

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,
1975-2013 With up to Five Joinpoints, 1992-2013 With up to Four 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	2004-13	2009-13
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2013</u>														
All Races	1975-81	0.7	1981-03	-1.1*	2003-13	0.8*							0.8*	0.8*
White	1975-03	-0.9*	2003-13	1.1*									1.1*	1.1*
Black	1975-84	2.3*	1984-13	-2.4*									-2.4*	-2.4*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-04	-1.2*	2004-13	0.8*									0.8*	0.8*
White	1992-03	-1.1*	2003-13	1.1*									1.1*	1.1*
Black	1992-13	-2.3*											-2.3*	-2.3*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-81	0.7	1981-03	-1.1*	2003-13	0.6*							0.6*	0.6*
White	1975-03	-0.9*	2003-13	1.0*									1.0*	1.0*
Black	1975-84	2.4*	1984-13	-2.5*									-2.5*	-2.5*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-03	-1.3*	2003-13	0.5*									0.5*	0.5*
White	1992-03	-1.1*	2003-13	0.9*									0.9*	0.9*
White NH ^{ef}	1992-03	-0.8*	2003-13	1.1*									1.1*	1.1*
Black	1992-13	-2.5*											-2.5*	-2.5*
Black NH ^{ef}	1992-13	-2.4*											-2.4*	-2.4*
API ^e	1992-13	-0.9*											-0.9*	-0.9*
AI/AN ^{eg}	1992-13	-1.0											-1.0	-1.0
Hispanic ^f	1992-06	-1.8*	2006-09	6.7	2009-13	-3.4							0.2	-3.4
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-79	-0.5	1979-93	-1.7*	1993-00	-2.7*	2000-09	-1.3*	2009-13	0.4			-0.6	0.4
White	1975-05	-1.9*	2005-13	0.1									-0.1	0.1
Black	1975-80	3.2*	1980-93	-1.5*	1993-09	-4.0*	2009-13	-0.3					-2.4*	-0.3
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-05	-2.2*	2005-13	-0.3									-0.5	-0.3
White	1992-05	-1.9*	2005-13	0.1									-0.1	0.1
White NH ^{ef}	1992-04	-1.8*	2004-13	0.1									0.1	0.1
Black	1992-09	-3.9*	2009-13	-0.4									-2.4*	-0.4
Black NH ^{ef}	1992-09	-3.9*	2009-13	-0.3									-2.3*	-0.3
API ^e	1992-13	-2.1*											-2.1*	-2.1*
AI/AN ^{eg}	1992-13	-2.0*											-2.0*	-2.0*
Hispanic ^f	1992-05	-3.0*	2005-13	-0.5									-0.8	-0.5

Joinpoint Regression Program Version 4.3.0.0, April 2016, 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).

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

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

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

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.

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.

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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,
1975-2013 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	2009-13
<u>Cancer of the Tongue</u>														
All Races	Both Sexes	1975-81	2.6*	1981-97	0.0	1997-13	2.0*							2.0*
All Races	Male	1975-98	0.4	1998-13	2.2*									2.2*
All Races	Female	1975-13	0.6*											0.6*
White	Male	1975-98	0.6*	1998-13	2.9*									2.9*
White	Female	1975-13	0.8*											0.8*
Black	Male	1975-89	1.1	1989-13	-2.4*									-2.4*
Black	Female	1975-13	-1.7*											-1.7*
<u>Cancer of the Floor of Mouth, Gum and Other Mouth</u>														
All Races	Both Sexes	1975-83	0.2	1983-13	-3.6*									-3.6*
All Races	Male	1975-87	-1.4	1987-13	-4.0*									-4.0*
All Races	Female	1975-80	4.4	1980-13	-3.3*									-3.3*
White	Male	1975-13	-3.1*											-3.1*
White	Female	1975-82	1.9	1982-13	-3.3*									-3.3*
Black	Male	1975-77	56.5	1977-93	-2.7*	1993-13	-6.6*							-6.6*
Black	Female	1975-13	-2.8*											-2.8*
<u>Cancer of the Oropharynx and Tonsil</u>														
All Races	Both Sexes	1975-99	0.0	1999-13	3.1*									3.1*
All Races	Male	1975-98	0.4	1998-13	3.2*									3.2*
All Races	Female	1975-04	-1.4*	2004-13	2.8*									2.8*
White	Male	1975-96	0.2	1996-13	3.8*									3.8*
White	Female	1975-04	-1.1*	2004-13	3.4*									3.4*
Black	Male	1975-13	-0.6*											-0.6*
Black	Female	1975-13	-1.7*											-1.7*
<u>Cancer of the Salivary Gland</u>														
All Races	Both Sexes	1975-13	0.6*											0.6*
All Races	Male	1975-13	0.6*											0.6*
All Races	Female	1975-13	0.5*											0.5*
White	Male	1975-13	0.6*											0.6*
White	Female	1975-13	0.4*											0.4*
Black	Male	1975-95	3.2*	1995-13	-2.7*									-2.7*
Black	Female	1975-13	0.8											0.8
<u>Cancer of the Lip</u>														
All Races	Both Sexes	1975-98	-3.2*	1998-09	-5.4*	2009-13	3.6							3.6
All Races	Male	1975-97	-3.7*	1997-09	-6.4*	2009-13	3.6							3.6
All Races	Female	1975-13	-0.8*											-0.8*
White	Male	1975-96	-3.4*	1996-09	-6.1*	2009-13	3.7							3.7
White	Female	1975-13	-0.6*											-0.6*
Black	Male	-	-											-
Black	Female	-	-											-

Joinpoint Regression Program Version 4.3.0.0, April 2016, 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 1975-2013.
 * 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,
1975-2013 With up to Five Joinpoints, 1992-2013 With up to Four 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	2004-13	2009-13
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2013</u>														
All Races	1975-83	-0.2	1983-03	-1.4*	2003-13	0.9*							0.9*	0.9*
White	1975-03	-1.2*	2003-13	1.4*									1.4*	1.4*
Black	1975-87	1.7*	1987-13	-2.9*									-2.9*	-2.9*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-03	-1.6*	2003-13	0.9*									0.9*	0.9*
White	1992-03	-1.3*	2003-13	1.3*									1.3*	1.3*
Black	1992-13	-2.7*											-2.7*	-2.7*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-83	-0.1	1983-01	-1.5*	2001-13	0.4							0.4	0.4
White	1975-01	-1.2*	2001-13	0.8*									0.8*	0.8*
Black	1975-87	1.7*	1987-13	-3.0*									-3.0*	-3.0*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-03	-1.5*	2003-13	0.6*									0.6*	0.6*
White	1992-01	-1.6*	2001-13	0.8*									0.8*	0.8*
White NH ^{ef}	1992-01	-1.3*	2001-13	1.0*									1.0*	1.0*
Black	1992-13	-2.8*											-2.8*	-2.8*
Black NH ^{ef}	1992-13	-2.8*											-2.8*	-2.8*
API ^e	1992-13	-0.8*											-0.8*	-0.8*
AI/AN ^{eg}	1992-13	-2.0											-2.0	-2.0
Hispanic ^f	1992-13	-0.6											-0.6	-0.6
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-80	-0.9	1980-06	-2.2*	2006-13	0.2							-0.4	0.2
White	1975-04	-2.2*	2004-13	0.3									0.3	0.3
Black	1975-80	3.9*	1980-93	-1.5*	1993-09	-4.1*	2009-13	-0.6					-2.6*	-0.6
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-05	-2.3*	2005-13	-0.1									-0.3	-0.1
White	1992-05	-2.0*	2005-13	0.5									0.2	0.5
White NH ^{ef}	1992-05	-1.8*	2005-13	0.6									0.4	0.6
Black	1992-13	-3.7*											-3.7*	-3.7*
Black NH ^{ef}	1992-09	-4.0*	2009-13	-0.7									-2.5*	-0.7
API ^e	1992-13	-2.2*											-2.2*	-2.2*
AI/AN ^{eg}	1992-13	-2.1*											-2.1*	-2.1*
Hispanic ^f	1992-05	-3.7*	2005-13	-1.1*									-1.4*	-1.1*

Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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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,
1975-2013 With up to Five Joinpoints, 1992-2013 With up to Four 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	2004-13	2009-13
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2013</u>														
All Races	1975-80	2.5*	1980-07	-0.9*	2007-13	1.1							0.4	1.1
White	1975-81	2.1*	1981-04	-0.9*	2004-13	0.7							0.7	0.7
Black	1975-13	-1.5*											-1.5*	-1.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-04	-1.2*	2004-13	0.2									0.2	0.2
White	1992-04	-1.3*	2004-13	0.7									0.7	0.7
Black	1992-13	-1.6*											-1.6*	-1.6*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-80	2.6*	1980-04	-1.0*	2004-13	0.2							0.2	0.2
White	1975-81	2.1*	1981-04	-0.9*	2004-13	0.5							0.5	0.5
Black	1975-13	-1.5*											-1.5*	-1.5*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-13	-0.7*											-0.7*	-0.7*
White	1992-04	-1.3*	2004-13	0.5									0.5	0.5
White NH ^{ef}	1992-05	-1.0*	2005-13	0.8									0.6	0.8
Black	1992-13	-1.7*											-1.7*	-1.7*
Black NH ^{ef}	1992-13	-1.6*											-1.6*	-1.6*
API ^e	1992-13	-0.8*											-0.8*	-0.8*
AI/AN ^{eg}	1992-13	0.7											0.7	0.7
Hispanic ^f	1992-13	-0.4											-0.4	-0.4
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-90	-0.9*	1990-04	-2.4*	2004-13	-1.2*							-1.2*	-1.2*
White	1975-90	-1.0*	1990-03	-2.3*	2003-13	-1.1*							-1.1*	-1.1*
Black	1975-91	-0.4	1991-13	-3.4*									-3.4*	-3.4*
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-04	-2.4*	2004-13	-1.2*									-1.2*	-1.2*
White	1992-03	-2.3*	2003-13	-1.1*									-1.1*	-1.1*
White NH ^{ef}	1992-03	-2.2*	2003-13	-1.0*									-1.0*	-1.0*
Black	1992-13	-3.3*											-3.3*	-3.3*
Black NH ^{ef}	1992-13	-3.3*											-3.3*	-3.3*
API ^e	1992-13	-1.6*											-1.6*	-1.6*
AI/AN ^{eg}	1992-13	-1.7											-1.7	-1.7
Hispanic ^f	1992-13	-0.9*											-0.9*	-0.9*

Joinpoint Regression Program Version 4.3.0.0, April 2016, 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).

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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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975	13.21	21.20	7.09	13.30	21.73	6.92	13.38	20.16	8.25
1976	13.29	21.01	7.39	13.23	21.03	7.38	15.18	23.76	8.37
1977	12.74	20.11	6.94	12.60	19.86	7.01	14.51	23.86	6.77
1978	13.38	20.86	7.71	13.20	20.74	7.57	15.90	25.97	8.18
1979	14.03	21.91	8.00	13.71	21.60	7.73	18.46	28.16	10.77
1980	13.34	20.25	7.91	12.98	19.96	7.62	16.82	25.39	9.59
1981	13.58	20.84	7.91	13.40	20.53	7.94	16.60	28.16	7.36
1982	13.34	20.32	7.93	13.08	19.94	7.85	17.06	27.39	8.75
1983	13.28	21.20	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	13.32	19.81	8.23	13.27	19.61	8.36	15.98	25.82	8.41
1986	12.46	19.13	7.20	12.35	18.85	7.30	16.18	28.09	6.97
1987	13.20	20.52	7.52	13.11	20.15	7.68	16.81	30.00	6.99
1988	12.12	18.14	7.30	11.78	17.69	7.09	16.48	25.67	9.08
1989	12.12	18.31	7.27	11.84	17.72	7.30	15.75	27.16	7.05
1990	12.66	19.42	7.35	12.40	18.84	7.40	16.05	27.89	6.92
1991	12.16	18.35	7.25	12.08	18.11	7.30	14.50	23.79	7.41
1992	11.97	18.34	6.92	11.81	18.02	6.93	14.85	25.21	6.94
1993	12.42	18.70	7.29	12.22	18.38	7.21	15.54	24.85	8.10
1994	11.72	17.69	6.84	11.41	16.87	6.92	15.74	26.82	7.07
1995	11.54	16.95	7.20	11.52	16.73	7.32	13.57	22.69	6.66
1996	11.78	17.77	6.98	11.46	17.26	6.85	15.07	24.44	7.72
1997	11.51	17.36	6.74	11.52	17.20	6.86	11.59	18.55	6.20
1998	11.24	16.69	6.76	11.24	16.40	6.93	13.09	22.51	6.32
1999	10.59	15.57	6.48	10.47	15.40	6.35	11.98	20.34	5.83
2000	10.77	16.08	6.31	10.68	15.66	6.42	11.72	20.72	4.93
2001	10.84	15.53	6.92	10.91	15.59	6.95	12.11	19.03	7.01
2002	11.12	16.34	6.72	11.31	16.60	6.78	11.15	16.95	6.55
2003	10.53	15.66	6.18	10.48	15.62	6.03	11.89	17.21	7.66
2004	10.84	16.14	6.28	11.07	16.50	6.28	10.20	16.11	5.83
2005	10.75	15.69	6.54	10.89	16.07	6.39	11.19	16.76	7.02
2006	10.81	15.88	6.44	11.06	16.10	6.61	10.09	16.75	5.12
2007	10.86	16.15	6.27	11.16	16.60	6.29	10.11	15.79	5.78
2008	11.05	16.44	6.41	11.49	16.99	6.63	8.92	14.09	5.00
2009	11.11	16.47	6.42	11.36	16.79	6.50	10.74	16.34	6.42
2010	10.99	16.36	6.26	11.43	16.91	6.46	8.86	13.51	5.19
2011	11.37	16.90	6.56	11.99	17.80	6.77	9.15	14.42	5.15
2012	11.30	16.48	6.76	11.86	17.26	6.98	8.59	14.25	4.21
2013	11.64	17.46	6.59	12.18	18.27	6.75	9.70	15.06	5.59

