

Table 12.1
Cancer of the Larynx (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	1975-88	0.0	1988-13	-2.4*									-2.4*	-2.4*
White	1975-87	0.1	1987-13	-2.3*									-2.3*	-2.3*
Black	1975-90	1.2*	1990-13	-2.9*									-2.9*	-2.9*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-13	-2.6*											-2.6*	-2.6*
White	1992-13	-2.3*											-2.3*	-2.3*
Black	1992-13	-3.4*											-3.4*	-3.4*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-88	0.0	1988-13	-2.4*									-2.4*	-2.4*
White	1975-87	0.1	1987-13	-2.3*									-2.3*	-2.3*
Black	1975-90	1.3*	1990-13	-3.0*									-3.0*	-3.0*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-13	-2.6*											-2.6*	-2.6*
White	1992-13	-2.4*											-2.4*	-2.4*
White NH ^{ef}	1992-13	-2.4*											-2.4*	-2.4*
Black	1992-13	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-13	-3.4*											-3.4*	-3.4*
API ^e	1992-13	-3.1*											-3.1*	-3.1*
AI/AN ^{eg}	1992-13	-0.1											-0.1	-0.1
Hispanic ^f	1992-13	-1.7*											-1.7*	-1.7*
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-94	-0.4*	1994-13	-2.3*									-2.3*	-2.3*
White	1975-94	-0.7*	1994-13	-1.9*									-1.9*	-1.9*
Black	1975-94	1.1*	1994-13	-3.6*									-3.6*	-3.6*
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-13	-2.2*											-2.2*	-2.2*
White	1992-13	-1.9*											-1.9*	-1.9*
White NH ^{ef}	1992-13	-1.8*											-1.8*	-1.8*
Black	1992-13	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-13	-3.3*											-3.3*	-3.3*
API ^e	1992-13	-2.0*											-2.0*	-2.0*
AI/AN ^{eg}	1992-13	-2.8*											-2.8*	-2.8*
Hispanic ^f	1992-13	-2.5*											-2.5*	-2.5*

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 12.2
Cancer of the Larynx (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	1975-85	0.2	1985-13	-2.4*									-2.4*	-2.4*
White	1975-85	0.1	1985-13	-2.4*									-2.4*	-2.4*
Black	1975-90	1.0	1990-13	-2.8*									-2.8*	-2.8*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-13	-2.6*											-2.6*	-2.6*
White	1992-02	-3.1*	2002-13	-1.7*									-1.7*	-1.7*
Black	1992-13	-3.4*											-3.4*	-3.4*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-86	0.0	1986-13	-2.4*									-2.4*	-2.4*
White	1975-85	0.1	1985-13	-2.4*									-2.4*	-2.4*
Black	1975-90	1.0	1990-13	-2.8*									-2.8*	-2.8*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-13	-2.6*											-2.6*	-2.6*
White	1992-02	-3.1*	2002-13	-1.8*									-1.8*	-1.8*
White NH ^{ef}	1992-13	-2.5*											-2.5*	-2.5*
Black	1992-13	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-13	-3.4*											-3.4*	-3.4*
API ^e	1992-13	-3.0*											-3.0*	-3.0*
AI/AN ^{eg}	1992-13	0.5											0.5	0.5
Hispanic ^f	1992-13	-1.6*											-1.6*	-1.6*
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-94	-0.8*	1994-13	-2.5*									-2.5*	-2.5*
White	1975-93	-1.1*	1993-13	-2.2*									-2.2*	-2.2*
Black	1975-94	1.2*	1994-13	-3.6*									-3.6*	-3.6*
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-13	-2.5*											-2.5*	-2.5*
White	1992-13	-2.2*											-2.2*	-2.2*
White NH ^{ef}	1992-13	-2.2*											-2.2*	-2.2*
Black	1992-13	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-13	-3.3*											-3.3*	-3.3*
API ^e	1992-13	-1.3*											-1.3*	-1.3*
AI/AN ^{eg}	1992-13	-2.2											-2.2	-2.2
Hispanic ^f	1992-13	-2.7*											-2.7*	-2.7*

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 12.3
Cancer of the Larynx (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	1975-89	1.9*	1989-13	-2.6*									-2.6*	-2.6*
White	1975-89	1.7*	1989-13	-2.4*									-2.4*	-2.4*
Black	1975-89	4.1*	1989-13	-3.1*									-3.1*	-3.1*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2013</u>														
All Races	1992-13	-3.1*											-3.1*	-3.1*
White	1992-13	-2.9*											-2.9*	-2.9*
Black	1992-13	-3.4*											-3.4*	-3.4*
<u>SEER 9 Observed Incidence^a, 1975-2013</u>														
All Races	1975-89	1.9*	1989-13	-2.7*									-2.7*	-2.7*
White	1975-89	1.7*	1989-13	-2.4*									-2.4*	-2.4*
Black	1975-89	4.1*	1989-13	-3.1*									-3.1*	-3.1*
<u>SEER 13 Observed Incidence^b, 1992-2013</u>														
All Races	1992-13	-3.1*											-3.1*	-3.1*
White	1992-13	-2.9*											-2.9*	-2.9*
White NH ^{ef}	1992-13	-2.7*											-2.7*	-2.7*
Black	1992-13	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-13	-3.4*											-3.4*	-3.4*
API ^e	1992-13	-2.4											-2.4	-2.4
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-13	-3.0*											-3.0*	-3.0*
<u>U.S. Cancer Mortality^c, 1975-2013</u>														
All Races	1975-92	1.6*	1992-13	-2.1*									-2.1*	-2.1*
White	1975-92	1.5*	1992-13	-1.8*									-1.8*	-1.8*
Black	1975-93	2.3*	1993-13	-3.2*									-3.2*	-3.2*
<u>U.S. Cancer Mortality^c, 1992-2013</u>														
All Races	1992-13	-2.1*											-2.1*	-2.1*
White	1992-13	-1.8*											-1.8*	-1.8*
White NH ^{ef}	1992-13	-1.6*											-1.6*	-1.6*
Black	1992-13	-3.1*											-3.1*	-3.1*
Black NH ^{ef}	1992-13	-3.1*											-3.1*	-3.1*
API ^e	1992-13	-4.6*											-4.6*	-4.6*
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-13	-2.2*											-2.2*	-2.2*

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

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* 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 12.4
Cancer of the Larynx (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	5.02	9.47	1.48	4.96	9.43	1.46	7.08	13.36	1.96
1976	5.22	10.00	1.39	5.19	9.95	1.44	7.31	14.61	1.41
1977	5.02	9.70	1.36	4.96	9.64	1.33	7.46	13.89	2.45
1978	5.31	9.79	1.84	5.31	9.78	1.85	6.95	13.20	2.22
1979	5.39	10.09	1.69	5.40	10.21	1.64	7.50	13.22	3.07
1980	5.25	10.02	1.53	5.16	9.89	1.51	7.34	14.47	1.83
1981	5.39	9.82	1.92	5.31	9.56	2.03	8.09	16.33	1.87
1982	5.30	9.76	1.80	5.27	9.75	1.79	7.91	14.49	2.88
1983	5.34	9.93	1.73	5.42	10.17	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	9.92	1.93	5.41	10.01	1.88	8.43	15.24	3.37
1986	5.00	9.38	1.62	4.93	9.18	1.68	7.65	15.14	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	9.18	1.92	5.00	8.98	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	4.98	9.08	1.76	4.87	8.90	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	7.57	1.64	4.27	7.57	1.62	6.38	11.28	2.78
1997	4.22	7.55	1.61	4.14	7.31	1.62	7.30	13.62	2.74
1998	3.88	6.80	1.60	3.73	6.51	1.56	6.71	12.15	2.83
1999	4.19	7.05	1.86	4.13	6.95	1.77	7.19	12.18	3.72
2000	4.06	7.29	1.44	4.05	7.21	1.48	6.22	11.65	2.28
2001	3.66	6.58	1.27	3.60	6.35	1.30	6.25	12.19	1.92
2002	3.57	6.35	1.31	3.47	6.15	1.28	6.47	11.51	2.75
2003	3.36	6.01	1.22	3.37	5.93	1.28	5.05	9.57	1.83
2004	3.47	6.12	1.37	3.46	6.02	1.38	5.73	10.67	2.38
2005	3.49	6.22	1.31	3.50	6.15	1.36	5.76	10.72	2.04
2006	3.38	5.97	1.27	3.43	5.90	1.38	5.46	10.68	1.66
2007	3.25	5.69	1.24	3.25	5.64	1.24	5.64	10.24	2.33
2008	3.14	5.55	1.14	3.21	5.67	1.13	4.39	8.03	1.83
2009	3.11	5.71	0.99	3.20	5.74	1.07	4.22	8.38	1.26
2010	3.20	5.71	1.14	3.15	5.49	1.20	5.08	9.48	1.83
2011	2.96	5.26	1.08	3.01	5.28	1.09	4.24	8.56	1.29
2012	3.02	5.31	1.11	3.06	5.29	1.14	4.72	8.82	1.87
2013	2.86	5.15	0.96	2.96	5.27	0.99	4.04	7.21	1.69

Additional information on the model used to delay-adjust SEER Incidence rates can be found at [\(http://surveillance.cancer.gov/delay/\)](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 12.5
Cancer of the Larynx (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	4.18	7.56	1.48	4.20	7.55	1.49	6.36	11.87	2.30
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	5.02	9.70	1.36	4.96	9.64	1.33	7.46	13.89	2.45
1978	5.31	9.79	1.84	5.31	9.78	1.85	6.95	13.20	2.22
1979	5.39	10.09	1.69	5.40	10.21	1.64	7.50	13.22	3.07
1980	5.25	10.02	1.53	5.16	9.89	1.51	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	5.34	9.93	1.73	5.42	10.17	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	9.92	1.93	5.41	10.01	1.88	8.43	15.24	3.37
1986	5.00	9.38	1.62	4.93	9.18	1.68	7.65	15.14	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	9.18	1.92	5.00	8.98	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	4.98	9.08	1.76	4.87	8.90	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	7.57	1.64	4.27	7.57	1.62	6.38	11.28	2.78
1997	4.22	7.55	1.61	4.14	7.31	1.62	7.30	13.62	2.74
1998	3.88	6.80	1.60	3.73	6.51	1.56	6.71	12.15	2.83
1999	4.19	7.05	1.86	4.13	6.95	1.77	7.19	12.18	3.72
2000	4.06	7.29	1.44	4.05	7.21	1.48	6.22	11.65	2.28
2001	3.66	6.58	1.27	3.60	6.35	1.30	6.25	12.19	1.92
2002	3.57	6.35	1.31	3.47	6.15	1.28	6.47	11.51	2.75
2003	3.36	6.01	1.22	3.37	5.93	1.28	5.05	9.57	1.83
2004	3.47	6.12	1.37	3.46	6.02	1.38	5.73	10.67	2.38
2005	3.49	6.22	1.31	3.50	6.15	1.36	5.76	10.72	2.04
2006	3.38	5.96	1.27	3.43	5.90	1.38	5.46	10.68	1.66
2007	3.25	5.69	1.24	3.25	5.64	1.24	5.64	10.23	2.33
2008	3.13	5.55	1.14	3.21	5.66	1.13	4.39	8.03	1.83
2009	3.11	5.70	0.99	3.19	5.73	1.07	4.21	8.37	1.26
2010	3.20	5.70	1.14	3.15	5.48	1.20	5.07	9.46	1.82
2011	2.95	5.24	1.07	2.99	5.26	1.08	4.22	8.52	1.28
2012	3.00	5.28	1.10	3.04	5.26	1.13	4.69	8.76	1.86
2013	2.81	5.06	0.94	2.90	5.17	0.97	3.97	7.09	1.66

