

Table 12.1  
Cancer of the Larynx (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<b>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</b>														
All Races	1975-88	0.0	1988-10	-2.4*									-2.4*	-2.4*
White	1975-87	0.2	1987-10	-2.3*									-2.3*	-2.3*
Black	1975-90	1.3*	1990-10	-2.8*									-2.8*	-2.8*
<b>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</b>														
All Races	1992-10	-2.6*											-2.6*	-2.6*
White	1992-10	-2.4*											-2.4*	-2.4*
Black	1992-10	-3.2*											-3.2*	-3.2*
<b>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</b>														
All Races	1975-88	0.0	1988-10	-2.5*									-2.5*	-2.5*
White	1975-87	0.2	1987-10	-2.3*									-2.3*	-2.3*
Black	1975-90	1.2*	1990-10	-2.9*									-2.9*	-2.9*
<b>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</b>														
All Races	1992-10	-2.7*											-2.7*	-2.7*
White	1992-10	-2.4*											-2.4*	-2.4*
White NH <sup>ef</sup>	1992-10	-2.4*											-2.4*	-2.4*
Black	1992-10	-3.3*											-3.3*	-3.3*
Black NH <sup>ef</sup>	1992-10	-3.3*											-3.3*	-3.3*
API <sup>e</sup>	1992-10	-3.1*											-3.1*	-3.1*
AI/AN <sup>eg</sup>	1992-10	0.6											0.6	0.6
Hispanic <sup>f</sup>	1992-10	-1.5*											-1.5*	-1.5*
<b>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</b>														
All Races	1975-94	-0.4*	1994-10	-2.2*									-2.2*	-2.2*
White	1975-94	-0.7*	1994-10	-1.9*									-1.9*	-1.9*
Black	1975-94	1.1*	1994-10	-3.6*									-3.6*	-3.6*
<b>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</b>														
All Races	1992-10	-2.2*											-2.2*	-2.2*
White	1992-10	-1.9*											-1.9*	-1.9*
White NH <sup>ef</sup>	1992-10	-1.7*											-1.7*	-1.7*
Black	1992-10	-3.3*											-3.3*	-3.3*
Black NH <sup>ef</sup>	1992-10	-3.0*											-3.0*	-3.0*
API <sup>e</sup>	1992-10	-2.3*											-2.3*	-2.3*
AI/AN <sup>eg</sup>	1992-10	-1.5											-1.5	-1.5
Hispanic <sup>f</sup>	1992-10	-2.8*											-2.8*	-2.8*

Joinpoint Regression Program Version 4.0.3, April 2013, 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 CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.  
 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.

<sup>a</sup>  
<sup>b</sup>  
<sup>c</sup>  
<sup>d</sup>  
<sup>e</sup>  
<sup>f</sup>

Table 12.2  
Cancer of the Larynx (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-87	-0.2	1987-10	-2.5*									-2.5*	-2.5*
White	1975-85	0.2	1985-10	-2.4*									-2.4*	-2.4*
Black	1975-90	1.0*	1990-10	-2.8*									-2.8*	-2.8*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-03	-3.2*	2003-10	-1.5*									-1.8*	-1.5*
White	1992-03	-3.1*	2003-10	-1.1									-1.5*	-1.1
Black	1992-10	-3.2*											-3.2*	-3.2*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-87	-0.2	1987-10	-2.5*									-2.5*	-2.5*
White	1975-85	0.2	1985-10	-2.5*									-2.5*	-2.5*
Black	1975-90	0.9	1990-10	-2.8*									-2.8*	-2.8*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-03	-3.2*	2003-10	-1.6*									-1.9*	-1.6*
White	1992-03	-3.1*	2003-10	-1.2*									-1.7*	-1.2*
White NH <sup>ef</sup>	1992-10	-2.5*											-2.5*	-2.5*
Black	1992-10	-3.2*											-3.2*	-3.2*
Black NH <sup>ef</sup>	1992-10	-3.2*											-3.2*	-3.2*
API <sup>e</sup>	1992-10	-2.7*											-2.7*	-2.7*
AI/AN <sup>eg</sup>	1992-10	1.6											1.6	1.6
Hispanic <sup>f</sup>	1992-10	-1.4*											-1.4*	-1.4*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</u>														
All Races	1975-94	-0.8*	1994-10	-2.5*									-2.5*	-2.5*
White	1975-93	-1.1*	1993-10	-2.2*									-2.2*	-2.2*
Black	1975-94	1.2*	1994-10	-3.6*									-3.6*	-3.6*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</u>														
All Races	1992-10	-2.5*											-2.5*	-2.5*
White	1992-10	-2.2*											-2.2*	-2.2*
White NH <sup>ef</sup>	1992-10	-2.1*											-2.1*	-2.1*
Black	1992-10	-3.3*											-3.3*	-3.3*
Black NH <sup>ef</sup>	1992-10	-3.0*											-3.0*	-3.0*
API <sup>e</sup>	1992-10	-1.7*											-1.7*	-1.7*
AI/AN <sup>eg</sup>	1992-10	-0.3											-0.3	-0.3
Hispanic <sup>f</sup>	1992-10	-2.9*											-2.9*	-2.9*

Joinpoint Regression Program Version 4.0.3, April 2013, 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 CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.  
 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.

a  
b  
c  
d  
e  
f

g  
\*  
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Table 12.3  
Cancer of the Larynx (Invasive)

Trends in SEER Incidence<sup>a,b</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-89	1.7*	1989-10	-2.5*									-2.5*	-2.5*
White	1975-89	1.5*	1989-10	-2.3*									-2.3*	-2.3*
Black	1975-90	3.3*	1990-10	-3.0*									-3.0*	-3.0*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	-3.0*											-3.0*	-3.0*
White	1992-94	7.1	1994-10	-3.1*									-3.1*	-3.1*
Black	1992-10	-3.3*											-3.3*	-3.3*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-89	1.9*	1989-10	-2.6*									-2.6*	-2.6*
White	1975-89	1.7*	1989-10	-2.4*									-2.4*	-2.4*
Black	1975-89	4.0*	1989-10	-3.1*									-3.1*	-3.1*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	-3.1*											-3.1*	-3.1*
White	1992-10	-2.8*											-2.8*	-2.8*
White NH <sup>ef</sup>	1992-10	-2.6*											-2.6*	-2.6*
Black	1992-10	-3.3*											-3.3*	-3.3*
Black NH <sup>ef</sup>	1992-10	-3.3*											-3.3*	-3.3*
API <sup>e</sup>	1992-10	-4.8*											-4.8*	-4.8*
AI/AN <sup>eg</sup>	-	-											-	-
Hispanic <sup>f</sup>	1992-10	-2.8											-2.8	-2.8
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</u>														
All Races	1975-92	1.6*	1992-10	-2.0*									-2.0*	-2.0*
White	1975-92	1.4*	1992-10	-1.7*									-1.7*	-1.7*
Black	1975-93	2.2*	1993-10	-3.1*									-3.1*	-3.1*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</u>														
All Races	1992-10	-2.0*											-2.0*	-2.0*
White	1992-10	-1.7*											-1.7*	-1.7*
White NH <sup>ef</sup>	1992-10	-1.3*											-1.3*	-1.3*
Black	1992-10	-3.0*											-3.0*	-3.0*
Black NH <sup>ef</sup>	1992-10	-2.6*											-2.6*	-2.6*
API <sup>e</sup>	1992-10	-4.2*											-4.2*	-4.2*
AI/AN <sup>eg</sup>	-	-											-	-
Hispanic <sup>f</sup>	1992-10	-3.4*											-3.4*	-3.4*

Joinpoint Regression Program Version 4.0.3, April 2013, 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 CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.

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).

a b c d e f g \* -

Table 12.4  
Cancer of the Larynx (Invasive)

Delay-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975	5.02	9.47	1.48	4.96	9.43	1.46	7.08	13.36	-
1976	5.22	10.00	1.39	5.19	9.95	1.44	7.31	14.61	-
1977	5.03	9.71	1.36	4.96	9.66	1.33	7.46	13.89	2.45
1978	5.32	9.80	1.84	5.32	9.80	1.85	6.95	13.20	2.22
1979	5.39	10.09	1.68	5.39	10.21	1.63	7.50	13.22	3.07
1980	5.25	10.01	1.54	5.16	9.88	1.52	7.34	14.47	-
1981	5.39	9.82	1.92	5.31	9.56	2.03	8.09	16.33	-
1982	5.30	9.76	1.80	5.27	9.75	1.79	7.91	14.49	2.88
1983	5.35	9.94	1.73	5.43	10.19	1.69	6.81	12.20	2.61
1984	5.10	9.62	1.58	4.99	9.58	1.46	8.47	14.86	3.44
1985	5.42	9.93	1.93	5.41	10.02	1.88	8.47	15.40	3.37
1986	5.01	9.40	1.62	4.94	9.20	1.68	7.74	15.37	2.08
1987	5.20	9.42	1.92	5.15	9.36	1.89	8.21	15.09	3.12
1988	5.20	9.58	1.87	5.19	9.57	1.86	8.18	14.93	3.21
1989	5.02	8.91	2.00	4.98	8.89	1.93	7.90	14.26	3.29
1990	5.10	9.17	1.92	4.99	8.98	1.87	9.47	17.73	3.59
1991	4.73	8.47	1.80	4.79	8.53	1.86	6.60	12.28	2.28
1992	4.97	9.06	1.77	4.87	8.88	1.73	8.69	15.77	3.41
1993	4.38	8.14	1.48	4.38	8.04	1.56	7.00	14.22	1.72
1994	4.66	8.34	1.76	4.54	8.16	1.68	8.92	15.99	3.71
1995	4.42	7.90	1.61	4.43	7.88	1.63	6.83	13.17	2.25
1996	4.27	7.57	1.64	4.28	7.58	1.62	6.39	11.30	2.78
1997	4.23	7.56	1.61	4.15	7.33	1.62	7.27	13.55	2.75
1998	3.88	6.80	1.60	3.74	6.53	1.56	6.74	12.18	2.84
1999	4.19	7.05	1.86	4.15	7.00	1.79	7.13	12.12	3.65
2000	4.06	7.30	1.45	4.07	7.24	1.49	6.13	11.58	2.20
2001	3.67	6.60	1.27	3.62	6.39	1.30	6.28	12.24	1.93
2002	3.57	6.36	1.32	3.48	6.17	1.29	6.34	11.29	2.69
2003	3.36	6.01	1.22	3.37	5.93	1.28	5.08	9.63	1.85
2004	3.48	6.14	1.37	3.47	6.04	1.38	5.81	10.81	2.40
2005	3.50	6.23	1.32	3.52	6.19	1.37	5.77	10.72	2.06
2006	3.39	5.96	1.28	3.44	5.91	1.39	5.48	10.71	1.68
2007	3.26	5.70	1.25	3.27	5.67	1.25	5.70	10.34	2.36
2008	3.13	5.55	1.15	3.22	5.67	1.15	4.49	8.27	1.85
2009	3.12	5.70	1.00	3.20	5.74	1.08	4.24	8.41	1.28
2010	3.23	5.76	1.16	3.20	5.56	1.23	5.16	9.61	1.88

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

<sup>a</sup> 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 12.5  
Cancer of the Larynx (Invasive)