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2013	11.84	17.80	6.93	11.91	17.86	6.98	12.60	20.36	6.62
1975	13.21	21.20	7.09	13.30	21.73	6.92	13.38	20.16	8.25
1976	13.29	21.01	7.39	13.23	21.03	7.38	15.18	23.76	8.37
1977	12.74	20.11	6.94	12.60	19.86	7.01	14.51	23.86	6.77
1978	13.38	20.86	7.71	13.20	20.74	7.57	15.90	25.97	8.18
1979	14.03	21.91	8.00	13.71	21.60	7.73	18.46	28.16	10.77
1980	13.34	20.25	7.91	12.98	19.96	7.62	16.82	25.39	9.59
1981	13.58	20.84	7.91	13.40	20.53	7.94	16.60	28.16	7.36
1982	13.34	20.32	7.93	13.08	19.94	7.85	17.06	27.39	8.75
1983	13.28	21.20	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	13.32	19.81	8.23	13.27	19.61	8.36	15.98	25.82	8.41
1986	12.46	19.13	7.20	12.35	18.85	7.30	16.18	28.09	6.97
1987	13.20	20.52	7.52	13.11	20.15	7.68	16.81	30.00	6.99
1988	12.12	18.14	7.30	11.78	17.69	7.09	16.48	25.67	9.08
1989	12.12	18.31	7.27	11.84	17.72	7.30	15.75	27.16	7.05
1990	12.66	19.42	7.35	12.40	18.84	7.40	16.05	27.89	6.92
1991	12.16	18.35	7.25	12.08	18.11	7.30	14.50	23.79	7.41
1992	11.97	18.34	6.92	11.81	18.02	6.93	14.85	25.21	6.94
1993	12.42	18.70	7.29	12.22	18.38	7.21	15.54	24.85	8.10
1994	11.72	17.69	6.84	11.41	16.87	6.92	15.74	26.82	7.07
1995	11.54	16.95	7.20	11.52	16.73	7.32	13.57	22.69	6.66
1996	11.78	17.77	6.98	11.46	17.26	6.85	15.07	24.44	7.72
1997	11.51	17.36	6.74	11.52	17.20	6.86	11.59	18.55	6.20
1998	11.24	16.69	6.76	11.24	16.40	6.93	13.09	22.51	6.32
1999	10.59	15.57	6.48	10.47	15.40	6.35	11.98	20.34	5.83
2000	10.77	16.08	6.31	10.68	15.66	6.42	11.72	20.72	4.93
2001	10.84	15.53	6.92	10.91	15.59	6.95	12.11	19.03	7.01
2002	11.12	16.34	6.72	11.31	16.60	6.78	11.15	16.95	6.55
2003	10.53	15.66	6.18	10.48	15.62	6.03	11.89	17.21	7.66
2004	10.84	16.14	6.28	11.07	16.50	6.28	10.20	16.11	5.83
2005	10.74	15.67	6.53	10.88	16.05	6.39	11.17	16.73	7.00
2006	10.79	15.85	6.42	11.03	16.06	6.60	10.06	16.70	5.10
2007	10.82	16.10	6.25	11.11	16.53	6.27	10.06	15.72	5.75
2008	11.01	16.37	6.39	11.44	16.91	6.60	8.86	14.00	4.96
2009	11.05	16.38	6.39	11.29	16.68	6.46	10.65	16.20	6.36
2010	10.92	16.25	6.22	11.35	16.78	6.41	8.76	13.36	5.14
2011	11.26	16.73	6.50	11.86	17.60	6.70	9.03	14.23	5.08
2012	11.14	16.24	6.68	11.67	16.97	6.87	8.43	13.99	4.14
2013	11.37	17.05	6.44	11.85	17.77	6.57	9.43	14.64	5.43

^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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Death:									
1975-2013	3.13	4.84	1.77	2.98	4.53	1.74	4.55	7.94	2.03
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	1.36
2011	2.47	3.86	1.31	2.42	3.74	1.30	3.06	5.36	1.37
2012	2.49	3.86	1.35	2.46	3.77	1.35	2.88	5.04	1.32
2013	2.41	3.71	1.30	2.39	3.66	1.29	2.80	4.77	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, 2009-2013									
All ages	11.1	16.7	6.2	11.6	17.4	6.4	9.2	14.4	5.2
Under 65	6.7	10.0	3.5	6.9	10.4	3.5	6.1	9.3	3.4
65 and over	41.6	63.0	25.0	43.9	66.1	26.4	30.4	49.6	17.3
All ages (IARC world std) ^c	7.9	12.0	4.3	8.3	12.5	4.4	6.9	10.7	3.8
Age-Specific Rates, 2009-2013									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	-	-	0.1	-	-	-	-	-
10-14	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-
15-19	0.5	0.4	0.5	0.5	0.4	0.6	0.5	-	-
20-24	0.7	0.7	0.6	0.6	0.7	0.6	0.5	-	-
25-29	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0
30-34	1.7	1.8	1.6	1.6	1.7	1.4	1.2	1.1	1.3
35-39	3.1	3.6	2.6	2.9	3.4	2.4	2.5	2.4	2.6
40-44	5.9	8.4	3.4	5.8	8.3	3.3	4.8	6.7	3.1
45-49	11.6	17.1	6.2	11.9	17.4	6.3	10.5	16.2	5.5
50-54	20.0	30.6	9.7	21.0	32.2	9.8	19.2	29.4	10.1
55-59	28.5	45.4	12.7	30.2	48.3	12.7	26.8	41.7	14.0
60-64	34.5	54.6	16.0	36.3	57.0	16.8	31.7	53.9	13.6
65-69	39.0	60.9	19.6	41.2	63.8	20.6	34.9	58.1	16.9
70-74	41.7	63.1	23.7	44.0	66.2	25.1	31.6	50.8	17.7
75-79	43.3	63.8	27.6	45.9	67.1	29.2	30.8	50.4	18.0
80-84	42.9	65.0	28.0	45.1	68.3	29.2	28.6	45.9	19.2
85+	42.6	63.3	32.1	44.9	66.3	34.1	19.1	31.5	14.1
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2009-2013									
All ages	2.4	3.8	1.3	2.4	3.7	1.3	2.9	5.0	1.3
Under 65	1.1	1.7	0.5	1.0	1.6	0.5	1.5	2.5	0.7
65 and over	11.7	17.8	7.1	11.8	17.7	7.3	12.3	22.4	5.8
All ages (IARC world std) ^c	1.6	2.5	0.8	1.5	2.4	0.8	2.0	3.4	0.9
Age-Specific Rates, 2009-2013									
<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	0.2	-
25-29	0.1	0.1	0.1	0.1	0.1	0.0	0.1	-	-
30-34	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	-
35-39	0.3	0.5	0.2	0.3	0.4	0.2	0.4	0.6	0.3
40-44	0.7	1.0	0.4	0.6	0.9	0.3	0.8	1.3	0.5
45-49	1.7	2.5	0.8	1.5	2.3	0.7	2.5	3.8	1.4
50-54	3.4	5.3	1.5	3.2	5.1	1.4	4.6	7.3	2.3
55-59	5.2	8.4	2.1	5.1	8.2	2.0	6.9	11.4	3.0
60-64	7.0	11.5	2.9	6.8	11.0	2.8	9.5	17.0	3.3
65-69	8.5	13.7	3.9	8.4	13.3	4.0	11.1	20.7	3.8
70-74	10.1	15.8	5.3	10.0	15.5	5.2	12.9	22.8	5.9
75-79	12.0	18.2	7.1	12.1	18.1	7.3	12.0	22.4	5.4
80-84	14.7	21.7	9.9	14.9	21.7	10.1	13.5	23.6	8.1
85+	18.5	26.2	14.7	19.1	26.6	15.4	12.7	24.0	8.2

^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.

^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, 2009-2013										
Percent of Total ^d										
Localized	32	87	34	43	-	-	-	45	-	-
Regional	44	4	47	45	-	-	-	29	-	-
Distant	18	2	16	9	-	-	-	20	-	-
Unstaged	5	7	4	3	-	-	-	6	-	-
Age-Adjusted Rates, 2009-2013										
Age at Diagnosis										
All ages	11.1	0.7	3.3	0.5	1.5	2.3	0.6	1.3	0.6	0.2
Under 65	6.7	0.3	2.0	0.3	0.7	1.8	0.3	0.7	0.5	0.1
65+	41.6	3.3	12.0	2.1	7.4	6.1	2.7	5.5	1.5	1.0
All ages(IARC world std) ^e	7.9	0.4	2.4	0.4	1.0	1.8	0.4	0.9	0.5	0.2
Sex										
Male	16.7	1.1	5.0	0.8	1.8	4.0	1.1	1.7	0.9	0.4
Female	6.2	0.3	1.8	0.3	1.3	0.9	0.2	1.0	0.4	0.1
Race										
White	11.6	0.8	3.6	0.6	1.5	2.6	0.6	1.3	0.4	0.2
Black	9.2	0.1	2.1	0.6	1.3	2.2	0.9	1.0	0.6	0.3
Other	8.9	0.4	2.2	0.3	1.4	0.9	0.4	1.1	2.2	0.1
<u>U.S. Mortality</u>										
Age-Adjusted Rates, 2009-2013										
Age at Death										
All ages	2.4	0.0	0.6	0.0	0.3	0.5	0.1	0.2	0.2	0.5
Under 65	1.1	0.0	0.3	0.0	0.1	0.3	0.0	0.1	0.1	0.2
65+	11.7	0.1	2.8	0.1	2.0	1.9	0.4	1.4	0.7	2.2
All ages(IARC world std) ^e	1.6	0.0	0.4	0.0	0.2	0.3	0.1	0.1	0.1	0.3
Sex										
Male	3.8	0.0	0.9	0.0	0.4	0.8	0.2	0.4	0.3	0.8
Female	1.3	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	0.5	0.1	0.3	0.1	0.4
Black	2.9	-	0.5	0.0	0.3	0.6	0.2	0.2	0.2	0.7
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	51.6	54.8	54.1	53.8	54.7	36.0	29.7	49.0
1978-1980 ^b	53.3	51.8	56.5	55.3	54.4	57.3	34.9	29.8	45.8
1981-1983 ^b	51.7	50.0	55.1	54.0	52.8	56.5	30.8	25.3	45.6
1984-1986 ^b	54.0	51.6	59.0	56.3	54.8	59.4	35.0	29.5	49.1
1987-1989 ^b	53.5	51.0	58.7	55.9	54.1	59.7	34.0	30.0	44.2
1990-1992 ^b	55.4	53.2	60.1	57.9	56.4	60.9	32.9	28.2	45.7
1993-1995 ^b	57.6	56.2	60.5	60.0	59.4	61.3	37.9	33.0	50.5
1996-1998 ^b	57.7	56.2	60.9	59.9	59.1	61.4	36.1	31.2	48.9
1999-2001 ^b	60.3	59.2	62.6	62.2	62.0	62.8	44.6	39.4	57.1
2002-2005 ^b	63.9	63.2	65.3	65.7	65.7	65.7	45.8	42.0	53.2
2006-2012 ^b	67.0 ^f	66.3 ^f	68.7 ^f	68.7 ^f	68.3 ^f	69.5 ^f	47.2 ^f	44.5 ^f	53.4
5-Year Period Survival (Percent)^{cd}									
2012	64.5	63.5	66.8	66.1	65.6	67.3	46.9	43.4	54.7
Stage Distribution (%) 2006-2012^{ce}									
All Stages									
Number of cases	53,633	38,079	15,554	43,879	31,488	12,391	5,018	3,468	1,550
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	30	26	42	31	27	43	20	15	31
Regional	47	51	38	48	51	38	49	52	41
Distant	18	20	15	17	18	14	28	30	24
Unstaged	5	4	5	4	4	5	3	3	4
5-Year Relative Survival (Percent), 2006-2012^c									
Age at Diagnosis:									
Ages <45	79.3	76.1	84.4	80.9	78.5	85.1	68.3	58.9	79.9
Ages 45-54	68.8	67.9	72.0	71.6	70.6	75.1	46.3	44.3	50.4
Ages 55-64	65.1	63.9	69.3	67.3	66.2	71.2	44.1	42.1	50.0
Ages 65-74	59.7	58.4	63.1	61.4	60.3	64.3	41.4	38.6	47.9
Ages 75+	50.3	49.2	51.6	51.0	50.4	51.7	31.3	25.9	37.2 ^g
Ages <65	68.7	66.9	73.8	70.7	69.3	75.5	49.3	45.3	58.4
Ages 65+	55.6	54.9	56.7	56.8	56.5	57.3	38.4	35.4	44.1
Stage^e:									
All Stages	64.0	63.0	66.3	65.5	65.0	67.0	46.5	42.9	54.3
Localized	83.3	82.1	85.3	83.2	82.1	84.8	79.2	74.5	84.1
Regional	63.3	64.5	59.4	65.0	66.5	59.7	45.0	43.8	48.2
Distant	38.0	37.8	38.6	38.9	39.0	38.6	26.5	25.6	28.9
Unstaged	47.2	46.7	48.0	45.9	46.1	45.4	38.6	38.6 ^g	37.3 ^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 2013.