^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 12.6
Cancer of the Larynx (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	1.40	2.62	0.50	1.31	2.44	0.47	2.53	5.01	0.80
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
2011	1.06	1.88	0.41	1.01	1.75	0.41	1.82	3.70	0.54
2012	1.02	1.83	0.38	0.97	1.72	0.37	1.71	3.38	0.58
2013	1.01	1.82	0.36	0.98	1.75	0.35	1.61	3.14	0.58

^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 12.7
Cancer of the Larynx (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	3.2	5.6	1.1	3.2	5.6	1.2	4.6	8.7	1.6
Under 65	1.5	2.5	0.6	1.6	2.5	0.7	2.4	4.2	1.0
65 and over	14.3	27.1	4.6	14.6	27.3	4.7	19.4	39.6	6.2
All ages (IARC world std) ^c	2.2	3.8	0.8	2.2	3.8	0.9	3.3	6.1	1.2
Age-Specific Rates, 2009-2013									
<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	0.1	0.1	-	-	-	-
35-39	0.3	0.5	0.2	0.4	0.5	0.2	-	-	-
40-44	0.9	1.3	0.4	0.9	1.3	0.5	1.4	2.4	-
45-49	2.2	3.3	1.1	2.3	3.4	1.2	2.7	4.2	1.3
50-54	4.8	7.4	2.3	4.9	7.4	2.4	7.3	11.6	3.4
55-59	7.4	12.1	3.0	7.4	11.9	3.1	12.8	21.5	5.3
60-64	10.9	18.9	3.5	10.8	18.5	3.5	18.6	34.4	5.8
65-69	13.7	24.0	4.6	13.9	23.9	4.7	21.0	39.5	6.6
70-74	15.9	28.7	5.2	16.2	28.9	5.4	22.6	43.4	7.6
75-79	15.9	29.6	5.3	16.4	30.4	5.4	18.6	38.4	5.8
80-84	13.8	28.7	3.7	13.8	28.3	3.8	19.0	44.3	5.1
85+	10.2	24.3	3.1	10.4	24.8	3.1	11.3	28.8	-
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2009-2013									
All ages	1.1	1.9	0.4	1.0	1.8	0.4	1.8	3.5	0.6
Under 65	0.4	0.7	0.2	0.4	0.6	0.1	0.7	1.3	0.3
65 and over	5.5	10.2	2.1	5.3	9.7	2.0	8.8	18.5	2.8
All ages (IARC world std) ^c	0.7	1.2	0.3	0.6	1.1	0.2	1.2	2.2	0.4
Age-Specific Rates, 2009-2013									
<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	0.1	0.2	0.0	0.1	0.2	0.0	0.2	0.4	-
45-49	0.5	0.8	0.2	0.5	0.8	0.2	0.9	1.3	0.5
50-54	1.2	2.0	0.5	1.1	1.9	0.4	2.1	3.6	0.8
55-59	2.1	3.6	0.8	2.0	3.3	0.8	4.0	7.0	1.4
60-64	3.1	5.4	1.1	2.9	4.9	1.0	6.0	11.1	1.8
65-69	4.4	7.5	1.6	4.2	7.0	1.6	8.0	15.3	2.3
70-74	5.1	8.8	2.0	4.9	8.4	2.0	8.7	16.9	2.8
75-79	6.2	10.9	2.4	6.0	10.6	2.4	9.4	18.4	3.7
80-84	6.7	13.1	2.4	6.5	12.4	2.4	10.0	23.1	3.0
85+	6.3	14.5	2.2	6.2	14.1	2.2	8.4	23.5	2.4

^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 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
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	53	54	46	-	-	-
1970-1973 ^a	-	-	-	62	63	56	-	-	-
1975-1977 ^b	66.0	66.6	62.6	66.7	67.4	62.3	58.2	57.1	63.3 ^g
1978-1980 ^b	65.3	65.5	64.6	66.2	66.3	65.4	56.9	57.2	55.8 ^g
1981-1983 ^b	68.1	68.4	66.9	69.5	69.7	68.5	56.5	57.7	50.7 ^g
1984-1986 ^b	65.2	65.8	62.2	67.0	67.6	63.9	52.8	53.1	51.1 ^g
1987-1989 ^b	65.5	66.6	61.1	66.9	68.5	60.6	55.9	54.1	61.3 ^g
1990-1992 ^b	65.8	66.7	62.3	67.7	68.5	64.4	53.5	54.0	51.3 ^g
1993-1995 ^b	63.6	65.3	56.6	65.2	67.0	57.6	53.1	54.5	47.4 ^g
1996-1998 ^b	65.0	66.8	58.7	66.9	68.5	61.1	53.8	56.8	45.0 ^g
1999-2001 ^b	63.3	64.2	59.7	65.2	66.3	60.8	50.0	49.1	53.0 ^g
2002-2005 ^b	62.8	62.9	62.3	65.3	65.3	65.2	50.5	51.5	46.8 ^g
2006-2012 ^b	62.0 ^f	62.6 ^f	58.8	63.6 ^f	64.1 ^f	61.5	52.1	53.5	46.4
5-Year Period Survival (Percent)^{cd}									
2012	60.1	60.8	57.2	61.4	62.0	58.9	51.5	52.6	46.9
Stage Distribution (%) 2006-2012^{ce}									
All Stages									
Number of cases	16,454	13,295	3,159	13,204	10,673	2,531	2,513	1,991	522
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	55	57	49	57	59	51	45	48	37
Regional	22	20	30	21	20	29	25	23	33
Distant	19	19	18	17	18	16	27	27	27
Unstaged	4	4	4	4	4	3	3	3	3
5-Year Relative Survival (Percent), 2006-2012^c									
Age at Diagnosis:									
Ages <45	73.8	71.9	78.3	78.8	77.7	81.2	53.2 ^g	51.1 ^g	58.8 ^h
Ages 45-54	61.6	61.7	61.0	63.3	62.9	64.7	53.2	54.9	48.4
Ages 55-64	60.9	60.8	61.3	62.7	62.6	63.0	50.8	50.1	53.7
Ages 65-74	60.6	62.6	50.9	60.5	62.5	50.7	57.8	59.8	48.3 ^g
Ages 75+	56.9	58.8	48.6	57.3	59.6	48.1	51.2	53.0 ^g	41.9 ^g
Ages <65	62.0	61.8	62.8	64.0	63.6	65.5	51.8	51.8	51.7
Ages 65+	59.1	61.2	49.8	59.1	61.3	49.5	56.1	58.1	47.0 ^g
Stage^e:									
All Stages	60.7	61.5	57.4	61.8	62.5	58.5	53.3	54.1	50.3
Localized	76.3	77.0	72.6	76.2	76.9	72.8	73.8	74.6	69.1
Regional	44.5	43.4	47.5	45.1	44.2	47.5	41.8	39.5	47.2
Distant	35.1	35.0	35.3	36.0	36.0	36.3	30.1	30.0	30.7
Unstaged	56.4	57.8	50.2 ^g	58.0	59.9	49.2 ^g	46.6 ^g	48.6 ^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 12.9
Cancer of the Larynx (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	88.2	88.5	88.2	87.8	89.1	88.3	85.9	86.2	85.4	85.4	85.3	84.2	84.1	85.6	86.7	86.4	88.1	84.1	86.9	85.6	86.8	87.7
2-year	79.1	79.5	79.0	78.0	80.0	79.2	77.3	75.9	74.7	76.8	75.5	74.8	74.7	75.4	78.0	74.6	75.5	76.3	76.9	76.9	72.3	
3-year	73.3	74.0	73.6	71.7	74.8	74.1	72.1	70.8	70.7	71.0	70.0	70.0	66.8	68.6	72.5	68.5	70.5	71.1	71.5	70.0		
4-year	68.8	70.0	68.7	67.3	69.3	69.7	68.7	67.0	68.6	66.7	66.5	67.0	62.6	64.2	69.9	62.8	65.7	66.6	67.9			
5-year	65.5	66.8	65.9	64.5	66.1	65.8	65.4	63.5	63.7	63.3	62.9	62.7	60.4	62.2	65.8	59.6	61.9	64.1				
6-year	63.1	63.9	62.5	61.0	63.2	63.6	62.2	59.1	60.6	60.4	60.6	60.1	56.1	59.5	61.4	56.9	59.2					
7-year	60.8	61.3	60.0	59.2	59.8	61.3	59.6	55.5	57.3	56.5	57.2	56.3	54.2	57.0	58.4	54.0						
8-year	58.8	59.6	57.1	56.4	57.4	57.9	57.0	52.8	54.1	53.0	54.4	52.7	51.9	53.8	54.9							
9-year	56.4	57.3	54.5	53.9	54.3	54.2	55.5	50.3	52.2	50.7	52.0	52.2	49.4	51.8								
10-year	54.1	55.4	52.1	51.3	51.1	52.0	53.3	48.4	50.4	48.9	50.4	48.6	47.3									
11-year	52.7	52.9	50.1	49.3	47.8	49.3	50.9	47.1	47.6	47.5	47.0	45.4										
12-year	50.9	50.2	48.0	47.4	46.0	46.7	46.2	45.0	45.2	44.3	45.2											
13-year	49.6	48.0	46.9	45.0	44.2	44.7	44.9	43.2	42.3	43.0												
14-year	48.0	46.5	44.2	43.1	41.3	41.6	43.0	41.6	41.2													
15-year	45.8	44.8	41.8	41.3	38.8	38.8	42.0	39.5														
16-year	43.6	42.1	40.2	39.4	37.9	37.3	40.8															
17-year	41.4	40.6	38.7	37.5	37.2	35.3																
18-year	40.2	38.8	37.2	35.4	36.1																	
19-year	38.2	37.2	34.6	33.5																		
20-year	36.4	35.4	33.4																			

