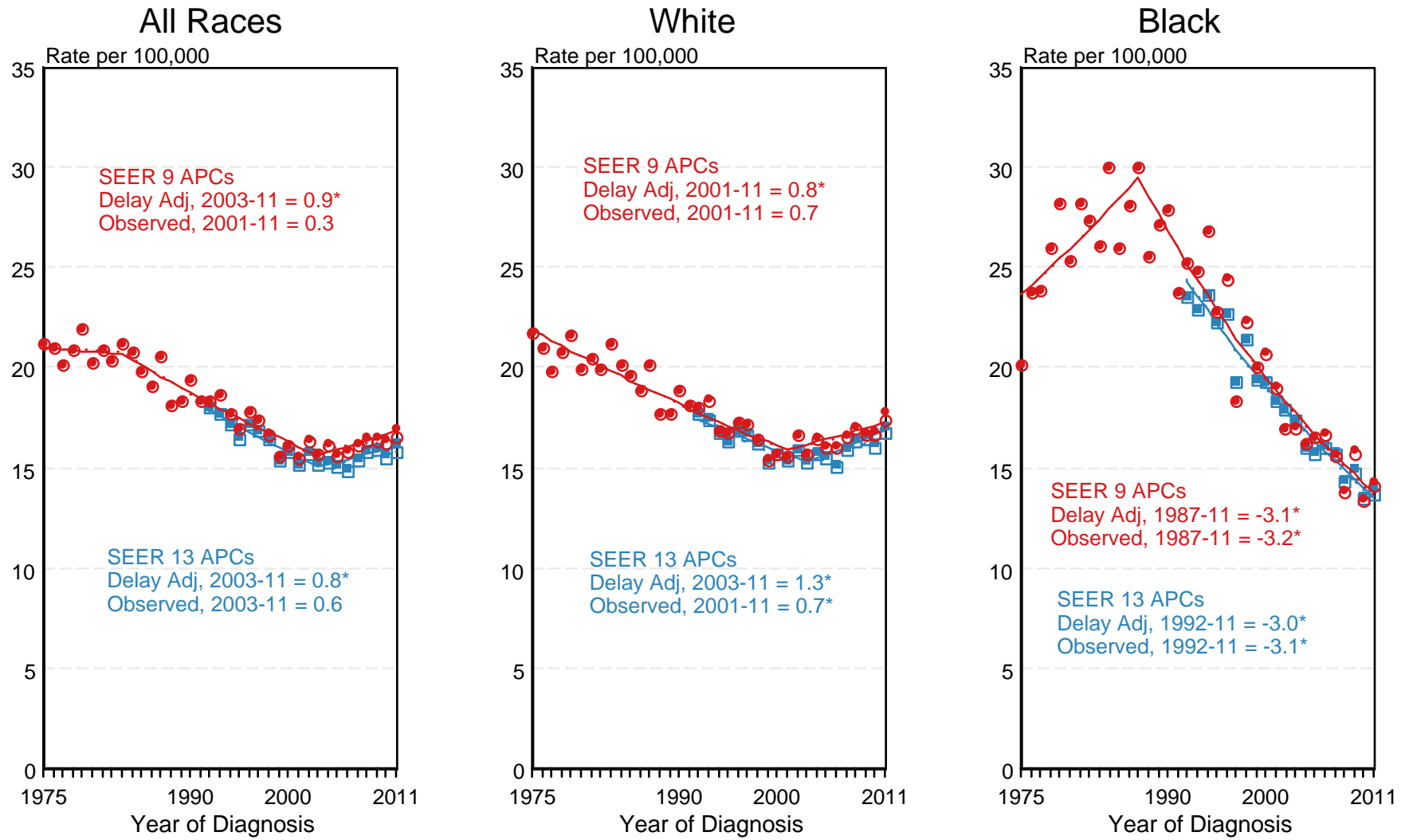
^b API = Asian/Pacific Islander.

^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.