^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 2013.

^d Period survival provides a 2012 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 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 2006-2012 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, 2006-2012

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	53633	100	84.1	74.7	69.7	66.3	64.0
Lip	3183	6	97.7	94.5	92.6	90.7	89.2
Tongue	15857	30	84.6	74.6	69.6	66.7	64.8
Gum & Other Mouth	6636	12	81.2	71.0	65.9	62.1	59.2
Floor of Mouth	2621	5	80.0	67.3	61.0	56.3	52.4
Oropharynx & Tonsil	12076	23	86.1	77.9	73.2	70.0	67.7
Hypopharynx	2892	5	65.4	48.8	41.2	36.3	32.6
Salivary Gland	5985	11	88.5	81.3	76.8	73.8	72.5
Nasopharynx	3492	7	83.6	74.6	68.6	63.8	60.7
Other Oral Cavity & Pharynx	891	2	63.9	54.2	49.2	44.9	41.5

5-Year Relative Survival (Percent), 2006-2012

Site	Stage					All Stages			
	All Stages	Localized	Regional	Distant	Unstaged	White Male	White Female	Black Male	Black Female
Oral Cavity & Pharynx	64.0	83.3	63.3	38.0	47.2	65.0	67.0	42.9	54.3
Lip	89.2	93.1	53.5 ^b	26.8 ^b	80.9	89.6	88.8	-	-
Tongue	64.8	79.5	65.2	38.2	48.2	67.1	65.0	40.6	43.4
Gum & Other Mouth ^d	59.2	-	-	-	-	55.7	63.4	48.6	59.3
Floor of Mouth	52.4	77.0	38.1	18.9	48.2 ^b	52.7	56.1	34.7	41.9 ^b
Oropharynx & Tonsil ^d	67.7	-	-	-	-	71.0	65.0	46.6	45.1
Hypopharynx ^d	32.6	-	-	-	-	35.4	34.2	18.6	22.5 ^b
Salivary Gland	72.5	93.0	68.1	35.6	49.6	62.7	82.6	67.5	82.7
Nasopharynx ^d	60.7	-	-	-	-	56.6	61.7	51.7	54.5 ^b
Other Oral Cavity & Pharynx ^d	41.5	-	-	-	-	47.3	39.9	27.8 ^b	16.1 ^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 2013.

^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	2011	2012
Survival Time																						
1-year	79.3	79.1	80.4	81.1	82.7	81.8	83.3	80.7	83.6	84.5	82.4	83.4	83.9	84.4	83.4	85.0	84.8	86.2	85.9	87.2	87.0	85.6
2-year	65.8	65.9	67.5	69.4	71.5	69.7	71.2	70.0	72.3	73.6	73.0	72.7	75.0	75.3	73.9	75.2	76.0	77.4	77.5	78.4	78.4	
3-year	59.8	59.5	61.0	63.1	65.2	63.5	66.1	64.2	65.5	68.7	67.0	67.4	70.3	70.7	68.6	70.5	71.2	71.7	73.0	74.0		
4-year	55.9	55.5	57.1	59.0	61.3	60.0	62.1	60.0	62.1	64.8	62.4	64.1	67.0	66.8	65.8	67.2	68.2	68.2	69.6			
5-year	52.8	52.3	53.9	56.1	58.5	57.7	58.5	57.0	58.9	62.0	60.0	61.7	65.1	64.8	63.9	64.9	66.3	66.2				
6-year	50.5	49.6	51.5	53.6	55.9	55.2	56.0	55.4	56.2	59.8	57.9	59.9	63.8	62.1	61.6	62.6	64.8					
7-year	48.4	47.4	49.0	51.5	53.4	53.3	54.2	53.8	53.9	57.8	56.1	58.4	62.3	60.4	59.8	61.1						
8-year	46.2	45.9	46.9	49.4	51.2	51.0	53.1	52.6	52.1	55.5	53.8	56.1	60.7	59.1	58.0							
9-year	44.3	43.9	45.0	47.1	49.3	49.7	51.6	52.0	50.3	53.8	51.5	54.4	58.2	57.0								
10-year	42.3	42.2	43.3	45.4	47.7	47.6	49.9	50.9	48.9	52.1	49.3	52.4	57.3									
11-year	40.4	40.7	42.0	43.6	45.9	46.2	47.8	48.7	48.0	50.4	48.1	50.7										
12-year	39.0	39.3	40.5	42.4	44.0	45.3	46.0	47.5	46.6	48.6	46.3											
13-year	37.7	37.5	38.9	40.8	42.3	43.0	44.6	45.9	46.0	47.6												
14-year	36.7	36.5	37.6	39.6	39.9	41.2	43.7	44.0	44.6													
15-year	35.3	34.9	36.6	38.5	38.3	39.9	42.3	43.3														
16-year	33.9	33.7	35.5	37.4	37.4	38.9	41.1															
17-year	32.9	32.8	34.5	36.3	36.3	38.0																
18-year	31.9	31.7	33.1	35.1	34.9																	
19-year	31.0	30.1	31.9	34.1																		
20-year	29.9	29.5	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	2011	2012
Survival Time																						
<u>Cancer of the Tongue</u>																						
1-year	74.2	73.3	76.8	79.5	79.3	79.1	81.4	79.9	80.5	84.6	80.8	81.0	84.3	86.7	84.8	84.2	85.9	86.7	87.5	86.5	87.9	87.5
2-year	54.9	57.5	60.5	64.8	65.2	66.6	71.0	65.8	68.2	71.5	70.6	69.3	71.3	75.6	72.2	73.7	76.3	76.8	79.0	76.3	78.3	
3-year	47.4	50.8	54.3	57.4	58.6	60.4	65.0	59.1	60.0	66.0	63.8	63.8	66.8	70.9	65.1	69.1	70.4	71.9	73.7	71.5		
4-year	43.5	47.4	49.8	53.6	56.4	57.3	61.9	55.5	57.9	63.3	61.0	61.5	64.1	66.6	61.6	66.7	68.7	69.5	71.0			
5-year	40.1	44.6	47.3	50.8	54.0	55.4	57.9	52.8	54.7	62.0	58.4	59.6	61.3	64.9	60.2	64.9	66.7	67.3				
6-year	38.4	41.8	45.1	48.5	50.4	52.8	56.3	52.2	52.8	60.1	56.3	57.5	60.9	61.6	59.2	63.3	65.4					
7-year	37.2	38.9	42.3	46.7	48.4	51.2	55.0	49.4	50.5	57.8	54.3	56.5	59.3	59.2	57.8	62.6						
8-year	35.7	37.4	40.3	44.3	46.5	49.8	53.8	47.8	50.4	55.7	50.6	53.2	58.8	56.8	56.1							
9-year	34.2	34.8	38.8	42.0	44.6	48.6	52.8	47.2	48.5	54.7	48.1	51.9	56.8	54.9								
10-year	32.5	33.3	37.4	40.0	43.3	46.5	52.3	45.4	47.7	53.1	46.1	49.5	55.9									
<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	96.1	99.8	93.6	100.0	98.3	95.4
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	95.5	98.2	91.9	99.5	98.3	
3-year	96.9	93.4	97.2	98.4	98.7	92.8	95.8	95.1	93.7	95.1	93.7	97.1	98.2	98.7	95.1	93.1	95.5	97.4	91.4	94.6		
4-year	95.6	92.0	96.9	97.3	96.3	91.3	93.4	93.2	92.1	92.7	90.3	97.1	98.2	95.6	95.1	89.9	94.6	93.2	90.0			
5-year	94.1	90.0	95.8	96.0	95.0	88.6	91.2	91.1	90.5	90.3	90.3	93.9	98.2	94.0	95.1	88.4	94.6	93.2				
6-year	92.3	87.6	95.0	94.6	95.0	87.4	89.4	89.4	89.3	90.3	87.6	93.6	98.2	94.0	95.1	85.5	94.6					
7-year	91.2	86.5	93.4	93.4	95.0	86.6	88.2	89.2	88.8	90.2	84.5	93.6	97.3	93.2	94.9	85.5						
8-year	89.8	86.0	91.8	92.2	90.4	83.2	88.2	86.9	88.5	90.2	82.2	93.3	97.3	93.0	91.4							
9-year	87.5	85.1	91.3	90.0	86.0	82.5	88.0	86.3	88.1	88.5	78.7	90.7	95.8	93.0								
10-year	85.8	83.4	91.3	88.2	81.9	82.5	85.5	86.3	88.1	88.3	75.9	87.7	95.3									
<u>Cancer of the Oropharynx and Tonsil</u>																						
1-year	70.5	70.6	72.9	74.4	80.3	79.7	81.1	81.1	86.9	82.2	83.7	85.2	82.6	83.9	84.1	85.2	86.2	86.1	88.6	90.3	90.7	86.4
2-year	53.3	52.8	55.9	61.3	69.6	66.3	66.8	66.9	74.8	67.1	72.0	76.0	75.3	74.9	74.4	75.1	77.5	78.5	81.1	83.4	83.7	
3-year	44.5	44.4	45.7	53.7	62.6	60.6	61.8	59.7	66.9	62.2	66.7	71.5	71.3	71.2	70.5	70.3	72.2	73.1	76.5	79.8		
4-year	38.9	39.3	41.5	49.0	58.3	54.1	56.3	54.7	63.0	57.2	60.6	67.4	68.0	67.1	66.7	68.4	70.3	69.7	73.9			
5-year	35.4	35.3	37.8	44.8	53.7	52.6	51.3	52.7	59.7	53.4	58.7	64.5	65.1	64.5	65.2	65.6	67.9	67.2				
6-year	32.1	31.8	34.6	42.5	49.9	47.7	48.3	50.8	57.5	52.0	54.7	63.6	63.5	62.4	63.9	64.9	65.9					
7-year	30.2	29.6	32.0	41.2	46.4	43.7	47.3	49.6	55.7	48.6	52.8	62.8	62.5	61.5	61.3	62.8						
8-year	26.2	28.0	30.2	39.0	45.2	42.3	46.1	48.8	52.1	46.3	52.8	59.6	60.8	60.7	59.1							
9-year	23.8	25.8	28.4	36.5	43.9	41.3	44.3	48.5	51.9	44.6	49.6	59.0	60.4	57.5								
10-year	22.5	23.2	26.2	35.3	42.7	40.1	43.6	46.3	49.8	42.7	48.5	57.1	57.9									

^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	2011	2012
Survival Time																						
1-year	78.7	78.5	79.5	80.5	82.6	81.5	82.5	80.3	83.9	84.3	82.8	83.5	84.1	85.0	83.9	84.9	85.9	86.6	86.3	87.2	87.9	86.8
2-year	65.0	65.0	66.1	68.2	70.6	69.0	69.8	70.0	71.2	73.0	73.2	71.6	74.8	75.1	74.1	74.5	76.7	78.0	77.8	77.9	78.1	
3-year	59.0	58.2	59.0	61.3	64.7	62.6	64.6	63.7	64.1	67.4	67.3	65.5	69.9	69.9	68.4	69.2	71.0	72.3	72.2	73.3		
4-year	54.7	54.0	54.8	57.0	60.3	58.8	60.0	59.1	60.5	63.7	62.1	62.3	66.6	65.5	65.5	66.0	67.5	68.4	68.2			
5-year	51.6	50.6	51.4	54.1	57.5	56.3	56.3	56.0	57.2	60.7	59.5	60.4	65.1	63.7	63.7	64.1	65.7	66.1				
6-year	49.4	48.0	49.2	51.7	54.8	53.4	53.8	54.3	54.6	58.2	57.1	58.5	64.0	61.2	60.9	62.0	64.0					
7-year	47.2	45.9	47.0	49.4	51.8	51.0	52.5	52.6	52.6	56.0	55.2	57.5	62.7	59.9	59.1	60.7						
8-year	45.2	44.3	44.6	47.6	49.4	49.1	51.4	51.1	51.1	53.6	52.6	55.3	60.9	58.1	56.9							
9-year	43.2	42.5	42.8	45.3	47.5	48.0	49.7	50.2	49.4	51.7	50.5	53.2	58.3	55.8								
10-year	41.2	40.6	40.8	43.8	45.7	45.8	48.3	49.3	48.4	49.9	48.7	51.0	57.1									
11-year	39.2	39.0	39.6	42.2	43.7	44.1	46.4	47.0	47.4	48.2	47.3	49.6										
12-year	37.9	37.8	38.2	40.8	42.0	43.2	44.5	46.1	46.3	46.2	45.8											
13-year	36.8	36.3	36.7	39.3	40.2	40.9	42.8	44.6	45.6	45.5												
14-year	35.8	35.2	35.5	38.0	36.9	39.8	41.4	42.8	43.9													
15-year	34.5	33.9	34.5	36.9	34.9	38.1	40.1	42.1														
16-year	33.1	32.7	33.6	35.7	33.9	37.1	38.7															
17-year	32.0	31.7	32.6	34.6	32.8	36.5																
18-year	31.1	30.5	31.3	33.4	31.4																	
19-year	30.4	28.7	29.8	32.6																		
20-year	29.3	28.1	29.1																			