^a

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^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	88.5	88.6	88.5	88.5	91.2	88.1	88.4	87.2	86.7	85.4	85.7	84.8	84.1	86.2	86.5	86.7	88.9	84.3	87.6	86.1	87.0	86.6
2-year	79.2	79.7	79.4	79.1	81.8	79.3	80.0	76.7	75.9	77.4	75.7	75.1	75.3	75.5	77.1	75.4	75.6	76.9	77.3	77.6	72.3	
3-year	73.5	74.5	74.2	72.6	76.5	74.3	74.8	71.6	71.6	71.7	70.9	71.0	68.4	68.7	72.5	69.5	70.1	72.8	71.5	71.0		
4-year	69.2	70.6	69.5	68.3	71.5	69.7	71.2	68.3	69.6	67.3	66.7	68.3	63.3	63.6	70.0	64.0	65.8	67.8	67.4			
5-year	65.8	67.3	66.6	65.6	68.2	66.4	68.2	65.6	65.3	64.2	63.1	63.6	60.5	61.8	65.4	61.6	61.5	65.3				
6-year	63.5	64.5	63.2	62.1	65.4	64.0	65.1	62.3	62.0	61.6	60.8	61.1	56.2	59.9	60.8	58.4	58.9					
7-year	61.3	61.8	61.0	60.4	61.9	61.4	62.9	58.7	58.6	58.5	58.7	57.1	54.5	58.2	57.3	55.4						
8-year	59.1	60.4	58.2	57.8	59.4	57.9	59.7	55.6	55.5	55.7	56.1	53.9	53.1	55.4	53.0							
9-year	56.7	58.0	56.1	55.3	56.6	53.9	57.8	53.0	53.3	53.9	54.4	53.0	50.5	53.4								
10-year	54.7	56.3	53.9	52.6	53.7	51.6	55.8	50.8	51.2	51.8	53.0	49.5	48.8									
11-year	53.5	53.7	52.1	50.6	50.0	49.1	53.8	50.1	48.5	49.8	49.1	46.5										
12-year	52.0	51.0	50.1	48.7	49.1	46.2	48.8	48.7	46.1	47.0	47.4											
13-year	50.8	48.8	49.2	46.5	47.2	44.0	47.0	46.5	43.9	46.4												
14-year	49.1	47.0	46.8	44.5	44.8	41.8	44.7	45.6	42.5													
15-year	46.9	45.2	44.3	42.7	41.8	39.3	44.3	43.5														
16-year	44.7	42.9	42.7	40.8	40.6	37.6	43.3															
17-year	42.5	41.7	41.3	39.1	39.9	35.4																
18-year	41.2	39.8	39.5	37.0	39.6																	
19-year	39.0	38.2	36.6	34.9																		
20-year	37.5	36.3	35.6																			

^a

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^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	86.8	88.1	86.9	85.2	80.1	88.8	76.7	83.1	81.1	85.4	83.2	81.7	83.8	83.5	87.6	85.2	84.8	83.2	83.1	83.2	85.8	91.9
2-year	78.6	78.6	77.3	73.6	72.0	79.0	67.1	73.4	70.7	74.3	74.3	73.4	71.8	74.9	81.0	70.6	74.9	73.5	74.3	73.6	72.4	
3-year	71.7	72.0	71.1	68.3	67.5	73.4	62.0	68.3	67.1	68.1	66.0	65.9	59.9	68.1	72.5	64.0	71.9	63.4	72.0	65.2		
4-year	67.0	67.5	65.6	63.2	60.1	69.4	59.2	62.9	65.0	63.9	65.5	61.5	59.6	65.8	69.6	57.1	65.3	61.2	70.4			
5-year	63.8	64.2	62.6	60.0	57.4	63.6	55.4	57.1	58.3	59.7	61.7	59.1	58.5	63.2	67.1	50.6	62.9	58.5				
6-year	61.1	61.2	59.3	56.4	53.8	62.3	51.8	49.6	55.5	55.8	59.2	55.4	55.4	57.4	63.8	49.8	60.5					
7-year	58.4	58.9	56.1	54.2	51.4	60.0	48.0	45.6	52.8	48.3	50.2	52.9	52.7	52.3	62.3	46.8						
8-year	57.1	56.3	52.5	50.8	49.1	57.8	46.7	44.0	49.5	41.7	46.7	48.1	46.8	48.4	61.2							
9-year	54.4	54.2	48.2	48.4	45.1	55.0	46.7	41.8	48.1	38.0	41.3	48.1	44.6	46.1								
10-year	51.2	51.6	45.2	46.3	40.9	53.0	44.2	40.5	47.4	37.1	38.3	44.9	40.7									
11-year	48.4	49.2	42.4	44.3	38.8	50.1	39.8	37.6	44.1	37.1	37.5	40.5										
12-year	45.7	46.8	39.8	42.2	34.0	48.4	36.7	34.3	41.8	33.5	34.8											
13-year	44.1	44.4	38.0	39.1	32.4	45.9	36.7	33.3	37.0	30.0												
14-year	42.7	43.4	34.3	37.3	28.2	40.4	36.0	29.7	36.6													
15-year	40.5	42.7	32.6	35.8	27.0	36.9	33.7	27.9														
16-year	38.6	39.0	30.8	33.9	27.0	36.3	31.9															
17-year	36.1	35.7	29.3	31.4	26.3	34.6																
18-year	35.3	34.7	28.9	29.5	22.7																	
19-year	34.1	33.2	27.1	28.3																		
20-year	31.7	31.8	25.2																			

^a

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, 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	0.00	0.34	0.12	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.16	0.07
	10	0.00	0.00	0.00	0.34	0.12		10	0.00	0.00	0.00	0.16	0.07
	20	0.00	0.00	0.02	0.34	0.12		20	0.00	0.00	0.01	0.16	0.07
	30	0.00	0.02	0.07	0.35	0.12		30	0.00	0.01	0.02	0.16	0.07
	40	0.02	0.07	0.17	0.35	0.12		40	0.00	0.02	0.05	0.16	0.07
	50	0.06	0.16	0.27	0.34	0.12		50	0.02	0.05	0.10	0.16	0.07
	60	0.11	0.23	0.29	0.30	0.12		60	0.03	0.09	0.13	0.15	0.07
	70	0.13	0.20	-	0.22	0.09		70	0.06	0.10	-	0.12	0.06
White	80	0.09	-	-	0.11	0.06	American Indian/ Alaska Native ^a	80	0.05	-	-	0.08	0.05
	0	0.00	0.00	0.00	0.35	0.12		0	0.00	0.00	0.00	0.21	0.07
	10	0.00	0.00	0.00	0.35	0.12		10	0.00	0.00	0.00	0.21	0.07
	20	0.00	0.00	0.02	0.35	0.12		20	0.00	0.00	0.01	0.21	0.07
	30	0.00	0.02	0.07	0.35	0.12		30	0.00	0.01	0.05	0.22	0.07
	40	0.02	0.07	0.18	0.35	0.12		40	0.01	0.05	0.11	0.22	0.07
	50	0.06	0.16	0.28	0.35	0.12		50	0.04	0.10	0.16	0.22	0.07
	60	0.11	0.23	0.30	0.31	0.11		60	0.06	0.13	0.19	0.19	0.07
Black	70	0.14	0.21	-	0.22	0.09	Hispanic ^b	70	0.08	0.14	-	0.14	0.05
	80	0.10	-	-	0.11	0.06		80	0.09	-	-	0.09	0.03
	0	0.00	0.00	0.00	0.42	0.18		0	0.00	0.00	0.00	0.28	0.11
	10	0.00	0.00	0.00	0.43	0.18		10	0.00	0.00	0.00	0.28	0.11
	20	0.00	0.00	0.02	0.43	0.18		20	0.00	0.00	0.01	0.28	0.11
	30	0.00	0.02	0.11	0.44	0.18		30	0.00	0.01	0.04	0.28	0.12
	40	0.02	0.11	0.25	0.45	0.19		40	0.01	0.04	0.10	0.28	0.12
	50	0.09	0.24	0.37	0.44	0.19		50	0.03	0.10	0.20	0.28	0.12
	60	0.17	0.30	0.37	0.38	0.17		60	0.07	0.17	0.24	0.26	0.11
	70	0.17	0.25	-	0.26	0.14		70	0.11	0.18	-	0.20	0.10
	80	0.12	-	-	0.14	0.08		80	0.09	-	-	0.12	0.07