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	4.33	7.84	1.53	4.33	7.82	1.54	6.64	12.41	2.40
1975	5.02	9.47	1.48	4.96	9.43	1.46	7.08	13.36	-
1976	5.22	10.00	1.39	5.19	9.95	1.44	7.31	14.61	-
1977	5.03	9.71	1.36	4.96	9.66	1.33	7.46	13.89	2.45
1978	5.32	9.80	1.84	5.32	9.80	1.85	6.95	13.20	2.22
1979	5.39	10.09	1.68	5.39	10.21	1.63	7.50	13.22	3.07
1980	5.25	10.01	1.54	5.16	9.88	1.52	7.34	14.47	-
1981	5.39	9.82	1.92	5.31	9.56	2.03	8.09	16.33	-
1982	5.30	9.76	1.80	5.27	9.75	1.79	7.91	14.49	2.88
1983	5.35	9.94	1.73	5.43	10.19	1.69	6.81	12.20	2.61
1984	5.10	9.62	1.58	4.99	9.58	1.46	8.46	14.85	3.44
1985	5.42	9.93	1.93	5.41	10.01	1.88	8.46	15.40	3.37
1986	5.01	9.40	1.62	4.94	9.20	1.68	7.74	15.36	2.08
1987	5.19	9.42	1.92	5.14	9.36	1.89	8.20	15.08	3.12
1988	5.20	9.58	1.87	5.19	9.57	1.86	8.17	14.93	3.21
1989	5.02	8.91	2.00	4.98	8.89	1.92	7.89	14.25	3.28
1990	5.10	9.17	1.92	4.99	8.97	1.87	9.46	17.72	3.59
1991	4.73	8.46	1.80	4.79	8.53	1.85	6.59	12.27	2.28
1992	4.97	9.06	1.77	4.86	8.87	1.72	8.68	15.75	3.40
1993	4.38	8.13	1.48	4.38	8.03	1.56	6.99	14.20	1.71
1994	4.66	8.34	1.76	4.54	8.15	1.67	8.91	15.96	3.71
1995	4.41	7.89	1.61	4.42	7.87	1.62	6.82	13.15	2.25
1996	4.27	7.56	1.64	4.27	7.57	1.62	6.38	11.28	2.78
1997	4.22	7.55	1.61	4.14	7.32	1.62	7.25	13.52	2.74
1998	3.87	6.79	1.60	3.73	6.52	1.56	6.71	12.15	2.83
1999	4.19	7.05	1.86	4.15	6.99	1.78	7.10	12.08	3.64
2000	4.06	7.29	1.44	4.06	7.22	1.48	6.11	11.54	2.19
2001	3.67	6.59	1.27	3.60	6.37	1.30	6.25	12.19	1.92
2002	3.57	6.35	1.31	3.47	6.15	1.28	6.31	11.24	2.68
2003	3.35	6.00	1.22	3.36	5.90	1.28	5.05	9.57	1.83
2004	3.48	6.12	1.37	3.45	6.02	1.38	5.77	10.74	2.38
2005	3.49	6.22	1.31	3.51	6.16	1.36	5.72	10.64	2.04
2006	3.37	5.94	1.28	3.42	5.88	1.37	5.43	10.62	1.66
2007	3.25	5.69	1.24	3.25	5.63	1.24	5.64	10.23	2.33
2008	3.12	5.52	1.14	3.20	5.62	1.14	4.43	8.17	1.83
2009	3.10	5.67	0.99	3.17	5.69	1.07	4.18	8.30	1.26
2010	3.19	5.69	1.14	3.15	5.47	1.20	5.03	9.39	1.82

<sup>a</sup> 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 12.6  
Cancer of the Larynx (Invasive)

Age-adjusted U.S. Death<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Death:</b>									
1975-2010	1.45	2.72	0.51	1.35	2.52	0.48	2.64	5.23	0.83
1975	1.68	3.35	0.46	1.60	3.22	0.43	2.61	4.97	0.78
1976	1.72	3.41	0.49	1.63	3.26	0.47	2.63	5.13	0.71
1977	1.70	3.41	0.47	1.61	3.25	0.44	2.74	5.47	0.72
1978	1.70	3.40	0.49	1.59	3.18	0.46	2.90	5.88	0.71
1979	1.67	3.34	0.46	1.59	3.19	0.44	2.59	5.21	0.63
1980	1.61	3.17	0.48	1.49	2.95	0.44	2.91	5.73	0.87
1981	1.66	3.28	0.52	1.54	3.09	0.46	2.95	5.55	1.06
1982	1.67	3.23	0.54	1.57	3.05	0.51	2.79	5.51	0.83
1983	1.64	3.18	0.54	1.54	3.01	0.50	2.73	5.28	0.89
1984	1.63	3.16	0.53	1.50	2.90	0.51	3.05	6.21	0.75
1985	1.56	3.01	0.52	1.42	2.77	0.47	2.97	5.79	0.94
1986	1.59	3.06	0.55	1.45	2.81	0.50	3.07	6.11	0.96
1987	1.60	3.10	0.53	1.48	2.87	0.50	2.93	5.88	0.86
1988	1.58	3.04	0.53	1.43	2.73	0.51	3.21	6.73	0.76
1989	1.59	3.01	0.58	1.44	2.71	0.55	3.20	6.59	0.83
1990	1.55	2.97	0.54	1.42	2.73	0.49	3.00	5.79	1.08
1991	1.65	3.07	0.63	1.50	2.80	0.58	3.33	6.43	1.20
1992	1.61	3.00	0.61	1.46	2.73	0.57	3.26	6.39	1.07
1993	1.59	3.01	0.57	1.45	2.74	0.53	3.24	6.38	1.06
1994	1.55	2.92	0.57	1.41	2.63	0.53	3.20	6.41	1.04
1995	1.50	2.82	0.54	1.37	2.56	0.50	3.03	5.97	1.03
1996	1.50	2.78	0.56	1.36	2.49	0.53	3.16	6.35	0.97
1997	1.44	2.67	0.53	1.30	2.40	0.50	2.98	6.08	0.89
1998	1.43	2.58	0.57	1.31	2.34	0.54	2.83	5.55	0.90
1999	1.39	2.54	0.53	1.29	2.34	0.50	2.59	5.13	0.85
2000	1.39	2.55	0.52	1.27	2.32	0.49	2.79	5.46	0.95
2001	1.34	2.48	0.49	1.24	2.28	0.46	2.55	4.99	0.88
2002	1.29	2.33	0.50	1.20	2.15	0.47	2.46	4.81	0.84
2003	1.29	2.36	0.47	1.20	2.16	0.45	2.50	5.12	0.75
2004	1.22	2.25	0.44	1.15	2.09	0.43	2.23	4.57	0.66
2005	1.25	2.24	0.48	1.16	2.07	0.47	2.30	4.59	0.77
2006	1.22	2.19	0.48	1.16	2.04	0.48	2.07	4.11	0.68
2007	1.14	2.05	0.42	1.06	1.88	0.41	2.11	4.28	0.64
2008	1.15	2.05	0.45	1.10	1.93	0.44	2.01	3.89	0.74
2009	1.09	1.94	0.42	1.03	1.82	0.41	1.88	3.78	0.60
2010	1.08	1.95	0.40	1.03	1.85	0.38	1.78	3.38	0.67

<sup>a</sup> 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 12.7  
Cancer of the Larynx (Invasive)

SEER Incidence<sup>a</sup> and U.S. Death<sup>b</sup> 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, 2006-2010									
All ages	3.4	6.0	1.3	3.4	6.0	1.3	5.0	9.6	1.8
Under 65	1.7	2.7	0.7	1.7	2.7	0.7	2.8	4.7	1.1
65 and over	15.1	28.6	5.0	15.4	28.6	5.2	20.9	43.2	6.4
All ages (IARC world std) <sup>c</sup>	2.4	4.1	0.9	2.4	4.1	0.9	3.7	6.8	1.3
Age-Specific Rates, 2006-2010									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	0.1	-	-	0.1	-	-	-	-	-
30-34	0.1	-	0.1	0.1	-	0.2	-	-	-
35-39	0.4	0.6	0.2	0.4	0.6	0.2	-	-	-
40-44	0.9	1.3	0.5	1.0	1.4	0.5	1.1	1.4	0.9
45-49	2.6	3.8	1.3	2.6	3.8	1.3	3.9	5.9	2.0
50-54	5.3	8.4	2.4	5.4	8.4	2.3	8.6	13.6	4.2
55-59	8.0	13.1	3.1	7.9	12.7	3.2	13.7	23.8	5.1
60-64	11.9	20.5	4.0	11.7	19.8	4.0	20.5	38.5	5.8
65-69	15.0	26.1	5.3	15.1	25.9	5.5	23.9	44.0	8.5
70-74	17.3	31.3	5.8	17.8	31.4	6.3	24.5	49.0	7.0
75-79	16.0	30.4	5.2	16.5	31.0	5.4	19.8	41.9	5.8
80-84	13.7	28.4	4.2	13.7	28.0	4.4	18.5	43.4	5.3
85+	10.5	25.4	3.3	10.7	25.8	3.4	11.2	31.9	-
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2006-2010									
All ages	1.1	2.0	0.4	1.1	1.9	0.4	2.0	3.9	0.7
Under 65	0.4	0.7	0.2	0.4	0.7	0.2	0.9	1.5	0.3
65 and over	5.9	10.9	2.3	5.6	10.3	2.3	9.5	20.0	3.1
All ages (IARC world std) <sup>c</sup>	0.7	1.3	0.3	0.7	1.2	0.3	1.3	2.5	0.5
Age-Specific Rates, 2006-2010									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-
35-39	0.0	0.1	-	0.0	0.1	-	-	-	-
40-44	0.2	0.3	0.1	0.2	0.3	0.1	0.4	0.6	-
45-49	0.6	1.0	0.2	0.6	0.9	0.2	1.2	1.9	0.5
50-54	1.4	2.2	0.5	1.2	2.0	0.5	2.6	4.4	0.9
55-59	2.3	3.8	0.8	2.1	3.5	0.8	4.5	8.0	1.5
60-64	3.4	5.8	1.2	3.1	5.3	1.1	6.9	12.7	2.2
65-69	4.7	8.2	1.7	4.4	7.6	1.6	8.9	17.1	2.7
70-74	5.6	9.4	2.4	5.4	8.8	2.4	9.3	18.1	3.2
75-79	6.5	11.8	2.6	6.4	11.3	2.6	10.4	21.5	3.5
80-84	6.9	13.4	2.7	6.7	12.8	2.7	10.1	23.1	3.2
85+	6.6	15.6	2.3	6.4	15.1	2.3	8.9	24.1	3.1