^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	2011	2012
Survival Time																						
1-year	80.8	80.3	82.3	82.3	82.9	82.3	85.0	81.6	82.8	85.0	81.7	83.0	83.3	83.1	82.3	85.3	82.2	85.2	84.9	87.0	84.8	82.6
2-year	67.8	67.7	70.5	72.0	73.3	71.2	74.4	70.0	74.4	74.9	72.6	75.2	75.4	75.8	73.4	76.8	74.5	75.9	76.9	79.4	79.2	
3-year	61.5	62.4	65.3	67.0	66.3	65.4	69.4	65.3	68.5	71.5	66.4	71.5	71.0	72.5	69.2	73.6	71.5	70.2	75.2	75.7		
4-year	58.5	58.6	61.8	63.1	63.3	62.5	66.8	62.1	65.6	67.2	63.1	67.8	68.2	69.9	66.2	70.2	69.6	67.6	72.7			
5-year	55.5	56.0	59.2	60.3	60.3	60.3	63.3	59.2	62.1	64.7	60.8	64.5	65.1	67.4	64.2	66.8	67.6	66.3				
6-year	53.0	52.9	56.2	57.8	58.0	58.9	60.7	57.6	59.7	63.3	59.3	62.8	63.3	64.1	63.0	64.0	66.6					
7-year	51.0	50.7	53.1	55.9	56.4	57.9	58.0	56.3	56.7	61.7	57.8	60.3	61.3	61.4	61.3	61.9						
8-year	48.4	49.2	51.5	53.2	54.5	55.1	56.8	55.7	54.1	59.7	56.2	58.0	60.1	61.4	60.3							
9-year	46.8	46.9	49.7	51.0	52.5	53.1	55.8	55.7	52.1	58.6	53.4	56.9	58.1	59.9								
10-year	44.8	45.7	48.5	48.9	51.2	51.2	53.4	54.2	50.0	56.8	50.7	55.4	57.3									
11-year	43.0	44.2	47.0	46.6	49.7	50.5	50.8	52.2	49.2	55.2	49.6	53.2										
12-year	41.4	42.3	45.1	45.7	47.6	49.4	49.4	50.5	47.2	53.8	47.2											
13-year	39.9	40.2	43.5	44.1	46.3	47.1	48.5	48.8	46.7	52.3												
14-year	38.6	39.1	42.0	42.9	45.1	44.2	48.4	46.7	46.1													
15-year	37.0	37.2	40.7	42.0	44.5	43.4	47.2	45.9														
16-year	35.9	35.9	39.4	41.0	43.5	42.4	46.1															
17-year	34.9	35.0	38.4	39.8	42.4	40.9																
18-year	33.6	34.1	36.8	38.8	41.0																	
19-year	32.6	33.0	35.9	37.2																		
20-year	31.2	32.4	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, 2011-2013 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	1.12	0.29	Asian/ Pacific Islander	0	0.00	0.01	0.02	0.90	0.30
	10	0.00	0.01	0.04	1.13	0.29		10	0.00	0.02	0.05	0.90	0.30
	20	0.01	0.03	0.12	1.13	0.29		20	0.01	0.05	0.13	0.90	0.30
	30	0.02	0.11	0.33	1.13	0.29		30	0.04	0.12	0.24	0.89	0.30
	40	0.09	0.31	0.61	1.12	0.29		40	0.08	0.21	0.38	0.86	0.30
	50	0.23	0.54	0.83	1.06	0.29		50	0.13	0.30	0.52	0.79	0.29
	60	0.33	0.64	0.83	0.89	0.26		60	0.18	0.40	0.58	0.68	0.26
	70	0.35	0.57	-	0.63	0.21		70	0.23	0.43	-	0.53	0.23
White	80	0.29	-	-	0.38	0.16	American Indian/ Alaska Native ^a	80	0.23	-	-	0.36	0.19
	0	0.00	0.00	0.01	1.17	0.29		0	0.00	0.00	0.01	1.02	0.21
	10	0.00	0.01	0.04	1.18	0.29		10	0.00	0.00	0.03	1.03	0.22
	20	0.01	0.03	0.12	1.18	0.29		20	0.00	0.03	0.10	1.04	0.22
	30	0.02	0.11	0.34	1.18	0.29		30	0.03	0.10	0.30	1.05	0.22
	40	0.09	0.32	0.64	1.18	0.29		40	0.07	0.28	0.56	1.04	0.22
	50	0.24	0.57	0.88	1.12	0.29		50	0.22	0.51	0.77	1.01	0.22
	60	0.35	0.68	0.87	0.93	0.26		60	0.32	0.59	0.81	0.85	0.20
Black	70	0.37	0.59	-	0.66	0.22	Hispanic ^b	70	0.31	0.57	-	0.61	0.16
	80	0.30	-	-	0.39	0.16		80	0.34	-	-	0.41	0.11
	0	0.00	0.00	0.01	0.80	0.29		0	0.00	0.00	0.01	0.77	0.21
	10	0.00	0.01	0.03	0.81	0.30		10	0.00	0.01	0.03	0.77	0.21
	20	0.01	0.03	0.09	0.81	0.30		20	0.01	0.02	0.06	0.77	0.22
	30	0.02	0.09	0.28	0.82	0.30		30	0.02	0.06	0.17	0.77	0.22
	40	0.07	0.26	0.51	0.81	0.30		40	0.04	0.16	0.34	0.76	0.22
	50	0.20	0.46	0.65	0.77	0.30		50	0.12	0.31	0.52	0.73	0.22
	60	0.28	0.49	0.59	0.63	0.26		60	0.20	0.42	0.58	0.64	0.20
	70	0.26	0.37	-	0.42	0.20		70	0.24	0.42	-	0.49	0.17
	80	0.17	-	-	0.24	0.13		80	0.22	-	-	0.31	0.13

Devcan 6.7.4, August 2016, 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, 2011-2013 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	1.59	0.40	Asian/ Pacific Islander	0	0.00	0.01	0.02	1.22	0.40
	10	0.00	0.01	0.04	1.60	0.40		10	0.01	0.02	0.06	1.22	0.40
	20	0.01	0.04	0.16	1.61	0.40		20	0.01	0.05	0.17	1.22	0.40
	30	0.03	0.15	0.48	1.62	0.41		30	0.04	0.16	0.35	1.22	0.40
	40	0.12	0.46	0.93	1.62	0.41		40	0.12	0.31	0.56	1.18	0.40
	50	0.35	0.83	1.24	1.54	0.41		50	0.19	0.45	0.74	1.08	0.38
	60	0.51	0.97	1.22	1.28	0.37		60	0.27	0.57	0.80	0.92	0.34
	70	0.53	0.82	-	0.90	0.29		70	0.33	0.58	-	0.71	0.29
White	80	0.42	-	-	0.53	0.21	American Indian/ Alaska Native ^a	80	0.31	-	-	0.48	0.24
	0	0.00	0.00	0.01	1.66	0.39		0	0.00	0.00	0.01	1.34	0.34
	10	0.00	0.01	0.04	1.68	0.40		10	0.00	0.01	0.05	1.36	0.35
	20	0.01	0.04	0.16	1.68	0.40		20	0.00	0.05	0.15	1.36	0.35
	30	0.03	0.15	0.50	1.69	0.40		30	0.05	0.14	0.41	1.39	0.36
	40	0.13	0.49	0.97	1.69	0.41		40	0.10	0.38	0.78	1.38	0.37
	50	0.37	0.88	1.32	1.61	0.40		50	0.29	0.71	1.00	1.35	0.37
	60	0.54	1.02	1.28	1.34	0.36		60	0.46	0.77	1.08	1.16	0.34
Black	70	0.55	0.86	-	0.93	0.29	Hispanic ^b	70	0.37	0.73	-	0.82	0.29
	80	0.44	-	-	0.54	0.21		80	0.52	-	-	0.66	0.24
	0	0.00	0.00	0.01	1.17	0.45		0	0.00	0.01	0.01	1.10	0.29
	10	0.00	0.01	0.03	1.19	0.46		10	0.00	0.01	0.03	1.11	0.29
	20	0.01	0.03	0.12	1.19	0.46		20	0.01	0.02	0.08	1.11	0.29
	30	0.02	0.12	0.41	1.21	0.47		30	0.02	0.08	0.25	1.11	0.29
	40	0.10	0.40	0.79	1.22	0.48		40	0.06	0.23	0.50	1.11	0.30
	50	0.31	0.72	1.01	1.17	0.47		50	0.18	0.46	0.77	1.07	0.29
	60	0.45	0.79	0.91	0.96	0.43		60	0.30	0.63	0.87	0.95	0.28
	70	0.42	0.58	-	0.64	0.33		70	0.38	0.64	-	0.74	0.22
	80	0.26	-	-	0.36	0.21		80	0.35	-	-	0.48	0.15

Devcan 6.7.4, August 2016, 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, 2011-2013 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	0.01	0.01	0.68	0.18	Asian/ Pacific Islander	0	0.00	0.00	0.01	0.63	0.22
	10	0.00	0.01	0.03	0.68	0.18		10	0.00	0.01	0.05	0.63	0.22
	20	0.01	0.03	0.08	0.68	0.18		20	0.01	0.04	0.09	0.63	0.22
	30	0.02	0.07	0.17	0.68	0.18		30	0.03	0.08	0.15	0.62	0.22
	40	0.05	0.15	0.30	0.66	0.18		40	0.05	0.11	0.22	0.59	0.22
	50	0.11	0.26	0.43	0.62	0.18		50	0.07	0.18	0.32	0.55	0.21
	60	0.16	0.34	0.49	0.54	0.17		60	0.11	0.26	0.41	0.49	0.20
	70	0.20	0.36	-	0.42	0.15		70	0.16	0.31	-	0.40	0.18
White	80	0.20	-	-	0.28	0.12	American Indian/ Alaska Native ^a	80	0.18	-	-	0.27	0.15
	0	0.00	0.01	0.01	0.70	0.18		0	0.00	0.00	0.01	0.73	0.09
	10	0.00	0.01	0.03	0.70	0.18		10	0.00	0.00	0.02	0.73	0.09
	20	0.01	0.03	0.07	0.70	0.18		20	0.00	0.02	0.06	0.74	0.09
	30	0.02	0.07	0.17	0.69	0.18		30	0.02	0.06	0.20	0.74	0.09
	40	0.05	0.15	0.31	0.68	0.18		40	0.04	0.18	0.36	0.74	0.09
	50	0.11	0.27	0.45	0.64	0.18		50	0.14	0.32	0.55	0.72	0.09
	60	0.17	0.36	0.51	0.56	0.17		60	0.19	0.43	0.59	0.60	0.08
Black	70	0.21	0.37	-	0.43	0.15	Hispanic ^b	70	0.27	0.45	-	0.46	0.07
	80	0.21	-	-	0.28	0.13		80	0.23	-	-	0.25	0.03
	0	0.00	0.01	0.01	0.48	0.15		0	0.00	0.00	0.01	0.48	0.14
	10	0.00	0.01	0.03	0.48	0.16		10	0.00	0.01	0.02	0.48	0.15
	20	0.01	0.03	0.06	0.48	0.16		20	0.01	0.02	0.05	0.48	0.15
	30	0.02	0.06	0.16	0.48	0.16		30	0.01	0.04	0.10	0.47	0.15
	40	0.04	0.14	0.26	0.46	0.16		40	0.02	0.08	0.19	0.46	0.15
	50	0.10	0.23	0.34	0.44	0.15		50	0.06	0.17	0.29	0.44	0.15
	60	0.13	0.25	0.33	0.36	0.14		60	0.11	0.24	0.34	0.39	0.14
	70	0.13	0.23	-	0.26	0.12		70	0.14	0.24	-	0.30	0.13
	80	0.12	-	-	0.17	0.09		80	0.13	-	-	0.20	0.12

Devcan 6.7.4, August 2016, 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 Rate 2009-2013 Rate per 100,000 persons			SEER 13 Areas ^b Trend 2004-2013 ^c AAPC (%)			SEER 9 Areas ^b Trend 2004-2013 ^d AAPC (%)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	RACE/ETHNICITY								
All Races	11.1	16.7	6.2	0.5*	0.6*	-0.7*	0.6*	0.4	0.2
White	11.6	17.4	6.4	0.9*	0.8*	0.5	1.0*	0.8*	0.5
White Hispanic ^e	6.9	10.4	4.0	0.9	-0.6	-0.3	-	-	-
White Non-Hispanic ^e	12.5	18.8	6.9	1.1*	1.0*	0.6	-	-	-
Black	9.2	14.4	5.2	-2.5*	-2.8*	-1.7*	-2.5*	-3.0*	-1.5*
Asian/Pacific Islander	7.7	11.1	4.9	-0.9*	-0.8*	-0.8*	-	-	-
Amer Ind/Alaska Nat ^f	9.1	13.2	5.7	-1.0	-2.0	0.7	-	-	-
Hispanic ^e	6.7	10.0	4.0	0.2	-0.6	-0.4	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2009-2013 Rate per 100,000 persons			Trend 2004-2013 ^h AAPC (%)					
	Total	Males	Females	Total	Males	Females			
	RACE/ETHNICITY								
All Races	2.4	3.8	1.3	-0.5	-0.3	-1.2*			
White	2.4	3.7	1.3	-0.1	0.2	-1.1*			
White Hispanic ^e	1.6	2.5	0.8	-0.5	-1.0*	-0.8*			
White Non-Hispanic ^e	2.5	3.8	1.4	0.1	0.4	-1.0*			
Black	2.9	5.0	1.3	-2.4*	-3.7*	-3.3*			
Asian/Pacific Islander	1.9	2.9	1.2	-2.1*	-2.2*	-1.6*			
Amer Ind/Alaska Nat									
Total U.S.	1.5	2.3	0.9	-2.4*	-2.7*	-2.0			
CHSDA Counties	2.1	3.3	1.1	-2.0*	-2.1*	-1.7			
Non-CHSDA Counties	0.9	1.1	0.7	-2.6	-	-			
Hispanic ^e	1.5	2.4	0.8	-0.8	-1.4*	-0.9*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute.