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 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, 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	0.00	0.57	0.20	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.29	0.13
	10	0.00	0.00	0.00	0.58	0.20		10	0.00	0.00	0.00	0.29	0.13
	20	0.00	0.00	0.03	0.58	0.20		20	0.00	0.00	0.01	0.29	0.13
	30	0.00	0.03	0.11	0.59	0.20		30	0.00	0.01	0.04	0.29	0.13
	40	0.02	0.11	0.28	0.59	0.21		40	0.01	0.04	0.09	0.29	0.13
	50	0.09	0.27	0.46	0.59	0.21		50	0.03	0.09	0.18	0.29	0.13
	60	0.19	0.39	0.51	0.53	0.20		60	0.06	0.16	0.24	0.27	0.13
	70	0.24	0.37	-	0.40	0.16		70	0.11	0.20	-	0.23	0.12
White	80	0.20	-	-	0.23	0.11	American Indian/ Alaska Native ^a	80	0.11	-	-	0.15	0.10
	0	0.00	0.00	0.00	0.57	0.19		0	0.00	0.00	0.00	0.34	0.10
	10	0.00	0.00	0.00	0.58	0.19		10	0.00	0.00	0.00	0.35	0.11
	20	0.00	0.00	0.03	0.58	0.19		20	0.00	0.00	0.03	0.35	0.11
	30	0.00	0.03	0.11	0.59	0.19		30	0.00	0.03	0.09	0.36	0.11
	40	0.02	0.11	0.28	0.59	0.20		40	0.03	0.09	0.18	0.37	0.11
	50	0.09	0.27	0.46	0.59	0.20		50	0.07	0.16	0.27	0.36	0.12
	60	0.19	0.40	0.51	0.53	0.19		60	0.10	0.22	0.32	0.32	0.11
Black	70	0.24	0.38	-	0.40	0.16	Hispanic ^b	70	0.15	0.26	-	0.26	0.09
	80	0.20	-	-	0.23	0.11		80	0.17	-	-	0.17	0.06
	0	0.00	0.00	0.00	0.73	0.31		0	0.00	0.00	0.00	0.51	0.21
	10	0.00	0.00	0.00	0.75	0.32		10	0.00	0.00	0.00	0.52	0.21
	20	0.00	0.00	0.03	0.75	0.32		20	0.00	0.00	0.01	0.52	0.21
	30	0.00	0.04	0.17	0.76	0.33		30	0.00	0.01	0.07	0.53	0.22
	40	0.03	0.18	0.43	0.78	0.33		40	0.01	0.06	0.19	0.53	0.22
	50	0.15	0.42	0.64	0.78	0.34		50	0.05	0.18	0.37	0.53	0.22
	60	0.30	0.55	0.69	0.71	0.33		60	0.14	0.33	0.46	0.50	0.22
	70	0.32	0.49	-	0.52	0.27		70	0.22	0.37	-	0.41	0.20
	80	0.27	-	-	0.31	0.20		80	0.20	-	-	0.26	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 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, 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	0.00	0.12	0.05	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.05	0.02
	10	0.00	0.00	0.00	0.13	0.05		10	0.00	0.00	0.00	0.06	0.02
	20	0.00	0.00	0.01	0.13	0.05		20	0.00	0.00	0.00	0.06	0.02
	30	0.00	0.01	0.03	0.13	0.05		30	0.00	0.00	0.00	0.06	0.02
	40	0.01	0.03	0.07	0.13	0.05		40	0.00	0.00	0.02	0.06	0.02
	50	0.02	0.06	0.10	0.12	0.05		50	0.00	0.01	0.03	0.05	0.02
	60	0.04	0.08	0.10	0.10	0.05		60	0.01	0.03	0.04	0.05	0.02
	70	0.04	0.06	-	0.07	0.04		70	0.02	0.03	-	0.04	0.02
White	80	0.02	-	-	0.03	0.02	American Indian/ Alaska Native ^a	80	0.01	-	-	0.03	0.02
	0	0.00	0.00	0.00	0.13	0.05		0	0.00	0.00	0.00	0.08	0.03
	10	0.00	0.00	0.00	0.13	0.05		10	0.00	0.00	0.00	0.08	0.03
	20	0.00	0.00	0.01	0.13	0.05		20	0.00	0.00	0.00	0.08	0.03
	30	0.00	0.01	0.03	0.13	0.05		30	0.00	0.00	0.02	0.08	0.03
	40	0.01	0.03	0.07	0.13	0.05		40	0.00	0.02	0.04	0.08	0.04
	50	0.02	0.06	0.10	0.12	0.05		50	0.02	0.04	0.06	0.09	0.04
	60	0.04	0.08	0.10	0.10	0.04		60	0.02	0.04	0.07	0.07	0.03
Black	70	0.05	0.07	-	0.07	0.04	Hispanic ^b	70	0.02	0.05	-	0.05	0.02
	80	0.03	-	-	0.03	0.02		80	0.04	-	-	0.04	0.00
	0	0.00	0.00	0.00	0.16	0.06		0	0.00	0.00	0.00	0.07	0.03
	10	0.00	0.00	0.00	0.16	0.06		10	0.00	0.00	0.00	0.07	0.03
	20	0.00	0.00	0.01	0.16	0.06		20	0.00	0.00	0.00	0.07	0.03
	30	0.00	0.01	0.05	0.16	0.06		30	0.00	0.00	0.01	0.07	0.03
	40	0.01	0.05	0.10	0.16	0.07		40	0.00	0.01	0.02	0.07	0.03
	50	0.04	0.09	0.14	0.16	0.07		50	0.01	0.02	0.05	0.07	0.03
	60	0.05	0.10	0.12	0.13	0.06		60	0.02	0.04	0.06	0.06	0.03
	70	0.05	0.08	-	0.08	0.05		70	0.03	0.04	-	0.05	0.03
	80	0.03	-	-	0.04	0.03		80	0.02	-	-	0.03	0.02

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 12.15
Cancer of the Larynx (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	3.2	5.6	1.1	-2.6*	-2.6*	-3.1*	-2.4*	-2.4*	-2.7*
White	3.2	5.6	1.2	-2.4*	-1.8*	-2.9*	-2.3*	-2.4*	-2.4*
White Hispanic ^e	2.3	4.6	0.5	-1.7*	-1.6*	-3.2*	-	-	-
White Non-Hispanic ^e	3.4	5.8	1.3	-2.4*	-2.5*	-2.7*	-	-	-
Black	4.6	8.7	1.6	-3.4*	-3.4*	-3.4*	-3.0*	-2.8*	-3.1*
Asian/Pacific Islander	1.2	2.3	0.3	-3.1*	-3.0*	-2.4	-	-	-
Amer Ind/Alaska Nat ^f	2.1	3.9	-	-0.1	0.5	-	-	-	-
Hispanic ^e	2.2	4.4	0.5	-1.7*	-1.6*	-3.0*	-	-	-
<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	1.1	1.9	0.4	-2.2*	-2.5*	-2.1*			
White	1.0	1.8	0.4	-1.9*	-2.2*	-1.8*			
White Hispanic ^e	0.8	1.7	0.2	-2.5*	-2.7*	-2.1*			
White Non-Hispanic ^e	1.0	1.8	0.4	-1.8*	-2.2*	-1.6*			
Black	1.8	3.5	0.6	-3.4*	-3.4*	-3.1*			
Asian/Pacific Islander	0.4	0.8	0.1	-2.0*	-1.3*	-4.6*			
Amer Ind/Alaska Nat									
Total U.S.	0.7	1.2	0.3	-2.8*	-2.5	-			
CHSDA Counties	0.8	1.5	-	-2.8*	-2.2	-			
Non-CHSDA Counties	0.5	0.9	-	-	-	-			
Hispanic ^e	0.8	1.6	0.2	-2.5*	-2.7*	-2.2*			

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.

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 12.16
Cancer of the Larynx (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	2.26	4.14	0.72	2.38	4.32	0.76	3.49	6.37	1.27
Greater Bay Area	2.03	3.88	0.53	2.21	4.15	0.58	3.90	7.61	-
San Francisco-Oakland	2.06	3.87	0.58	2.16	3.93	0.63	3.90	7.59	-
San Jose-Monterey	1.98	3.91	0.43	2.31	4.55	0.48	-	-	-
Los Angeles	2.24	4.18	0.69	2.37	4.44	0.68	3.40	6.03	1.49
Greater California	2.35	4.22	0.80	2.43	4.33	0.84	3.37	6.09	1.10
Connecticut	3.61	6.55	1.26	3.52	6.28	1.28	4.90	10.01	-
Detroit	4.24	7.41	1.72	4.00	6.89	1.62	5.51	10.29	2.22
Georgia	4.10	7.39	1.43	4.11	7.19	1.52	4.41	8.65	1.40
Atlanta	3.14	6.18	0.86	3.14	6.13	0.82	3.37	6.57	1.10
Rural Georgia	4.67	8.42	-	4.10	7.73	-	5.10	-	-
Greater Georgia	4.55	7.95	1.72	4.47	7.59	1.79	5.15	10.05	1.61
Hawaii	2.38	4.43	0.62	3.70	6.11	1.18	-	-	-
Iowa	4.08	7.13	1.44	4.09	7.15	1.45	-	-	-
Kentucky	5.73	9.57	2.47	5.70	9.42	2.51	7.24	13.51	2.65
Louisiana	5.25	9.04	2.12	4.94	8.25	2.11	6.41	11.99	2.28
New Jersey	3.29	5.87	1.27	3.36	5.91	1.34	3.75	7.22	1.40
New Mexico	2.42	4.45	0.69	2.48	4.53	0.72	-	-	-
Seattle-Puget Sound	2.62	4.53	1.01	2.64	4.55	1.01	4.78	7.13	-
Utah	1.67	2.77	0.70	1.67	2.75	0.70	-	-	-
SEER 9 Areas ^b	3.01	5.38	1.05	3.05	5.37	1.09	4.42	8.42	1.58
SEER 13 Areas ^b	2.78	5.04	0.93	2.87	5.14	0.97	4.17	7.82	1.54
SEER 18 Areas ^b	3.16	5.61	1.14	3.21	5.62	1.19	4.59	8.65	1.63

^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 12.17
Cancer of the Larynx (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	0.78	1.45	0.26	0.82	1.49	0.29	1.47	2.88	0.46
Greater Bay Area	0.64	1.26	0.17	0.68	1.30	0.21	1.41	3.09	-
San Francisco-Oakland	0.63	1.23	0.18	0.63	1.16	0.23	1.49	3.32	-
San Jose-Monterey	0.66	1.33	-	0.77	1.55	-	-	-	-
Los Angeles	0.76	1.51	0.20	0.75	1.45	0.19	1.70	3.42	0.62
Greater California	0.85	1.50	0.32	0.89	1.57	0.34	1.23	2.18	-
Connecticut	0.86	1.59	0.31	0.82	1.55	0.26	1.53	2.52	-
Detroit	1.25	2.22	0.54	1.02	1.86	0.39	2.23	3.90	1.09
Georgia	1.07	1.96	0.38	1.00	1.77	0.38	1.35	2.78	0.39
Atlanta	0.83	1.57	0.30	0.76	1.39	-	1.01	2.03	-
Rural Georgia	1.82	-	-	-	-	-	-	-	-
Greater Georgia	1.15	2.08	0.41	1.08	1.89	0.42	1.50	3.09	0.41
Hawaii	0.82	1.63	-	1.13	2.04	-	-	-	-
Iowa	0.93	1.65	0.37	0.94	1.65	0.36	-	-	-
Kentucky	1.45	2.48	0.65	1.40	2.38	0.64	2.40	4.49	-
Louisiana	1.33	2.33	0.55	1.20	1.96	0.60	1.70	3.52	0.43
New Jersey	1.14	1.96	0.51	1.11	1.91	0.49	1.74	3.14	0.87
New Mexico	0.88	1.56	0.30	0.92	1.60	0.33	-	-	-
Seattle-Puget Sound	0.94	1.62	0.39	0.97	1.65	0.42	-	-	-
Utah	0.34	0.56	-	0.33	0.56	-	-	-	-
SEER 9 Areas ^b	0.86	1.56	0.32	0.83	1.49	0.31	1.60	3.01	0.62
SEER 13 Areas ^b	0.83	1.54	0.28	0.82	1.49	0.28	1.64	3.14	0.62
SEER 18 Areas ^b	0.95	1.71	0.36	0.94	1.66	0.37	1.63	3.14	0.59
Total U.S.	1.05	1.88	0.39	1.01	1.78	0.38	1.76	3.46	0.59

^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.