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> 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 12.8**  
Cancer of the Larynx (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
<b>5-Year Relative Survival (Percent)</b>									
<b>Year of Diagnosis:</b>									
1960-1963 <sup>a</sup>	-	-	-	53	54	46	-	-	-
1970-1973 <sup>a</sup>	-	-	-	62	63	56	-	-	-
1975-1977 <sup>b</sup>	66.0	66.5	62.6	66.7	67.4	62.3	58.2	57.1	63.3 <sup>g</sup>
1978-1980 <sup>b</sup>	65.2	65.4	64.1	66.0	66.3	64.8	56.9	57.2	55.8 <sup>g</sup>
1981-1983 <sup>b</sup>	68.0	68.3	66.9	69.5	69.7	68.5	56.2	57.3	50.7 <sup>g</sup>
1984-1986 <sup>b</sup>	65.2	65.8	62.2	67.0	67.6	63.9	52.7	52.9	51.1 <sup>g</sup>
1987-1989 <sup>b</sup>	65.5	66.6	61.1	67.0	68.5	60.6	55.9	54.1	61.3 <sup>g</sup>
1990-1992 <sup>b</sup>	65.7	66.6	62.3	67.6	68.4	64.4	53.5	54.0	51.3 <sup>g</sup>
1993-1995 <sup>b</sup>	63.6	65.3	56.6	65.2	67.0	57.6	53.1	54.5	47.4 <sup>g</sup>
1996-1998 <sup>b</sup>	64.9	66.7	58.7	66.8	68.4	61.1	53.9	57.0	45.0 <sup>g</sup>
1999-2002 <sup>b</sup>	63.3	64.2	59.6	65.4	66.4	61.7	50.3	51.1	48.2 <sup>g</sup>
2003-2009 <sup>b</sup>	62.5 <sup>f</sup>	62.8 <sup>f</sup>	60.7	64.4	64.7	62.8	51.7	52.3	49.0
<b>5-Year Period Survival (Percent)<sup>cd</sup></b>									
2009	61.3	62.3	57.2	62.0	63.1	57.4	56.2	56.7	54.0
<b>Stage Distribution (%) 2003-2009<sup>ce</sup></b>									
<b>All Stages</b>									
Number of cases	16,239	13,121	3,118	13,106	10,554	2,552	2,467	1,997	470
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	56	58	49	58	60	52	46	48	38
Regional	20	19	28	20	18	27	23	22	31
Distant	18	18	18	17	17	16	26	27	25
Unstaged	5	5	5	5	5	5	4	4	6
<b>5-Year Relative Survival (Percent), 2003-2009<sup>c</sup></b>									
<b>Age at Diagnosis:</b>									
Ages <45	72.0	71.3	73.7	74.7	74.5	75.2	58.5 <sup>g</sup>	57.6 <sup>g</sup>	58.2 <sup>h</sup>
Ages 45-54	61.0	60.2	63.9	63.6	62.6	67.2	49.3	49.0	50.3 <sup>g</sup>
Ages 55-64	61.4	62.2	58.0	62.6	63.6	58.3	54.3	54.8	51.7
Ages 65-74	62.2	64.1	53.9	61.6	63.5	53.8	61.1	62.5	52.4 <sup>g</sup>
Ages 75+	53.2	54.8	46.9	53.8	55.6	46.7	48.1 <sup>g</sup>	47.1 <sup>g</sup>	45.9 <sup>g</sup>
Ages <65	62.1	62.2	62.0	63.9	64.0	63.6	52.8	53.1	51.9
Ages 65+	58.8	60.6	51.1	58.6	60.4	51.0	57.7	59.4	50.7 <sup>g</sup>
<b>Stage<sup>e</sup>:</b>									
All Stages	60.6	61.5	57.2	61.5	62.4	57.8	54.5	55.2	51.4
Localized	76.1	76.9	72.3	76.1	76.9	72.5	74.0	74.9	68.5
Regional	42.8	42.0	45.3	42.7	42.0	44.4	42.8	41.4	46.2 <sup>g</sup>
Distant	35.3	34.9	36.6	35.9	35.5	37.3	32.0	31.8	32.7
Unstaged	53.1	54.5	47.5	53.1	54.6	47.1 <sup>g</sup>	49.2 <sup>g</sup>	51.4 <sup>g</sup>	42.4 <sup>h</sup>

<sup>a</sup> Based on End Results data from a series of hospital registries and one population-based registry.

<sup>b</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

<sup>c</sup> Based on follow-up of patients into 2010.

<sup>d</sup> 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).

<sup>e</sup> Based on follow-up of patients into 2010.

<sup>f</sup> Period survival provides a 2009 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).

<sup>g</sup> Stage at diagnosis is classified using SEER Summary Stage 2000.

<sup>h</sup> The difference between 1975-1977 and 2003-2009 is statistically significant ( $p<.05$ ).

<sup>i</sup> The standard error is between 5 and 10 percentage points.

<sup>j</sup> The standard error is greater than 10 percentage points.

<sup>k</sup> Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 12.9  
Cancer of the Larynx (Invasive)  
SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis  
All Races, Males and Females

	Year of Diagnosis																						
1975-1979	1980-1984	1985-1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
<b>Survival Time</b>																							
1-year	88.2	88.5	88.2	87.5	90.2	87.9	86.3	87.1	89.1	88.3	85.9	86.2	85.5	85.4	85.3	84.1	84.1	85.6	86.7	86.4	88.2	84.0	87.1
2-year	79.0	79.5	78.9	77.3	80.0	77.9	78.4	76.2	80.0	79.3	77.3	75.9	74.8	76.9	75.6	74.7	74.6	75.4	78.0	74.5	75.6	76.1	
3-year	73.2	74.0	73.6	70.6	73.6	72.9	71.8	69.4	74.8	74.2	72.1	70.8	70.8	71.2	70.2	70.0	66.7	68.7	72.5	68.6	70.7		
4-year	68.8	70.0	68.7	66.5	69.7	68.7	66.3	65.0	69.3	69.7	68.6	67.0	68.7	66.8	66.6	66.9	62.7	64.3	69.9	62.8			
5-year	65.4	66.7	65.8	64.4	67.0	65.8	62.5	62.1	66.1	65.8	65.4	63.5	63.8	63.4	63.1	62.7	60.4	62.2	65.6				
6-year	63.0	63.8	62.5	60.2	63.5	62.6	60.2	57.9	63.2	63.6	62.1	59.1	60.6	60.6	60.8	60.1	56.1	59.4					
7-year	60.7	61.2	60.0	58.7	62.2	60.0	58.2	56.1	59.9	61.3	59.6	55.5	57.3	56.7	57.4	56.1	54.2						
8-year	58.7	59.5	57.0	56.1	58.7	57.3	55.7	54.0	57.4	58.0	56.9	52.7	54.2	53.2	54.7	52.7							
9-year	56.3	57.2	54.5	54.2	56.0	54.9	52.9	50.8	54.4	54.3	55.5	50.2	52.3	50.9	50.9	52.4							
10-year	54.0	55.3	52.1	51.7	53.8	51.5	50.2	49.2	51.2	52.1	53.4	48.5	50.6	49.1									
11-year	52.6	52.9	50.1	49.6	52.3	49.0	48.1	47.8	47.9	49.4	50.9	47.3	47.7										
12-year	50.9	50.2	48.0	47.2	50.9	46.4	45.8	46.7	46.2	46.9	46.1	45.2											
13-year	49.6	47.9	46.9	43.8	49.5	43.1	44.1	44.6	44.4	44.8	45.2												
14-year	47.9	46.4	44.2	42.1	47.5	40.5	42.4	43.1	41.5	41.7													
15-year	45.7	44.7	41.8	40.5	46.2	38.8	39.9	41.5	39.0														
16-year	43.6	42.1	40.2	38.3	44.7	36.5	37.9	40.0															
17-year	41.4	40.5	38.8	36.2	41.7	35.4	37.5																
18-year	40.1	38.7	37.3	32.9	39.9	34.9																	
19-year	38.2	37.1	34.6	30.0	38.1																		
20-year	36.4	35.4	33.4	26.3																			

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

Table 12.10  
Cancer of the Larynx (Invasive)  
SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis  
All Races, Males

	Year of Diagnosis																						
1975-1979	1980-1984	1985-1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
<b>Survival Time</b>																							
1-year	88.5	88.6	88.5	87.9	90.5	88.2	86.4	89.2	91.2	88.1	88.5	87.2	86.7	85.4	85.8	84.6	84.1	86.2	86.5	86.7	89.0	84.2	87.8
2-year	79.1	79.7	79.3	78.1	80.7	78.8	79.3	78.2	81.8	79.3	80.1	76.7	75.9	77.5	75.8	75.0	75.3	75.5	77.1	75.5	75.7	75.7	76.8
3-year	73.5	74.4	74.2	70.8	73.9	73.1	73.4	71.4	76.5	74.4	74.9	71.5	71.7	71.8	71.0	70.9	68.3	68.6	72.8	69.5	70.4		
4-year	69.1	70.5	69.5	67.3	70.2	69.4	68.1	66.3	71.5	69.7	71.1	68.3	69.7	67.4	66.9	68.2	63.4	63.6	70.3	64.0			
5-year	65.7	67.2	66.6	65.1	68.3	66.5	64.3	63.3	68.2	66.4	68.1	65.6	65.5	64.3	63.4	63.5	60.6	61.8	65.6				
6-year	63.4	64.4	63.2	60.9	64.5	63.1	62.2	59.4	65.4	64.0	65.0	62.2	62.0	61.7	61.1	61.0	56.2	59.8					
7-year	61.2	61.7	60.9	59.6	63.3	60.2	60.3	57.7	61.9	61.5	62.8	58.7	58.6	58.8	59.1	56.8	54.6						
8-year	59.0	60.3	58.2	57.2	59.8	58.2	57.7	55.9	59.4	58.0	59.7	55.5	55.5	56.0	56.6	53.8							
9-year	56.7	57.9	56.1	55.7	57.2	55.9	54.4	52.7	56.7	54.0	57.9	53.0	53.5	54.1	55.0								
10-year	54.6	56.2	53.9	53.2	54.8	52.3	51.7	50.7	53.8	51.7	56.0	51.0	51.3	52.0									
11-year	53.5	53.7	52.1	50.8	53.5	49.9	49.4	49.2	50.1	49.2	54.0	50.4	48.7										
12-year	52.0	50.9	50.1	48.8	52.0	47.3	47.0	48.0	49.2	46.3	48.9	49.0											
13-year	50.7	48.7	49.2	45.4	51.2	44.5	45.4	46.0	47.4	44.2	47.6												
14-year	49.1	47.0	46.8	44.1	48.6	41.6	44.0	44.2	45.0	42.0													
15-year	46.9	45.1	44.3	42.4	47.2	40.3	41.3	42.5	42.1														
16-year	44.7	42.8	42.7	40.2	46.2	38.1	39.2	40.6															
17-year	42.5	41.6	41.3	37.8	43.6	37.1	38.9																
18-year	41.2	39.7	39.5	34.9	41.2	37.1																	
19-year	39.1	38.1	36.6	31.8	38.6																		
20-year	37.5	36.2	35.6	28.3																			

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

Table 12.11  
Cancer of the Larynx (Invasive)  
  
SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis  
  
All Races, Females

## Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Survival Time</b>																							
1-year	86.7	88.1	86.9	85.9	89.2	86.5	85.7	78.4	80.1	88.8	76.7	83.1	81.1	85.4	83.3	81.7	83.9	83.5	87.5	85.3	84.8	83.2	83.1
2-year	78.3	78.6	77.3	74.2	77.5	73.8	74.4	68.1	72.0	79.0	67.1	73.4	70.7	74.3	74.3	73.4	71.8	74.9	80.9	70.0	74.9	73.4	
3-year	71.5	72.0	71.1	69.9	72.3	71.9	64.7	61.6	67.5	73.4	62.0	68.3	67.1	68.1	65.9	65.9	60.0	68.8	71.6	64.1	72.0		
4-year	66.8	67.5	65.6	63.4	67.6	66.0	58.3	59.8	60.1	69.4	59.2	62.9	65.1	64.0	65.4	61.5	59.6	66.5	68.5	57.0			
5-year	63.4	64.2	62.6	61.7	62.2	62.9	54.1	57.5	57.4	63.6	55.4	57.1	58.3	59.7	61.4	59.2	58.5	63.7	65.7				
6-year	60.8	61.2	59.3	57.2	59.6	60.3	51.8	51.7	53.8	62.3	51.8	49.5	55.6	55.9	58.9	55.5	55.2	57.2					
7-year	58.1	58.9	56.1	54.8	57.6	58.7	48.9	49.8	51.4	60.0	47.9	45.5	52.9	48.2	49.5	52.9	52.6						
8-year	56.8	56.3	52.5	52.0	54.1	53.1	47.2	46.3	49.1	57.8	46.6	43.9	49.6	41.6	45.9	48.1							
9-year	54.1	54.2	48.2	48.9	51.5	50.8	46.1	43.4	45.2	55.1	46.6	41.7	48.2	37.8	39.9								
10-year	50.9	51.6	45.2	45.9	50.2	48.1	43.6	42.5	40.9	53.0	44.0	40.4	47.5	36.9									
11-year	48.1	49.2	42.4	44.8	47.9	44.8	41.6	41.4	38.9	50.2	39.5	37.5	44.0										
12-year	45.5	46.8	39.8	41.2	45.5	42.6	39.7	41.2	34.1	48.5	36.1	34.1											
13-year	43.8	44.4	38.0	37.9	42.8	37.4	38.6	38.6	32.5	46.0	36.1												
14-year	42.4	43.4	34.4	34.3	42.4	35.7	35.7	38.1	28.1	40.4													
15-year	40.2	42.7	32.7	33.4	42.0	32.9	33.9	37.7	26.9														
16-year	38.3	39.0	30.8	31.1	39.1	30.0	32.7	36.8															
17-year	35.8	35.7	29.3	30.0	35.3	27.7	31.3																
18-year	35.0	34.7	28.9	25.7	34.6	25.8																	
19-year	33.9	33.2	27.2	23.5	34.6																		
20-year	31.4	31.8	25.2	19.2																			