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

a 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 2004-2013 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2013.

d The 2004-2013 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2013.

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 2004-2013 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 2004-2013 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2013.

* 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>2009-2013, Rate per 100,000 persons^b</u>										
All Races										
Male and Female	11.1	0.7	3.3	0.5	1.5	2.3	0.6	1.3	0.6	0.2
Male	16.7	1.1	5.0	0.8	1.8	4.0	1.1	1.7	0.9	0.4
Female	6.2	0.3	1.8	0.3	1.3	0.9	0.2	1.0	0.4	0.1
White										
Male and Female	11.6	0.8	3.6	0.6	1.5	2.6	0.6	1.3	0.4	0.2
Male	17.4	1.3	5.4	0.8	1.8	4.3	1.0	1.8	0.6	0.4
Female	6.4	0.4	1.9	0.4	1.3	0.9	0.2	1.0	0.2	0.1
Black										
Male and Female	9.2	0.1	2.1	0.6	1.3	2.2	0.9	1.0	0.6	0.3
Male	14.4	0.1	3.5	0.9	1.7	4.0	1.7	1.0	1.0	0.5
Female	5.2	-	1.1	0.3	1.1	0.9	0.3	1.0	0.4	0.2
<u>Trend 2004-2013^b, APC(%)</u>										
All Races										
Male and Female	0.6*	-1.4*	1.5*	-2.7*	-0.2	2.5*	-2.3*	0.1	-0.4	2.7*
Male	0.7*	-1.7*	1.8*	-3.2*	-0.3	2.7*	-2.1*	0.3	-0.2	3.8*
Female	0.0	-0.8	0.8	-1.6	-0.1	1.8*	-3.7*	-0.3	-1.0	-0.8
White										
Male and Female	0.9*	-1.3*	2.0*	-2.4*	-0.1	3.1*	-2.3*	0.1	-1.0	3.9*
Male	1.0*	-1.7*	2.1*	-3.1*	-0.5	3.3*	-2.0*	0.3	-0.5	4.9*
Female	0.4	-0.5	1.4*	-1.1	0.3	2.3*	-3.6*	-0.5	-2.3	0.3
Black										
Male and Female	-2.0*	-	-1.9*	-2.9	-2.3*	-0.7	-4.2*	-1.2	-1.9	-3.5
Male	-2.0*	-	-1.3	-3.1	-2.2	-1.0	-4.1*	-2.1	-2.6	-2.6
Female	-2.1*	-	-3.7*	-2.0	-2.6*	-0.1	-5.5	-0.4	-0.5	-

- ^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>2009-2013, Rate per 100,000 persons</u>										
All Races										
Male and Female	2.4	0.0	0.6	0.0	0.3	0.5	0.1	0.2	0.2	0.5
Male	3.8	0.0	0.9	0.0	0.4	0.8	0.2	0.4	0.3	0.8
Female	1.3	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	0.5	0.1	0.3	0.1	0.4
Male	3.7	0.0	0.9	0.0	0.4	0.8	0.1	0.4	0.2	0.7
Female	1.3	0.0	0.4	0.0	0.3	0.2	0.0	0.1	0.1	0.2
Black										
Male and Female	2.9	-	0.5	0.0	0.3	0.6	0.2	0.2	0.2	0.7
Male	5.0	-	0.9	0.0	0.5	1.1	0.3	0.3	0.4	1.4
Female	1.3	-	0.3	-	0.2	0.3	0.1	0.1	0.1	0.2
<u>Trend 2004-2013 ,APC(%)</u>										
All Races										
Male and Female	-0.6*	-1.2	-0.4	-7.8*	-0.9	1.9*	-1.9	0.9*	-1.5*	-2.2*
Male	-0.4	-1.5	-0.2	-8.6*	-0.6	2.1*	-2.1	0.8*	-1.2*	-1.9*
Female	-1.2*	-1.5	-1.0*	-6.1	-1.3*	0.9	-1.0	0.6	-2.5*	-3.8*
White										
Male and Female	-0.1	-1.0	0.0	-6.8*	-0.5	2.6*	-1.7	1.0*	-2.0*	-1.7*
Male	0.2	-1.3	0.4	-7.6*	0.0	2.9*	-1.9	1.0*	-1.4*	-1.3*
Female	-1.2*	-1.5	-1.0*	-5.0	-1.2	1.3*	-0.9	0.6	-3.5*	-3.6*
Black										
Male and Female	-2.9*	-	-3.1*	-	-3.9*	-1.1	-2.5	2.7	-4.1*	-4.4*
Male	-3.4*	-	-4.2*	-	-4.3*	-1.3	-3.2	2.7	-5.3*	-4.3*
Female	-1.8	-	-0.7	-	-3.8*	-0.1	-	3.1	-2.2	-4.7*

^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, 2009-2013</u>									
California	10.35	15.63	5.75	10.90	16.50	5.90	8.61	13.04	4.95
Greater Bay Area	10.37	15.32	5.99	11.05	16.48	6.09	9.31	14.35	5.10
San Francisco-Oakland	10.70	15.84	6.16	11.37	17.01	6.19	9.29	14.32	5.20
San Jose-Monterey	9.74	14.36	5.66	10.49	15.57	5.90	9.78	15.21	-
Los Angeles	9.20	13.90	5.24	9.68	14.63	5.39	8.86	13.46	5.39
Greater California	10.88	16.52	5.91	11.33	17.25	6.05	8.08	12.07	4.43
Connecticut	11.19	16.24	6.82	11.43	16.59	6.89	8.35	12.79	5.05
Detroit	12.19	18.65	6.70	12.36	18.73	6.72	11.97	19.19	6.57
Georgia	12.07	18.30	6.84	13.34	19.98	7.46	8.71	13.58	5.12
Atlanta	11.01	16.77	6.33	12.89	19.34	7.24	7.90	12.65	4.62
Rural Georgia	12.81	20.93	6.20	15.74	25.66	7.03	8.51	-	-
Greater Georgia	12.61	19.01	7.15	13.49	20.15	7.57	9.43	14.44	5.58
Hawaii	11.89	17.53	6.80	16.64	23.82	8.67	-	-	-
Iowa	12.32	18.68	6.71	12.30	18.62	6.73	9.47	13.59	-
Kentucky	13.76	21.34	7.19	13.79	21.32	7.24	10.96	18.80	4.59
Louisiana	12.91	20.20	6.62	13.74	21.24	7.01	10.78	17.64	5.42
New Jersey	10.40	15.48	6.18	10.81	15.98	6.40	7.78	12.07	4.81
New Mexico	9.38	14.43	4.85	9.83	15.24	4.95	-	-	-
Seattle-Puget Sound	11.90	16.93	7.42	12.35	17.52	7.67	7.34	11.18	3.49
Utah	8.21	11.79	4.97	8.21	11.78	4.96	-	-	-
SEER 9 Areas ^b	11.15	16.54	6.44	11.60	17.17	6.60	9.24	14.48	5.20
SEER 13 Areas ^b	10.65	15.85	6.14	11.14	16.56	6.30	9.15	14.21	5.25
SEER 18 Areas ^b	11.10	16.71	6.24	11.60	17.42	6.42	9.18	14.37	5.16

^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 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.
 - 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, 2009-2013</u>									
California	2.43	3.67	1.39	2.48	3.75	1.38	2.74	4.16	1.65
Greater Bay Area	2.30	3.47	1.30	2.27	3.43	1.25	2.63	4.40	-
San Francisco-Oakland	2.30	3.47	1.31	2.23	3.39	1.20	2.48	3.96	-
San Jose-Monterey	2.29	3.48	1.28	2.34	3.50	1.33	-	-	-
Los Angeles	2.40	3.60	1.43	2.34	3.53	1.35	3.15	4.72	2.10
Greater California	2.49	3.78	1.40	2.59	3.93	1.44	2.40	3.49	1.43
Connecticut	1.92	3.15	0.94	1.89	3.10	0.92	2.34	4.38	-
Detroit	2.43	3.72	1.38	2.27	3.41	1.34	3.11	5.10	1.61
Georgia	2.60	4.07	1.39	2.47	3.74	1.36	2.99	5.19	1.48
Atlanta	2.30	3.81	1.12	2.13	3.40	1.02	2.62	4.85	1.27
Rural Georgia	2.91	5.52	-	-	-	-	-	-	-
Greater Georgia	2.73	4.15	1.54	2.61	3.90	1.48	3.20	5.20	1.71
Hawaii	2.53	3.82	1.40	2.97	4.04	1.74	-	-	-
Iowa	2.25	3.54	1.13	2.21	3.47	1.12	-	-	-
Kentucky	2.93	4.53	1.60	2.90	4.45	1.60	3.93	6.95	-
Louisiana	3.27	5.45	1.48	3.17	5.11	1.52	3.57	6.53	1.35
New Jersey	1.99	3.03	1.18	1.94	2.89	1.19	2.44	4.36	1.17
New Mexico	2.24	3.26	1.35	2.35	3.44	1.41	-	-	-
Seattle-Puget Sound	2.74	3.84	1.80	2.75	3.89	1.76	2.17	-	-
Utah	1.60	2.04	1.20	1.59	2.01	1.20	-	-	-
SEER 9 Areas ^b	2.29	3.45	1.31	2.23	3.34	1.27	2.69	4.53	1.34
SEER 13 Areas ^b	2.31	3.49	1.33	2.25	3.37	1.28	2.84	4.73	1.49
SEER 18 Areas ^b	2.43	3.71	1.36	2.40	3.64	1.35	2.93	4.94	1.46
Total U.S.	2.44	3.77	1.33	2.41	3.68	1.33	2.87	4.98	1.33

^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 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.

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

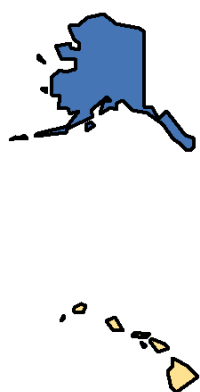
Table 20.24
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2009-2013

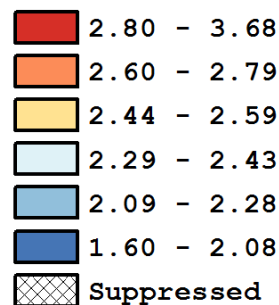
Males and Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	2.44	0.01		
High Five States				
Mississippi	3.68	0.15	01(01,03)	50.80 ^c
D.C.	3.33	0.33	02(01,31)	36.18 ^c
Louisiana	3.27	0.12	03(01,07)	33.77 ^c
Arkansas	3.08	0.14	04(02,13)	26.19 ^c
Tennessee	3.05	0.09	05(02,11)	24.72 ^c
Low Five States				
Kansas	1.98	0.11	47(31,51)	-18.79 ^c
Colorado	1.96	0.09	48(35,51)	-19.74 ^c
Arizona	1.93	0.07	49(38,51)	-20.99 ^c
Connecticut	1.92	0.09	50(36,51)	-21.44 ^c
Utah	1.60	0.12	51(45,51)	-34.45 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	2.67	0.10	11(05,30)	9.40	Montana	2.07	0.18	45(15,51)	-15.43 ^c
Alaska	2.08	0.28	43(05,51)	-14.80	Nebraska	2.29	0.15	33(10,49)	-6.18
Arizona	1.93	0.07	49(38,51)	-20.99 ^c	Nevada	2.39	0.13	27(09,45)	-2.34
Arkansas	3.08	0.14	04(02,13)	26.19 ^c	New Hampshire	2.12	0.17	41(12,51)	-13.23
California	2.43	0.04	25(17,33)	-0.52	New Jersey	1.99	0.06	46(37,50)	-18.51 ^c
Colorado	1.96	0.09	48(35,51)	-19.74 ^c	New Mexico	2.24	0.14	36(12,50)	-8.47
Connecticut	1.92	0.09	50(36,51)	-21.44 ^c	New York	2.19	0.04	37(30,44)	-10.28
Delaware	2.63	0.22	14(02,46)	7.65	North Carolina	2.57	0.07	18(09,31)	5.11
D.C.	3.33	0.33	02(01,31)	36.18 ^c	North Dakota	2.15	0.24	38(08,51)	-11.93
Florida	2.63	0.05	13(09,23)	7.75	Ohio	2.48	0.06	22(12,34)	1.36
Georgia	2.60	0.08	16(08,29)	6.27	Oklahoma	2.66	0.11	12(05,33)	8.74
Hawaii	2.53	0.18	19(04,44)	3.61	Oregon	2.32	0.10	32(14,44)	-4.87
Idaho	2.43	0.17	26(06,48)	-0.63	Pennsylvania	2.12	0.05	40(33,47)	-13.12
Illinois	2.35	0.06	29(19,40)	-3.90	Rhode Island	2.07	0.18	44(13,51)	-15.18 ^c
Indiana	2.34	0.08	30(16,42)	-4.16	South Carolina	2.96	0.11	06(02,14)	21.30 ^c
Iowa	2.25	0.11	35(16,48)	-7.86	South Dakota	2.12	0.21	39(10,51)	-13.09
Kansas	1.98	0.11	47(31,51)	-18.79 ^c	Tennessee	3.05	0.09	05(02,11)	24.72 ^c
Kentucky	2.93	0.11	07(02,16)	19.82 ^c	Texas	2.59	0.05	17(10,25)	6.12
Louisiana	3.27	0.12	03(01,07)	33.77 ^c	Utah	1.60	0.12	51(45,51)	-34.45 ^c
Maine	2.75	0.18	10(02,37)	12.47	Vermont	2.62	0.26	15(02,49)	7.31
Maryland	2.36	0.09	28(14,43)	-3.31	Virginia	2.33	0.07	31(18,42)	-4.45
Massachusetts	2.47	0.08	23(10,37)	1.15	Washington	2.84	0.09	08(03,18)	16.40 ^c
Michigan	2.48	0.07	20(12,34)	1.63	West Virginia	2.79	0.15	09(02,31)	14.04
Minnesota	2.09	0.08	42(30,50)	-14.56	Wisconsin	2.44	0.09	24(11,39)	-0.09
Mississippi	3.68	0.15	01(01,03)	50.80 ^c	Wyoming	2.28	0.27	34(04,51)	-6.67
Missouri	2.48	0.08	21(10,37)	1.57					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