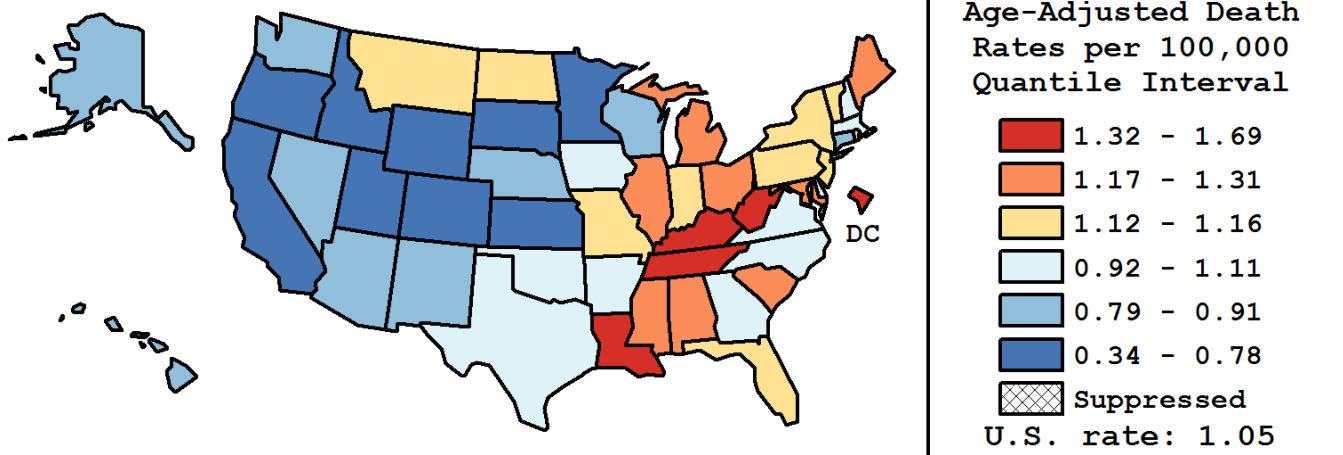
Table 12.18
Cancer of the Larynx (Invasive)

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.	1.05	0.01		
High Five States				
D.C.	1.69	0.24	01(01,28)	60.32 ^c
West Virginia	1.60	0.12	02(01,10)	52.11 ^c
Kentucky	1.45	0.08	03(01,13)	37.88 ^c
Tennessee	1.36	0.06	04(01,15)	29.47 ^c
Louisiana	1.33	0.07	05(01,22)	26.16 ^c
Low Five States				
Idaho	0.69	0.09	47(31,50)	-34.75 ^c
Wyoming	0.68	0.15	48(14,51)	-35.40 ^c
Colorado	0.66	0.05	49(39,50)	-37.37 ^c
South Dakota	0.65	0.12	50(27,51)	-38.43 ^c
Utah	0.34	0.06	51(50,51)	-67.50 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	1.31	0.07	06(02,23)	24.75 ^c	Montana	1.13	0.14	21(02,45)	7.07
Alaska	0.91	0.20	34(02,50)	-13.35	Nebraska	0.84	0.09	39(18,50)	-19.99 ^c
Arizona	0.79	0.05	42(32,49)	-24.41 ^c	Nevada	0.91	0.08	35(15,47)	-13.51
Arkansas	0.94	0.07	32(15,46)	-10.52	New Hampshire	1.04	0.12	28(03,47)	-0.68
California	0.78	0.02	43(36,47)	-25.38 ^c	New Jersey	1.14	0.05	19(08,30)	8.00
Colorado	0.66	0.05	49(39,50)	-37.37 ^c	New Mexico	0.88	0.09	37(15,50)	-16.55 ^c
Connecticut	0.86	0.06	38(25,48)	-17.75 ^c	New York	1.14	0.03	18(10,29)	8.07
Delaware	1.07	0.14	26(02,48)	1.62	North Carolina	1.11	0.05	24(10,32)	5.81
D.C.	1.69	0.24	01(01,28)	60.32 ^c	North Dakota	1.16	0.17	16(01,47)	9.98
Florida	1.16	0.03	15(09,27)	10.02	Ohio	1.31	0.04	07(03,16)	24.40 ^c
Georgia	1.07	0.05	27(12,35)	1.55	Oklahoma	0.97	0.07	30(15,44)	-7.93
Hawaii	0.82	0.10	41(18,50)	-22.21 ^c	Oregon	0.74	0.06	44(33,50)	-29.16 ^c
Idaho	0.69	0.09	47(31,50)	-34.75 ^c	Pennsylvania	1.12	0.04	22(10,30)	6.88
Illinois	1.18	0.04	12(06,26)	12.27	Rhode Island	1.13	0.14	20(02,44)	7.89
Indiana	1.15	0.06	17(06,31)	9.06	South Carolina	1.28	0.07	09(02,26)	21.52 ^c
Iowa	0.93	0.07	33(17,46)	-11.22	South Dakota	0.65	0.12	50(27,51)	-38.43 ^c
Kansas	0.74	0.07	45(31,50)	-29.92 ^c	Tennessee	1.36	0.06	04(01,15)	29.47 ^c
Kentucky	1.45	0.08	03(01,13)	37.88 ^c	Texas	1.11	0.03	25(12,30)	5.77
Louisiana	1.33	0.07	05(01,22)	26.16 ^c	Utah	0.34	0.06	51(50,51)	-67.50 ^c
Maine	1.31	0.12	08(01,32)	24.16 ^c	Vermont	1.16	0.18	14(01,47)	10.65
Maryland	1.17	0.06	13(05,30)	11.52	Virginia	1.00	0.05	29(16,39)	-4.59
Massachusetts	0.96	0.05	31(21,41)	-8.88	Washington	0.89	0.05	36(26,45)	-15.20 ^c
Michigan	1.20	0.05	11(05,26)	13.89	West Virginia	1.60	0.12	02(01,10)	52.11 ^c
Minnesota	0.71	0.05	46(36,50)	-32.05 ^c	Wisconsin	0.83	0.05	40(29,48)	-21.27 ^c
Mississippi	1.26	0.09	10(02,30)	19.69 ^c	Wyoming	0.68	0.15	48(14,51)	-35.40 ^c
Missouri	1.12	0.06	23(07,33)	6.15					



- ^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.

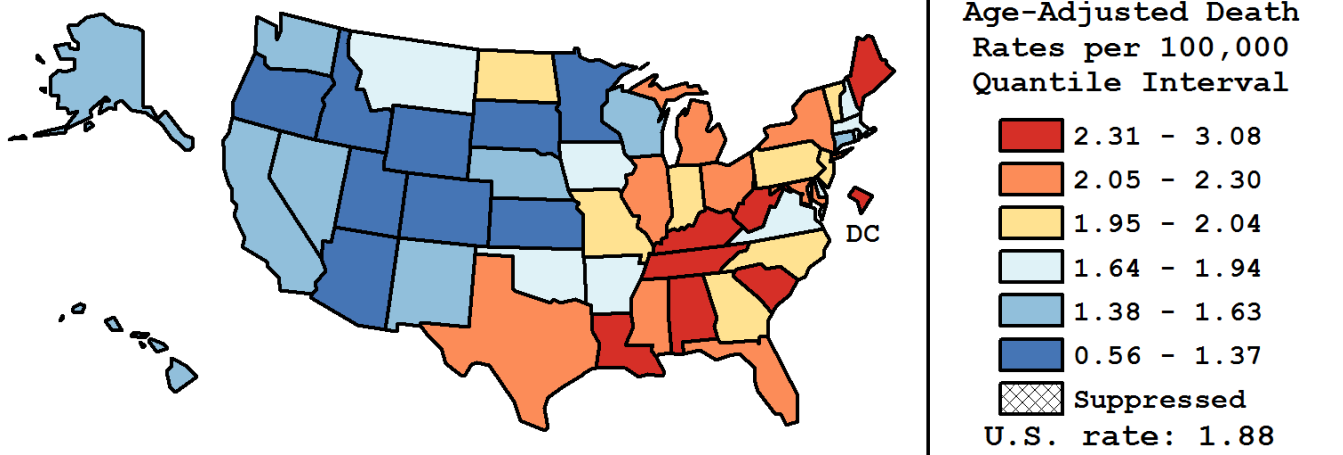
Table 12.19
Cancer of the Larynx (Invasive)