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

Table 12.12  
Cancer of the Larynx (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, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever	Risk of Dying from Cancer			+10 yrs	+20 yrs	+30 yrs	Ever		
All Races	0	0.00	0.00	0.00	0.36	0.13	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.18	0.06	
	10	0.00	0.00	0.00	0.36	0.13		10	0.00	0.00	0.00	0.18	0.06	
	20	0.00	0.00	0.02	0.36	0.13		20	0.00	0.00	0.00	0.18	0.06	
	30	0.00	0.02	0.08	0.37	0.13		30	0.00	0.00	0.02	0.18	0.06	
	40	0.02	0.08	0.19	0.37	0.13		40	0.00	0.02	0.07	0.18	0.06	
	50	0.06	0.18	0.29	0.36	0.13		50	0.02	0.06	0.12	0.18	0.06	
	60	0.12	0.25	0.30	0.31	0.12		60	0.05	0.10	0.15	0.17	0.06	
	70	0.14	0.21	-	0.22	0.10		70	0.06	0.11	-	0.13	0.06	
	80	0.09	-	-	0.11	0.06		80	0.06	-	-	0.08	0.04	
White	0	0.00	0.00	0.00	0.36	0.12	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.00	0.26	0.12	
	10	0.00	0.00	0.00	0.37	0.12		10	0.00	0.00	0.00	0.27	0.13	
	20	0.00	0.00	0.02	0.37	0.12		20	0.00	0.00	0.02	0.27	0.13	
	30	0.00	0.02	0.08	0.37	0.12		30	0.00	0.02	0.06	0.27	0.13	
	40	0.02	0.08	0.19	0.37	0.13		40	0.02	0.06	0.13	0.28	0.13	
	50	0.06	0.18	0.30	0.36	0.13		50	0.04	0.12	0.23	0.27	0.14	
	60	0.12	0.25	0.31	0.32	0.12		60	0.08	0.20	0.24	0.24	0.14	
	70	0.14	0.21	-	0.22	0.09		70	0.13	0.18	-	0.19	0.11	
	80	0.09	-	-	0.11	0.06		80	0.07	-	-	0.07	0.08	
Black	0	0.00	0.00	0.00	0.45	0.19	Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.31	0.12	
	10	0.00	0.00	0.00	0.46	0.19		10	0.00	0.00	0.00	0.31	0.12	
	20	0.00	0.00	0.03	0.46	0.19		20	0.00	0.00	0.01	0.31	0.12	
	30	0.00	0.03	0.12	0.47	0.19		30	0.00	0.01	0.04	0.31	0.12	
	40	0.02	0.12	0.29	0.47	0.20		40	0.01	0.04	0.11	0.31	0.12	
	50	0.10	0.27	0.40	0.47	0.20		50	0.03	0.10	0.22	0.31	0.12	
	60	0.19	0.33	0.40	0.41	0.18		60	0.07	0.20	0.27	0.29	0.12	
	70	0.17	0.25	-	0.26	0.14		70	0.13	0.22	-	0.24	0.10	
	80	0.12	-	-	0.13	0.09		80	0.10	-	-	0.14	0.08	

Devcan 6.7.0, June 2013, 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.

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

<sup>b</sup> 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. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.

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

Table 12.13  
Cancer of the Larynx (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, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever	Risk of Dying from Cancer			+10 yrs	+20 yrs	+30 yrs	Ever		
All Races	0	0.00	0.00	0.00	0.60	0.21	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.33	0.12	
	10	0.00	0.00	0.00	0.61	0.21		10	0.00	0.00	0.00	0.34	0.12	
	20	0.00	0.00	0.03	0.61	0.21		20	0.00	0.00	0.01	0.34	0.12	
	30	0.00	0.03	0.13	0.61	0.21		30	0.00	0.01	0.04	0.34	0.12	
	40	0.03	0.12	0.31	0.62	0.22		40	0.01	0.04	0.13	0.34	0.12	
	50	0.10	0.29	0.50	0.61	0.22		50	0.03	0.12	0.22	0.34	0.12	
	60	0.21	0.43	0.53	0.55	0.21		60	0.09	0.20	0.30	0.32	0.12	
	70	0.25	0.38	-	0.40	0.17		70	0.11	0.22	-	0.25	0.11	
	80	0.18	-	-	0.21	0.12		80	0.14	-	-	0.17	0.09	
White	0	0.00	0.00	0.00	0.60	0.20	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.00	0.49	0.24	
	10	0.00	0.00	0.00	0.60	0.20		10	0.00	0.00	0.00	0.49	0.24	
	20	0.00	0.00	0.03	0.61	0.20		20	0.00	0.00	0.03	0.50	0.25	
	30	0.00	0.03	0.13	0.61	0.20		30	0.00	0.03	0.09	0.51	0.25	
	40	0.03	0.12	0.31	0.62	0.21		40	0.03	0.09	0.21	0.52	0.26	
	50	0.10	0.29	0.50	0.61	0.21		50	0.07	0.19	0.42	0.52	0.28	
	60	0.20	0.43	0.53	0.55	0.20		60	0.13	0.38	0.48	0.49	0.29	
	70	0.26	0.38	-	0.40	0.16		70	0.30	0.42	-	0.42	0.27	
	80	0.18	-	-	0.21	0.11		80	0.17	-	-	0.18	0.24	
Black	0	0.00	0.00	0.00	0.76	0.32	Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.58	0.22	
	10	0.00	0.00	0.01	0.78	0.33		10	0.00	0.00	0.00	0.59	0.22	
	20	0.00	0.01	0.04	0.79	0.33		20	0.00	0.00	0.01	0.59	0.22	
	30	0.00	0.04	0.19	0.80	0.34		30	0.00	0.01	0.07	0.60	0.23	
	40	0.04	0.19	0.49	0.82	0.34		40	0.01	0.06	0.19	0.60	0.23	
	50	0.16	0.47	0.70	0.82	0.35		50	0.05	0.19	0.41	0.61	0.23	
	60	0.35	0.61	0.73	0.74	0.34		60	0.14	0.38	0.53	0.59	0.22	
	70	0.33	0.49	-	0.50	0.27		70	0.27	0.44	-	0.50	0.20	
	80	0.26	-	-	0.29	0.19		80	0.23	-	-	0.31	0.18	

Devcan 6.7.0, June 2013, 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.

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

<sup>b</sup> 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. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.

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

Table 12.14  
Cancer of the Larynx (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, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Risk of Dying from Cancer	
		+10 yrs	+20 yrs	+30 yrs	Ever	Risk of Dying from Cancer			+10 yrs	+20 yrs	+30 yrs	Ever			
		0	0.00	0.00	0.00	0.14			0	0.00	0.00	0.00	0.05	0.02	
All Races	10	0.00	0.00	0.00	0.14	0.05			Pacific	10	0.00	0.00	0.00	0.05	0.02
	20	0.00	0.00	0.01	0.14	0.05			Islander	20	0.00	0.00	0.00	0.05	0.02
	30	0.00	0.01	0.04	0.14	0.05			30	0.00	0.00	0.01	0.05	0.02	
	40	0.01	0.04	0.07	0.14	0.05			40	0.00	0.01	0.01	0.05	0.02	
	50	0.03	0.07	0.11	0.13	0.05			50	0.00	0.01	0.03	0.05	0.02	
	60	0.04	0.08	0.10	0.11	0.05			60	0.01	0.02	0.03	0.04	0.02	
	70	0.05	0.07	-	0.07	0.04			70	0.01	0.02	-	0.04	0.02	
	80	0.03	-	-	0.04	0.02			80	0.01	-	-	0.02	0.01	
White	0	0.00	0.00	0.00	0.14	0.05			American	0	0.00	0.00	0.00	0.06	0.03
	10	0.00	0.00	0.00	0.14	0.05			Indian/	10	0.00	0.00	0.00	0.06	0.03
	20	0.00	0.00	0.01	0.14	0.05			Alaska	20	0.00	0.00	0.01	0.06	0.03
	30	0.00	0.01	0.04	0.14	0.05			Native <sup>a</sup>	30	0.00	0.01	0.02	0.06	0.03
	40	0.01	0.04	0.08	0.14	0.05			40	0.01	0.02	0.06	0.06	0.03	
	50	0.03	0.07	0.11	0.13	0.05			50	0.02	0.05	0.05	0.05	0.03	
	60	0.04	0.09	0.11	0.11	0.05			60	0.04	0.04	0.04	0.04	0.03	
	70	0.05	0.07	-	0.08	0.04			70	0.00	0.00	-	0.00	0.01	
	80	0.03	-	-	0.04	0.02			80	0.00	-	-	0.00	0.00	
Black	0	0.00	0.00	0.00	0.17	0.07			Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.07	0.03
	10	0.00	0.00	0.00	0.17	0.07			10	0.00	0.00	0.00	0.07	0.03	
	20	0.00	0.00	0.02	0.18	0.07			20	0.00	0.00	0.00	0.07	0.03	
	30	0.00	0.02	0.05	0.18	0.07			30	0.00	0.00	0.01	0.07	0.03	
	40	0.01	0.05	0.11	0.18	0.08			40	0.00	0.01	0.03	0.07	0.03	
	50	0.04	0.10	0.14	0.17	0.07			50	0.01	0.03	0.05	0.07	0.03	
	60	0.06	0.11	0.14	0.14	0.07			60	0.02	0.04	0.06	0.06	0.03	
	70	0.06	0.08	-	0.09	0.05			70	0.03	0.05	-	0.05	0.03	
	80	0.04	-	-	0.04	0.03			80	0.02	-	-	0.02	0.02	

Devcan 6.7.0, June 2013, 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.

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

<sup>b</sup> 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. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.

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

Table 12.15  
Cancer of the Larynx (Invasive)

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

SEER Incidence	SEER 18 Areas <sup>b</sup>			SEER 13 Areas <sup>b</sup>			SEER 9 Areas <sup>b</sup>		
	Rate 2006-2010			Trend 2001-2010 <sup>c</sup>			Trend 2001-2010 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	3.4	6.0	1.3	-2.7*	-1.9*	-3.1*	-2.5*	-2.5*	-2.6*
White	3.4	6.0	1.3	-2.4*	-1.7*	-2.8*	-2.3*	-2.5*	-2.4*
White Hispanic <sup>e</sup>	2.5	4.9	0.6	-1.6*	-1.4*	-	-	-	-
White Non-Hispanic <sup>e</sup>	3.6	6.2	1.4	-2.4*	-2.5*	-2.6*	-	-	-
Black	5.0	9.6	1.8	-3.3*	-3.2*	-3.3*	-2.9*	-2.8*	-3.1*
Asian/Pacific Islander	1.2	2.4	0.3	-3.1*	-2.7*	-	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	2.5	4.6	-	-	-	-	-	-	-
Hispanic <sup>e</sup>	2.4	4.7	0.5	-1.5*	-1.4*	-	-	-	-
U.S. Mortality <sup>g</sup>	Rate 2006-2010			Trend 2001-2010 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	1.1	2.0	0.4	-2.2*	-2.5*	-2.0*			
White	1.1	1.9	0.4	-1.9*	-2.2*	-1.7*			
White Hispanic <sup>e</sup>	0.8	1.8	0.2	-2.8*	-2.9*	-			
White Non-Hispanic <sup>e</sup>	1.1	1.9	0.4	-1.7*	-2.1*	-1.3*			
Black	2.0	3.9	0.7	-3.3*	-3.3*	-3.0*			
Asian/Pacific Islander	0.4	0.8	0.1	-2.3*	-1.7*	-			
Amer Ind/Alaska Nat									
Total U.S.	0.9	1.7	0.3	-	-	-			
CHSDA Counties	1.0	2.1	-	-	-	-			
Non-CHSDA Counties	0.7	1.3	-	-	-	-			
Hispanic <sup>e</sup>	0.8	1.7	0.2	-2.8*	-2.9*	-			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.0.3, April 2013, 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.