U.S. rate: 2.44

- ^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.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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.

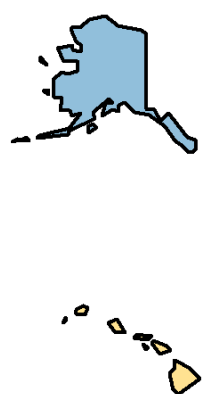
Table 20.25
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2009-2013

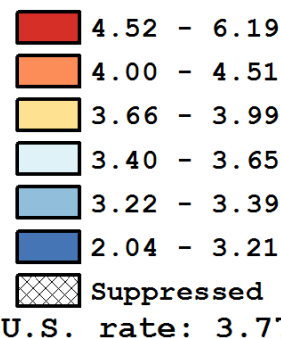
Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	3.77	0.02		
High Five States				
Mississippi	6.19	0.30	01(01,03)	64.32 ^c
D.C.	5.72	0.67	02(01,22)	51.70 ^c
Louisiana	5.45	0.23	03(01,06)	44.59 ^c
Tennessee	4.86	0.18	04(02,11)	29.08 ^c
South Carolina	4.78	0.20	05(02,13)	26.82 ^c
Low Five States				
Minnesota	3.04	0.15	47(31,50)	-19.34 ^c
New Jersey	3.03	0.12	48(35,50)	-19.59 ^c
Kansas	2.97	0.20	49(29,50)	-21.24 ^c
Colorado	2.66	0.16	50(41,51)	-29.35 ^c
Utah	2.04	0.20	51(49,51)	-45.90 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	4.28	0.19	11(05,25)	13.53	Montana	3.09	0.33	45(12,51)	-17.89 ^c
Alaska	3.35	0.54	37(04,51)	-11.20	Nebraska	3.38	0.27	35(11,50)	-10.37
Arizona	3.06	0.14	46(32,50)	-18.70 ^c	Nevada	3.48	0.23	32(11,49)	-7.60
Arkansas	4.67	0.25	06(02,20)	23.91 ^c	New Hampshire	3.30	0.30	38(11,50)	-12.33
California	3.67	0.07	24(19,35)	-2.51	New Jersey	3.03	0.12	48(35,50)	-19.59 ^c
Colorado	2.66	0.16	50(41,51)	-29.35 ^c	New Mexico	3.26	0.25	41(16,50)	-13.44
Connecticut	3.15	0.18	44(24,50)	-16.45 ^c	New York	3.40	0.08	33(25,44)	-9.72
Delaware	4.32	0.43	10(02,43)	14.72	North Carolina	4.04	0.13	16(08,28)	7.16
D.C.	5.72	0.67	02(01,22)	51.70 ^c	North Dakota	3.24	0.43	42(06,51)	-13.95
Florida	4.08	0.08	12(09,23)	8.31	Ohio	3.84	0.11	19(11,34)	1.85
Georgia	4.07	0.14	15(08,29)	7.94	Oklahoma	4.07	0.21	14(06,34)	8.15
Hawaii	3.82	0.32	21(05,48)	1.36	Oregon	3.38	0.18	36(19,48)	-10.38
Idaho	3.64	0.31	27(07,49)	-3.47	Pennsylvania	3.28	0.10	40(28,47)	-12.84
Illinois	3.58	0.11	30(17,41)	-4.86	Rhode Island	3.21	0.35	43(10,50)	-14.83
Indiana	3.61	0.15	28(13,42)	-4.09	South Carolina	4.78	0.20	05(02,13)	26.82 ^c
Iowa	3.54	0.21	31(11,48)	-5.95	South Dakota	3.39	0.40	34(06,50)	-9.96
Kansas	2.97	0.20	49(29,50)	-21.24 ^c	Tennessee	4.86	0.18	04(02,11)	29.08 ^c
Kentucky	4.53	0.21	08(03,20)	20.13 ^c	Texas	4.08	0.09	13(08,23)	8.19
Louisiana	5.45	0.23	03(01,06)	44.59 ^c	Utah	2.04	0.20	51(49,51)	-45.90 ^c
Maine	4.51	0.34	09(02,32)	19.71 ^c	Vermont	3.67	0.46	23(03,50)	-2.49
Maryland	3.59	0.16	29(14,44)	-4.64	Virginia	3.65	0.14	25(13,41)	-3.11
Massachusetts	3.84	0.15	20(10,37)	1.85	Washington	3.99	0.16	17(08,32)	5.94
Michigan	3.89	0.12	18(10,33)	3.26	West Virginia	4.66	0.30	07(02,22)	23.72 ^c
Minnesota	3.04	0.15	47(31,50)	-19.34 ^c	Wisconsin	3.65	0.16	26(13,42)	-3.16
Mississippi	6.19	0.30	01(01,03)	64.32 ^c	Wyoming	3.29	0.48	39(05,51)	-12.55
Missouri	3.77	0.16	22(10,39)	-0.03					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



- ^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.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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.

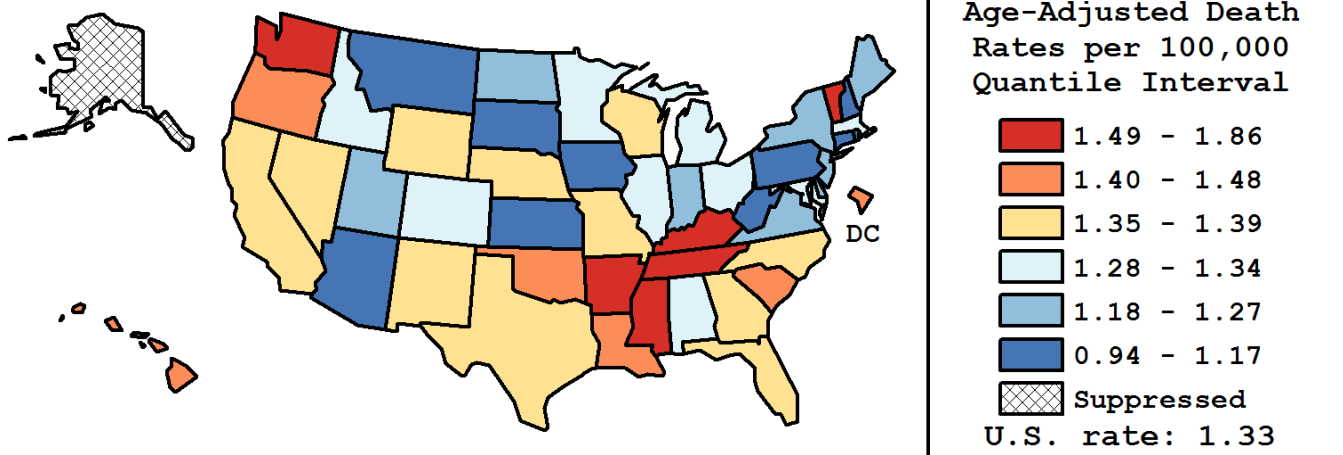
Table 20.26
Cancer of the Oral Cavity and Pharynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2009-2013

Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.33	0.01		
High Five States				
Washington	1.86	0.10	01(01,07)	39.67 ^c
Arkansas	1.74	0.14	02(01,24)	30.55 ^c
Mississippi	1.71	0.14	03(01,30)	27.97 ^c
Vermont	1.65	0.27	04(01,49)	23.79 ^c
Kentucky	1.60	0.11	05(01,31)	20.03 ^c
Low Five States				
West Virginia	1.11	0.13	46(08,50)	-16.51 ^c
New Hampshire	1.08	0.17	47(06,50)	-18.83 ^c
South Dakota	1.03	0.20	48(04,50)	-23.05 ^c
Arizona	0.95	0.07	49(39,50)	-28.66 ^c
Connecticut	0.94	0.09	50(37,50)	-29.57 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	1.33	0.09	29(04,45)	-0.32	Montana	1.12	0.19	45(03,50)	-15.87 ^c
Alaska	-	-	-(-,-)	-	Nebraska	1.36	0.15	21(02,49)	1.79
Arizona	0.95	0.07	49(39,50)	-28.66 ^c	Nevada	1.39	0.14	15(02,47)	4.21
Arkansas	1.74	0.14	02(01,24)	30.55 ^c	New Hampshire	1.08	0.17	47(06,50)	-18.83 ^c
California	1.39	0.04	17(08,33)	3.98	New Jersey	1.18	0.07	40(18,48)	-11.69
Colorado	1.34	0.10	24(04,46)	0.57	New Mexico	1.35	0.15	22(02,49)	1.25
Connecticut	0.94	0.09	50(37,50)	-29.57 ^c	New York	1.23	0.04	37(21,45)	-7.99
Delaware	1.21	0.20	38(02,50)	-9.15	North Carolina	1.38	0.07	18(05,40)	3.88
D.C.	1.48	0.29	08(01,50)	10.71	North Dakota	1.25	0.25	35(01,50)	-6.20
Florida	1.39	0.05	16(07,35)	4.06	Ohio	1.33	0.06	28(07,42)	-0.17
Georgia	1.39	0.07	14(04,41)	4.35	Oklahoma	1.42	0.11	11(02,44)	6.61
Hawaii	1.40	0.18	12(01,49)	5.14	Oregon	1.42	0.11	10(02,44)	6.81
Idaho	1.31	0.18	30(01,50)	-1.37	Pennsylvania	1.17	0.05	42(25,47)	-12.15
Illinois	1.33	0.06	27(08,42)	-0.01	Rhode Island	1.17	0.19	41(02,50)	-11.94
Indiana	1.27	0.08	34(08,46)	-4.82	South Carolina	1.46	0.10	09(02,41)	9.92
Iowa	1.13	0.10	44(13,50)	-15.24 ^c	South Dakota	1.03	0.20	48(04,50)	-23.05 ^c
Kansas	1.15	0.12	43(09,50)	-13.57	Tennessee	1.55	0.09	06(02,30)	16.26 ^c
Kentucky	1.60	0.11	05(01,31)	20.03 ^c	Texas	1.35	0.05	23(08,38)	1.04
Louisiana	1.48	0.10	07(02,41)	10.72	Utah	1.20	0.15	39(05,50)	-9.57
Maine	1.24	0.16	36(02,50)	-6.67	Vermont	1.65	0.27	04(01,49)	23.79 ^c
Maryland	1.34	0.09	26(06,45)	0.35	Virginia	1.27	0.07	33(09,46)	-4.45
Massachusetts	1.34	0.08	25(06,44)	0.37	Washington	1.86	0.10	01(01,07)	39.67 ^c
Michigan	1.31	0.06	31(08,44)	-1.66	West Virginia	1.11	0.13	46(08,50)	-16.51 ^c
Minnesota	1.28	0.09	32(06,46)	-3.63	Wisconsin	1.39	0.09	13(04,43)	4.59
Mississippi	1.71	0.14	03(01,30)	27.97 ^c	Wyoming	1.36	0.30	20(01,50)	2.07
Missouri	1.37	0.08	19(04,43)	2.50					