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

Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.88	0.02		
High Five States				
D.C.	3.08	0.51	01(01,33)	63.79 ^c
West Virginia	2.56	0.22	02(01,25)	36.17 ^c
Kentucky	2.48	0.15	03(01,19)	31.64 ^c
South Carolina	2.46	0.15	04(01,19)	30.72 ^c
Tennessee	2.43	0.13	05(01,18)	28.82 ^c
Low Five States				
Wyoming	1.21	0.29	47(12,51)	-35.67 ^c
South Dakota	1.20	0.24	48(21,51)	-36.28 ^c
Idaho	1.15	0.17	49(31,51)	-39.17 ^c
Colorado	1.08	0.10	50(41,50)	-42.45 ^c
Utah	0.56	0.11	51(49,51)	-70.05 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	2.40	0.14	06(01,22)	27.31 ^c	Montana	1.94	0.27	25(01,48)	3.07
Alaska	1.55	0.38	38(01,51)	-17.60 ^c	Nebraska	1.53	0.19	40(13,50)	-18.54 ^c
Arizona	1.37	0.09	43(32,49)	-26.97 ^c	Nevada	1.58	0.16	36(15,49)	-16.26 ^c
Arkansas	1.69	0.15	31(12,46)	-10.15	New Hampshire	1.84	0.24	28(02,48)	-2.22
California	1.45	0.04	42(33,46)	-22.78 ^c	New Jersey	1.96	0.10	24(09,33)	4.08
Colorado	1.08	0.10	50(41,50)	-42.45 ^c	New Mexico	1.56	0.17	37(14,49)	-17.23 ^c
Connecticut	1.59	0.13	35(20,48)	-15.39 ^c	New York	2.06	0.07	15(08,28)	9.45
Delaware	1.72	0.27	30(03,50)	-8.65	North Carolina	2.04	0.09	18(07,31)	8.11
D.C.	3.08	0.51	01(01,33)	63.79 ^c	North Dakota	2.04	0.34	17(01,49)	8.26
Florida	2.07	0.06	14(09,27)	9.93	Ohio	2.29	0.09	10(02,20)	21.66 ^c
Georgia	1.96	0.10	23(08,34)	4.20	Oklahoma	1.76	0.14	29(11,44)	-6.47
Hawaii	1.63	0.21	34(08,49)	-13.53	Oregon	1.33	0.12	44(30,50)	-29.38 ^c
Idaho	1.15	0.17	49(31,51)	-39.17 ^c	Pennsylvania	1.99	0.08	21(10,31)	5.50
Illinois	2.19	0.09	11(04,25)	16.46 ^c	Rhode Island	1.86	0.27	27(02,49)	-1.46
Indiana	1.99	0.11	22(07,34)	5.50	South Carolina	2.46	0.15	04(01,19)	30.72 ^c
Iowa	1.65	0.14	33(15,47)	-12.50	South Dakota	1.20	0.24	48(21,51)	-36.28 ^c
Kansas	1.28	0.14	46(31,50)	-31.87 ^c	Tennessee	2.43	0.13	05(01,18)	28.82 ^c
Kentucky	2.48	0.15	03(01,19)	31.64 ^c	Texas	2.05	0.06	16(08,28)	9.11
Louisiana	2.33	0.15	08(01,26)	23.99 ^c	Utah	0.56	0.11	51(49,51)	-70.05 ^c
Maine	2.35	0.24	07(01,32)	24.94 ^c	Vermont	2.01	0.34	19(01,49)	6.51
Maryland	2.15	0.13	12(03,30)	14.06	Virginia	1.88	0.10	26(11,37)	-0.41
Massachusetts	1.67	0.10	32(20,44)	-11.17	Washington	1.54	0.10	39(27,47)	-18.08 ^c
Michigan	2.11	0.09	13(05,28)	12.33	West Virginia	2.56	0.22	02(01,25)	36.17 ^c
Minnesota	1.32	0.10	45(33,50)	-29.71 ^c	Wisconsin	1.48	0.10	41(28,48)	-21.36 ^c
Mississippi	2.30	0.18	09(01,29)	22.22 ^c	Wyoming	1.21	0.29	47(12,51)	-35.67 ^c
Missouri	1.99	0.12	20(07,34)	5.57					



^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.

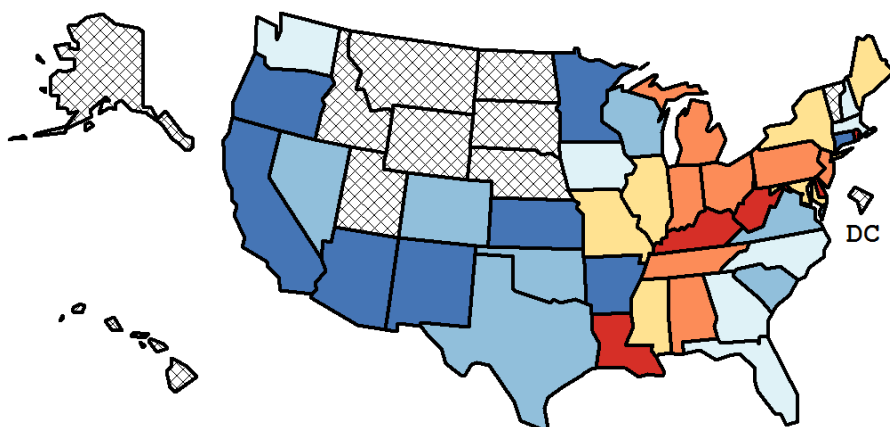
Table 12.20
Cancer of the Larynx (Invasive)

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

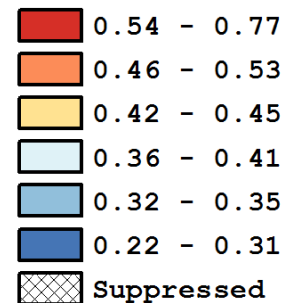
Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	0.39	0.01		
High Five States				
West Virginia	0.77	0.11	01(01,10)	96.77 ^c
Kentucky	0.65	0.07	02(01,13)	66.17 ^c
Rhode Island	0.65	0.14	03(01,36)	64.68 ^c
Delaware	0.55	0.13	04(01,40)	39.56 ^c
Louisiana	0.55	0.06	05(01,25)	38.77 ^c
Low Five States				
New Mexico	0.30	0.07	36(07,40)	-24.75 ^c
Kansas	0.29	0.06	37(11,40)	-27.07 ^c
California	0.26	0.02	38(30,40)	-33.53 ^c
Oregon	0.26	0.05	39(19,40)	-33.86 ^c
Minnesota	0.22	0.04	40(27,40)	-42.86 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	0.46	0.05	12(03,32)	16.27 ^c	Montana	-	-	-(-,-)	-
Alaska	-	-	-(-,-)	-	Nebraska	-	-	-(-,-)	-
Arizona	0.30	0.04	35(17,40)	-23.51 ^c	Nevada	0.33	0.07	30(06,40)	-16.92 ^c
Arkansas	0.31	0.06	34(09,40)	-21.77 ^c	New Hampshire	0.39	0.10	21(02,40)	0.11
California	0.26	0.02	38(30,40)	-33.53 ^c	New Jersey	0.51	0.04	08(02,21)	30.52 ^c
Colorado	0.32	0.05	31(10,40)	-18.86 ^c	New Mexico	0.30	0.07	36(07,40)	-24.75 ^c
Connecticut	0.31	0.05	33(11,40)	-21.59 ^c	New York	0.45	0.03	13(05,25)	15.48 ^c
Delaware	0.55	0.13	04(01,40)	39.56 ^c	North Carolina	0.40	0.04	20(07,34)	1.85
D.C.	-	-	-(-,-)	-	North Dakota	-	-	-(-,-)	-
Florida	0.39	0.02	22(11,32)	-1.14	Ohio	0.53	0.04	06(02,18)	35.72 ^c
Georgia	0.38	0.04	23(08,36)	-4.52	Oklahoma	0.34	0.05	29(08,40)	-14.36
Hawaii	-	-	-(-,-)	-	Oregon	0.26	0.05	39(19,40)	-33.86 ^c
Idaho	-	-	-(-,-)	-	Pennsylvania	0.46	0.03	11(04,25)	17.32 ^c
Illinois	0.42	0.03	18(07,31)	5.74	Rhode Island	0.65	0.14	03(01,36)	64.68 ^c
Indiana	0.48	0.05	09(03,31)	21.06 ^c	South Carolina	0.35	0.05	28(08,40)	-11.22
Iowa	0.37	0.06	24(05,40)	-7.06	South Dakota	-	-	-(-,-)	-
Kansas	0.29	0.06	37(11,40)	-27.07 ^c	Tennessee	0.53	0.05	07(02,23)	34.78 ^c
Kentucky	0.65	0.07	02(01,13)	66.17 ^c	Texas	0.35	0.02	26(15,35)	-9.72
Louisiana	0.55	0.06	05(01,25)	38.77 ^c	Utah	-	-	-(-,-)	-
Maine	0.43	0.10	15(01,40)	10.71	Vermont	-	-	-(-,-)	-
Maryland	0.43	0.05	16(04,35)	8.33	Virginia	0.35	0.04	27(11,38)	-10.73
Massachusetts	0.41	0.04	19(05,34)	5.57	Washington	0.36	0.04	25(09,38)	-7.74
Michigan	0.47	0.04	10(03,26)	20.59 ^c	West Virginia	0.77	0.11	01(01,10)	96.77 ^c
Minnesota	0.22	0.04	40(27,40)	-42.86 ^c	Wisconsin	0.32	0.04	32(13,40)	-19.01 ^c
Mississippi	0.42	0.07	17(03,39)	8.06	Wyoming	-	-	-(-,-)	-
Missouri	0.45	0.05	14(03,32)	14.35					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



U.S. rate: 0.39

- ^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 12.21
Cancer of the Larynx (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
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	32,033	19,496	14,224	9,251	6,278	3,797	79,147	87,910	1,171	89,081
	Males	25,889	15,426	11,526	7,418	4,999	3,094	63,539	70,533	955	71,488
	Females	6,144	4,070	2,698	1,833	1,279	703	15,608	17,377	216	17,593
White ^b	Both Sexes	26,843	16,515	12,110	8,088	5,454	3,285	67,159	74,794	910	75,704
	Males	21,712	13,117	9,861	6,465	4,412	2,738	54,015	60,217	739	60,956
	Females	5,131	3,398	2,249	1,623	1,042	547	13,144	14,577	171	14,748
Black ^b	Both Sexes	4,140	2,465	1,668	954	673	411	9,688	10,547	80	10,627
	Males	3,271	1,866	1,280	793	495	295	7,568	8,188	69	8,257
	Females	869	599	388	161	178	116	2,120	2,359	11	2,370
Asian/ Pacific Islander ^c	Both Sexes	568	346	251	+	+	+	1,330	+	+	+
	Males	484	298	214	+	+	+	1,143	+	+	+
	Females	84	48	37	+	+	+	187	+	+	+
Hispanic ^d	Both Sexes	1,894	1,093	882	+	+	+	4,362	+	+	+
	Males	1,650	910	718	+	+	+	3,692	+	+	+
	Females	244	183	164	+	+	+	670	+	+	+