<sup>a</sup> 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).

<sup>b</sup> 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.

<sup>c</sup> The 2001-2010 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2010.

<sup>d</sup> The 2001-2010 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2010.

<sup>e</sup> 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 2006-2010 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia, North Dakota, and South Carolina. The 2001-2010 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, South Carolina and Vermont.

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

<sup>g</sup> US Mortality Files, National Center for Health Statistics, CDC.

<sup>h</sup> The 2001-2010 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2010.

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

Table 12.16  
Cancer of the Larynx (Invasive)

Age-Adjusted SEER Incidence Rates<sup>a</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>SEER Incidence Rates<sup>a</sup>, 2006-2010</b>									
California	2.50	4.53	0.85	2.64	4.73	0.90	3.97	7.22	1.50
Greater Bay Area	2.11	3.85	0.69	2.29	4.08	0.81	4.00	7.43	1.36
San Francisco-Oakland	2.22	4.00	0.79	2.35	4.08	0.90	4.37	8.18	1.54
San Jose-Monterey	1.87	3.56	0.50	2.19	4.07	0.65	-	-	-
Los Angeles	2.66	5.10	0.75	2.82	5.39	0.76	4.29	8.08	1.65
Greater California	2.57	4.52	0.96	2.67	4.68	0.99	3.62	6.20	1.45
Connecticut	3.67	6.57	1.40	3.53	6.23	1.39	5.60	11.15	-
Detroit	4.53	7.90	1.86	4.12	7.15	1.66	6.30	11.45	2.70
Georgia	4.43	8.20	1.42	4.38	7.86	1.45	4.97	10.20	1.41
Atlanta	3.57	6.97	1.01	3.57	6.85	0.99	3.88	7.86	1.17
Rural Georgia	5.19	9.94	-	4.61	8.45	-	6.40	13.61	-
Greater Georgia	4.83	8.74	1.62	4.68	8.24	1.63	5.66	11.53	1.61
Hawaii	2.44	4.66	0.52	3.48	5.60	-	-	-	-
Iowa	4.12	7.20	1.47	4.13	7.21	1.48	-	-	-
Kentucky	5.77	9.41	2.73	5.79	9.40	2.76	5.69	10.12	2.41
Louisiana	5.41	9.42	2.15	5.09	8.57	2.19	6.50	12.41	2.14
New Jersey	3.61	6.42	1.43	3.57	6.27	1.44	4.76	9.08	1.85
New Mexico	2.62	4.77	0.75	2.76	4.98	0.81	-	-	-
Seattle-Puget Sound	2.81	4.82	1.11	2.93	4.96	1.20	3.65	5.74	-
Utah	1.89	3.28	0.67	1.89	3.28	0.67	-	-	-
9 SEER Areas <sup>b</sup>	3.20	5.70	1.15	3.23	5.65	1.20	4.93	9.31	1.78
11 SEER Areas <sup>b</sup>	3.01	5.44	1.03	3.09	5.50	1.08	4.72	8.91	1.71
13 SEER Areas <sup>b</sup>	3.02	5.46	1.03	3.09	5.51	1.08	4.74	8.97	1.71
18 SEER Areas <sup>b</sup>	3.39	6.01	1.25	3.43	5.99	1.30	5.05	9.58	1.77

<sup>a</sup> Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)  
<sup>b</sup> 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 12.17  
Cancer of the Larynx (Invasive)

Age-Adjusted SEER Death Rates<sup>a</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates<sup>a</sup>, 2006-2010</u>									
California	0.87	1.59	0.32	0.88	1.58	0.34	1.67	3.22	0.56
Greater Bay Area	0.73	1.29	0.30	0.75	1.28	0.34	1.66	3.22	-
San Francisco-Oakland	0.75	1.34	0.30	0.76	1.28	0.35	1.78	3.54	-
San Jose-Monterey	0.68	1.21	0.29	0.73	1.28	-	-	-	-
Los Angeles	0.91	1.79	0.26	0.87	1.70	0.24	1.93	3.82	0.67
Greater California	0.90	1.61	0.35	0.93	1.63	0.37	1.38	2.60	-
Connecticut	0.92	1.70	0.34	0.89	1.64	0.32	1.62	3.04	-
Detroit	1.27	2.18	0.61	1.09	1.96	0.43	2.02	3.21	1.24
Georgia	1.11	2.08	0.38	1.04	1.90	0.39	1.41	2.94	0.40
Atlanta	0.90	1.61	0.40	0.73	1.32	-	1.32	2.37	-
Rural Georgia	2.04	-	-	-	-	-	-	-	-
Greater Georgia	1.17	2.22	0.38	1.13	2.03	0.42	1.41	3.18	-
Hawaii	0.90	1.72	-	1.35	2.31	-	-	-	-
Iowa	0.96	1.68	0.43	0.97	1.67	0.44	-	-	-
Kentucky	1.49	2.64	0.62	1.42	2.48	0.61	2.70	5.57	-
Louisiana	1.49	2.58	0.65	1.39	2.34	0.66	1.75	3.34	0.65
New Jersey	1.21	2.10	0.54	1.15	2.01	0.50	2.05	3.81	0.95
New Mexico	0.97	1.69	0.37	1.04	1.80	0.39	-	-	-
Seattle-Puget Sound	0.93	1.60	0.41	0.97	1.66	0.44	-	-	-
Utah	0.43	0.72	-	0.42	0.71	-	-	-	-
9 SEER Areas <sup>b</sup>	0.92	1.61	0.38	0.90	1.57	0.37	1.66	2.94	0.79
11 SEER Areas <sup>b</sup>	0.90	1.63	0.35	0.88	1.58	0.34	1.72	3.15	0.76
13 SEER Areas <sup>b</sup>	0.91	1.64	0.35	0.89	1.59	0.34	1.74	3.17	0.76
18 SEER Areas <sup>b</sup>	1.02	1.83	0.41	1.00	1.77	0.41	1.73	3.30	0.67
Total U.S.	1.13	2.03	0.43	1.08	1.90	0.42	1.97	3.88	0.67

<sup>a</sup> 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).

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.

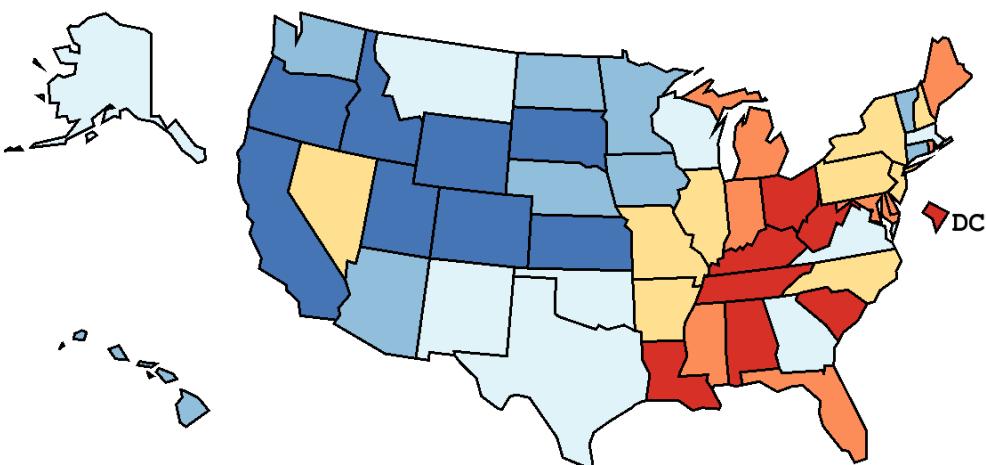
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 12.18  
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2006-2010

Males and Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	1.13	0.01							
High Five States									
D.C.	1.76	0.25	(01)	55.45 <sup>c</sup>					
West Virginia	1.59	0.12	(02)	39.88 <sup>c</sup>					
Kentucky	1.49	0.08	(03)	31.28 <sup>c</sup>					
Louisiana	1.49	0.08	(04)	30.93 <sup>c</sup>					
Tennessee	1.41	0.06	(05)	24.48 <sup>c</sup>					
Low Five States									
Kansas	0.77	0.07	(47)	-31.80 <sup>c</sup>					
Oregon	0.75	0.06	(48)	-33.59 <sup>c</sup>					
Colorado	0.68	0.06	(49)	-39.94 <sup>c</sup>					
Wyoming	0.66	0.15	(50)	-42.02 <sup>c</sup>					
Utah	0.43	0.07	(51)	-62.16 <sup>c</sup>					



Age-Adjusted Death  
Rates per 100,000  
Quantile Interval

- 1.37 - 1.76
- 1.25 - 1.36
- 1.14 - 1.24
- 0.97 - 1.13
- 0.88 - 0.96
- 0.43 - 0.87

U.S. Rate: 1.13

<sup>a</sup> 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).

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

<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.

SE Standard error of the rate.

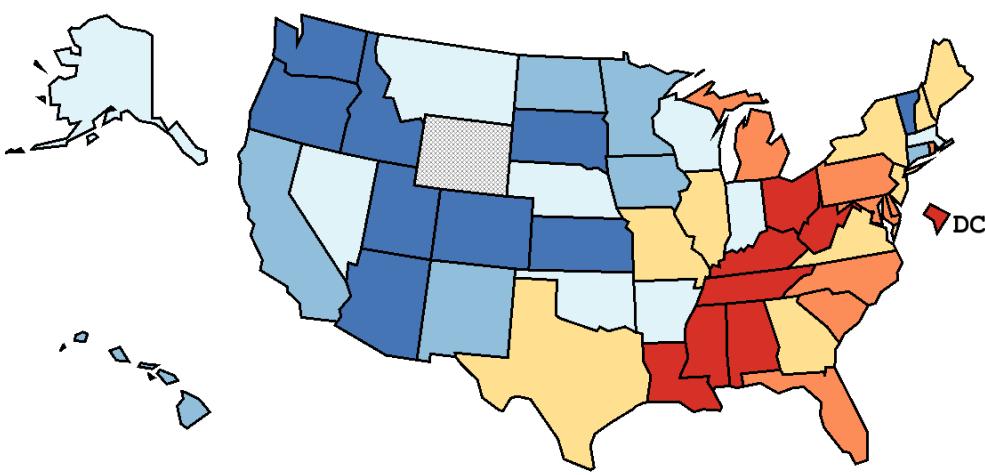
PD Percent difference between state rate and total U.S. rate.