Figure 20.4

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Cancer of the Oral Cavity and Pharynx, Male, by Race

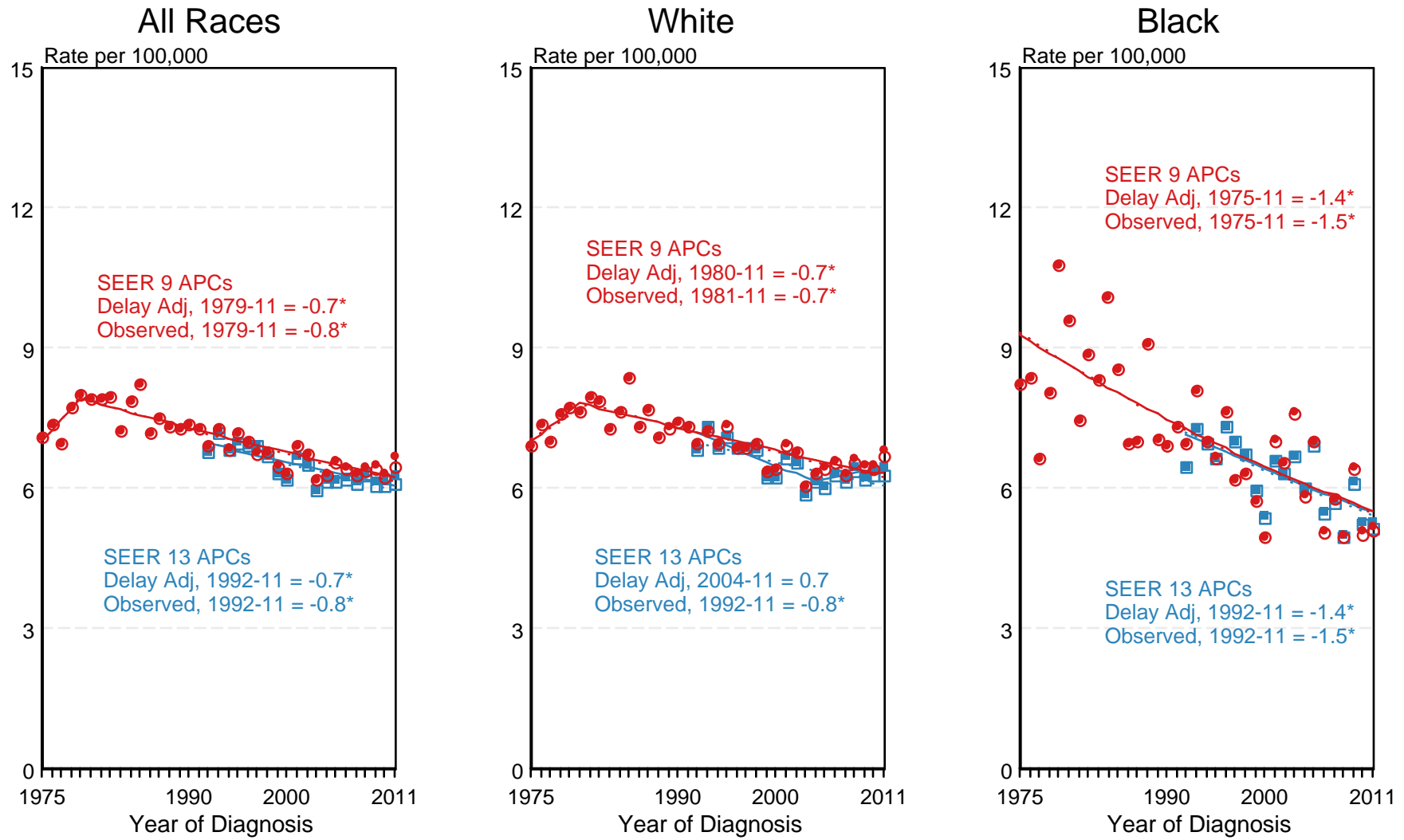


● SEER 9 Delay-Adj. Incidence
 ○ SEER 9 Observed Incidence
 ■ SEER 13 Delay-Adj. Incidence
 □ SEER 13 Observed Incidence

^a Source: SEER 9 areas and SEER 13 areas.
 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 4.1.0, April 2014, 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).

Figure 20.5

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Cancer of the Oral Cavity and Pharynx, Female, by Race



● SEER 9 Delay-Adj. Incidence
 ○ SEER 9 Observed Incidence
 ■ SEER 13 Delay-Adj. Incidence
 □ SEER 13 Observed Incidence

^a Source: SEER 9 areas and SEER 13 areas.
 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 4.1.0, April 2014, 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).