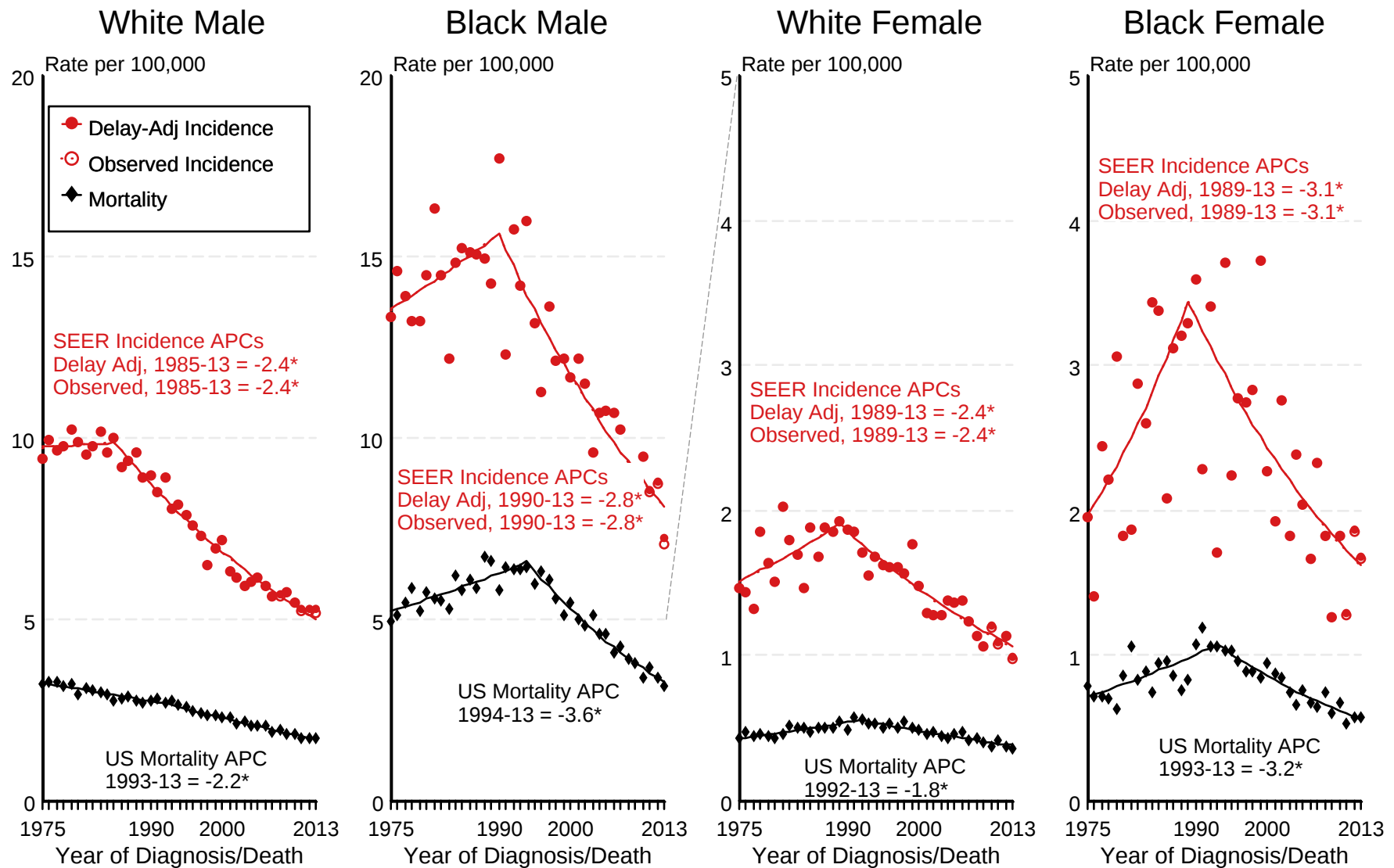
Estimated prevalence percent^a on January 1, 2013, of the SEER^c population diagnosed in the previous 21 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)										Age-Adjusted ^f
		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	0.0206%	-	-	0.0003%	0.0009%	0.0051%	0.0259%	0.0683%	0.1205%	0.0998%	0.0193%
	Males	0.0339%	-	-	0.0004%	0.0011%	0.0070%	0.0405%	0.1184%	0.2253%	0.2238%	0.0353%
	Females	0.0075%	-	-	-	0.0008%	0.0032%	0.0120%	0.0230%	0.0351%	0.0257%	0.0066%
White ^c	Both Sexes	0.0229%	-	-	0.0003%	0.0010%	0.0059%	0.0278%	0.0721%	0.1263%	0.1037%	0.0204%
	Males	0.0373%	-	-	0.0005%	0.0012%	0.0078%	0.0429%	0.1229%	0.2331%	0.2290%	0.0366%
	Females	0.0085%	-	-	-	0.0009%	0.0038%	0.0128%	0.0246%	0.0369%	0.0278%	0.0071%
Black ^c	Both Sexes	0.0214%	-	-	-	0.0014%	0.0046%	0.0361%	0.0939%	0.1728%	0.1094%	0.0257%
	Males	0.0352%	-	-	-	0.0021%	0.0068%	0.0550%	0.1698%	0.3448%	0.2863%	0.0500%
	Females	0.0087%	-	-	-	-	0.0027%	0.0196%	0.0347%	0.0528%	0.0224%	0.0091%
Asian/ Pacific Islander ^c	Both Sexes	0.0086%	-	-	-	-	0.0017%	0.0072%	0.0278%	0.0537%	0.0676%	0.0087%
	Males	0.0155%	-	-	-	-	0.0027%	0.0135%	0.0535%	0.1057%	0.1563%	0.0175%
	Females	0.0023%	-	-	-	-	-	0.0017%	0.0067%	0.0133%	0.0133%	0.0022%
Hispanic ^d	Both Sexes	0.0083%	-	-	0.0004%	0.0007%	0.0033%	0.0151%	0.0429%	0.1000%	0.0984%	0.0148%
	Males	0.0140%	-	-	0.0007%	0.0008%	0.0048%	0.0250%	0.0790%	0.2061%	0.2268%	0.0294%
	Females	0.0026%	-	-	-	-	0.0017%	0.0057%	0.0118%	0.0213%	0.0211%	0.0039%

- ^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. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.
- ^e 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.

Figure 12.1

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Larynx, 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.

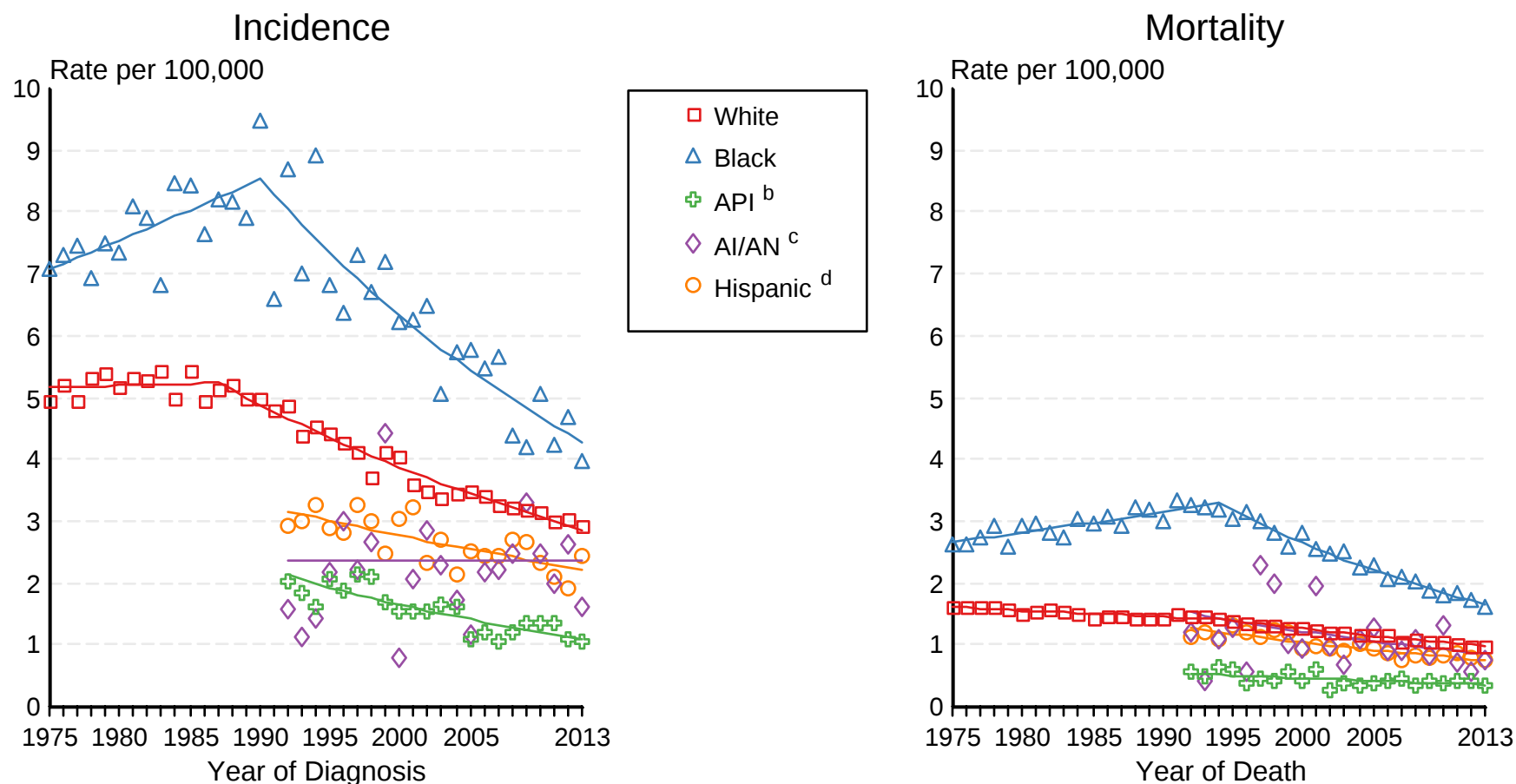
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

Figure 12.2

SEER Incidence and US Death Rates^a Cancer of the Larynx, 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.