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

Table 12.19  
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2006-2010

Males				
State	Rate	SE	Rank	PD
TOTAL U.S.	2.03	0.02		
High Five States				
D.C.	3.40	0.54	(01)	67.19 <sup>c</sup>
West Virginia	2.75	0.23	(02)	35.44 <sup>c</sup>
Kentucky	2.64	0.17	(03)	30.05 <sup>c</sup>
Mississippi	2.62	0.20	(04)	29.09 <sup>c</sup>
Louisiana	2.58	0.17	(05)	26.90 <sup>c</sup>
Low Five States				
Idaho	1.44	0.20	(46)	-28.92 <sup>c</sup>
Kansas	1.37	0.14	(47)	-32.77 <sup>c</sup>
Oregon	1.26	0.12	(48)	-38.12 <sup>c</sup>
Colorado	1.07	0.11	(49)	-47.45 <sup>c</sup>
Utah	0.72	0.13	(50)	-64.79 <sup>c</sup>
State	Rate	SE	Rank	PD
Alabama	2.56	0.15	(06)	25.94 <sup>c</sup>
Alaska	1.79	0.46	(32)	-12.10
Arizona	1.54	0.10	(42)	-24.35 <sup>c</sup>
Arkansas	2.05	0.17	(26)	0.81
California	1.59	0.05	(41)	-21.72 <sup>c</sup>
Colorado	1.07	0.11	(49)	-47.45 <sup>c</sup>
Connecticut	1.70	0.14	(37)	-16.56 <sup>c</sup>
Delaware	2.25	0.32	(14)	10.82
D.C.	3.40	0.54	(01)	67.19 <sup>c</sup>
Florida	2.30	0.06	(12)	13.00
Georgia	2.08	0.11	(24)	2.35
Hawaii	1.72	0.22	(35)	-15.28 <sup>c</sup>
Idaho	1.44	0.20	(46)	-28.92 <sup>c</sup>
Illinois	2.21	0.09	(18)	8.53
Indiana	2.04	0.12	(27)	0.34
Iowa	1.68	0.15	(39)	-17.46 <sup>c</sup>
Kansas	1.37	0.14	(47)	-32.77 <sup>c</sup>
Kentucky	2.64	0.17	(03)	30.05 <sup>c</sup>
Louisiana	2.58	0.17	(05)	26.90 <sup>c</sup>
Maine	2.22	0.25	(17)	9.38
Maryland	2.36	0.14	(10)	16.12 <sup>c</sup>
Massachusetts	1.95	0.11	(28)	-4.02
Michigan	2.24	0.10	(15)	9.96
Minnesota	1.65	0.12	(40)	-18.78 <sup>c</sup>
Mississippi	2.62	0.20	(04)	29.09 <sup>c</sup>
Missouri	2.17	0.12	(20)	6.68
Montana	1.77	0.26	(33)	-13.03
Nebraska	1.74	0.20	(34)	-14.41
Nevada	1.84	0.19	(31)	-9.24
New Hampshire	2.13	0.26	(21)	4.77
New Jersey	2.10	0.10	(22)	3.42
New Mexico	1.69	0.19	(38)	-17.00 <sup>c</sup>
New York	2.18	0.07	(19)	7.08
North Carolina	2.27	0.11	(13)	11.67
North Dakota	1.72	0.32	(36)	-15.52 <sup>c</sup>
Ohio	2.51	0.09	(07)	23.31 <sup>c</sup>
Oklahoma	1.91	0.15	(29)	-5.85
Oregon	1.26	0.12	(48)	-38.12 <sup>c</sup>
Pennsylvania	2.23	0.08	(16)	9.62
Rhode Island	2.30	0.30	(11)	13.16
South Carolina	2.48	0.16	(09)	21.96 <sup>c</sup>
South Dakota	1.46	0.27	(45)	-28.34 <sup>c</sup>
Tennessee	2.50	0.13	(08)	23.01 <sup>c</sup>
Texas	2.09	0.07	(23)	2.70
Utah	0.72	0.13	(50)	-64.79 <sup>c</sup>
Vermont	1.51	0.30	(44)	-25.59 <sup>c</sup>
Virginia	2.07	0.11	(25)	1.68
Washington	1.54	0.10	(43)	-24.47 <sup>c</sup>
West Virginia	2.75	0.23	(02)	35.44 <sup>c</sup>
Wisconsin	1.88	0.12	(30)	-7.63
Wyoming	-	-	(-)	-



**Age-Adjusted Death Rates per 100,000 Quantile Interval**

- 2.49 - 3.40
- 2.23 - 2.48
- 2.06 - 2.22
- 1.73 - 2.05
- 1.55 - 1.72
- 0.72 - 1.54

U.S. Rate: 2.03

■ Suppressed

<sup>a</sup> 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).

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

<sup>c</sup> 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.

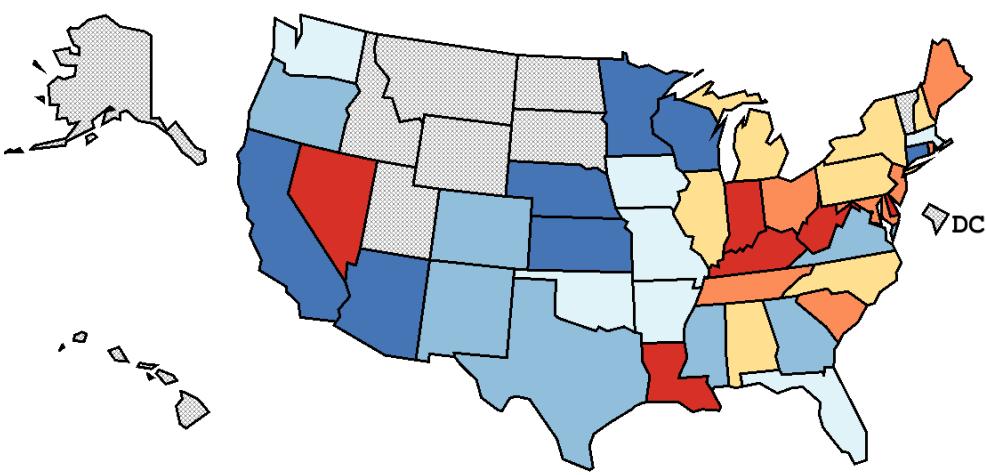
Table 12.20  
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2006-2010

Females				
State	Rate	SE	Rank	PD
TOTAL U.S.	0.43	0.01		
High Five States				
Louisiana	0.65	0.07	(01)	50.41 <sup>c</sup>
Kentucky	0.62	0.07	(02)	43.35 <sup>c</sup>
West Virginia	0.62	0.10	(03)	41.76 <sup>c</sup>
Indiana	0.61	0.06	(04)	39.95 <sup>c</sup>
Delaware	0.60	0.15	(05)	38.73 <sup>c</sup>
Low Five States				
Connecticut	0.34	0.05	(37)	-22.39 <sup>c</sup>
Minnesota	0.33	0.05	(38)	-23.75 <sup>c</sup>
California	0.32	0.02	(39)	-27.26 <sup>c</sup>
Nebraska	0.31	0.08	(40)	-29.52 <sup>c</sup>
Kansas	0.29	0.06	(41)	-33.97 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	0.46	0.06	(18)	5.98	Montana	-	-	(-)	-
Alaska	-	-	(-)	-	Nebraska	0.31	0.08	(40)	-29.52 <sup>c</sup>
Arizona	0.35	0.04	(35)	-19.35 <sup>c</sup>	Nevada	0.60	0.10	(06)	38.51 <sup>c</sup>
Arkansas	0.43	0.07	(22)	-0.40	New Hampshire	0.46	0.11	(19)	5.46
California	0.32	0.02	(39)	-27.26 <sup>c</sup>	New Jersey	0.54	0.04	(09)	24.86 <sup>c</sup>
Colorado	0.38	0.06	(31)	-12.17	New Mexico	0.37	0.08	(33)	-14.46
Connecticut	0.34	0.05	(37)	-22.39 <sup>c</sup>	New York	0.46	0.03	(16)	6.40
Delaware	0.60	0.15	(05)	38.73 <sup>c</sup>	North Carolina	0.47	0.04	(15)	8.21
D.C.	-	-	(-)	-	North Dakota	-	-	(-)	-
Florida	0.45	0.03	(21)	4.73	Ohio	0.52	0.04	(13)	18.65 <sup>c</sup>
Georgia	0.38	0.04	(29)	-12.03	Oklahoma	0.41	0.06	(27)	-4.82
Hawaii	-	-	(-)	-	Oregon	0.36	0.06	(34)	-18.07 <sup>c</sup>
Idaho	-	-	(-)	-	Pennsylvania	0.46	0.03	(20)	5.32
Illinois	0.46	0.04	(17)	6.19	Rhode Island	0.53	0.13	(10)	22.00 <sup>c</sup>
Indiana	0.61	0.06	(04)	39.95 <sup>c</sup>	South Carolina	0.53	0.06	(11)	21.67 <sup>c</sup>
Iowa	0.43	0.07	(23)	-0.97	South Dakota	-	-	(-)	-
Kansas	0.29	0.06	(41)	-33.97 <sup>c</sup>	Tennessee	0.57	0.06	(07)	32.11 <sup>c</sup>
Kentucky	0.62	0.07	(02)	43.35 <sup>c</sup>	Texas	0.37	0.03	(32)	-13.61
Louisiana	0.65	0.07	(01)	50.41 <sup>c</sup>	Utah	-	-	(-)	-
Maine	0.52	0.11	(12)	20.36 <sup>c</sup>	Vermont	-	-	(-)	-
Maryland	0.55	0.06	(08)	27.73 <sup>c</sup>	Virginia	0.38	0.04	(28)	-11.42
Massachusetts	0.42	0.05	(25)	-2.36	Washington	0.43	0.05	(24)	-1.74
Michigan	0.50	0.04	(14)	14.30	West Virginia	0.62	0.10	(03)	41.76 <sup>c</sup>
Minnesota	0.33	0.05	(38)	-23.75 <sup>c</sup>	Wisconsin	0.35	0.05	(36)	-20.08 <sup>c</sup>
Mississippi	0.38	0.07	(30)	-12.16	Wyoming	-	-	(-)	-
Missouri	0.42	0.05	(26)	-3.54					



**Age-Adjusted Death Rates per 100,000 Quantile Interval**

■	0.58 - 0.65
■	0.51 - 0.57
■	0.46 - 0.50
■	0.39 - 0.45
■	0.36 - 0.38
■	0.29 - 0.35

U.S. Rate: 0.43

■ Suppressed

<sup>a</sup> 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).