- ^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.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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, 2013
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 <21 ^e	0 to <38 ^e	>=38 ^g	Complete ^h
Race	Sex										
All Races ^b	Both Sexes	111,858	68,930	43,767	28,840	17,144	11,802	264,846	292,631	8,051	300,682
	Males	78,943	47,378	28,716	18,000	10,233	6,795	180,085	195,801	4,479	200,280
	Females	32,915	21,552	15,051	10,840	6,911	5,007	84,761	96,830	3,572	100,402
White ^b	Both Sexes	96,634	59,621	38,015	25,179	14,923	10,459	229,456	253,694	6,920	260,614
	Males	68,960	41,709	25,365	15,910	9,147	6,142	158,279	172,373	3,858	176,231
	Females	27,674	17,912	12,650	9,269	5,776	4,317	71,177	81,321	3,062	84,383
Black ^b	Both Sexes	8,360	4,855	3,182	1,846	1,189	819	19,035	21,048	382	21,430
	Males	5,684	2,951	1,859	971	555	366	11,815	12,610	153	12,763
	Females	2,676	1,904	1,323	875	634	453	7,220	8,438	229	8,667
Asian/ Pacific Islander ^c	Both Sexes	4,170	2,698	1,776	+	+	+	10,054	+	+	+
	Males	2,666	1,638	1,037	+	+	+	6,169	+	+	+
	Females	1,504	1,060	739	+	+	+	3,885	+	+	+
Hispanic ^d	Both Sexes	6,441	3,466	2,136	+	+	+	13,569	+	+	+
	Males	4,283	2,047	1,336	+	+	+	8,447	+	+	+
	Females	2,158	1,419	800	+	+	+	5,122	+	+	+

Estimated prevalence percent^a on January 1, 2013, of the SEER^c population diagnosed in the previous 21 years
By Age at Prevalence, Race/Ethnicity and Sex

		Age Specific (Crude)										Age-Adjusted ^f
Age at Prevalence		All Ages	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	0.0735%	0.0004%	0.0025%	0.0065%	0.0161%	0.0476%	0.1335%	0.2388%	0.2701%	0.2447%	0.0672%
	Males	0.1005%	0.0003%	0.0023%	0.0063%	0.0155%	0.0594%	0.1969%	0.3680%	0.4081%	0.3542%	0.0969%
	Females	0.0471%	0.0004%	0.0027%	0.0066%	0.0167%	0.0359%	0.0728%	0.1222%	0.1576%	0.1793%	0.0416%
White ^c	Both Sexes	0.0805%	0.0004%	0.0024%	0.0064%	0.0149%	0.0465%	0.1396%	0.2572%	0.2914%	0.2586%	0.0705%
	Males	0.1114%	0.0003%	0.0021%	0.0062%	0.0136%	0.0596%	0.2084%	0.3962%	0.4393%	0.3750%	0.1023%
	Females	0.0498%	0.0005%	0.0028%	0.0066%	0.0162%	0.0329%	0.0714%	0.1273%	0.1678%	0.1881%	0.0422%
Black ^c	Both Sexes	0.0435%	-	0.0033%	0.0058%	0.0143%	0.0342%	0.1033%	0.1709%	0.1785%	0.1197%	0.0472%
	Males	0.0571%	-	0.0033%	0.0071%	0.0139%	0.0365%	0.1447%	0.2698%	0.2809%	0.1798%	0.0673%
	Females	0.0311%	-	0.0034%	0.0045%	0.0147%	0.0321%	0.0671%	0.0936%	0.1071%	0.0901%	0.0320%
Asian/ Pacific Islander ^c	Both Sexes	0.0603%	-	0.0020%	0.0072%	0.0225%	0.0601%	0.1159%	0.1665%	0.1979%	0.2016%	0.0572%
	Males	0.0771%	-	0.0022%	0.0065%	0.0259%	0.0724%	0.1640%	0.2408%	0.2845%	0.2754%	0.0778%
	Females	0.0448%	-	0.0017%	0.0080%	0.0194%	0.0493%	0.0744%	0.1054%	0.1307%	0.1564%	0.0406%
Hispanic ^d	Both Sexes	0.0260%	0.0004%	0.0015%	0.0048%	0.0096%	0.0253%	0.0683%	0.1303%	0.1623%	0.1704%	0.0388%
	Males	0.0320%	-	0.0014%	0.0045%	0.0090%	0.0301%	0.0934%	0.1852%	0.2467%	0.2267%	0.0532%
	Females	0.0200%	-	0.0016%	0.0051%	0.0101%	0.0203%	0.0442%	0.0830%	0.0998%	0.1365%	0.0271%

^a US 2013 cancer prevalence counts are based on 2013 cancer prevalence proportions from the SEER registries and 1/1/2013 US population estimates based on the average of 2012 and 2013 population estimates from the US Bureau of the Census.

^{b c d} Prevalence was calculated using the First Malignant Primary Only for a person.

^e Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry

^f (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.

^{g h i} Maximum limited-duration prevalence: 38 years for 1975-2013 SEER 9 data; 21 years for 1992-2013 SEER 13 data

(excluding the Alaska Native Registry) 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 38 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 <38 and >=38. (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, 2009-2013
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)	43,177	84.8%	2,839	94.1%	14,862	97.4%	1,244	22.0%	2,440	95.7%
Squamous cell carcinoma (8070-8078, 8083-8084)	42,191	82.8%	2,736	90.7%	14,614	95.8%	1,194	21.2%	2,417	94.8%
Adenocarcinoma ^c	5,046	9.9%	122	4.0%	213	1.4%	3,472	61.5%	78	3.1%
Other specific carcinomas ^d	466	0.9%	-	-	31	0.2%	269	4.8%	-	-
Unspecified, Carcinoma, NOS (8010-8011, 8020-8022)	1,612	3.2%	-	-	81	0.5%	439	7.8%	-	-
Sarcoma and soft tissue ^e	163	0.3%	-	-	21	0.1%	34	0.6%	-	-
Other specific types ^f	270	0.5%	24	0.8%	-	-	115	2.0%	-	-
Unspecified (8000-8005)	200	0.4%	-	-	39	0.3%	71	1.3%	-	-
Total	50,935	100.0%	3,017	100.0%	15,262	100.0%	5,644	100.0%	2,549	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)	5,497	81.8%	1,766	63.3%	10,954	97.8%	2,737	97.3%	838	89.1%
Squamous cell carcinoma (8070-8078, 8083-8084)	5,247	78.0%	1,621	58.1%	10,818	96.6%	2,718	96.7%	826	87.8%
Adenocarcinoma ^c	988	14.7%	87	3.1%	57	0.5%	-	-	17	1.8%
Other specific carcinomas ^d	36	0.5%	42	1.5%	41	0.4%	17	0.6%	-	-
Unspecified, Carcinoma, NOS (8010-8011, 8020-8022)	60	0.9%	832	29.8%	103	0.9%	31	1.1%	42	4.5%
Sarcoma and soft tissue ^e	31	0.5%	35	1.3%	-	-	-	-	-	-
Other specific types ^f	91	1.4%	-	-	-	-	-	-	-	-
Unspecified (8000-8005)	20	0.3%	17	0.6%	20	0.2%	-	-	21	2.2%
Total	6,724	100.0%	2,791	100.0%	11,195	100.0%	2,812	100.0%	941	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.

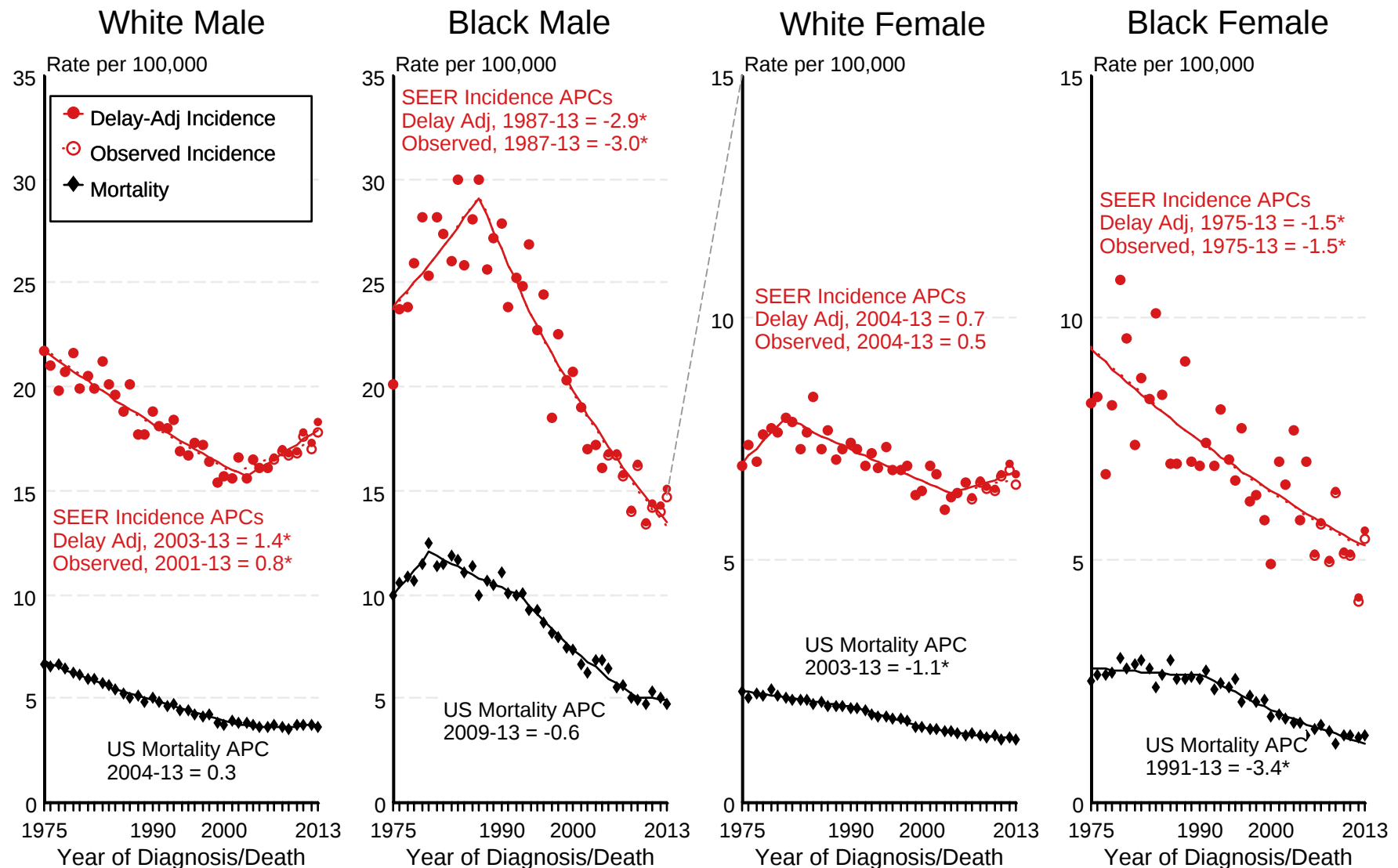
^e Sarcoma and soft tissue includes histologies 8680-8713, 8800-8921, 8990-8991, 9040-9044, 9120-9136, 9150-9252, 9370-9373, 9540-9582.

^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



Source: SEER 9 areas and 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).

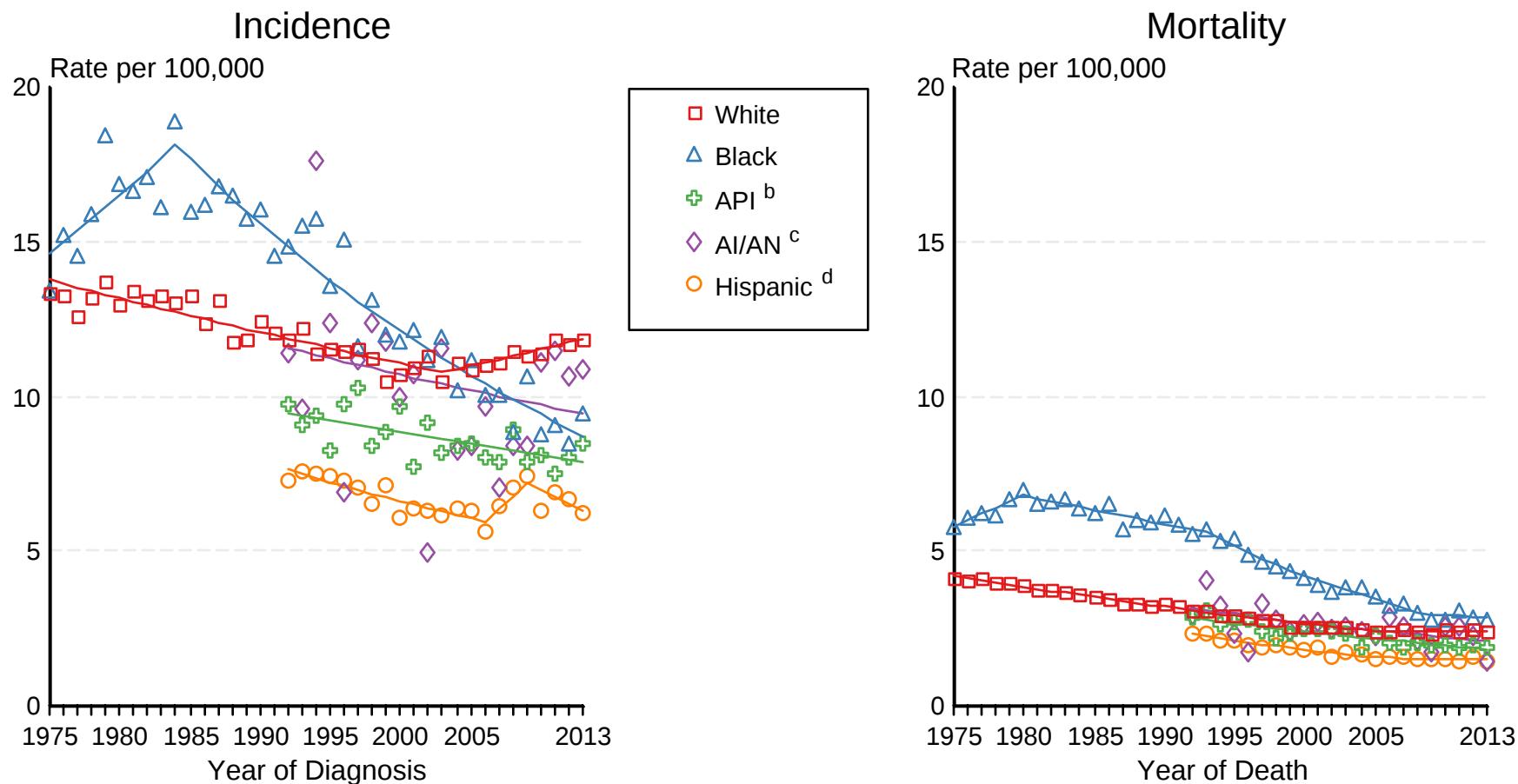
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute.