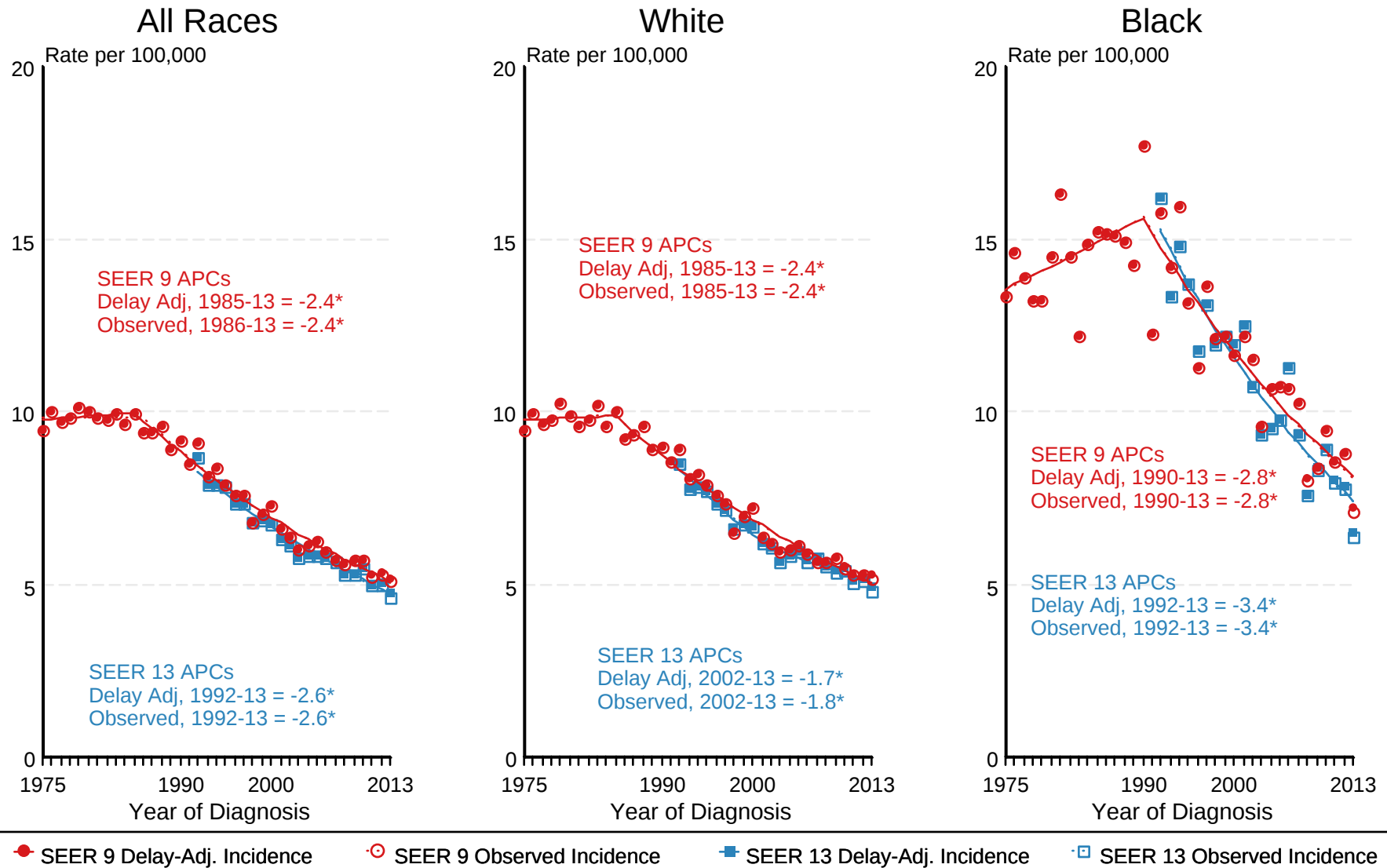
^b API = Asian/Pacific Islander.

^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 12.3

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



Source: SEER 9 areas and SEER 13 areas.

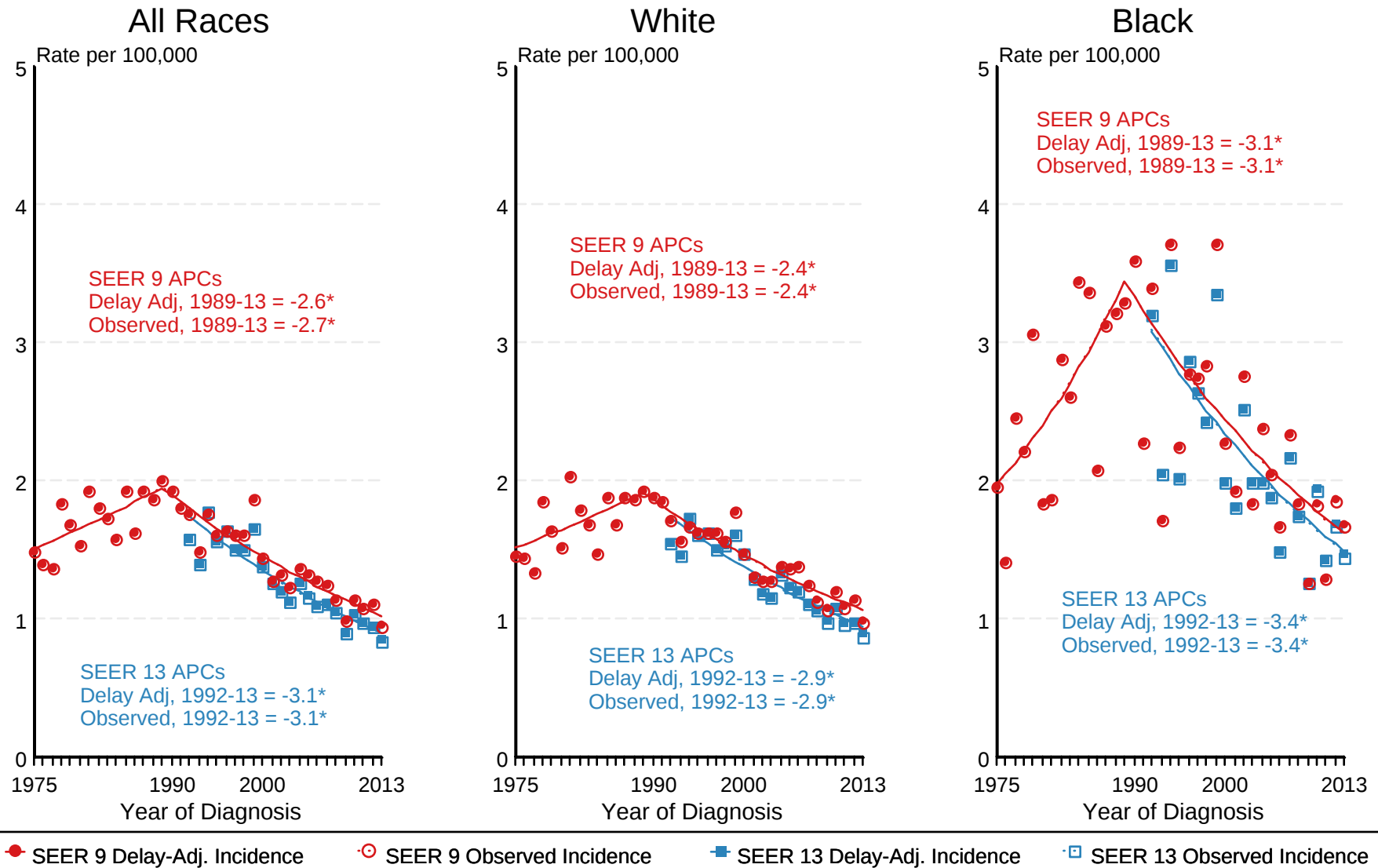
^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

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 12.4

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



Source: SEER 9 areas and SEER 13 areas.

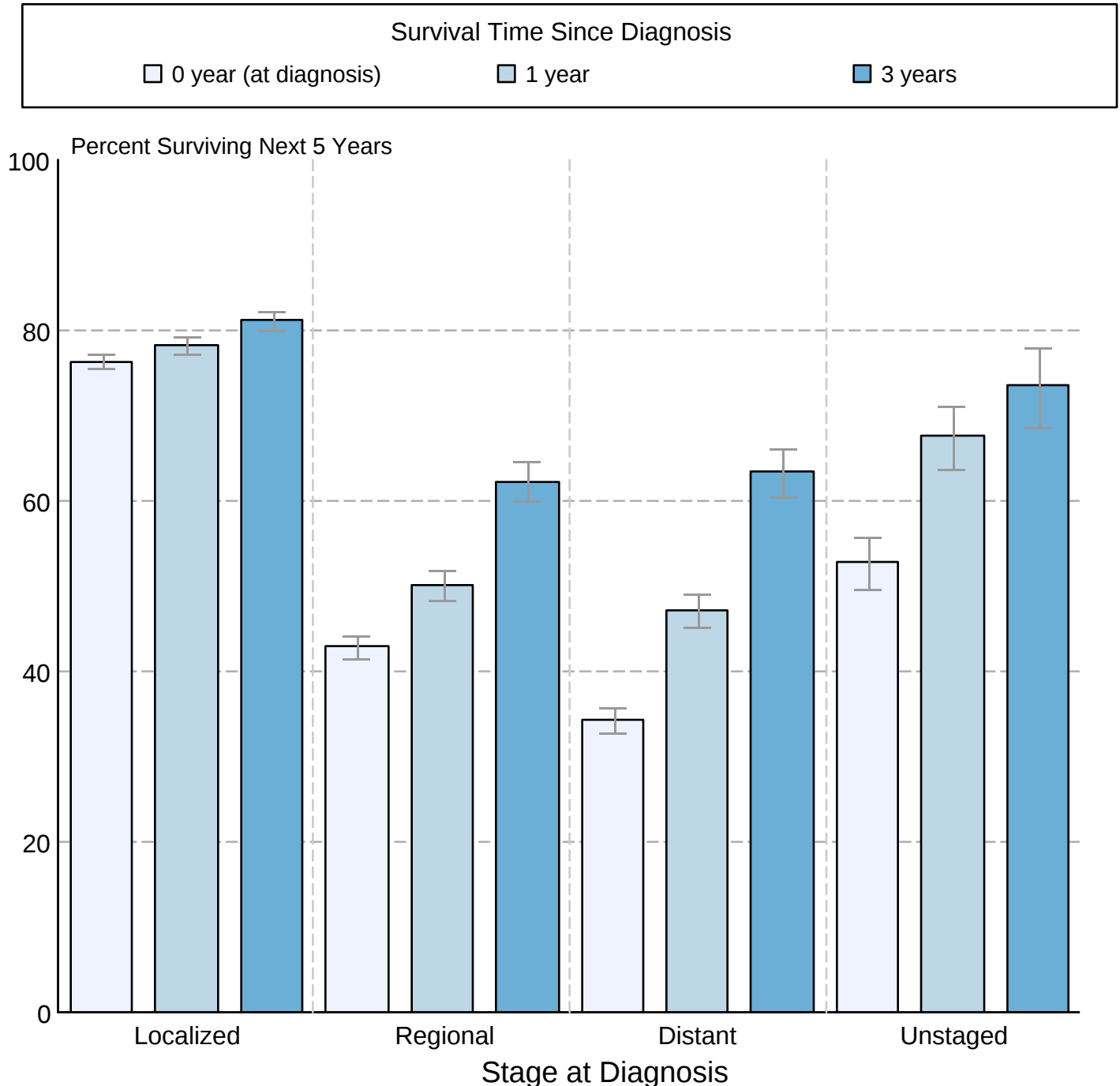
^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

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 ($p < 0.05$).

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
 1998-2012 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 and later. The remaining 13 SEER Areas contribute cases for the entire time period. 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.