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

<sup>c</sup> 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 12.21  
Cancer of the Larynx (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2010  
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 <18 <sup>e</sup>	0 to <35 <sup>e</sup>	>=35 <sup>g</sup>	Complete <sup>h</sup>
Race	Sex										
All Races <sup>b</sup>	Both Sexes	30,947	19,769	14,225	9,955	6,320	4,078	74,897	87,135	1,894	89,029
	Males	25,107	16,026	11,257	7,874	5,166	3,147	60,264	70,117	1,542	71,659
	Females	5,840	3,743	2,968	2,081	1,154	931	14,633	17,018	352	17,370
White <sup>b</sup>	Both Sexes	25,952	16,847	12,347	8,585	5,403	3,703	63,731	74,466	1,501	75,967
	Males	21,132	13,670	9,829	6,781	4,520	2,916	51,412	60,197	1,218	61,415
	Females	4,820	3,177	2,518	1,804	883	787	12,319	14,269	283	14,552
Black <sup>b</sup>	Both Sexes	4,146	2,343	1,538	1,173	761	288	9,200	10,401	125	10,526
	Males	3,276	1,849	1,135	950	571	163	7,210	8,085	106	8,191
	Females	870	494	403	223	190	125	1,990	2,316	19	2,335
Asian/ Pacific	Both Sexes	469	367	227	+	+	+	1,138	+	+	+
	Males	410	322	197	+	+	+	994	+	+	+
Islander <sup>c</sup>	Females	59	45	30	+	+	+	144	+	+	+
Hispanic <sup>d</sup>	Both Sexes	1,815	1,000	659	+	+	+	3,474	+	+	+
	Males	1,547	813	544	+	+	+	2,903	+	+	+
	Females	268	187	115	+	+	+	571	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2010, of the SEER 11 population diagnosed in the previous 18 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	All Ages	Age Specific (Crude)								Age-Adjusted <sup>f</sup> All Ages		
		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79			
Race	Sex											
All Races <sup>c</sup>	Both Sexes	0.0179%	-	-	0.0002%	0.0008%	0.0053%	0.0258%	0.0665%	0.1052%	0.0793%	0.0176%
	Males	0.0295%	-	-	0.0004%	0.0010%	0.0071%	0.0415%	0.1172%	0.1956%	0.1803%	0.0321%
	Females	0.0065%	-	-	-	0.0007%	0.0034%	0.0107%	0.0206%	0.0330%	0.0207%	0.0060%
White <sup>c</sup>	Both Sexes	0.0197%	-	-	0.0003%	0.0010%	0.0058%	0.0279%	0.0682%	0.1104%	0.0814%	0.0184%
	Males	0.0322%	-	-	0.0005%	0.0011%	0.0077%	0.0448%	0.1180%	0.2018%	0.1824%	0.0330%
	Females	0.0073%	-	-	-	0.0010%	0.0038%	0.0112%	0.0218%	0.0355%	0.0224%	0.0064%
Black <sup>c</sup>	Both Sexes	0.0189%	-	-	-	0.0007%	0.0058%	0.0351%	0.1054%	0.1350%	0.0874%	0.0236%
	Males	0.0314%	-	-	-	-	0.0071%	0.0543%	0.1974%	0.2710%	0.2293%	0.0459%
	Females	0.0076%	-	-	-	-	0.0047%	0.0185%	0.0327%	0.0416%	0.0203%	0.0083%
Asian/ Pacific	Both Sexes	0.0077%	-	-	-	-	0.0021%	0.0070%	0.0271%	0.0510%	0.0595%	0.0081%
	Males	0.0140%	-	-	-	-	0.0039%	0.0124%	0.0537%	0.1007%	0.1403%	0.0167%
Islander <sup>c</sup>	Females	0.0019%	-	-	-	-	-	0.0025%	0.0049%	0.0132%	0.0095%	0.0018%
Hispanic <sup>d</sup>	Both Sexes	0.0071%	-	-	-	0.0007%	0.0032%	0.0148%	0.0442%	0.0872%	0.0812%	0.0134%
	Males	0.0116%	-	-	-	0.0008%	0.0043%	0.0234%	0.0862%	0.1758%	0.1853%	0.0264%
	Females	0.0024%	-	-	-	-	0.0021%	0.0068%	0.0086%	0.0221%	0.0196%	0.0038%

<sup>a</sup> US 2010 cancer prevalence counts are based on 2010 cancer prevalence proportions from the SEER registries and 1/1/2010 US population estimates based on the average of 2009 and 2010 population estimates from the US Bureau of the Census.

<sup>b c d</sup> Prevalence was calculated using the First Malignant Primary Only for a person.

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.

<sup>e</sup> Maximum limited-duration prevalence: 35 years for 1975-2010 SEER 9 data; 18 years for 1992-2010 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

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

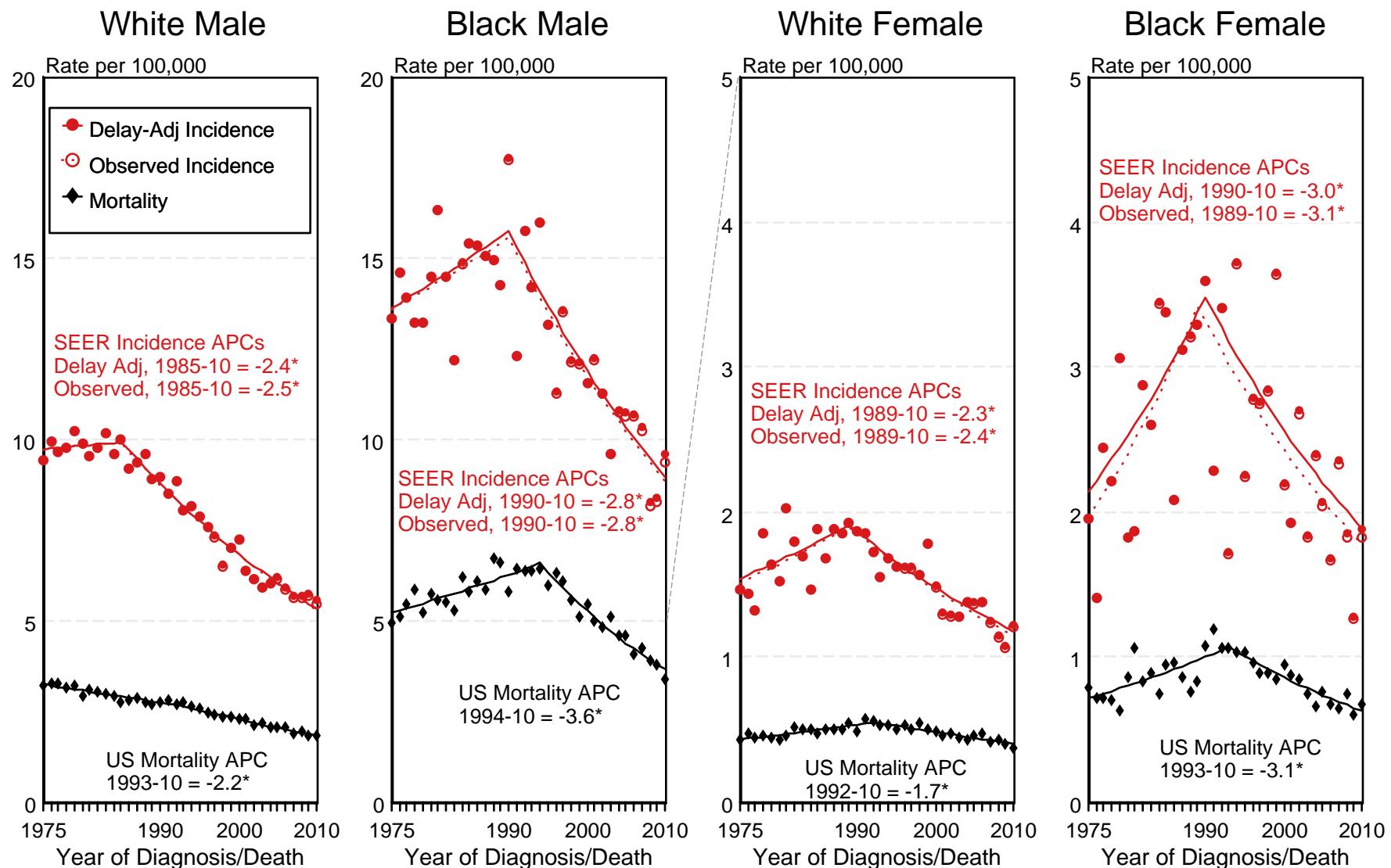
<sup>g h i</sup> (g) Cases diagnosed more than 35 years ago were estimated using the completeness index method (Capocaccia et al. 1997, Merrill et al. 2000). (h) Complete prevalence is obtained by summing 0 to <35 and >=35. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

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

+ Not available.

Figure 12.1

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Larynx, by Race and Sex



<sup>a</sup> 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 4.0.3, April 2013, 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.

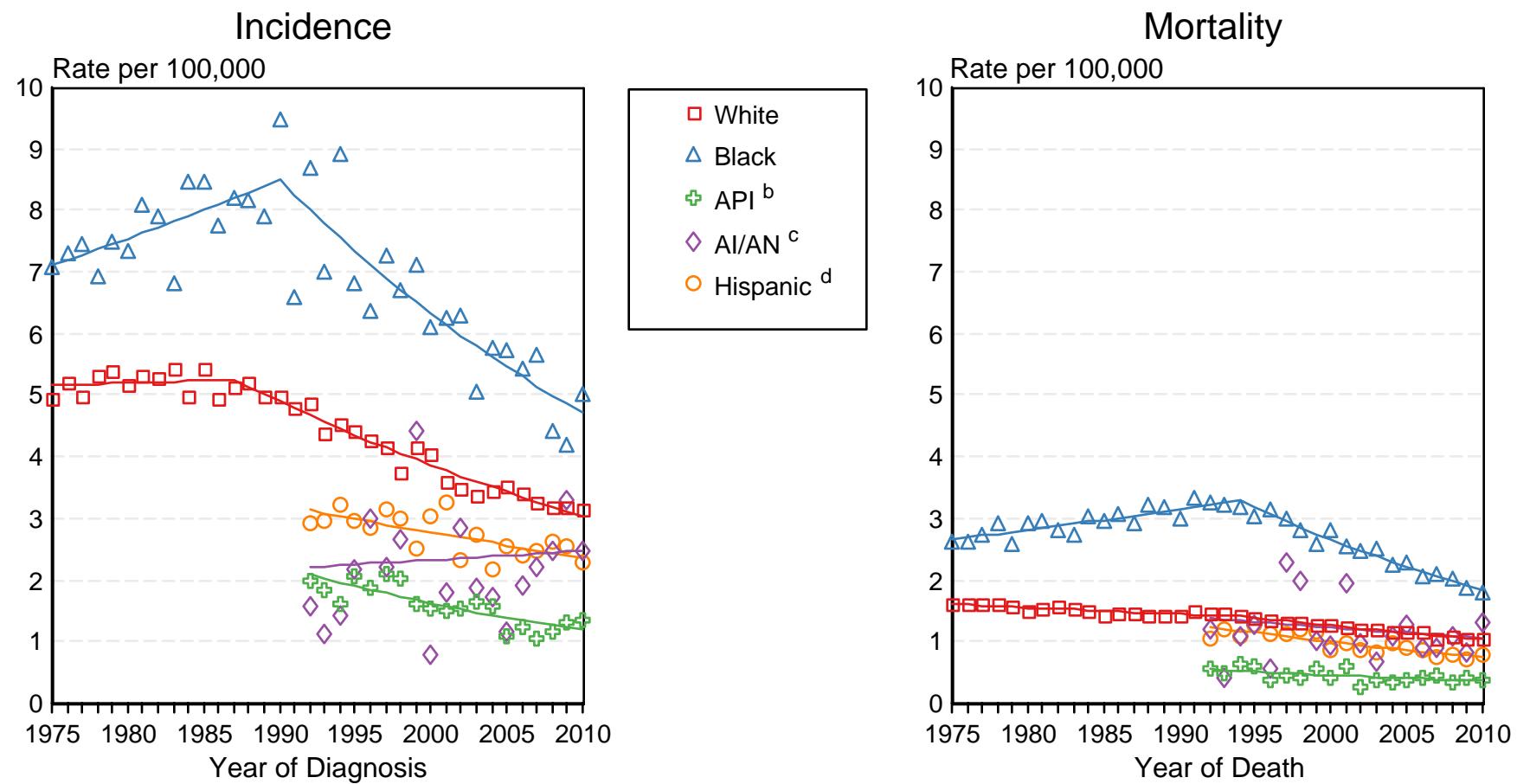
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 12.2

# SEER Incidence and US Death Rates<sup>a</sup>

## Cancer of the Larynx, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2010  
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2010



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.

<sup>a</sup> 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 4.0.3, April 2013, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2010 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2010 allow a maximum of 3 joinpoints.

<sup>b</sup> API = Asian/Pacific Islander.