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 1975-2013 and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2013



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 4.3.0.0, April 2016, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2013 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2013 allow a maximum of 4 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 New Hampshire and Oklahoma.

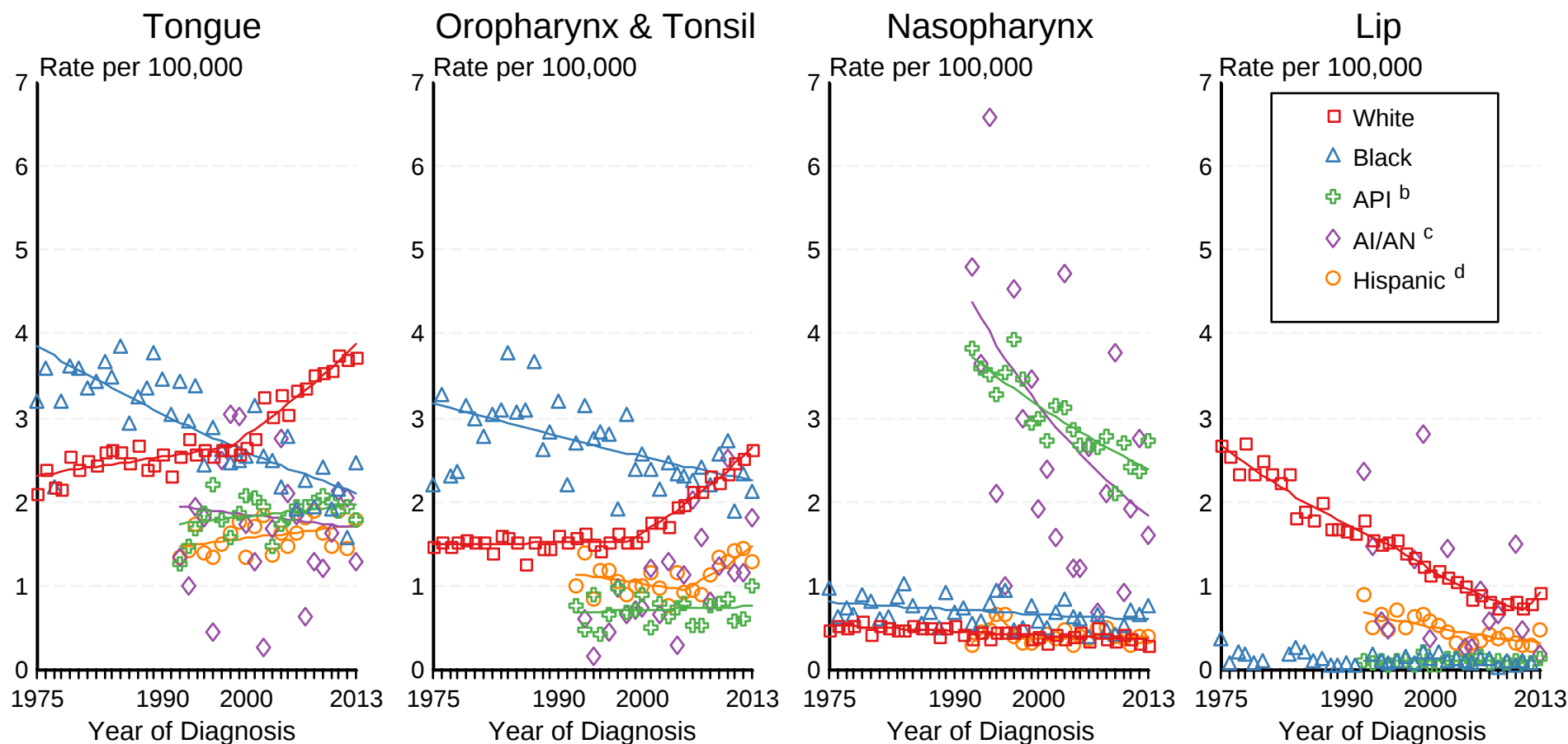
Figure 20.3

SEER Incidence Rates^a

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

Joinpoint Analyses for Whites and Blacks from 1975-2013

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2013



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 4.3.0.0, April 2016, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2013 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2013 allow a maximum of 4 joinpoints. Regression lines could not be calculated for data series that had at least one diagnosis year with a 0 case count.

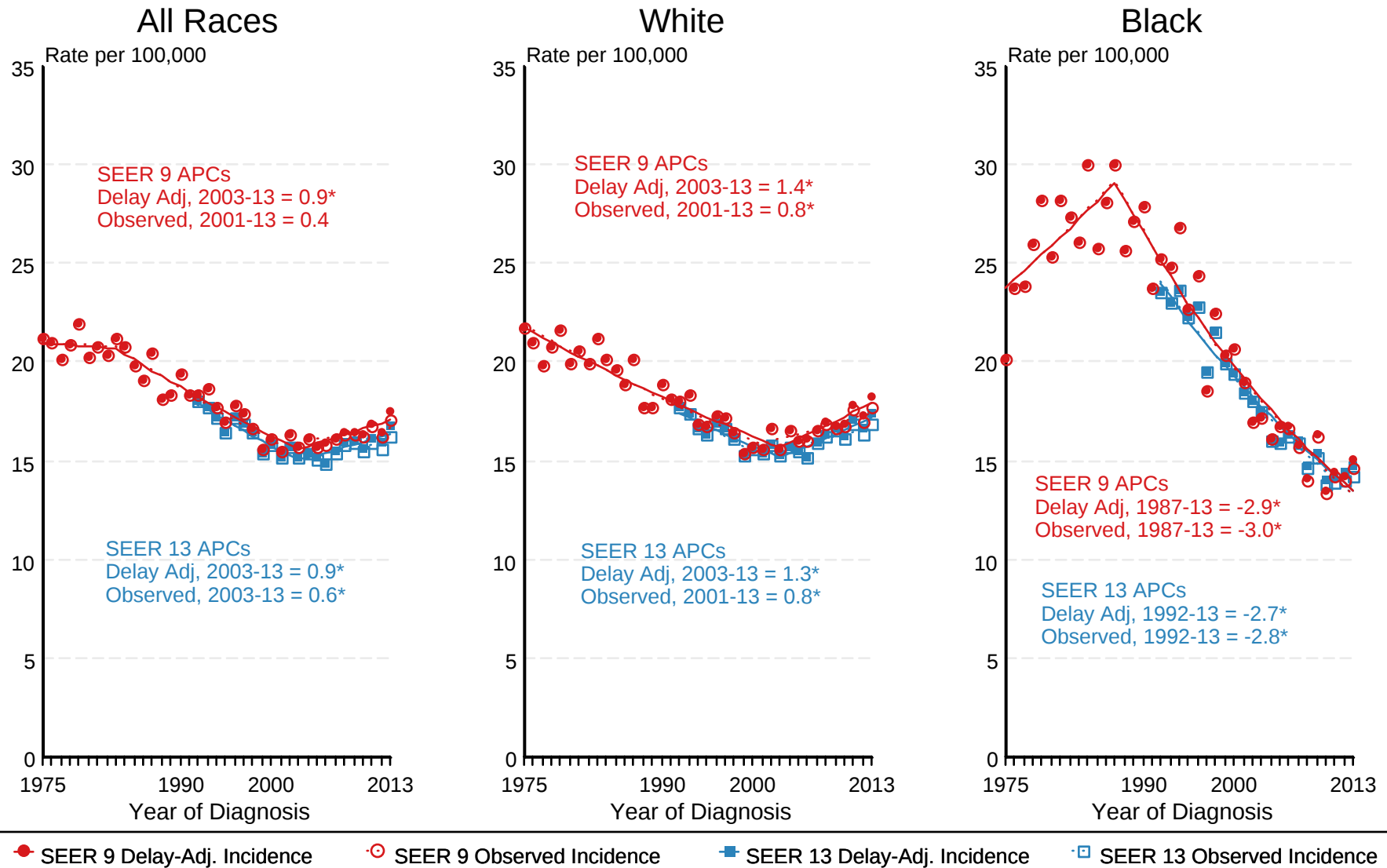
^b API = Asian/Pacific Islander.

^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



Source: SEER 9 areas and SEER 13 areas.

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

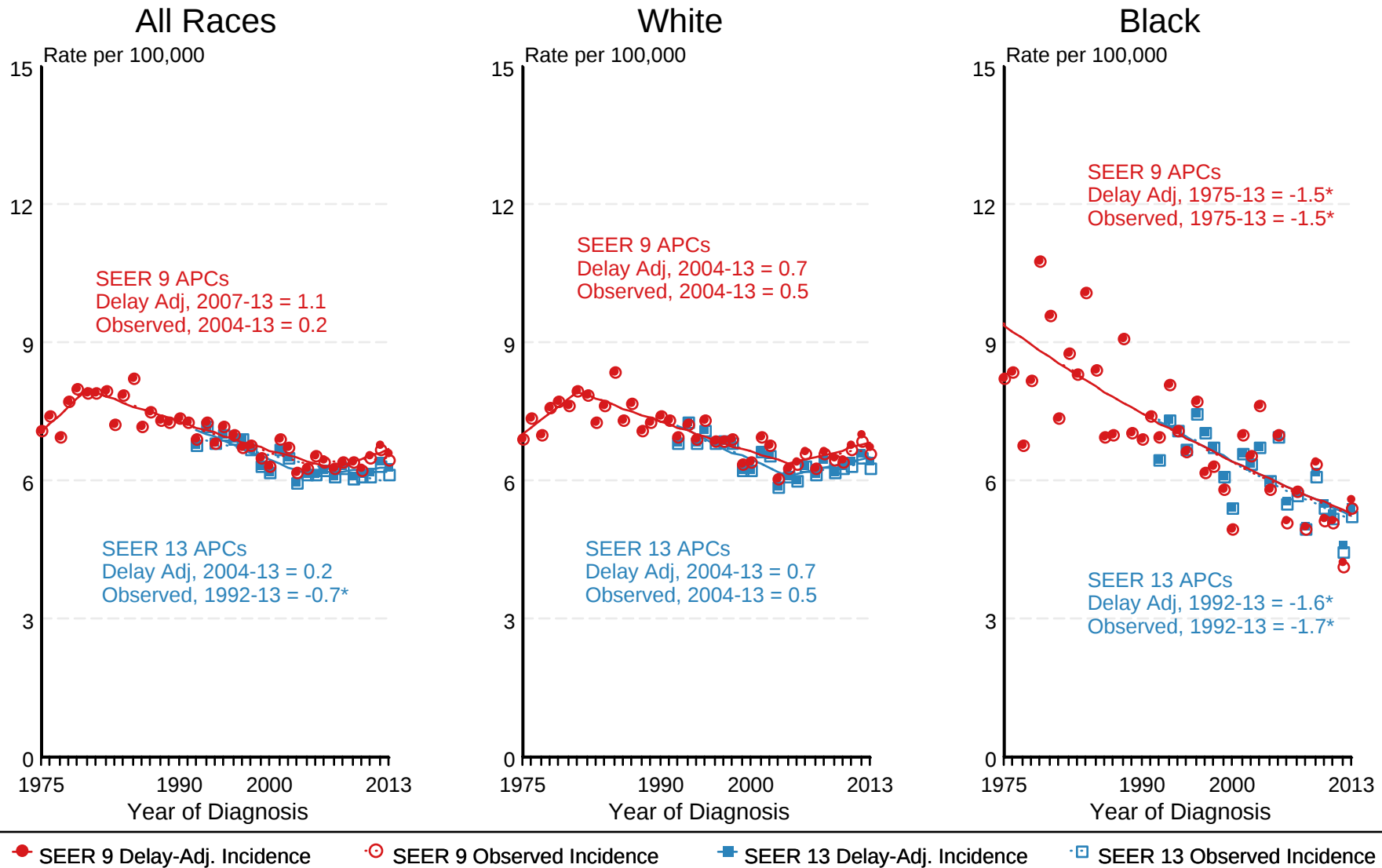
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute.

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



Source: SEER 9 areas and SEER 13 areas.

^a 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 4.3.0.0, April 2016, 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 ($p < 0.05$).