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

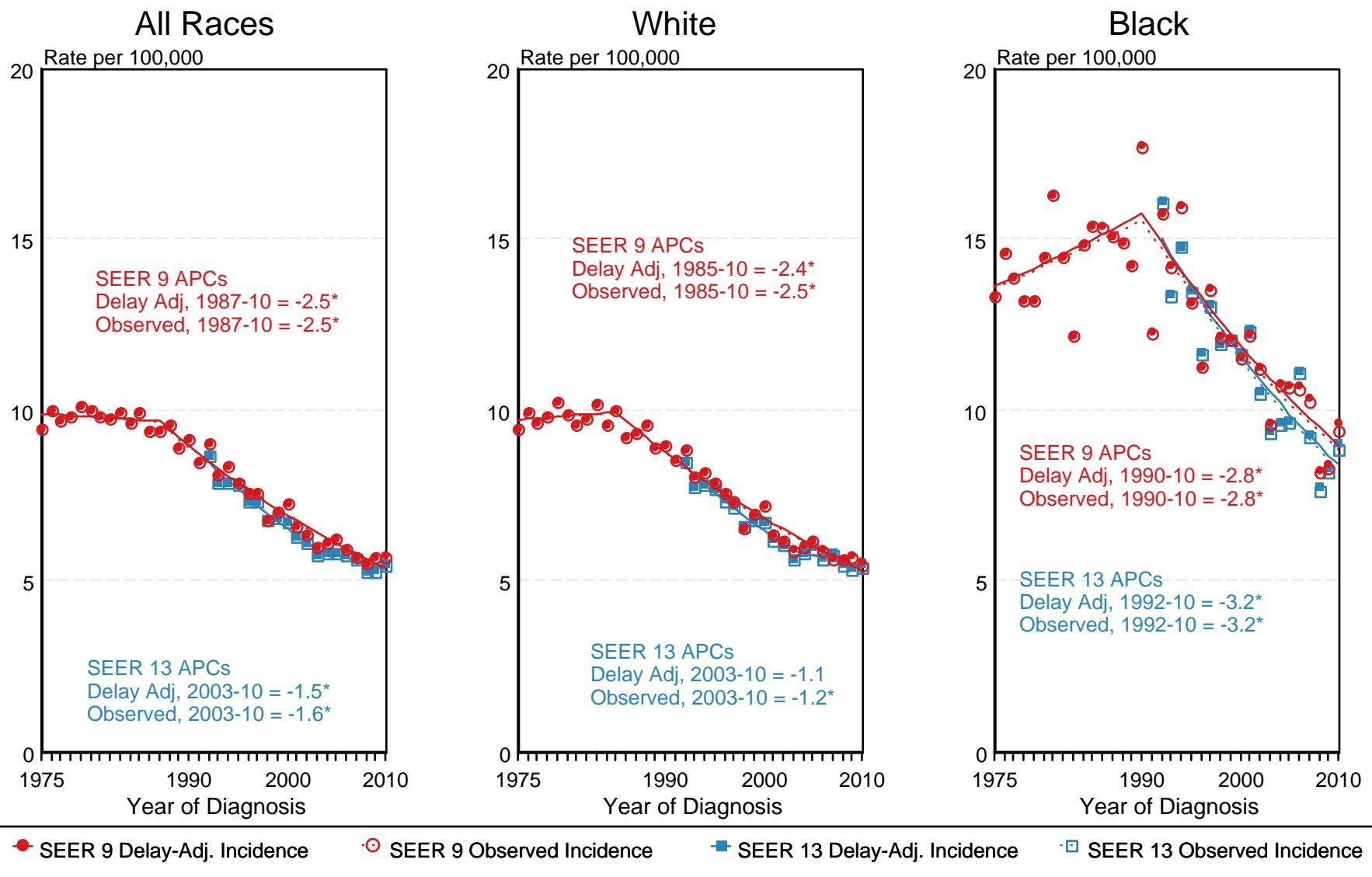
<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District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

Figure 12.3

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup>

## SEER 9 Areas Compared to SEER 13 Areas

### Cancer of the Larynx, Male, by Race



<sup>a</sup> 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 4.0.3, April 2013, 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.

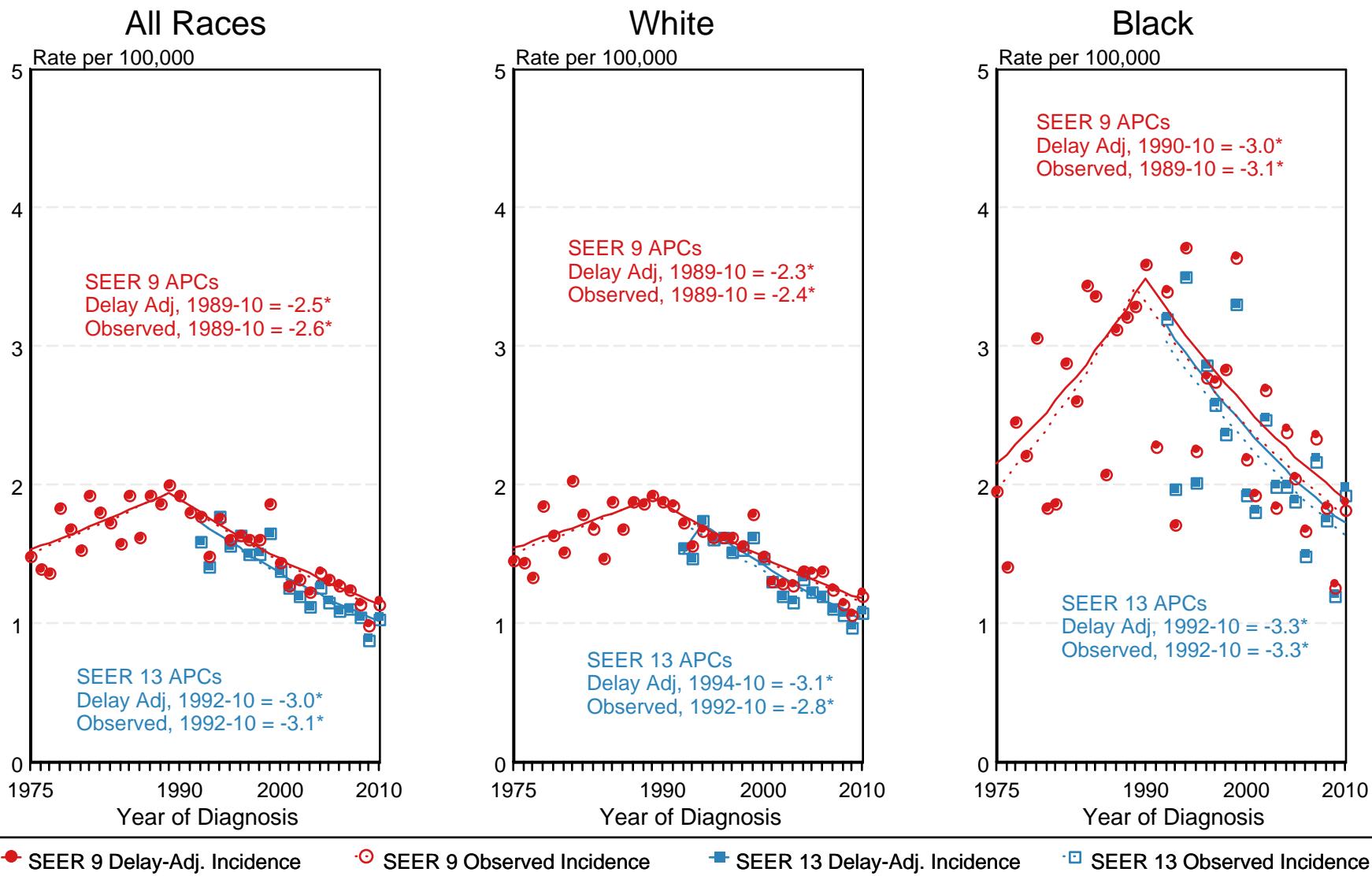
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 12.4

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup>

## SEER 9 Areas Compared to SEER 13 Areas

### Cancer of the Larynx, Female, by Race

<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.

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

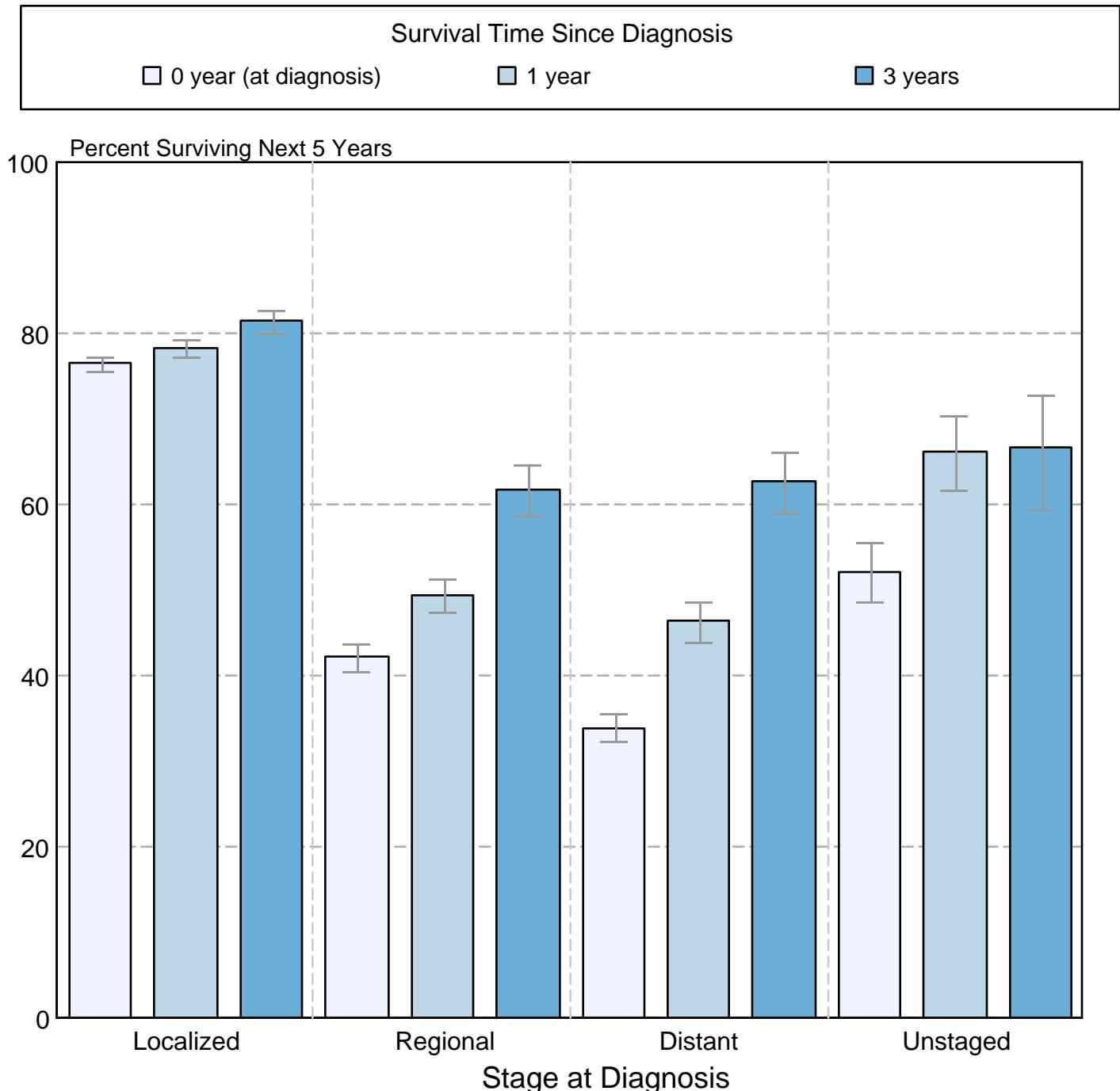
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

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 12.5

**Cancer of the Larynx**  
**5-Year SEER Conditional Relative Survival and**  
**95% Confidence Intervals**  
**Probability of surviving the next 5 years given the cohort**  
**has already survived 0, 1, or 3 years**  
**1998-2009 by stage at diagnosis**



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). California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG contribute cases for diagnosis years 2000-2009. The remaining 13 SEER Areas contribute cases for the entire period 1998-2009.  
 Percent surviving is not shown if based on less than 25 cases.  
 Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.